

Financial Highlights

As of or for the year ended December 31,
(in millions, except per share, ratio data and headcount)

	2013	2012
Reported basis^(a)		
Total net revenue	\$ 96,606	\$ 97,031
Total noninterest expense	70,467	64,729
Pre-provision profit	26,139	32,302
Provision for credit losses	225	3,385
Net income	\$ 17,923	\$ 21,284
Per common share data		
Net income per share:		
Basic	\$ 4.39	\$ 5.22
Diluted	4.35	5.20
Cash dividends declared	1.44	1.20
Book value	53.25	51.27
Tangible book value ^(b)	40.81	38.75
Selected ratios		
Return on common equity	9%	11%
Return on tangible common equity ^(b)	11	15
Tier 1 capital ratio	11.9	12.6
Total capital ratio	14.4	15.3
Tier 1 common capital ratio ^(b)	10.7	11.0
Selected balance sheet data (period-end)		
Loans	\$ 738,418	\$ 733,796
Total assets	2,415,689	2,359,141
Deposits	1,287,765	1,193,593
Total stockholders' equity	211,178	204,069
Headcount	251,196	258,753

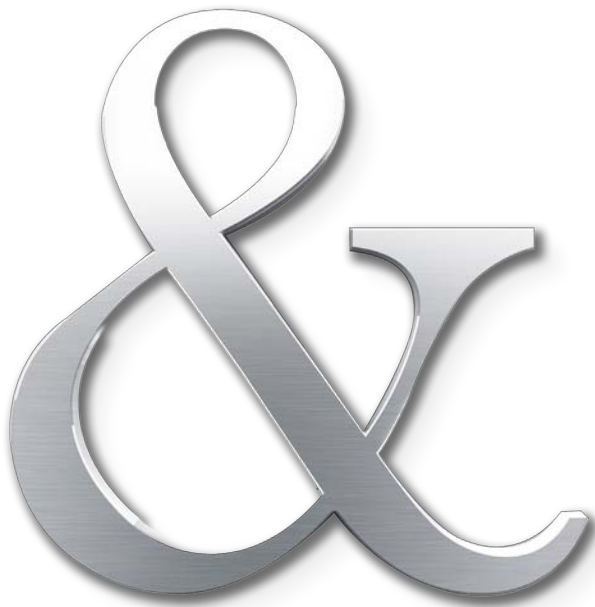
(a) Results are presented in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP), except where otherwise noted.

(b) Non-GAAP financial measure. For further discussion, see "Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures" and "Regulatory capital" in this Annual Report.

JPMorgan Chase & Co. (NYSE symbol: JPM) is a leading global financial services firm and one of the largest banking institutions in the United States of America (U.S.), with operations worldwide; the firm has \$2.4 trillion in assets and \$211.2 billion in stockholders' equity. The firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing, asset management and private equity. A component of the Dow Jones Industrial Average, JPMorgan Chase & Co. serves millions of consumers in the U.S. and many of the world's most prominent corporate, institutional and government clients under its J.P. Morgan and Chase brands.

Information about J.P. Morgan's capabilities can be found at jpmorgan.com and about Chase's capabilities at chase.com. Information about the firm is available at jpmorganchase.com.

JPMORGAN CHASE & Co.



communities

clients

customers

employees

veterans

nonprofits

business owners

schools

hospitals

local governments

Together we can.

Dear Fellow Shareholders,



Jamie Dimon,
Chairman and
Chief Executive Officer

What a year. Despite tremendous challenges, your company earned \$17.9 billion in net income on revenue of \$96.6 billion in 2013. Our financial results reflected strong underlying performance across our four main businesses – unfortunately marred by significant legal settlements largely related to mortgages. These legal expenses cost the company \$8.6 billion after-tax. Excluding these expenses and some one-time positive benefits from reserve reductions (which we never have considered true earnings) and one-time gains on the sale of assets, your company earned about \$23 billion.

As tough as the year was – the company was under constant and intense pressure – I can hardly express the admiration, even pride, I feel because of the enduring resolve and resiliency of our management team and our employees. They never wavered as they attacked our problems while maintaining a relentless focus on serving our clients. We all owe them a great deal of gratitude.

The bad news was bad. The most painful, difficult and nerve-wracking experience that I have ever dealt with professionally was trying to resolve the legal issues we had this past year with multiple government agencies and regulators as we tried to get many large and risky legal issues behind us, including the Chief Investment Office (CIO) situation (that happened in 2012) and mortgage-related matters (that happened

primarily in 2005-2008, a significant portion of which occurred at heritage Bear Stearns and Washington Mutual (WaMu)).

There is much to say and a lot to be learned in analyzing what happened, but I am not going to do so in this letter – more distance and perspective are required. Suffice it to say, we thought the best option, perhaps the only sensible option – for our company, our clients and our shareholders – was to acknowledge our issues and settle as much as we could all at once, albeit at a high price. This allowed us to focus on what we are here for: serving our clients and communities around the world.

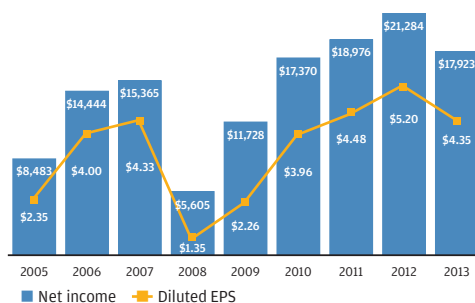
The good news is that our four franchises maintained – and even strengthened – our leadership positions as we continued to gain market share and improve customer satisfaction in every business.

When I look back at our company last year with all of our ups and downs, I see it as *A Tale of Two Cities*: “It was the best of times, it was the worst of times.” We came through it scarred but strengthened – steadfast in our commitment to do the best we can.

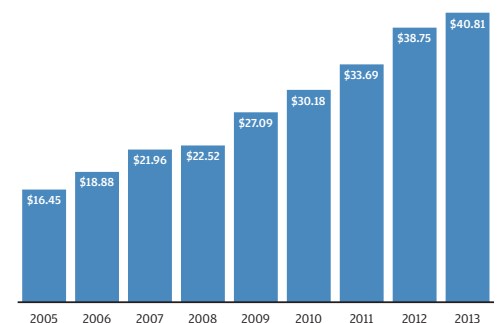
And we believe that we continued to deliver for our shareholders. For Bank One shareholders since March 27, 2000, the stock has performed far better than most financial companies and the Standard & Poor’s 500 Index (S&P 500). And since the JPMorgan Chase & Co. merger with Bank One on July 1, 2004, we have performed well vs. other financial companies and slightly below the S&P 500. The details are shown in the tables on the following page. One of the tables also shows the growth in tangible book value per share, which we believe is a conservative measure of value. You can see that it has grown far more than the S&P 500 in both time periods.

Earnings and Diluted Earnings per Share 2005–2013

(\$ in millions, except diluted EPS)



Tangible Book Value per Share 2005–2013



Stock and Book Value Performance

Stock Total Return Analysis			
	Bank One	S&P 500	S&P Financials Index
Performance since becoming CEO of Bank One (3/26/2000–12/31/2013)^(a):			
Compounded Annual Gain	10.4%	3.3%	1.3%
Overall Gain	289.8%	57.3%	19.3%
	JPMorgan Chase & Co.	S&P 500	S&P Financials Index
Performance since the Bank One and JPMorgan Chase & Co. merger (7/1/2004–12/31/2013):			
Compounded Annual Gain (Loss)	7.2%	7.4%	(0.5)%
Overall Gain (Loss)	94.1%	97.5%	(5.0)%
<i>These charts show actual returns of the stock, with dividends included, for heritage shareholders of Bank One and JPMorgan Chase & Co. vs. the Standard & Poor's 500 Index (S&P 500) and the Standard & Poor's Financials Index (S&P Financials Index).</i>			
^(a) On March 27, 2000, Jamie Dimon was hired as CEO of Bank One			

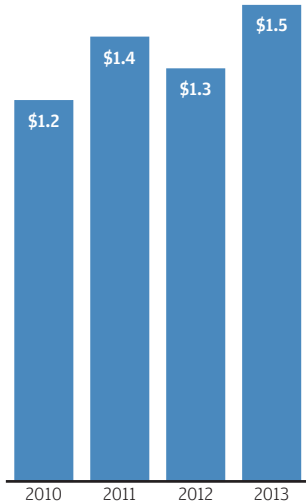
Bank One/JPMorgan Chase & Co. Tangible Book Value per Share Performance vs. S&P 500			
	Bank One (A)	S&P 500 (B)	Relative Results (A) – (B)
Performance since becoming CEO of Bank One (3/26/2000–12/31/2013)^(a):			
Compounded Annual Gain	12.9%	4.6%	8.3%
Overall Gain	385.7%	80.4%	305.3%
	JPMorgan Chase & Co. (A)	S&P 500 (B)	Relative Results (A) – (B)
Performance since the Bank One and JPMorgan Chase & Co. merger (7/1/2004–12/31/2013):			
Compounded Annual Gain	14.5%	7.4%	7.1%
Overall Gain	261.9%	97.5%	164.4%
<i>Tangible book value over time captures the company's use of capital, balance sheet and profitability. In this chart, we are looking at heritage Bank One shareholders and JPMorgan Chase & Co. shareholders. The chart shows the increase in tangible book value per share; it is an after-tax number assuming all dividends were retained vs. the S&P 500 (a pre-tax number with dividends reinvested).</i>			
^(a) On March 27, 2000, Jamie Dimon was hired as CEO of Bank One			

Here's what most of the headlines left out: JPMorgan Chase continued to serve our clients and make a significant positive impact on our communities. In 2013, the firm **provided credit and raised capital of more than \$2.1 trillion for our clients**. The firm also has hired more than 6,300 military veterans since 2011 as a proud founding member of the 100,000 Jobs Mission, which now has increased the goal to 200,000 jobs. Our firm was there to help small businesses – we **provided \$19 billion of credit to U.S. small businesses**, which allowed them to develop new products, expand their operations and hire more workers. We also were there for families to buy their first home with a mortgage we made possible – overall, we **originated more than 800,000 mortgages** last year. In total, we **provided \$274 billion of credit to consumers**. Our strength allows us to be there for our clients and communities in good times – and, more important, in bad times. In this, we have never faltered.

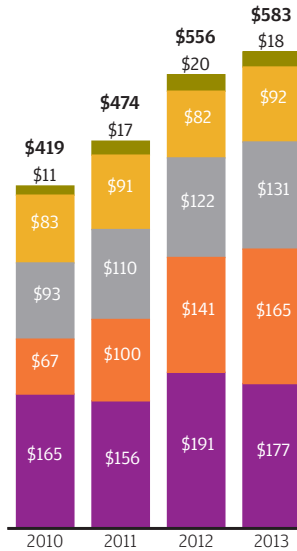
New and Renewed Credit and Capital for Clients

at December 31,

Corporate Clients
(\$ in trillions)



Consumer and Commercial Banking
(\$ in billions)



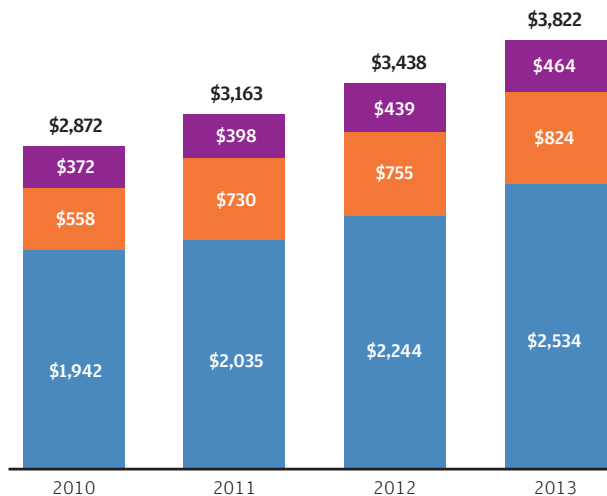
	Year-over-Year Change		
	'10 to '11	'11 to '12	'12 to '13
Corporate Clients	20%	(9)%	20%
Small Business	52%	18%	(8)%
Card & Auto	10%	(10)%	12%
Commercial/ Middle Market	18%	11%	8%
Asset Management	48%	41%	17%
Mortgage/ Home Equity	(5)%	22%	(7)%
Total Consumer & Commercial Banking	13%	17%	5%

Our clients also exhibit their faith in us by entrusting us to take care of their money – either as deposits or as client assets entrusted to us – as shown in the chart below.

Assets Entrusted to Us by Our Clients

at December 31,

Deposits and Client Assets
(\$ in billions)



	Year-over-Year Change		
	'10 to '11	'11 to '12	'12 to '13
Deposits			
Consumer	7%	10%	6%
Wholesale	31%	3%	9%
Client assets ^(a)	5%	10%	13%

Assets under custody^(b)
(\$ in billions)

\$16,120	\$16,870	\$18,835	\$20,485

^(a) Client assets include assets under management, custody, brokerage, administration accounts and all Chase Wealth Management assets not managed by Asset Management

^(b) Represents activities associated with the safekeeping and servicing of assets

In this letter, I will discuss the issues highlighted below. I also encourage you to read the letters written by several of our business leaders about our main businesses, our critical operations and controls, and some of our corporate responsibility efforts.

As usual, this letter will describe some of our successes and opportunities, as well as our challenges and issues. The main sections of the letter are as follows:

- I. We face the future with a strong foundation and excellent franchises built to serve our clients
- II. We will dedicate extraordinary effort in 2014 adapting to the new global financial architecture
- III. We have made significant progress strengthening our company
- IV. We believe our long-term outlook is bright

I. WE FACE THE FUTURE WITH A STRONG FOUNDATION AND EXCELLENT FRANCHISES BUILT TO SERVE OUR CLIENTS

During 2014, most of the contours of the new and complex global financial architecture will be put in place. The changes are extensive – and later in this letter, I will talk about just how extensive they are. All banks will have to adjust to the new rules, which will be harder for some than for others. Some may have to make drastic changes to their business plan and strategies. So as we enter the year, we should take stock of where we stand.

We have consistently shown good financial performance and maintained our fortress balance sheet

All of our businesses have had good – in fact, close to best-in-class – financial performance over the last several years in terms of

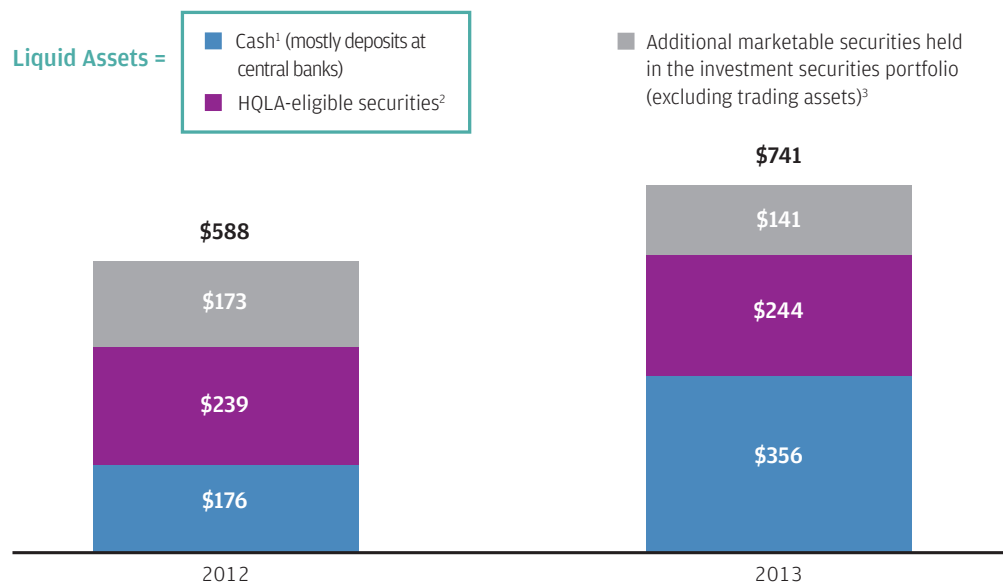
margins and returns on tangible common equity. We have done this while meeting increasingly higher standards in liquidity and capital. Our fortress balance sheet is stronger than ever.

We have an enormous amount of what we consider highly liquid assets

First and foremost are the High Quality Liquid Assets (HQLA), shown in the chart below, which are mostly deposits at central banks, agency mortgage-backed securities and Treasuries. Only HQLA count for liquid assets under the banking regulators' definition of liquidity. These assets are super safe and can provide cash to the company should it need cash in a crisis situation.

Cash and High Quality Securities

at December 31,
(\$ in billions)



¹ Represents total amount of cash reported on the balance sheet, including \$294 billion and \$120 billion of eligible cash included in HQLA in the Basel III Liquidity Coverage Ratio at December 31, 2013 and 2012, respectively

² HQLA is the estimated amount of assets the firm believes will qualify for inclusion in the Basel III Liquidity Coverage Ratio and primarily includes U.S. agency mortgage-backed securities, U.S. Treasuries, sovereign bonds and other government-guaranteed or government-sponsored securities

³ Additionally, the firm has other unencumbered marketable securities available to raise liquidity if required. Excludes trading securities and collateral received in reverse repo agreements

In addition to the HQLA securities, other unencumbered marketable securities can provide significant liquidity for the company. (This category does not include any securities held in our trading portfolio.) Our investment securities portfolio has an average duration of 2.8 years and an average AA+ rating. The majority of securities balances presented above reside in our investment securities. These securities could be utilized to provide liquidity and a source of cash for the company if necessary.

Our total assets are \$2.4 trillion so you can see just how liquid our balance sheet is. As a reference point, our cash and high-quality securities are essentially the same as the \$740 billion of our total loans. This is a very conservative utilization of our total deposits of approximately \$1.3 trillion.

We have increasingly strong capital ratios

You can see on the capital chart below that under Basel I, our Tier 1 Common has gone from 7.0% to 10.7% from 2007–2013 (if Basel I had been consistently applied, that

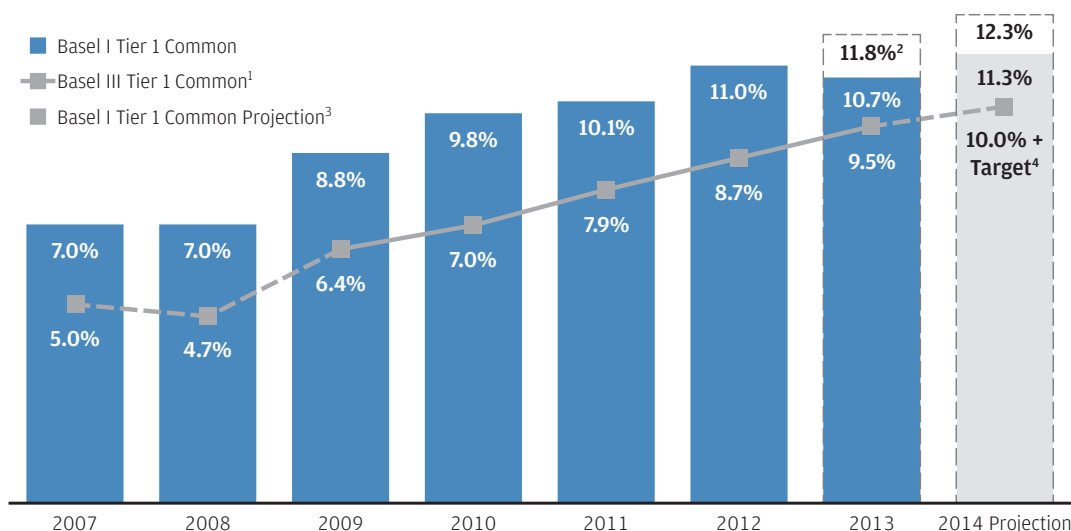
number would have been 11.8%), and our new Basel III ratio has gone from 5.0% to 9.5% over that same time period.

In 2014, we will meet all of our current targets in capital, liquidity and leverage. One ratio not shown in the chart is called the Supplementary Leverage Ratio (SLR) that is, simply, the ratio of equity to assets and certain off-balance sheet exposures, regardless of the quality of assets. While that calculation still is being finalized, we currently are at 4.6% vs. a requirement of 5%. We intend to have a cushion over 5% by the end of this year.

We have good returns on capital despite increasingly higher capital ratios

Even with the increasingly higher capital ratios over the past several years, all of our main businesses have been earning strong returns on tangible equity (see Return on Equity (ROE) chart on the following page). Some of our competitors are not earning similar returns, and they likely will feel more pressure to alter their business strategies going forward.

JPMorgan Chase Capital Levels



¹ Through 2013, Basel III capital ratios reflect the firm's best estimate based on its understanding of the rules in the relevant period (2007-2008 ratios are pro forma)

² Reflects the firm's estimated Basel I capital ratio, excluding the impact on the firm's positions as of December 31, 2013 of Basel 2.5 market-risk rules, which became effective January 1, 2013

³ Effective January 1, 2014, the Basel I ratio is no longer a regulatory capital measure. The ratios shown reflect an approximation of what the firm's Basel I capital ratio would be as of December 31, 2014, both including and excluding the impact of Basel 2.5 market-risk rules, were Basel I still in effect

⁴ Reflects the firm's stated 2014 Basel III Tier 1 Common ratio objective

Return on Equity

	2011	2012	2013	Excluding significant items ^(c)
				2013
JPMorgan Chase & Co. (ROTCE ^(a))	15%	15%	11%	15%
ROE by line of business				
Consumer & Community Banking	15%	25%	23%	
Corporate & Investment Bank	17%	18%	15% ^(b)	
Commercial Banking	30%	28%	19%	
Asset Management	25%	24%	23%	
Corporate/Private Equity	0%	(3)%	(9)% ^(d)	

^(a) Represents return on tangible common equity

^(b) Excluding funding and debit valuation adjustments (FVA and DVA), CIB ROE was 17% in 2013

^(c) Primarily excludes legal expenses, benefits from reserve releases, one-time gains on the sale of assets and FVA/DVA

^(d) Includes legal expenses and one-time gains on the sale of assets

Later in this letter, I will discuss how we think all the new rules will affect our returns.

Our scale and breadth create large cross-sell opportunities and strong competitive advantage

Each of our four major businesses operates at good economies of scale and gets significant additional advantages from the other businesses. We believe this is one of the key reasons we have maintained good financial performance.

Below are some pretty powerful examples:

- Our North America Investment Bank generates 29% of its investment banking revenue¹ through Commercial Bank clients covered locally. This helps both our Investment Bank and our Commercial Bank do a better job serving their clients.
- Our Global Corporate Bank helped generate \$1.3 billion in revenue for our fixed income sales and trading operation, increasing business to our trading desks and helping them offer better pricing to our clients.
- Our Private Bank gets new clients from both our Investment Bank and our Commercial Bank. And the Private Bank and Commercial Bank would have a hard time existing without our Chase retail branch network. In fact, 55% of Commercial Bank clients and 35% of Private Bank households visit our retail branches each quarter.

- Of our \$1.6 trillion of assets under management, approximately \$300 billion comes from the Corporate & Investment Bank (CIB), the Commercial Bank or the Consumer Bank.
- Fifty-five percent of retail mortgages and 40% of Chase-branded credit cards are sold through the retail branches.

In total, we believe that the combination of our businesses accounts for \$15 billion of additional revenue, which helps drive both profits and customer satisfaction. Each of our businesses would be worse off but for the other three.

Our capabilities are extraordinary and are difficult to replicate – we can bring huge resources to bear for the benefit of our company and our clients

Our scale creates huge cost efficiencies and enables significant resources to be brought to bear for the benefit of our company. For example, in global technology, we have nearly 30,000 programmers, application developers and information technology employees who keep our 7,200 applications, 32 data centers, 58,000 servers, 300,000 desktops and global network operating smoothly for all our clients. Resources like these allow us to constantly improve our operating efficiencies and bring enormous capability to deal with issues when we need to do so such as adjusting to all the new global rules and requirements. In total, we believe that expense synergies across the company save us approximately \$3 billion a year.

¹ Calculated based on gross domestic investment banking revenue for syndicated leverage finance, mergers and acquisitions (M&A), equity underwriting and bond underwriting

Across the firm, we serve approximately 50% of U.S. households, approximately 80% of Fortune 500 companies, and 60% of the world's largest pensions, sovereigns and central banks. Today, our firm has on-the-ground operations in 60 countries and serves clients in more than 100 countries around the world. To support those clients, we move up to \$10 trillion a day and lend or raise capital of over \$500 billion each quarter. The markets in which we operate cover 5.6 billion people who speak 100+ languages and use close to 50 currencies. It would be difficult to replicate the size, capabilities and knowledgeable staff of our businesses globally. We can help our clients when and where they need it.

It is important to remember our capabilities and efficiencies accrue to our clients – over time, they get the benefit in improved pricing or better services.

This has led to increasing market share and customer satisfaction in all of our main businesses

None of the things previously mentioned would matter if they didn't help us do a better job for our customers. You know your business model is working when customers – voting with their feet – give you more business. Increasing market share and customer satisfaction may not always immediately show on the bottom line – but both are critical to the future growth of our businesses and drive current and *potential* earnings power of the company. The bullet points that follow say it strongly.

Consumer & Community Banking

- Total deposits of \$453 billion up 10% from the prior year – more than two times the industry average.
- #1 credit card issuer in the U.S. based on loans outstanding. Record credit card sales volume of \$420 billion was up 10% from the prior year – outpacing the industry in sales growth for 23 consecutive quarters.
- #1 in customer satisfaction among the largest banks for the second year in a row, as ranked by the American Customer Satisfaction Index (and, in the future, we want to be #1 among *all* banks).
- Customer attrition at an all-time low.
- #1 in customer satisfaction in small business banking in three of four regions of the U.S. by J.D. Power and Associates and #1 Small Business Administration lender for the fourth year in a row.
- #1 online financial services destination (chase.com) (per *compete.com* as of December 2013).
- #1 mobile banking functionality (Forrester Research's 2013 Global and U.S. Mobile Banking Functionality Rankings).
- #1 ATM network; #2 retail branch network.

Corporate & Investment Bank

- #1 in Global Investment Banking Fees.
- #1 Fixed Income Market revenue share of top 10 investment banks; #1 Total Markets revenue share of top 10 investment banks.
- #1 in Global Long-Term Debt.
- #1 in Global Loan Syndications.
- #1 in U.S. Announced M&A.
- #2 in Global Equity and Equity-Related; #2 in Global Announced M&A.
- #6 in Cash Equities (we're working on that one).

- Several groundbreaking transactions, including transformational deals for Verizon, Sprint, Facebook, Virgin Media and the University of California, to name just a few.
- #1 for both All-America Fixed Income Research and Equity Research – for the previous four years.

Commercial Banking

- #1 traditional Middle Market syndicated lender in the U.S.
- #1 multifamily lender in the U.S. – since 2008.
- Loan balances of \$137 billion up 7% vs. the year before – reflecting 14 consecutive quarters of loan growth.
- Gains in market share in our Middle Market expansion regions and within our commercial real estate businesses – as we deliver our capabilities locally in 119 U.S. cities and 13 international ones.

Asset Management

- Client assets of \$2.3 trillion up by \$248 billion from the year before – reflecting 19 straight quarters of positive long-term inflows.
- Client assets double since the beginning of 2006.
- 80% of 10-year mutual fund assets under management in top two quartiles.
- #1 Ultra-High-Net-Worth Global Private Bank (*Euromoney*, 2013).
- #1 Institutional Money Market Fund Manager Worldwide (*iMoneyNet*, 2013).

We have never been a fair-weather friend – we hope that, over time, this builds more trust and respect

During the recent financial crisis and throughout our 200-year history, JPMorgan Chase always has been there for our constituents around the world – not only in good times but, more critically, in the toughest of times when strong banks are needed the most. However terrifying events became, we never wavered in supporting our clients and communities. In fact, we did many bold and unprecedented things, including acquiring Bear Stearns and WaMu. And we never stopped raising capital and providing credit for companies, nonprofits, states, municipalities, hospitals and universities during times of trouble. And when the situation became very difficult in European countries such as Greece, Italy and Spain, we stayed to help our clients, which included the countries themselves. While we may make mistakes along the way, we never lose sight of why we are here. We believe that our long-term view and consistent behavior earn us the trust and respect of our clients and the communities in which we operate.

Our strategy remains the same – and we always invest for the long run

While we need to make a lot of adjustments to adapt to the new world (I will discuss later in this letter how we intend to do that), we are fortunate not to have to do a strategic reset. Our strategies have worked – a consistent strategy properly executed is important for the long-term success of any company.

So whatever the future brings, we will face it from a position of strength and stability. And we will continue to do what we always have done – manage the company and invest for the long run.

II. WE WILL DEDICATE EXTRAORDINARY EFFORT IN 2014 ADAPTING TO THE NEW GLOBAL FINANCIAL ARCHITECTURE

While we will meet all of our new capital and liquidity requirements this year, we still have an enormous amount of work to do to conform and adapt to the plethora of new global rules.

The changes are substantial and will require significant changes to business practices

A quick look at the chart on the next page will give you a sense of the enormous number of new rules and reporting requirements with which we need to comply. They are global and range from the new European Union (EU) Markets in Financial Instruments Directive (MiFID) rules to the 398 Dodd-Frank rules to the Basel III capital and liquidity requirements, the Volcker Rule, and new mortgage rules around both origination and servicing, to name just a few. Fully complying with and adapting to the new world is a daunting task and will require enormous effort and energy on the part of all of us at JPMorgan Chase. We are going to get it right – both to meet the letter and spirit of the new regulations and to minimize disruption to our clients.

These rules will affect every client, every product, every system and every country in which we operate. We do not underestimate the extent of the changes. Never before have we focused so much time, technology, money and brainpower on such an enterprise-wide undertaking. In the end, all these efforts will make us a better and stronger company.

Importantly, these new regulations in total have unquestionably made the global banking system safer, more transparent and more accountable – which is good for everybody. Every bank is far better capitalized than in the past, and the liquidity in the system probably has never been higher. In addition, the new rules around

minimum unsecured debt levels, the Recovery and Resolution plans (or so-called living wills), and the strengthened capabilities of the regulators have put an end, we hope, to the idea that anybody is “Too Big to Fail.”

We are applying enormous resources to the task

Reading the bullet points below will give you a sense of the time, money and manpower we are applying to adapt to the new rules:

- **13,000** employees will have been added since the beginning of 2012 through the end of 2014 to support our regulatory, compliance and control effort (Risk, Compliance, Legal, Finance, Technology, Oversight and Control, and Audit) across the entire firm.
- **8,000** of our employees across our lines of business will be dedicated solely to building and maintaining an industry-leading Anti-Money Laundering (AML) program.
- **500** professionals (and thousands of additional contributors) were dedicated to the 2013 resubmission and 2014 submission of the Federal Reserve’s capital stress test or Comprehensive Capital Analysis and Review (CCAR). These individuals developed and reviewed more than 100 new models and submodels; conducted over 130 independent qualitative and quantitative assessments of the firm’s forecast methodologies and results; and established new permanent functions and processes to enhance the firm’s overall capital planning process.
- **500** professionals globally across our lines of business and support functions are working on the firm’s annual Recovery and Resolution plans.
- **400** people are dedicated to continue to build out our Liquidity Risk Management infrastructure, which will create far more detailed reporting on our daily global liquidity.

New Financial Architecture

	Description	Selected requirements	Selected JPMorgan Chase actions
Capital CCAR stress testing, leverage and risk-based requirements	Improving the banking sector's ability to absorb losses arising from financial and economic stress	750+ requirements with 21 regulators involved ~25 different capital ratio requirements	500+ people 5,000+ pages of supporting documentation 100+ new models
Liquidity Liquidity Coverage Ratio and Net Stable Funding Ratio	- Ensuring banks hold sufficient liquid assets to survive acute liquidity stress - Prevent overreliance on short-term wholesale funding	258 requirements 15+ jurisdictional variations expected	400+ people 5 billion records processed from over 200 feeds 20+ million calculations performed daily
Recovery and Resolution U.S. Dodd-Frank ¹ Title I & II, UK ² Recovery and Resolution, EU BRRD ³	- Ensuring the resolvability of systemically important financial institutions - Preparing living wills	Resolution plans for 35 entities and plans by business, sub-business and for critical operations	1+ million work hours devoted annually
Mortgages U.S. Dodd-Frank ¹ , Housing Finance Reform Legislation	Reforming the nation's housing finance system	~9,000 pages of rules, guidance and legislative text	~100,000 work hours of training 1+ million work hours dedicated to system and process implementation
Securitization Basel Revised Securitization Framework, Risk Retention, Regulation AB II	- Enhancing capital requirements and market standards for originators and investors - Improving the strength and safety of securitization markets	2,000+ pages of proposals	35,000+ work hours dedicated to system development to comply with Basel risk-weighted assets rules
Derivatives U.S. Dodd-Frank ¹ Title VII, European Market Infrastructure Regulation, Markets in Financial Instruments Directive II/Markets in Financial Instruments Regulation	- Enhancing pre- and post-trade transparency - Promoting the use of electronic trading venues and central clearing - Bolstering capital and margin requirements	83 key rules (U.S.) and 237 articles (EU) finalized	700+ people 60 workstreams
Volcker Rule	- Restricting banks from undertaking certain types of market activities - Insulating retail banking from wholesale banking	1,000+ pages of rules and preamble text with 5 regulators involved 36 requirements	300+ people 7 trading metrics in development across 13 business areas

Note: This list of regulations is not comprehensive; estimates of resources are approximate

¹ U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act

² United Kingdom

³ Bank Recovery and Resolution Directive

- **250+** employees are working in Model Risk and Development – up by more than 130 employees. In 2013, this highly specialized team completed over 450 model reviews, built capital models that enabled the firm to achieve the regulatory approval required to exit parallel Basel III reporting, and implemented a permanent new governance and control structure for the proper creation and implementation of models.
- **\$600+ million** has been spent on technology focused on our agenda in the Regulatory and Control space – an increase of approximately 25% since 2011. We also have built a state-of-the-art control room in our corporate headquarters to provide streamlined

data analysis and reporting capabilities of control and operational risk data across the firm.

- **\$2+ billion** in additional expenses in our overall control effort will have been made since 2012 through the end of 2014.

The numbers above show some of the **additional** resources dedicated to this objective but barely represent the full resources dedicated to our regulatory and control agenda. It is hard to estimate, but perhaps 20%-30% of all our Risk, Compliance, Legal, Finance, Technology, Oversight and Control, and Audit employees have been reassigned

and will be devoted to this effort. In total, it is hard to measure the overall scope and investment since nearly all employees and systems are engaged in some way or another.

We will be applying the new rules all the way to the client level, the product level and the trading desk

We will be applying the new rules, particularly around capital, liquidity and the SLR (and the factors that increase our capital surcharge as a global systemically important bank), all the way down to each client we serve, each product we offer and each trading desk we operate. Doing so will allow our client executives as well as product and trading managers to understand how the new rules affect us at a very granular level and allow our professionals to begin making proper and compensating adjustments. At the most basic level, some of these rules conflict with one another; for example, the client may be profitable on Basel III capital but not on SLR capital or vice versa. The binding constraint at the client level may be very different from the binding constraint at the firmwide level. To be successful, we will need to actively manage all these constraints so we get a fair return on our capital and properly manage our risks.

At the firmwide level, once we satisfy Basel III capital, SLR capital and the Liquidity Coverage Ratio, the binding constraints on the firm may very well become the CCAR test, the annual stress test from the Federal Reserve Board. By its nature, the CCAR test is less predictable because it will change every year. And while you can't effectively manage stress testing at the client or product level, we will manage it at the business level so that it has more predictable outcomes, allowing for more predictable capital planning.

We are big believers in stress testing, and you should know that we do it all the time and successfully conduct a large number of different kinds of stress tests every week. This enables us to effectively manage risk to protect your company.

The new rules will have a major effect on certain clients and products

All the new rules will not affect all clients and all products equally. I obviously can't cover all client types and products, but I would like to give some examples of those that may be affected more than most – and what that impact means for both JPMorgan Chase and our clients.

Derivatives. Non-corporate users of derivatives (asset managers, hedge funds, financial companies, governments, etc.) will have to move all their standardized derivatives (mostly interest rate and credit derivatives) to exchanges, as opposed to handling them directly with a bank. Corporate end users of derivatives will be allowed to continue to trade bilaterally with a bank. However, for both of these segments, the cost to offer derivatives to our various client groups will increase due to capital, liquidity and margin requirements imposed on us. It still remains to be seen how all this will sort out.

Non-operational deposits. Essentially, these are deposits that wholesale clients hold with us that typically are short term and transactional in nature. We take these deposits more as a service to the client – not because they are profitable for us. The new rules require us to hold 100% of HQLA against financial institution deposits and 40% against non-financial corporate deposits. In addition, based on current proposals, we would have to hold 6% equity against the assets we maintain for financial institutions even if those assets consist of cash or other low-risk assets such as government bonds. This makes non-operational deposits hugely

unprofitable; therefore, over time, banks probably will minimize this type of deposit, and clients will seek other alternatives, probably in the money markets.

Committed, undrawn revolvers. Many clients have large, committed, unused revolvers so they can manage their cash flows and not leave too much unused cash on their balance sheet. Because new rules impose liquidity and additional capital requirements on committed, undrawn revolvers, the cost involved in providing them could increase by up to 60 basis points, depending on the client segment and nature of the facility. Banks will either have to charge more for this product or focus more acutely on the nature and value of the particular client relationship as a whole in considering whether to make revolvers available to that client.

Trade finance. The cost of short-term trade finance and standby letters of credit also will increase dramatically, with pricing potentially up by 75 basis points in the long term.

The rates business (mostly trading government securities and interest rate swaps). The new rules have a huge effect on this business because they require substantially more capital and liquidity. And for some banks, the rates business has gone from profitable to unprofitable, causing some banks to exit the business altogether. Because of our large volume and low costs, we already have begun to make significant changes to this business and expect to maintain decent profitability.

The mortgage business. The U.S. mortgage market still faces huge hurdles and has a long way to go before it is a well-functioning market that is good for consumers and the country's economic health (and makes sense for financial companies). There has been a large increase in the capital required to service and hold mortgages. Servicing itself has become far more costly and dangerous to the servicer – servicing costs alone have gone up 20 basis points. We still have been

unable to reform the government-sponsored enterprises (GSE) or to get the securitization markets healthy again. This has real costs to consumers, especially for lower credit-quality consumers and particularly for government-guaranteed mortgages, which have become more expensive, more time intensive and less available for consumers. Originators are being more conservative because making loans that may default has become far more risky and costly due to:

- The highly litigious environment and uncertainty surrounding Federal Housing Administration (FHA) guarantees with respect to FHA mortgages.
- The ongoing “put-back” risk and the litigation costs around reps and warranties from the GSEs and sophisticated private investors.
- The increasing prescriptiveness of rules on servicing from different – and sometimes conflicting – regulators and government agencies.
- The increasing difficulty of moving servicing – again, especially for high-risk loans, which often are unprofitable to us and other large financial institutions – to other servicers that have systems and processes better able to serve these customers.

These issues make mortgages more costly and unpredictable for companies and far less consumer friendly. In many cases, deserving lower- and middle-income consumers may pay far more than they might have in the past for a mortgage or, worse yet, they won't be able to get one.

We need for all those involved in the mortgage business to come up with a practical set of coherent and consistent policies that work for originators, servicers, investors,

consumers and regulators. While it's critical to protect the consumer, the new rules should not allow for arbitrary and capricious interpretations or overly punitive penalties and litigation.

When you look at how the cost of specific products has changed, it's easy to see how some clients will be affected more than others. While most clients will see some higher costs, certain clients – for example, municipalities (which will see far higher costs for certain types of deposits and credit lines), clients with large amounts of trade, credit-only clients and specific types of financial companies – will experience far higher costs to transact banking business.

We need to achieve proper cross-border regulatory coordination

One of the initial objectives of the global regulatory regime was to set out fairly consistent global rules; i.e., a level playing field. The rules don't have to be exactly the same in all countries, but if they are dramatically different, that could cause large and unfair distortions in global competition. Some areas at risk are: 1) dramatically different calculations of risk-weighted assets, 2) much lower leverage ratios in some countries vs. others and 3) varying capital structures for a bank's subsidiaries in different countries. We are convinced that the regulators want to get this right, but there are a lot of interests involved, and only time will tell if they succeed.

We need to recognize that models and risk-weighted assets do not reflect all knowledge or judgment

We recognize the importance of detailed and disciplined modeling and forecasting, particularly around risk and risk-weighted assets. But we want our shareholders to know that even the best models provide an incomplete, sometimes misleading and backward-looking view of risk. Let me list a few things that are not incorporated in risk-weighted asset models:

- Character of the borrower.
- Changes in the tax code.
- Changes in the structure of the industry (usually driven by technology – look at what the Internet did to media and some types of retail).
- Changes in business practices (for example, virtually no one offers subprime mortgage lending anymore).
- Changes in government or regulatory policy.
- Geopolitical risk.

We need to do our math right, but we also need to remind ourselves to always try to add judgment and wisdom.

All things being equal, returns will be reduced

If you have to hold higher capital and higher liquidity and some of your costs are higher – all things being equal – your returns obviously will come down. Many analysts have estimated that the average effect of the higher capital, liquidity and costs on banks will reduce their return on equity substantially and for some banks far below fair market returns. These banks possibly would need to take dramatic action – shareholders would not accept poor market returns for long.

But all things are not equal

Clients, markets and businesses adjust to changing economic circumstances. Our company already has taken action that gives us some confidence that we will be able to maintain decent returns in spite of what a static analysis would show. The list below notes some of those things that likely will change over time and, in general, will allow banks, on average, to earn market returns:

- **Run-off of unprofitable products.** Banks simply will stop handling some very expensive products. For example, many exotic derivatives, subprime mortgages and other products no longer will be offered.
- **Product repricing.** Some products will reprice. For example, we expect the cost to the client for revolvers and transactional deposits to go up.
- **Product redesign.** Some products will be redesigned. For example, uncommitted lines of credit (that were popular many years ago) may make a comeback. Or revolvers may be written so that the borrower cannot borrow all the money all at once, reducing the liquidity burden and cost to the bank.
- **Client selection and re-optimization.** Banks will focus on clients that can be served profitably with a mix of products and services. For example, we may seek to earn more of certain clients' capital-lite business like cash management or a higher share of their fee-based business such as M&A or issuance. Some clients will go to other banks with a different mix of products and services, and some will be banked in the shadow banking market, which may be able to serve some clients in a less expensive way.
- **Tactical and strategic changes.** These changes are hard to forecast – but they will happen. Not all banks will adjust to the new world in the same way. Some banks will stop offering certain products or will leave certain markets – market shares will change and, in some cases, consolidate. This eventually should lead to margins in each product and business that are adequate for those that remain in the business.
- **Return on equity.** Some banks will continue to earn better-than-average ROEs. Not all companies are created equal, and in every industry that I have observed, some compa-

nies have outperformed for an extended period of time. Sometimes it is because these companies have lower cost structures, better technology or simply greater economies of scale due to higher market share. It also is important to remember that a complex business that has many products is not earning the same ROE on every product. Many industries have historic structural issues that lead to some products being loss leaders (e.g., selling milk at grocery stores). And some products have an extremely high return because there is little equity involved (for example, think of money management, transaction processing, etc.). It is the combination of how a company does all these things that determines the company's aggregate ROE.

In the past, we told you we would expect our average return on tangible equity through the cycle (by this, we mean in average times with normalized credit losses) to be 16%. With higher levels of capital, significant regulatory changes and some remaining uncertainties, we moved the number to be somewhere between 15% and 16%.

We continue to have a healthy fear of the unknown because we cannot predict the cumulative effect of so many changes on a complex system

We still worry about the cumulative effect of all the changes, which simply cannot be known. It is our nature to worry more about the downside than to guess about the upside; however, some of these changes actually may be good for JPMorgan Chase (and other banks). It could be that these changes may make it harder for new competitors. It is possible that many of these changes will create a bigger "moat" around the banking system. Regardless, we will be vigilant in looking for, and reacting to, any negative effects that we simply cannot predict today.

What we can predict is that we are going to have tough global competitors

We have a healthy fear of and respect for our competitors. No matter what business you're in or how strong you might look, there are a lot of smart, devoted, tough competitors that have the potential to gain on you. So we always make the assumption that we will have tough competition. In addition to the regular lineup of great competitors that we currently have, I want to point out three areas (among others) that we will be keeping an eye on.

Large, global Chinese banks. Today, there are four very large and rapidly growing Chinese banks. They may be operating under less restrictive rules than we are. They are ambitious, and they have a strategic reason to go global (following their rapidly growing Chinese companies overseas). They have begun their global expansion, and, over time, they will become tough global competitors.

Technological obsolescence. It's easy to be scared about this one. Many companies are working on new payment systems, trading has become increasingly electronic, customers want more and more mobile services, and, increasingly, companies are starting to handle lending online. Your company is deploying substantial resources and launching new programs and products and will try to be creative, innovative and nimble in all these areas, which we will talk more about in the last section of this letter.

Increasingly sophisticated shadow banks. We really should not call them "shadow" banks – they do not operate in shadows. They are non-bank financial competitors, and there is a wide set of them. They range from money market funds and asset managers, mortgage

real estate investment trusts and mortgage servicers, and middle market lending funds to PayPal and clearinghouses. Many of these institutions are smart and sophisticated and will benefit as banks move out of certain products and services. Non-bank financial competitors will look at every product we price, and if they can do it cheaper with their set of capital providers, they will. There is nothing inherently wrong with this – it is a natural state of affairs and, in some cases, may benefit the clients who get the better price. But regulators should – and will – be looking at how all financial companies (including non-bank competitors) need to be regulated and will be evaluating what is better to be done by banks vs. non-banks and vice versa.

We will spend a lot of energy in 2014 adapting, adjusting and navigating to the new financial architecture, as well as monitoring its impact on our clients and keeping a watchful eye on the landscape as we move forward.

III. WE HAVE MADE SIGNIFICANT PROGRESS STRENGTHENING OUR COMPANY

We continue to make substantial progress strengthening our company. We have made enormous strides on our control agenda, which is detailed in a letter by our Chief Operating Officer on pages 33-35. We have continued our disciplined organic growth while also simplifying our business and continuing to reduce expenses. But first and foremost is the importance of maintaining the strength of our client franchises.

In this new global financial architecture, we will protect our great client franchises – at the expense of profits, if necessary

As we adapt to all the new rules, we will deliberately maintain our franchises even at the expense of sub-optimal profits. Since we don't know what the impact of all the new rules will be, we don't want to guess or make major changes in strategy in anticipation of these new rules. If some of the changes cause disappointing profits in the short term, so be it. We are fairly convinced that we will be able to adjust and earn fair profits in the long run.

We are aggressively pruning and simplifying our business – allowing us to reduce risk and to focus our resources on what is important

In general, it is good for any company to diligently prune and simplify its business so that it can focus on what it does best. This is just simple good housekeeping. It is even more important in this environment, largely to help with the control agenda. The chart below notes that we are exiting certain products and businesses. None of these exits will affect our main franchises. These actions eventually will reduce revenue by about \$3 billion, but they will have little impact on profits. Some of the businesses we are selling originally had great promise – and we still have no problem trying things (and failing at them) as long as we have the discipline to stop doing them if they don't work. Some don't fit the new regulatory environment, some are not customer friendly and some are just simply too small to matter.

Business Simplification

Simplifying our business	
■ Exiting products non-core to our customers or with outsized operational risk – for example: ■ One Equity Partners ■ Physical commodities ■ Global Special Opportunities Group ■ Student lending originations ■ Canadian money orders ■ Co-branded business debit cards and gift cards ■ Rationalization of products in Mortgage Banking¹ ■ Identity theft protection ■ Credit insurance	■ Discontinuing certain client businesses on a case-by-case basis in light of the new global requirements

Financial impact of business simplification (\$ in billions)			
	2014 impact		Run-rate impact
Revenue	\$1.5		\$2.8
Expense	(0.9)		(2.3)
Pre-tax income	0.6		0.4
Net income	\$0.3		\$0.3

¹ Not included in the analysis

We still are investing in organic growth, and our investments from the past are paying off

As we have shown you in previous letters, the following nine investment initiatives (outlined in the chart below) will contribute to our profits over the next 10 years. All these projects are pretty much on track, and we expect they will provide substantial value for our clients and our shareholders in the future. Our current estimate is that they will add another \$2 billion in profits by 2017. We like organic growth, and while we have not started as many major new initiatives this

year as in previous years so we can focus on our control agenda, there will be great opportunities in the future.

We continue to be vigilant about our expenses

Earlier, we spoke about the regulatory and control issues that, by year-end 2014, will have increased our overhead expenses by \$2 billion since 2012. Our total overhead (except litigation) was \$60 billion in 2013, and we expect it will be less than \$59 billion in 2014. We expect to continue to drive down expenses as a percentage of revenue over

Overview of Select Investments

Expense and net income impact of cumulative spend from select investments (\$ in millions)				
Line of business	Investment	Status	Comments	Target annual net income
Consumer & Community Banking	Branch builds	✓	- Portfolio of branches opened from 2002-2012 - Average branch contributes \$1 million+ to pre-tax income when mature 4-year+/- breakeven and 7-year+/- payback for 2002-2012 portfolio	>\$600
	Business Banking	✓	- Expansion market branches fully staffed - Approaching core market productivity levels	\$600+/-
	Chase Private Client	✓	- Added 2,100+ Chase Private Client locations since beginning of 2011 22,000 clients as of 2011; 100,000+ clients as of 2012; 215,000+ clients as of 2013 \$14 billion net new money in 2013	\$600+/-
Corporate & Investment Bank	Over-the-Counter Clearing & Collateral Management	In progress	- Delivered a global platform and top three market share - Timing of steady state dependent on implementation of final Europe, Middle East and Africa and Asia Pacific rules	\$150+/-
	Global Prime Brokerage build-out	✓	- Build out international platform to facilitate clients' regional strategies - Successful launch of international prime brokerage in Europe, the Middle East and Africa in 2011; Asia Pacific launch in 2014	\$175+/-
	Global Corporate Bank	✓	- Committed to meeting needs of international clients ~200 bankers hired since 2009	\$600+/-
	Equities electronic trading	✓	- Focused on building best-in-class electronic trading capabilities - Grew low-touch equities revenue at 21% CAGR since 2010	\$100+/-
Commercial Banking	Middle Market expansion ¹	Ongoing	- Expand Commercial Banking coverage into new markets - New cities added in 2013 include Tacoma and Jacksonville - Continue to add ~200 clients per year	\$450+/-
Asset Management	Private Bankers/ Investment Management sales expansion Investment Management business initiatives	Ongoing	- Hired ~700 Private Bank client advisors and ~300 Investment Management salespeople since beginning of 2010 - Expansion investments contributed net income of ~\$100 million in 2013	\$800+/-
✓ Indicates investment complete			2013 expense ² 2013 net income	~\$2.6 billion ~\$1 billion ~\$4,100

Expect \$3.5 billion+/- of net income in 2017 run-rate

¹ Includes WaMu, as well as out-of-footprint expansion markets

² Expense for aggregate investments reflects expenses related to select investments with overhead ratios higher than business average

the years. We are not doing this by skimping on investments – we never will do that since we believe investments in technology, training, controls, effective marketing and other efforts are critical for the long-term health and growth of the company. We are driving down costs by being extremely vigilant on expenses – always seeking out ways to automate and improve efficiency and operations. While we don't have a formal expense-cutting program, you can rest assured that we always are looking for ways to cut *wasteful* expenditures. We also believe that new industry utilities will emerge that will sharply reduce costs; for example, a utility could manage Know Your Customer processes (this way, corporate customers would not have to fill out the same forms and answer the same questions for all their banking partners). The financial sector always has been a large user of industry-wide utilities, particularly with regard to processes like settlement, clearance and payments.

And we always are learning (which also will make us a stronger company)

We always have believed that analyzing your mistakes makes you a better company. We often are asked about some of the management lessons we've learned over the past few years so let me share a few of them with you.

Customer advocacy. Treat the customer the way you want to be treated and make sure you see everything from the customer's eyes. Read customer complaints – and be the customer's advocate. This acts as an early warning system, it reduces problems and it will make you a better company.

Constantly improving systems and processes.

We always have believed in this, but there is an example of where we didn't with our Anti-Money Laundering systems. For years, we scored fairly well on our AML program, but we did not continually improve our systems and processes, and, in hindsight, we fell behind. All systems and processes need to have regular review and continual improvement.

A tin ear. In the past few years, we had started to see regulatory and enforcement actions against our competitors – and saw signals from our regulators that things were going to get tougher going forward. Our response generally was, "We know what we're doing." Well, we should have done more self-examination. We need to be better listeners and do a better job at examining critiques of others so we can learn from other people's mistakes, too.

Enterprise-wide controls. We generally have had a preference for leaving things somewhat decentralized, if possible, to foster responsibility and innovation throughout the organization. We've prided ourselves on our controls, and, for the most part, we did them well. But not all critical controls were consistently executed throughout the firm – and they should have been. This reduces the chance of a control gap somewhere in the company, and it ensures a sustainable, rigorous discipline and process in place everywhere. In addition to our fortress balance sheet, we want a fortress control system.

Processes should be known, front to back. From the moment a customer is opening his or her account to conducting business through the middle office to properly recording that business on your books and records, you are only as strong as your weakest link. Management teams need to understand and review all the processes in their business.

Sustainability. It's not enough for an activity to be done well – it needs to be done well on a sustained basis. This means a rigorous risk assessment, a constant review of all processes, properly functioning risk and control committees, vigilant compliance and a thorough rechecking of everything by Audit.

Your management is taking full responsibility for all aspects of our business operations. Transparency and escalation are key so we can deal with problems properly and quickly. While we need to be extremely self-critical, we intend to do this in an environment of collaboration without finger-pointing.

CYBERSECURITY UPDATE

In last year's letter, I gave a frank assessment about cybersecurity and why it is such a critical priority for the entire company. We outlined how JPMorgan Chase had spent approximately \$200 million in 2012 to protect ourselves from cyberwarfare and to make sure our data were safe and secure, and we dedicated more than 600 employees across the firm to the task. Despite these intense efforts, we acknowledged that the issue of cybersecurity worried us – and, today, that worry only has continued to intensify.

By the end of 2014, we will have spent more than \$250 million annually with approximately 1,000 people focused on the effort. This effort will continue to grow exponentially over the years.

In our existing environment and at our company, cybersecurity attacks are becoming increasingly complex and more dangerous. The threats are coming in not just from computer hackers trying to take over our systems and steal our data but also from highly coordinated external attacks both directly and via third-party systems (e.g., suppliers, vendors, partners, exchanges, etc.). It appears that a large, successful attack on a major retailer last year was the result of a third-party system breach.

We are continuing to carefully protect our perimeter from external threats, beef up our processes to detect internal threats and monitor related third-party systems to make sure their protections are adequate. In addition, we are moving rapidly ahead with Europay Mastercard Visa (EMV) and tokenization for credit and debit card transactions, which we will need to do in conjunction with merchants. We also are building three state-of-the-art Cybersecurity Operations Centers in our regional headquarters to provide points of coordination for all incoming information, the identification of threats, the protocol around managing our responses and the security of our buildings around the world. A major focus of these centers is the concept of intelligence fusion, which will pull together all our internal information from Internet and systems monitoring, as well as reconnaissance from our partners in industry and government. This approach will give us a comprehensive and consolidated view of all the threats facing our firm and our customers, and it will help to inform our view on how best to combat them.

We're making good progress on these and other efforts, but cyberattacks are growing every day in strength and velocity across the globe. It is going to be a continual and likely never-ending battle to stay ahead of it – and, unfortunately, not every battle will be won. Rest assured that we will stay vigilant and do what we need to do to enhance our defenses and protect our company.

IV. WE BELIEVE OUR LONG-TERM OUTLOOK IS BRIGHT

In the last seven years, we have been through a global financial crisis, massive regulatory changes and a number of setbacks – but our company has been able to recover and prosper. Most important, our client franchises consistently got stronger. All companies, at some point, are going to have tough times. The ability of a company to overcome them and be better for having done so is a sign of its strength, not weakness.

As we navigate through 2014, our fortress company and the power of our franchises put us in good stead. We are in this business forever. And we need to look beyond current challenges so that we properly invest and plan for the future. When all is said and done, there is reason to believe that the future of banking will be quite good. The following paragraphs explain why.

The world has been getting better, not worse

It is hard to believe sometimes – when you read in the newspapers and see on TV all the terrible events happening on the planet – that the world has consistently, over the course of history, become a better place for human beings. A recent book by Harvard professor Steven Pinker entitled *The Better Angels of Our Nature* chronicles how mankind has made enormous progress and has improved society throughout the centuries. His research looks at issues like murder, torture and other acts of violence over the past thousands of years and shows how today's world is much safer and more humane than in the past. It's amazing that even the 20th century, bloodied by two world wars, was less violent than all other centuries before it. Cruelties such as torture and slavery over many, many years have become increasingly rare (though they tragically still exist). There are many contributing factors, but Pinker points out some of the reasons:

increasingly just and moral governments; the invention of new institutions like courts of law and police forces; and expansion of human knowledge and a heightened sense of morality spread by the written word, religious institutions and schools, all of which have helped influence people's minds about what is acceptable – and what is not.

Dr. Martin Luther King said, "The arc of the moral universe is long, but it bends toward justice." Progress, sometimes painful and slow, has been happening all around us all the time, and the optimist in me believes that it will continue.

We have an abiding faith in the United States of America

I have spoken about this in the past, and I don't believe that it is blind optimism or patriotism. America today may be stronger than ever before. For example:

- The United States has the world's strongest military, and this will be the case for decades. We also are fortunate to be at peace with our neighbors and to have the protection of two great oceans.
- The United States has among the world's best universities and hospitals.
- The United States has a reliable rule of law and low corruption.
- The people of the United States have a great work ethic and "can do" attitude.
- Americans are among the most entrepreneurial and innovative people in the world – from those who work on the factory floors to geniuses like Steve Jobs. Improving "things" and increasing productivity are American pastimes. And America still fosters an entrepreneurial culture where risk taking is allowed – accepting that it can result in success or failure.

- The United States is home to many of the best businesses on the planet – from small and middle-sized companies to large, global multinationals.
- The United States also has the widest, deepest, most transparent and best financial markets in the world. And I'm not talking just about Wall Street and banks – I include the whole mosaic: venture capital, private equity, asset managers, individual and corporate investors, and the public and private capital markets. Our financial markets have been an essential part of the great American business machine.

America's future is not guaranteed, and, of course, America has its issues. Later in this section, I will discuss some of the issues, especially the ones possibly holding back our country's growth. But throughout history, we have shown great resiliency and a capacity to face our problems. Warren Buffett, the greatest investor of all time and my friend, has said, "It's never paid to bet against America." I think we all should take his advice.

The outlook for long-term growth is excellent – our clients are growing, and they need us

The financial needs of countries, companies and individuals will continue to grow over time. And that growth will be broad based and global. A few examples suffice.

GDP and trade

- World gross domestic product (GDP) is projected to grow an average of 7% per year through 2023, from \$73 trillion in 2013 to \$139 trillion in 2023.
- The value of the world's exports grew at an average rate of 11% per year between 2002 and 2012, from \$8.1 trillion to \$22.8 trillion. Many economists expect international trade to grow faster than world GDP over time.

Infrastructure

- Keeping pace with global GDP growth will require an estimated \$57 trillion in infrastructure investment between now and 2030 – this is 60% more than the \$36 trillion spent over the past 18 years. Emerging economies are likely to account for 40% to 50% of this infrastructure spending.

- Infrastructure-related trade is forecast to grow by 9% per year on average between 2013 and 2030, outpacing overall merchandise trade growth of 8% per year so that by 2030, infrastructure-related trade will account for 54% of total goods traded globally.

Growth of large companies

- A staggering 7,000 new large companies (those with revenue greater than \$1 billion) are expected to develop between 2010 and 2025; 70% are expected to be in emerging regions, with the share of large company revenue generated from those based in emerging regions rising from 24% in 2010 to 46% in 2025.
- By 2025, emerging regions are expected to be home to almost 230 companies in the Fortune Global 500, up from 85 in 2010. Of the 230 emerging region companies, 120 are expected to be based in the China region.
- Today, 80% of the 2,200 large companies in emerging economies are spread across almost 100 cities; by 2025, 80% of the 7,000 large companies are likely to be spread across nearly 160 cities.

Urbanization and population growth

- A majority of the world's population now lives in urban areas for the first time in history, and by 2050, that number is expected to grow to 67%. This mass urbanization will create cities on a scale beyond what most of the world has seen. Providing the infrastructure and clean water, schooling, healthcare and social safety nets (to name just a few) to anticipate, accommodate and sustain this growth will be hugely challenging.

Financial assets

- Total global financial assets of consumers and businesses grew to \$248 trillion by the end of 2013 and are projected to grow at a compound annual growth rate of 6.6% through 2023 to roughly \$453 trillion.
- Much of this growth is expected to come from emerging market economies, which consisted of 20% of global financial assets in 2013 and is expected to grow to 34% by 2023.

All the points above are the fuel that drives all of our businesses. The growth will be there. The hard part about our businesses is managing the complexity and the often volatile and violent swings of moods and markets, as well as the episodic nature of some of the businesses. (Not all of our businesses operate on a convenient annual cycle.) What we try to do is see through the fog and noise and the madness of crowds to clearly, consistently and safely manage our businesses and invest in our future.

Of course risk and uncertainty remain, but we need to put it all into perspective

Of course there is risk in the system. There always was, and there always will be. As a company, we need to be prepared for even the unlikely and unpredictable bad outcomes. But like everything else, it helps to put risk into perspective. Some of the common risks spoken about today include geopolitical risks and what some think are inflated stock market values (I am not going to talk about the stock market as I have little to add to that debate). Probably the most discussed area of uncertainty is what effect the reversal of the Fed's Quantitative Easing (QE) policy will have on the economy and markets. I will speak about Fed policy later in this section. Here I will briefly review some of the risk issues we see today.

Geopolitical risk is a constant

History teaches us that geopolitical risk is always there. Some of the risks are well-known to us such as Afghanistan, Iran, North Korea, etc. But many of the risks are not known, and they often are the ones that create huge problems. For example, most people did not foresee the events in the Middle East (the "Arab Spring"), the start of World War I or the serious issues in the Eurozone, to name a few. Many of the changes in the geopolitical world were hugely positive; for example, the falling of the Berlin Wall, the re-emergence of China in the global economy and the spreading of democracy throughout many parts of the world. Two years ago, there was deep fear about the collapse of the Eurozone, which, of course, hasn't happened. When I graduated

from business school 30 years ago, the great fear at the time was that America had seen its best days and was soon to be surpassed by a resurgent Japan.

While we are prepared and watchful, we see nothing that would change our long-term plans.

There are many positive factors:

- Consumers are in increasingly good financial shape. Over 6 million more Americans are working since the depths of the financial crisis. The amount of consumer income that they spend to service their debt is the lowest it has been since it has been recorded, dating back to 1980. And Americans' net worth has been increasing, along with stock market prices and the value of homes.
- Housing has turned the corner in most markets. We've moved from a buyer's market to a seller's market in four years, construction of new homes has steadily improved and home values have increased nationally more than 19% in the past two years due to the strengthening economy.
- Capital markets are wide open – credit, for the most part, is flowing freely. (The only exception I see here is that it still is too hard to get a mortgage for many people.)
- Corporations and middle market companies are in extremely good shape. Corporate cash balances now are 11.4% of assets, up from 5.2% in 2000.
- The banking system is almost fully recovered, and banks are better capitalized than they have been in 60 years. Banks had average equity to assets of 11.1% in 2013 – the highest it's been since 1950. And banks in total have \$10 trillion in deposits vs. \$7.6 trillion in loans today – the lowest loan-to-deposit ratio since 1970. In addition, banks currently hold HQLA of approximately \$2 trillion.
- Consumers are benefiting from abundant and less costly oil and gas due to technological advances in extraction.

But something is holding back our growth

Something is holding back the strong recovery of the great American economic engine. It is not lack of access to capital or loans, but it might be a combination of some of the following factors:

- Concerns around excessive regulation and red tape – I travel around the U.S. all the time, and this is a loud and growing complaint that I hear from businesses, small to large, across virtually all industries.
- Whether you were for or against “Obama-care,” when massive changes to such an important part of the American economy are made, it does create uncertainty for many businesses.
- The inability to face our fiscal reality is a concern. I believe that if we had adopted some form of the Simpson-Bowles plan to fix the debt, it would have been extremely beneficial to the economy.
- Entitlement spending – which now is 60% of federal spending and is growing – is crowding out infrastructure spending and spending on initiatives like research and development and training.
- In addition, uncertainty about the ultimate outcome of the Fed’s unconventional QE policy (and our inability to deal with some fiscal issues) makes future Fed policy more complicated.
- Political gridlock resulting not only in our government shutdown but in two debt ceiling crises was damaging and irresponsible.
- U.S. corporate tax policy is hugely inefficient and, at the margin, drives American capital overseas.
- U.S. immigration policy (which we should fix for moral reasons alone) also is driving brains and entrepreneurs overseas. Most economists think a good immigration policy could accelerate U.S. economic growth by 0.2% right away and by 2% over a 10-year period. This, alone, could create 3 million jobs.

In addition, uncertainty and hypersensitivity to risk may be holding back growth

Uncertainty also has always been a constant in business. But coming out of a financial crisis, in addition to the items I mentioned above, we may be living in a time of heightened sensitivity, uncertainty and risk aversion. It seems that just about everyone has become a risk expert and sees risk behind every rock. They don’t want to miss it – like they did in 2008. They want to be able to say, “I told you so.” And, therefore, they identify everything as risky. Here are a few facts that support the uncertainty and risk aversion hypothesis:

- Corporations seem unduly conservative. We already have mentioned how much excess cash they hold.
- U.S. gross capital formation as a percentage of GDP has been at lower levels in the last five years than it has been for more than 40 years. Capital expenditures ultimately are the drivers of productivity, jobs and growth.
- The top 1,000 companies account for approximately 50% of all capital expenditures. One reason that large companies may be more conservative in their use of cash and debt is that rating agencies are much tougher on ratings. In 1993, the number of AAA and AA issuers was 413, and in 2013, that number was 147. Today, the companies are bigger, basic financial metrics (i.e., debt to equity and margins) essentially are the same and defaults are lower. I have defended the rating agencies’ right to their opinions, but it seems they also may have largely overreacted to the financial crisis.
- Finally, one of the great aspects of the American system is that it is okay to fail and to try again. But even that seems to be diminishing as failure, other than in Silicon Valley, is severely punished.

This all can be fixed

There is nothing in all of the negative items that I mentioned above that can’t be fixed through our own actions. Collaboration as opposed to destructive finger-pointing is needed. A few smart decisions and a lot of

constructive collaboration will improve confidence – and confidence is the “secret sauce” of growth. As consumers and businesses grow more confident, they will spend more and invest more. Stronger economic growth will create more jobs and higher incomes and give us the necessary resources to tackle pressing and important issues like inner city school education, income inequality and proper infrastructure investing.

The impact of tapering

Today, there is hyperfocus on central bank policy and, in particular, on what’s called “Fed tapering.” The U.S. Federal Reserve had been buying \$85 billion a month in Treasuries and mortgage securities (it recently reduced that amount to \$55 billion a month). Most observers expect that number to come down to zero by the end of the year. Eventually, the Fed may need to begin selling some of the securities it has purchased.

The Fed’s balance sheet has gone from \$1 trillion in 2007 to an estimated \$4.5 trillion by the end of this year. Some feel the Fed’s QE policies have been too aggressive and ultimately will be inflationary. Additionally, there is a fear that ending QE will be risky and complex, particularly since QE has little precedence.

We cannot predict the future, and it is rational to have a healthy fear of new and untested policies. However, we think it will be helpful to put some of these issues in perspective, too.

Put it in perspective

The value of all financial assets in America today is approximately \$90 trillion. When the Fed stops buying securities, the \$4.5 trillion it owns will run off to \$2 trillion by 2020 simply from paydowns of principal in Treasuries and mortgages. While it is not clear what the new steady state will be – the Fed probably will not need to take its balance sheet all the way back down to \$1 trillion. Even if the Fed eventually needs to sell some securities, the American economy should be able to handle it easily – particularly in a strong economy.

This unconventional monetary policy (QE) may have worked, but it is confusing

Figuring out the full effect of QE is hard to do. And, therefore, figuring out the effect of the reversal of QE is even harder to do.

QE replaced \$3 trillion in Treasuries and mortgage securities held by individuals, investors, funds and others with cash reserves created by the Fed. If all that might happen is the various investors involved took the cash and deposited it at a bank and the bank, in turn, deposited it at the Fed, there essentially would be no real change in economic effect. But if those involved spent the money, bought additional stocks or bonds and invested in long-term assets, there would be an effect on the real economy.

There is little question that QE – because it drove long-term rates down – lifted asset prices, including stocks and home prices (there were other global effects, but I won’t talk about them here), reduced funding costs, improved economic activity and helped the economy recover. This probably was more true early on with QE and less true later on.

But much of QE appeared to be “unused.” At the end of 2007, before QE started, banks had \$6.7 trillion in deposits, \$6.8 trillion in loans and only \$20.8 billion in deposits² at the Fed. Today, banks have \$10 trillion in deposits, \$7.6 trillion in loans and \$2.6 trillion in deposits at the Fed. You can see that loans increased very little, while deposits and reserves at the Fed increased dramatically. Banks clearly did not use all of these additional deposits to make more loans, though this was due to several factors, including the weak economy and the banks’ need to build up their capital and liquidity ratios. One concern is that this “unused” money will one day be aggressively used – and cause too much inflation.

The Fed has tools in place to reverse QE if necessary – and banks have more constraints in lending out the money anyway

The Fed has many tools to reverse QE if necessary, which it can readily use if too much credit is created in the system. However, banks will be far more constrained in how much they can lend than in the past because of the new, higher liquidity and

² Regardless of what those receiving cash for their securities did with the cash, it ultimately will end up back in the banking system in the form of deposits, both at the bank and, therefore, deposits at the Fed. The deposits at the Fed are called reserves

capital requirements. In the new regulatory environment, the transmission and effect of monetary policy by the Fed will be different from the way it was in the past. It is very hard to calculate this impact, although I'm sure the Fed is taking it into consideration. In addition, business financing needs are likely to be moderate because businesses will be able to fund many of their projects with their own excess cash and strong earnings.

Normalization is a good thing

Ultimately, a normalization of interest rates, capital flow and allocation without central bank interference, concurrent with a strengthening economy, has to be a good thing – something that we all eventually should want even though it probably will be accompanied by volatile movements in interest rates. When rates do normalize, we know one thing for certain – it will happen *differently* from what people expect. And my guess is that when it happens, it will be faster than people expect. A normalized interest rate curve might have short-term interest rates at 3%-4% and 10-year Treasury bond rates at 5% plus or minus. If the yield curve returns to those kinds of levels in a healthy economy, we all will be okay. And the Fed already has made it absolutely clear that it will normalize its monetary policy only as the economy strengthens.

Focus on the real economy vs. the money economy

The real U.S. economy includes 145 million people who get up and go to work every day, trying to improve their lives and the lives of their family (and counter to what you read in the newspapers, 80% of those people are happy with their job). The real economy includes millions of companies serving clients every day and generally building to expand and meet their customers' order flows. In fact, most people in the real economy appropriately pay very little attention to the money economy. I would remind our readers that there are 320 million Americans, but only a small fraction watch CNBC or read *The Wall Street Journal*. In the real economy, what matters to most people is one's family, job and quality of life.

Those of us who operate in the money economy are very sensitive to interest rates – maybe overly sensitive. And we should look through the *volatility* at interest rates, which will almost definitely be there as the Fed changes its policy. Volatility in interest rates will not *necessarily* dampen real growth in the real economy.

Rising interest rates (all things being equal) will be a big plus for your company

Even as we have grown deposits and market share in many of our businesses, profit margins have been squeezed because of abnormally low interest rates. If interest rates rise to the normalized scenario that I described earlier, our net interest margins could expand 2.2%-2.7%, increasing our net interest income and profits by approximately \$6 billion after-tax, all things being equal. This, of course, would take place over three to five years and not in a straight line. But, indeed, all things are not equal – many other factors will have an impact on our business flows and results.

We have been vigilant in trying to analyze the effect of interest rates on interest margins (we have managed the balance sheet to benefit from rising interest rates), and we also have been vigilant in trying to predict the effect of interest rates and Fed monetary policy on deposit flows. There is little question that the Fed's QE policy increased deposits substantially and that, as QE is reversed, it will reduce deposits. It is possible that we could see significant outflows of certain types of deposits over the years – an event for which we will be prepared.

Banks still need to be there in good times and in bad times – but it will be a little harder in the new world

In the last financial crisis, many banks stood against the tide. They were there for their clients and continued to fund businesses, cities, schools, hospitals and investments when many other banks wouldn't or couldn't do so. It is not because these banks were irrational but because that is their job. Imagine yourself being a client of a bank, and, at the first sign of trouble, the bank runs like a rabbit.

The money markets and some of the capital markets are like rabbits – at the first sign of trouble, they run as far and as fast as they can. Human psychology isn't going to change, and even the Fed can only mitigate the effect of this reaction. It is quite possible that some shadow banks will act that way – they may make loans only in good times but not in bad times. So when the regulators finish designing the new system, they should try to keep this in mind.

Many of the new rules have added procyclicality. For example, Basel III capital rules require that risk-weighted assets will go up in a stressed environment. We estimate that between 10% to 20% of our capital may be used in an extreme stressed environment to satisfy additional regulatory requirements, and this will force us more quickly and more aggressively to reduce, or not add to, risk assets as the stressed environment unfolds. And the new liquidity rules require us to hold 100% of liquid assets against possible outflows. So as a crisis unfolds, by definition, we will have outflows higher than expected that will require more liquid assets. This will require the selling of risky assets to buy liquid assets. We hope the regulators will come up with a schematic that allows the use of liquid assets in stressed times without penalty so that banks can continue to lend when times are tough. We certainly don't want to have liquidity or capital rules aggravating a crisis.

And we have many exciting new things coming

We have focused a lot of attention in this letter on the new rules and regulations and on many issues about which we need to be worried. But there still are a lot of initiatives and innovative new products and services coming down the pike about which we are excited. I'd like to mention just a few of them:

- **Better client data management leading to deeper penetration.** In all of our businesses, we are building better client data management systems. This gives us a deeper understanding of our clients and better coordination of our selling efforts. This allows us to more effectively sell additional products to the same customers – which helps drive both profitability and customer satisfaction.

- **Increasing segmentation and focus on more refined market segments.** For example, this includes advertising and products specifically designed for market segments like retirees, women and certain minority groups. Our Commercial Bank has formed specialty lending departments so that, as a whole, this line of business has deep expertise about particular industries. And our mobile banking products will be specifically designed for different market segments. Even in areas where we already are ranked #1, like fixed income sales and trading, when you dig deeper, there still is a lot of room for improvement in certain parts of the world and in certain sub-businesses and products.
- **An exceptional customer experience.** We have been on this journey for a while, and we are getting better, but there is so much more to do. We want to be known for our customer service – and we want to be compared in this regard with the best in the business.
- **JPMorgan Chase Institute.** We are going to form a thought-leading institute backed by all of the knowledge, broad relationships and resources across the firm to help continue to educate the world on topics in which JPMorgan Chase has a distinct and deep knowledge. We intend to analyze and publish our insights on small, middle-sized and large businesses, the development of cities and communities, global trade and capital flows, and workforce development, among other themes.
- **Big Data.** We have created a high-powered group of experts to enhance our use of data (generated across JPMorgan Chase or purchased externally) to create intelligent solutions for our clients. For example, we are looking at our data assets to help clients in managing collateral positions, assist merchants in gaining insights and aid consumers in validating credit reports, among others. This group will have an unending supply of work.
- **ChaseNet.** We announced this initiative last year. It allows us to rethink the whole end-to-end payment experience for both

consumers and merchants. We now have several clients on a beta test, and we are hoping to roll out some exciting programs that are good for consumers and merchants alike.

- **Payments.** While this topic does keep us up at night due to the talent and innovation of the competition that would love to make us obsolete, we should point out that JPMorgan Chase is one of the biggest payment companies in the world (across

credit cards, merchant payments, global wire transfers, etc.). We are even one of the biggest mobile payment companies. So in this space, there is both risk and opportunity. We have some good ideas and action plans so stay tuned!

- **European capital markets.** As the bank markets are shrinking in Europe, the public bond markets will be growing. It is hard for us to compete in the bank lending markets in Europe, but we are very qualified to gain market share in the public capital markets.

THE ROLE OF BANKS IN DEVELOPING SOCIETY

At JPMorgan Chase, we believe we have a responsibility to be part of the solution to the world's most pressing problems, not only because it's the right thing to do but because our own long-term success depends on the success of our communities and the people, companies and institutions we serve.

JPMorgan Chase contributes approximately \$200 million a year – much of it to help the poor and disadvantaged – and our people dedicated more than 540,000 hours of volunteer service in local communities around the globe. The volunteer work that our employees do helps to define the meaning of corporate responsibility by creating tangible connections in communities around the world – from the largest countries to the smallest towns.

And our efforts go well beyond philanthropic work. We also develop programs that bring together our financial capital, as well as our core strengths, capabilities, and the expertise of our business and our people to help improve the world in which we live. It is a big responsibility to be a bank – and communities around the globe are better off if we do it well.

We will continue to use our size, scale and expertise to make a difference and to be a real, positive contributor to society – from fighting income inequality to improving education and work skills. I see evidence of the difference we make every day, and following are just a few examples that I'd like to mention.

Helping Close the Skills Gap

Even in the face of high unemployment, we hear from our clients daily about how hard it is to find workers with the right skills. Some 4 million jobs stand open, while 11 million Americans remain unemployed, and millions more have given up seeking employment. That's why we launched New Skills at Work, an unprecedented \$250 million, five-year private sector initiative to improve job training at the middle-skill level (for jobs that require training beyond high school but not a four-year degree). The sense of urgency to address this issue is something we see everywhere we do business, and we are working with community leaders across the country – community colleges, technical training programs, policymakers and employers – to tackle the skills gap. We know that helping workers gain the skills they need is only one part of the solution to the unemployment challenge, but it is an area we can do something about right now. And JPMorgan Chase is uniquely suited to the task of rallying a broad range of business leaders around the goal of aligning our investments in education and skills training with current job openings and future career pathways.

- **Emerging markets.** As the world grows, so does the number of countries and companies that we can serve. Every time we open an operation in a country, we support companies from around the world to do business there – and we help the country’s companies explore the world. The network effect is huge and hard to duplicate.

Taking everything on balance, all the risks and all the opportunities in what essentially is an improving and growing world, we remain optimistic about the future of banking.

Improving Educational Outcomes for Young Men of Color

We’re also willing to roll up our sleeves. Over the last four years, our employees coached 24 young men of color from low-income New York City neighborhoods – where less than 30% of black and Hispanic males graduate from high school – in an end-to-end program that supplemented their academics, gave them leadership training and helped them apply for college. All 24 got into college – they started last fall – with \$8 million in scholarships, and we’re hoping we see them this summer in internships here.

Attracting Private Capital to Social and Environmental Challenges

Foundations and governments, with their limited resources, can do only so much to solve the challenges facing low-income populations around the world. To make progress at the scale required, we need to create vehicles that attract private capital and apply it to generate measurable social and environmental benefits – alongside financial returns. The Global Health Investment Fund that we established with the Bill & Melinda Gates Foundation raised private capital to invest in new drugs and vaccines, emerging diagnostic tools, child-friendly formulations of existing products, and technologies to reduce maternal and infant mortality – all focusing on diseases that disproportionately affect the world’s poorest countries. By including global access requirements, products are available at affordable prices to the populations most in need. And we’re working now with The Nature Conservancy to establish a new center for natural capital investing that will structure transactions that generate revenue from sustainable use of a property – monetizing habitat protection, water conservation, sustainable timber harvesting, wetlands, etc. Stay tuned for more on that.

Serving Cities as Clients and the Engines of Economic Growth

JPMorgan Chase continues to focus on ways to help metropolitan communities operate and grow. We offer states and cities our best advice and considerable financial support. Last year, the firm provided more than \$85 billion in capital or credit to nearly 1,500 government entities, including states, municipalities, hospitals, universities and nonprofits.

We extended the reach of our Global Cities Initiative with The Brookings Institution by creating a network of trading cities across the United States and ultimately around the globe – these are cities that will build new commercial relationships by strengthening trade and investment ties and by learning from each other about how to grow industries with real export potential. Our Global Cities Initiative with Brookings, which we launched two years ago, includes a \$10 million financial commitment and the ability to tap our network of relationships around the world to convene an extraordinary series of events in cities from Los Angeles to São Paulo. These sessions bring together policymakers, business leaders and non-governmental organizations to share best practices and formulate strategies for improved competitiveness. As a result of these meetings, participants are developing locally driven, actionable strategies to strengthen their respective region’s trade and investment practices.

IN CLOSING

It is important to acknowledge that no matter how good one's position is, no one has a divine right to success. Many of you have seen companies in extraordinary positions erode over time. Sometimes this happens because of structural or technological changes, but, frequently, it happens because of plain and simple mismanagement. And this is even more true when you operate in tough, complex, competitive and sometimes volatile global markets.

So to succeed long term, we need an excellent management team. And in my opinion, your management team has the character, culture, intellect, experience and wisdom necessary to succeed.

And importantly, this management team does not rest on its laurels and is continually questioning itself and often focusing not on what we do well but on what we have *not* done well. Years ago, the U.S. military adopted a review process called the After Action Reviews (AAR). An AAR is a disciplined process where military leaders review the results of all missions taken. This examination is conducted not so the commanders in charge can find faults and point fingers – but so everyone can continually get better. At our company, we have the same attitude and just hope that we can do it half as well as the U.S. military.

In closing, I want to reiterate how honored I am to work at this company and with its people. What they have accomplished during these difficult circumstances has been extraordinary. On behalf of JPMorgan Chase and its management, I want to express my deepest gratitude to our people – I am proud to be their partner.

A handwritten signature in black ink, appearing to read "Jamie Dimon". The signature is stylized with a large, sweeping initial "J" and "D".

Jamie Dimon
Chairman and Chief Executive Officer

April 9, 2014

Safeguarding the business



Matt Zames

Our goal is to be the safest, soundest and most profitable financial services company in the world, doing the highest-quality business and delivering to our clients and customers best-in-class products every day. How we operate as a company is key to accomplishing that goal. Looking across our entire enterprise, the Chief Operating Officer's office drives many of the processes and corporate utilities, as well as the infrastructure, to that end, ranging from managing the firm's liquidity, funding and structural interest rate risk to overseeing strategic firmwide functions such as global Technology and Operations, Oversight and Control, Compliance, Corporate Strategy and Regulatory Affairs, among others.

In the past year, we re-prioritized our major projects and initiatives, deployed massive new resources and refocused critical managerial time on these efforts. We've enhanced significantly our governance process and developed a system for management reporting that enables much greater transparency up to senior management and our Board. We are

simplifying our business model, eliminating products and services that are not essential to serving our customers and are not core to our businesses. We are ensuring that our systems, practices, controls, technology and, above all, culture meet the highest standards.

Liquidity and interest rate risk management more critical than ever

Last year, we continued to advance our approach to liquidity and interest rate risk management, cornerstones of safety and soundness. We have focused on striking the appropriate calibration when it comes to managing our balance sheet, protecting the deposits our clients and customers entrust to us and, ultimately, our shareholders.

2013 represents a year of significant progress in managing the firm's liquidity risk. We evolved our internal liquidity framework to ensure that the firm has sufficient liquidity resources to continue business-as-usual operations under both a short-term and prolonged market and company-specific stress. Consistent with this new framework, we more

narrowly defined the JPMorgan Chase liquid asset buffer available to meet short-term liquidity needs to be more conservative and consistent with the scale of our balance sheet. We further built out technology that will enable more flexible and timely liquidity stress testing for the enterprise and our major legal entities. Our internal framework is more conservative than the related Basel liquidity measures. Compliance with our framework, which was achieved in 2013, results in the firm exceeding regulatory minimums, notably the Basel III Liquidity Coverage Ratio. Of course, we are diligent in understanding new regulations as they are introduced and stand ready to comply.

We continued to make strides in advancing our Asset-Liability Management (ALM) capabilities, which are critically important as we contemplate the reversal of Fed monetary policy and the ensuing impact on interest rates. We established a global ALM portfolio strategy team in 2013, whose mandate includes working across the firm to ensure consistency in our analytical approach and modeling in relation to structural interest rate risk. A significant area of focus for us this past year was advancing our scenario and analytical capabilities, including materially investing in our technology and supporting infrastructure to allow for more dynamic analysis.

We continue to actively and conservatively manage our substantial investment securities portfolio, which is the primary vehicle we use to manage our firmwide structural interest rate risk. In 2013, we applied held-to-maturity accounting for certain investment securities the firm purchased, which will help to mitigate Basel III capital volatility in a

rising rate environment. The average yield of our investment securities portfolio increased by more than 50 basis points from 4Q 2012 to 4Q 2013, reflecting our ability to deploy new investments at higher yields throughout the year.

We have put enormous resources on the control and compliance agenda

We have developed and implemented an end-to-end control and compliance agenda, central to which is early issue identification and escalation and sustainable remediation. Over the course of 2013 and 2014, we will have increased our total spend on that agenda by approximately \$2 billion.

We are looking at issues on a firmwide basis

One of the things we focused on last year is a series of firmwide reviews – issues raised by our regulators and issues we identified internally – that we thought should be examined on an enterprise-wide basis. We stood up 24 separate programs and dedicated teams around the globe to look at these issues across businesses and geographies to make sure we are appropriately and consistently managing the associated risks. They include matters like Anti-Money Laundering (AML), Basel implementation and how we evaluate new business initiatives. Oversight of our tens of thousands of vendors across our front and back offices is another example of a process we re-evaluated, so that across our company, we manage these relationships and their associated risks to a common set of highly developed standards. We report on these programs regularly to our Board of Directors.

Another thing we worked on in 2013 is how to take problems we find in one area of the firm and determine whether there are any similar risks in another part of the firm. We created a state-of-the-art controls room in our executive headquarters to maintain a repository of firmwide control-related information and to enable rapid access to relevant data, reporting capabilities, sophisticated analytics and more proactive issue identification.

We have made substantial progress in AML

We also are deploying unprecedented resources, dedicating senior managerial time and prioritizing efforts to build and maintain an industry-leading AML program. By the end of 2014, we will have dedicated close to 8,000 full-time employees solely to AML. We are making progress in strengthening our ability to measure AML risk, are improving how we onboard clients and perform customer due diligence, and are enhancing how we monitor client transactions to detect potentially suspicious activity. At the same time, we have taken substantial steps to de-risk, or simplify, our businesses. We have exited more than 500 relationships with foreign correspondent banks and are moving any accounts for foreign government officials/politically exposed persons out of Consumer Banking.

We want to make sure we have nothing but open and honest dialogues with our regulators

We have hundreds of regulators around the globe and are examined extensively each year. We also have thousands of documents and data points we periodically share with them. It is imperative that we are fully transparent with our regulators at every level of our organization.

We pay close attention to our regulatory environment, not only to make sure we behave in ways consistent with the spirit as well as the letter of the rules but to anticipate the evolving regulatory agenda. I personally meet with our primary regulators at least twice a month to make sure we as a company understand their expectations and fully address them.

Technology drives the experience of our clients and customers and our risk and controls management

Technology fuels almost every aspect of this company and is a core part of our value proposition to clients and customers. Over the past five years, the firm has invested 8%-9% of its annual revenue to fund our global technology capabilities. This is one of our largest investments as a company. Technology enables our business growth, supports our worldwide operations, helps us build stronger controls and meet regulatory requirements, enhances our productivity and efficiency, and, most important, protects the safety of our clients' assets.

The scale of our businesses continues to expand. Information Technology (IT) supports 300,000 desktops, 58,000 servers in 32 data centers, 26,000 databases and 7,250 business applications. Our global telecommunications network connects our presence in 60 countries along with our 5,600 Chase branches and 19,000 ATMs. Technology in our Consumer business supports 30+ million customers via our digital platform and 15+ million customers using our innovative mobile capabilities. In our Corporate & Investment Bank (CIB), we process up to \$4 trillion of U.S. dollar payments daily.

Innovation is happening across our business lines every day. Our Consumer Branch of the Future is powered by IT innovation. Our recently completed Strategic Reengineering Program in the CIB has improved efficiency by hundreds of millions of dollars. IT is improving not only the speed and scale of our credit card authorizations but has enhanced our fraud protection capabilities and is the engine behind new, innovative products, including Blueprint™.

Each year, we invest hundreds of millions of dollars in our risk and controls technology agenda. A sizable part of this investment is dedicated to ensuring that we have the systems to identify problems – whether these problems have to do with AML risk, fraud risk or something else – on a real-time basis. A core objective of our technology strategy is to reduce variability and increase consistency and standardization. As such, one of our most important goals is to lessen our reliance on manual controls, which are more susceptible to human error. We also are seeking to substantially reduce subjectivity to allow for a more consistent and predictable way to identify control gaps in the environment. Systems enhancements, including information technology and data architecture, are critical to the broad management of financial risks.

Our technology environment continues to be tested. In the past two years, we have faced unprecedented cyber threats from sophisticated adversaries bent on wreaking havoc in the financial industry. Two years ago, we saw a rise in “denial of service” attacks aimed at disrupting the

flow of financial transactions. We have invested heavily in improving our overall cyber defenses and dramatically improved our ability to withstand these attacks. However, as the threats continue to grow and attacks continue to evolve, it’s crucial that we evolve as well and focus on tomorrow’s threats, as well as today’s. To that end, we’ve nearly doubled our investment in cybersecurity, including deployment of increased monitoring and protection technology, and we’ve expanded the number of dedicated cybersecurity professionals in the company to focus on protecting our customers and our staff.

Last year, we kicked off an effort to develop multi-year technology plans for our businesses and corporate functions that reflect the firm’s top priorities and business requirements. These “road maps” will enable us to manage the firm’s technology investments against the backdrop of a strategic plan, which we’ll continue to revisit and refine.

As we look to 2014, our reliance on technology will continue to expand. We will spend close to \$250 million on our cyber capabilities. IT will be at the core of what we need to do to adapt to the new global financial architecture and to meet regulatory requirements, including AML, Comprehensive Capital Analysis and Review (CCAR), Volcker and Dodd-Frank, among others. We will leverage our internal cloud platforms to further improve the efficiency and time to market for our IT infrastructure. Each of our business lines has a robust set of strategic initiatives. Whether it is upgrading our next-generation digital and mobile programs, enhancing our Asset Management Solutions business,

improving our e-trading platforms, enabling growth in Commercial Banking or making our corporate functions more effective, technology is core to the delivery.

Conclusion

Not every organization has the leadership team, the talent and the fortitude to make this level of investment for the future. We feel privileged to be able to do so on behalf of our clients, our customers and our shareholders. I could not be more proud of our employees and our accomplishments to date. 2014 is another important year for us, and I am confident that we will continue to deliver at the level you expect of us – holding ourselves, our business practices and our culture to the highest standards.



Matt Zames
Chief Operating Officer

Consumer & Community Banking



Gordon Smith

Across Consumer & Community Banking (CCB), we are growing our business by building lifelong relationships with our customers. Throughout 2013, we maintained our strong momentum in creating a great customer experience across all of our channels. Chase ranked #1 among the largest banks by the American Customer Satisfaction Index (ACSI) for the second year in a row, and J.D. Power and Associates ranked us #1 in customer satisfaction in three out of four small business banking regions. These are all significant improvements from three years ago.

We started with the simple theory that if we treat people well, they will want to do more business with us; and this steady focus on improving the customer experience is working. We have relationships with nearly half of the households in America, and that number is growing. The number of households that we serve in Consumer Banking is up 5% from 2012. Average total deposits are up 10% from a year ago, and we've

grown deposits at a rate that's more than twice the industry average – that's more than any other bank for the second year in a row.

But improving our customers' experiences does *not* mean being all things to all customers. Reducing operational complexity and simplifying our products were top priorities for us in 2013. Complexity can kill a great customer experience. In 2013, we exited products that were not core to our business or that served only a small number of customers. These products more often led to uneven experiences for customers, added complexity for our employees and required additional operational support. As one example, we have greatly streamlined our Mortgage products and programs. In 2010, we offered a suite of 37 products/programs in Mortgage. Over the course of 2013, we reduced them to 25, and throughout 2014, we will further reduce them to 15.

In 2013, we made significant investments in improving our controls. It was a challenging year, and I am very proud of all our Chase colleagues who stepped up to tackle these

issues. Having strong controls is simply how we do business going forward, and it will make us a better, more efficient company. We still have work ahead in 2014, but I am confident that as we start 2015, we will have put many of these legacy issues behind us.

Exceptional franchise

CCB is an exceptional franchise with leadership positions across our businesses. I wouldn't trade our portfolio of businesses for anyone's. We are the #1 credit card issuer in the U.S. based on loans outstanding, the #1 Small Business Administration (SBA) lender, the #1 U.S. co-brand credit card issuer, #1 in total U.S. credit and debit card payments volume, the #2 mortgage originator and servicer, and the #3 bank auto loan originator.

In addition, we are leading the way in making it easier for our customers to do their banking when they want and how they want. Chase has the #1 ATM network, #2 retail branch network and #1 mobile banking functionality, and chase.com is the #1 online financial services destination. Few, if any, banks can provide customers the quality of products and channels that Chase can.

2013 financial results

In 2013, CCB delivered strong results in a challenging environment. Our net income was \$10.7 billion, up slightly from \$10.6 billion in 2012. Our revenue of \$46.0 billion was down 8% from \$49.9 billion in 2012, driven by lower mortgage production volume as fewer Americans refinanced when interest rates rose in the second half of the year. We also felt the impact of lower deposit margins and lower loan balances. We ended 2013 with a strong return on equity of 23%.

CCB had double-digit growth in most of our businesses. Consumer Banking average deposits were up 11%, client investment assets were up 19%, Business Banking average deposits were up 13%, credit card sales volume was up 10%, merchant processing volume was up 14% and auto originations were up 12%. These numbers are the strongest we've seen in years. The outlier was mortgage originations, which were down 8%, consistent with the industry.

Here are some highlights from our individual business units:

- Consumer & Business Banking net income of \$2.9 billion was down 10% from 2012, but net revenue of \$17.3 billion was up 1%. Chase Private Client (CPC) continues to be a big success with our customers. We reached a record \$189 billion in client investment assets. Our net new investments per household have grown 77% per year since 2010. To date, we have opened roughly 2,150 CPC locations to serve more than 200,000 clients. We remain the #1 SBA lender for the fourth year in a row even with Business Banking loan originations down 21% from 2012.
- We are managing Mortgage Banking toward becoming a smaller, higher-quality and less volatile business. While Mortgage Production was strong in the first half of the year, our origination volume dropped 37% in the second half as rates increased. As a result, our full-year net income was \$3.1 billion, down 8% from 2012. Return on equity was 16% for 2013. Although these results are lower than last year when production volume was a record, we are pleased that Mortgage Banking is maintaining profitability.

- Card, Merchant Services & Auto performed exceptionally well in 2013. Net income was up a very strong 19% to \$4.8 billion from \$4.0 billion in 2012, driven by lower provision for credit losses. Card Services sales volume of \$419.5 billion was up 10% year-over-year, outperforming the industry for the 23rd consecutive quarter. Credit trends continue to improve, and charge-off rates continue to fall to historic lows. Our 2013 net charge-off rate for Credit Card of 3.14% was down from 3.95% in 2012.
- Over the years, Chase has developed a leading end-to-end payments franchise. Merchant Servicing processing volume of \$750.1 billion was up 14% year-over-year, and transaction volume of 35.6 billion was up 21%.
- In Auto, our average loans were up 5% year-over-year, and originations were up 12%. The Auto net charge-off rate of 0.31% was down from 0.39% in 2012. In 2013, we also made the strategic decision to stop student loan originations. Student loan originations were becoming a smaller and smaller part of our business, and we chose to further de-risk our franchise by getting out of that product.

Expenses

CCB expenses were down by nearly \$1 billion, or 3%, during 2013, and we will continue to drive out waste and improve efficiency. We are pleased that we met or exceeded our expense and headcount targets for 2013. Going forward, we have set a more ambitious goal to exit 2016 with expenses nearly \$4 billion lower than they were in 2013. We intend to meet that goal while making further investments in controls,

technology and self-service channels. We are keenly aware that every dollar of our budget is a dollar of shareholders' money, and we intend to manage our business with extreme financial discipline while producing strong, long-term returns.

2014 priorities

As we move into 2014, we recognize that the environment in which we operate has fundamentally changed. Our core strategy includes **further strengthening our controls, investing in digital service and running great community branches.**

Further strengthening our controls

Controls remain the #1 priority for the firm.

In 2014, CCB will invest approximately \$500 million more in technology-related controls. That investment will be directed at automating manual processes and reducing complexity for our employees and our customers. We believe these investments will more than pay for themselves with fewer errors, more consistency and a higher-quality service experience for customers down the road.

Investing in digital service

Technology is changing our business rapidly, and consumer adoption of digital and mobile channels is staggering. In just the past three years, customer deposits made through self-service channels increased from 38% to 53%. The number of active mobile customers has more than tripled from 2010. Technology is driving service enhancements for our customers that will not only improve their banking experience but will serve them more efficiently and lower our cost base.

As an example, in December of 2013, we launched an Ultimate Rewards mobile app for our customers to redeem their credit card points. Within the first month, mobile reward redemptions reached 15%. Customers are very pleased by how easy it is to cash in their points. It's also far more efficient to do so; a mobile redemption costs about a penny vs. \$3 through a call center. Technology innovations really are a win-win. They make banking more convenient for our customers *and* reduce our cost to serve them.

We intend to continue to be at the forefront of innovation in Payments. In 2014-2015, we will roll out two new features – Chase Wallet and Pay with Chase. Chase Wallet will greatly simplify online and mobile shopping for our customers by allowing users to access all their credit and debit cards, including non-Chase cards, in one digital wallet. And unlike other digital wallets, the Chase Wallet will automatically update the Chase card numbers when cards are replaced.

Chase Quick Checkout will give customers a “Pay with Chase” option when they shop online. Using their Chase log-in, they can access their digital wallet, select a payment option and place their order. It will reduce the online/mobile checkout from about two minutes to roughly 30 seconds. It's more convenient and safer for customers, and online businesses should see increased sales and lower shopping cart abandonment.

Running great community branches

Branches remain very important to our customers. More than 95% of Chase accounts are opened in a branch, and branches are essential to

our other businesses across JPMorgan Chase. For example, 55% of Commercial Banking customers and 35% of Private Banking households visit a Chase branch every quarter. Branches are a core distribution channel for our other products as well – 55% of retail mortgages are originated through a branch, and 40% of Chase-branded credit cards are sold through the branches.

Branches aren't just a store – they also are centers of community. During and after severe storms or community crises, we've seen people come to the branch for help. They come in to make calls and charge their phones when they are out of power or they stop by simply for a hot cup of coffee. In addition, we've hosted events in branches on how to manage a small business or to better understand personal finance.

Branches will always be the lifeblood of our business, but we are seeing foot traffic and transaction volume come down as more customers prefer to do their daily banking online and through mobile. Teller transactions have declined 4% per year from 2010 to 2013, and nearly 60% of all traditional branch transactions now are handled through self-service channels.

Over the past several years, we have built out our network in growth markets, and that expansion now is complete. We have a terrific network to serve customers, and we plan to keep the number of branches in our footprint in the current range. We will further optimize the network we have – opening locations where we see growth opportunity and consolidating where we have enough density or low traffic. As always, customer behavior and satisfaction will drive those decisions.

The branches are changing. We used to talk about the “branch of the future,” and, in many cases, it's here. Branches are becoming more and more automated. Today, over 300 branches have Express Banking Kiosks, which are designed to perform 85% of what can be done by a teller. Today's branch also will be more focused on providing great financial advice from one of our experts. If you haven't been to a Chase branch lately, I encourage you to stop by. We've come a long way.

Conclusion

I'm proud to work at Chase. Our more than 150,000 employees work so hard to help customers achieve their goals, whether assisting in a branch or a call center or working hard behind the scenes. Thank you to our shareholders for your investment in us, and thank you to our customers for your business.

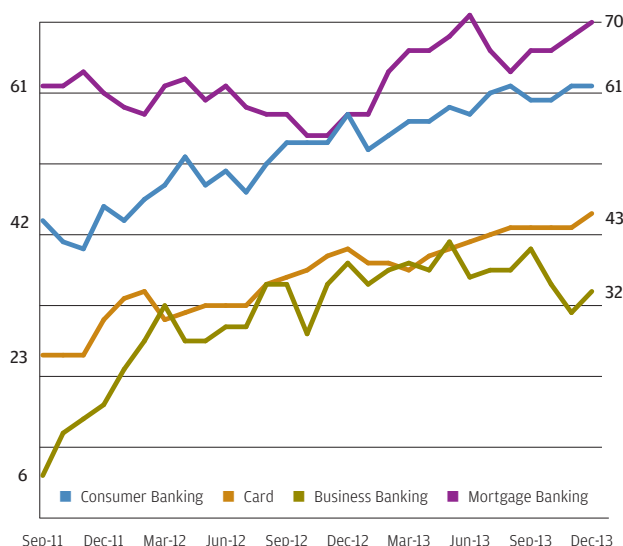


Gordon Smith
CEO, Consumer & Community Banking

2013 HIGHLIGHTS AND ACCOMPLISHMENTS

- #1 in customer satisfaction by ACSI among the largest banks for the second year in a row
- #1 in customer satisfaction by J.D. Power and Associates in three out of four small business banking regions
- #1 SBA lender for the fourth year in a row
- #1 for women-owned and minority-owned SBA loans
- Deposit growth more than double the industry average
- Customer relationships with almost half of U.S. households
- #1 credit card issuer in the U.S. based on loans outstanding
- #1 online financial services destination (chase.com) and #1 mobile banking functionality
- #1 in total U.S. credit and debit payments volume
- Record credit card sales and client investment assets
- #2 mortgage originator and servicer
- #1 ATM and #2 retail branch network for the second year in a row
- #2 wholly owned merchant acquirer
- #3 non-captive auto lender
- #5 in customer satisfaction by J.D. Power and Associates in mortgage originations and servicing
- 135,000 homeowner foreclosure preventions
- 360,000 downloads of the Chase My New HomeSM mobile app

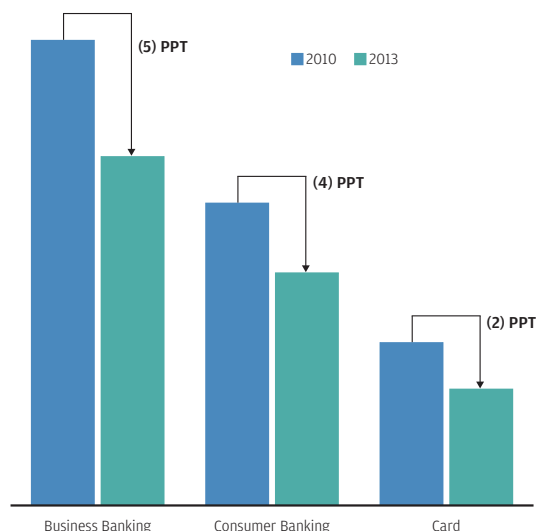
Net Promoter Score¹



Source: Internal data

¹ Net Promoter Score (NPS) represents the percentage of customers who say they would definitely recommend Chase to a friend or colleague (promoter who gave Chase a rating of 9 or 10 on a 10-point scale) vs. those who would not (detractors who gave Chase a rating of 0 to 6); a higher NPS signifies greater customer loyalty

Household Attrition² by Business Line



Source: Internal data

PPT = Percentage points

² Households that close all Chase accounts



The future is here

Chase reopened its Water Street branch in downtown New York City after flooding from Superstorm Sandy destroyed it. The new Chase branch design uses some of the most advanced technology for customers. Chase has been redesigning many of its new locations to this format, about 400 in total.

Corporate & Investment Bank



Daniel Pinto

As the world's economy regained momentum in 2013, J.P. Morgan's Corporate & Investment Bank (CIB) solidified its leadership in an increasingly global financial market.

A truly global business, the CIB has 52,250 employees in 60 countries with a mission to serve 7,700 of the world's most significant companies, governments and institutions. To provide those clients with the range of services they need, more than 13,000 employees are in front office lines of business such as banking, markets, investor services and research. The remainder is primarily dedicated to technology, operations, risk and finance to ensure we have best-in-class controls and a robust operating infrastructure.

Demonstrating our ability to deliver strategic solutions, we helped clients raise nearly \$500 billion in the public equity and bond capital markets in 2013, according to Dealogic. Overall, the CIB provided credit and raised capital for clients of more than \$1.5 trillion¹ in 2013. Of that, \$65 billion² was raised on behalf of states, local governments, hospitals, school dis-

tricts and nonprofits, providing them with necessary funds to build schools, roads and college facilities and to support other infrastructure projects.

Markets revenue of \$20 billion was up materially from the level in 2006, at \$12 billion. More than 85% of the 2013 markets revenue was attributable to client-driven, flow-oriented products.

On the processing side of the CIB's operations, J.P. Morgan continues to rank as the #1 U.S. dollar clearer, processing up to \$4 trillion of U.S. dollar payments daily. In our custodial business, clients entrusted the firm with a record \$20.5 trillion in assets under custody, up 9% from 2012.

When J.P. Morgan combined the strengths of the heritage Investment Bank and Treasury & Securities Services in 2012, the aim was to ensure that clients benefit from the most effective mix of products, delivered in the most integrated way. Now organized within the CIB as Banking and Markets & Investor Services, the businesses have been aligned to promote their working together across sales, products and services, a structure that makes cohesive sense for our clients.

That collaborative structure enables the CIB to cover clients more comprehensively. Recognizing that trust is the cornerstone of our client relationships, we are committed to recommending only the solutions that serve our clients' long-term objectives. We never forget that their success is the best measure of our own.

We also know that our work for clients helps support a healthy global economy. Our deep and broad relationships enable us to connect investors looking for promising opportunities with the corporations and governments looking to access capital.

By raising money or by guiding a business through its initial public offering, we are providing clients with the resources they need to grow, to develop new products or to extend their footprint into new markets. When our Treasury Services business provides clients with liquidity management solutions for cash balances or helps clients secure trade financing, we're helping those clients enhance their operational efficiency. And when our Public Finance business provides financing for a metropolitan transit system, we're helping cities work better and improve the environment.

Those positive results ripple through the global economy. Ultimately, they help raise standards of living, expand job opportunities and create innovative technologies. We are proud of our accomplishments and look forward to continuing our work in 2014.

Our 2013 financial performance

The CIB's product strength and client focus were evident in our leadership roles on some of the major landmark transactions of 2013:

- J.P. Morgan advised Verizon on its \$130 billion buyout of Vodafone's

45% stake in Verizon Wireless, serving as global coordinator, joint lead arranger, joint bookrunner and administrative agent on Verizon's \$61 billion bridge facility, the largest corporate debt facility ever, and as joint bookrunner on the subsequent \$49 billion bond. This transformational deal drew on the expertise of J.P. Morgan's franchise across multiple product and coverage groups globally.

- Just two days later, we followed that up with another significant transaction for a telecommunications company – a \$6.5 billion bond offering for Sprint, the largest high-yield transaction ever sold to investors. The two transactions, coming within days of each other, made it a week the Technology, Media and Telecommunications team will long remember.

- In equities, Facebook closed out 2013 with a \$3.9 billion follow-on offering, with J.P. Morgan acting as joint bookrunner. This was the largest follow-on offering of 2013 and the second-largest technology follow-on since 2006.
- In Public Finance, we came through for public agencies around the U.S. During the year, it led a \$656 million series of bonds to modernize housing for New York City's lowest income residents and to refund previously outstanding debt. It served as senior manager on a \$1.5 billion bond offering for JobsOhio, a unique program aimed at growing existing jobs and attracting new ones to the state, and was lead manager on \$1.3 billion in revenue bonds for the University of California in a refinancing

transaction that produced more than \$200 million in debt service savings for the university system.

What distinguishes the CIB further, beyond our strong product capabilities, is how our integrated model works for our clients.

Because of that integrated approach, a leading European insurance company, after assigning a custody mandate to our Investor Services unit, also ultimately benefited from a credit facility from J.P. Morgan. And when a large asset manager, with a historically long relationship with the firm across Markets, Banking and Custody, needed prime brokerage services, it chose J.P. Morgan.

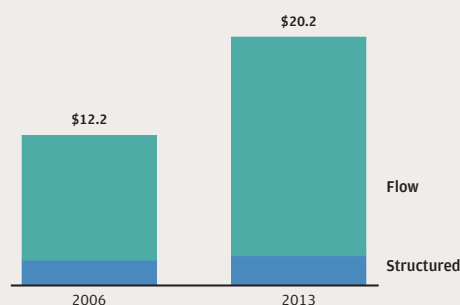
Turning to our financial results, 2013 was a strong year for the CIB, which reported net income of \$8.5 billion

CIB Integrated Client Coverage Model



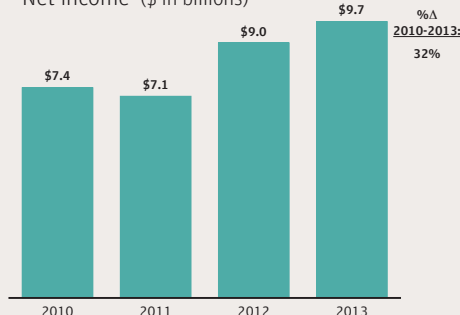
Markets Revenue Dominated by Client-Driven Flow Business

Markets revenue by flow vs. structured (\$ in billions)



Strong Earnings Power

Net income¹ (\$ in billions)



¹ Net income excludes funding valuation adjustments (FVA, effective 4Q 2013) and debit valuation adjustments (DVA)

on revenue of \$34.2 billion and a reported return on equity of 15%. Excluding the impact of funding and debit valuation adjustments (FVA and DVA), the CIB delivered net revenue of \$36.1 billion³; net income of \$9.7 billion³, an increase from last year's \$9.0 billion³ and up 32% from 2010; and a return on equity in 2013 of 17%³, one of the strongest in the industry.

Our share of total industry revenue continues to grow. We put more distance between ourselves and our competitors with market share gains, as measured by both fee wallet and markets revenue share.

In an industry where investment banking fee wallet grew by 11% compared with the previous year, J.P. Morgan's wallet share advanced 110 basis points, according to Dealogic, more than what most other large firms experienced. Along with our #1 ranking in Global Investment Banking fee wallet share, Dealogic ranked J.P. Morgan, based on volume, #1 in Global Debt, Equity and Equity-Related; #1 in Global Long-Term Debt; and #1 in Global Loan Syndications. J.P. Morgan also earned a strong position in Global Equity and Equity-Related and Global M&A Announced, ranking #2 in both categories. Our M&A teams advised on eight of the top 10 transactions announced globally in 2013, ranking #1 in the U.S. and #2 in the Europe, Middle East and Africa (EMEA) region.

On the Markets side, we are a leader in fixed income, with an 18.6% market share in 2013, up from 15.6% in 2012⁴. We also earned a strong market position in Equity Markets this year, and we continue to be focused on moving from our current #4 equity markets overall revenue position⁴ to a top three ranking as we

build out key areas within our franchise. The CIB's Equity Markets performance in 2013 was materially strengthened by our #2 position in derivatives, according to Coalition, and the investments made in our electronic capabilities, which now are on par with the market leaders.

As noted above, our markets revenue is well-diversified, with the majority derived from client-driven, flow-oriented products. The remainder is driven by structured products, which are geared toward helping clients with their more complex risk management and other needs.

Across the spectrum of products in Banking and Markets & Investor Services, the CIB ranked among the top three in 15 out of 16 key product categories in 2013⁵. While we take pride in those rankings, we never are complacent about them. Nor do we take them for granted. The rankings are not the goal; they're a reflection of the quality of our product offerings, the dedication of our people to serving clients around the globe and a demonstration of our clients' increasing interest in working with us.

International reach

We are committed to having a presence where our multinational clients need us to be. And we intend to actively assist developing corporations in pursuing their growth aspirations so they, too, can take their place among the next generation of multinationals. Virtually half of the CIB's revenue today stems from international business activities and has grown at a compound annual growth rate of 5%³ since 2010. More than 60% of our clients are international. Of our total employees, close to 60% are based in offices throughout EMEA, Asia Pacific and Latin America.

This international platform lays the foundation necessary to provide our multinational clients with the coverage to serve their needs, both in their headquarters and in subsidiary locations. Our international focus is not new. We've been in China for 93 years; we've done business in the United Kingdom since the mid-1800s; we've been in Mexico for more than 100 years. We are one of the few institutions that has the commitment and resources required to maintain a global client and product network of this magnitude. Although we continue to see growth in our existing international platform, the pace of that growth may slow in the near future as we ensure that we have best-in-class controls.

Being invested globally requires a long-term view as inevitable periods of volatility will arise from time to time. It's during those times, when capital is more scarce or when market-making becomes more challenged, that our clients need us the most. That's when our steady presence helps cement client relationships in a way that's lasting years later.

Our 2014 priorities

In 2013, our leadership across the breadth of Banking and Markets & Investor Services positioned us well to build on our strengths and provide clients with the financial tools to seed their growth and economic vitality into the future.

In support of these objectives, the CIB's 2014 priorities are focused on three broad pillars:

- Optimizing our business mix while investing in core growth opportunities;
- Adapting to the evolving regulatory landscape and market structure changes; and

- Maintaining expense discipline while absorbing increased regulatory and controls costs.

As the CIB, we strive to be at the forefront of market structure changes. As a major custody bank and leading broker-dealer, we are well-positioned to act as the agent of choice for clients – taking them from execution to clearing and custody. By our estimate, we have a top-three share in over-the-counter clearing and are connected with all the major swap venues. We also are assisting our clients to adapt to market structure changes through creative, new offerings such as Collateral Central. Launched in 2013, the service helps clients manage their collateral across multiple venues and enables them to continually track and optimize the use of their available assets against their obligations across all counterparties. And finally, also in the Investor Services space, our international prime brokerage platform has seen significant growth from EMEA-based managers since its 2011 launch, and as our Asia core platform now is live, we expect to ramp up meaningfully over the next several years.

Across Markets, we continue to develop our electronic market-making capabilities in equities, as well as in fixed income. We've seen significantly greater e-trading volume in both foreign exchange and equities since 2011, and we were the top-ranked bank by volume in U.S. Treasuries trading on electronic interdealer platforms in 2013.

While we are investing in these growth opportunities, we are selectively exiting certain activities – such as the Global Special Opportunities Group and our physical commodities business – having determined that they are not core offerings to our clients or no longer fit our desired risk profile. We do not expect these exits to meaningfully affect the CIB's return profile.

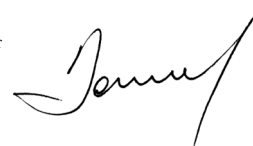
Our integrated platform of core businesses provides us with significant economies of scale, and our financial strength allows us to make the investments necessary to ensure compliance with an expanding set of regulations. By maintaining a disciplined approach in expenses, we have been able to largely offset increased spending on regulatory assessments and controls. In fact, the market share gains achieved during

2013 occurred even as the CIB's overhead ratio was reduced from 62%³ in 2012 to 60%³ in 2013.

Closing thoughts

Deep market knowledge, a global platform and long-lasting client relationships built on trust have served our firm and our clients well. We are a market leader because we set the standards for what can be done, not what has been done before.

Our top priority remains helping our clients achieve their objectives with the best possible advice and products we can provide. Since the formation of the CIB, clients have shown they are embracing our model and actively seek the range of capabilities and expertise we possess. With the continued energy and commitment that our employees demonstrate, we expect to earn our clients' business again this year, setting new standards for their success – and for ours.



Daniel Pinto
CEO, Corporate & Investment Bank

2013 HIGHLIGHTS AND ACCOMPLISHMENTS

- The CIB provided credit and raised capital of more than \$1.5 trillion¹ for clients in 2013, up 20% from 2012
- The CIB ranked among the top three market positions in 15 out of 16 major products⁵
- Assets under custody reached a record \$20.5 trillion, a 9% gain over 2012
- Key growth initiatives include global prime brokerage, electronic trading and market structure changes
- The CIB produced net income of \$9.7 billion³ in 2013, up 32% from 2010, and a return on equity of 17%³
- J.P. Morgan ranked #1 in Global Investment Banking fees, with an 8.6% share, up from 7.5% in 2012, according to Dealogic
- There are 52,250 employees globally, serving approximately 7,700 clients in 60 countries

¹ Dealogic and internal reporting

² Thomson Financial, internal sources

³ Net revenue, net income, return on equity and overhead ratio, excluding FVA (effective fourth quarter 2013) and DVA, are non-GAAP financial measures. These measures are used by management to assess the underlying performance of the business

⁴ Represents rank and share of J.P. Morgan Fixed Income Markets and Equity Markets revenue of 10 leading competitors based on reported information, excluding FVA and DVA

⁵ Dealogic, Fedwire & Clearing House for Interbank Payments System, Coalition and internal reporting

Commercial Banking



Douglas Petno

In Commercial Banking, serving our clients is at the heart of everything we do. Each day, we come to work to generate ideas, deliver solutions and provide capital to help them grow and succeed. We take a long-term view and stand by our clients in tough times.

It is difficult to capture in words the strength of our relationships. There are so many incredible stories that I could share, but one of the most memorable came from a small business owner in Cleveland. He described how his international operations were crippled by the tsunami in Japan in 2011, and when – despite their 40-year relationship – his former bank refused to help, he turned to our team. In a matter of days, we were able to raise the needed capital to help him make it through a very difficult time. Today, the client's business is thriving again, and we have found additional ways to support him along the way. His emotional testament to our partnership was quite moving – and spoke to the power of our franchise and the quality of our bankers across the country.

Our people

The strength of our business starts and ends with our people – integrity, fortitude, compassion and partnership are the values they bring to work every day. These are what power our long-standing relationships and drive our success. Our 1,300 bankers¹, who average more than 20 years of experience, have deep local perspective and tested credit judgment.

Across Commercial Banking, our nearly 7,000 employees are dedicated to their communities, working with chambers of commerce, sitting on local boards, and staying active in school and service organizations. Over the past year, our people have made a difference in many ways, including volunteering their time to provide job counseling to military veterans, serving meals to families at a Ronald McDonald house in Chicago, stuffing backpacks for underprivileged children in Dallas and painting a community center in Brooklyn. I am inspired by our team's passion for their clients and communities.

Our model

Commercial Banking's proven business model provides the flexibility to manage challenging market conditions, regulatory changes and evolving client needs. Experienced teams in 29 states, 119 U.S. cities and 13 major international locations give us broad reach, and we serve approximately 59,000 clients, owners and investors in more than 40 of the top 50 U.S. metropolitan areas. Our bankers understand their markets, which enables them to make decisions locally and react quickly and proactively for clients. Rigorous client selection is one of the pillars of our model and results in a high-quality client base. Our industry expertise coupled with our local perspective allow us to select the best clients in the markets we serve.

Being a part of JPMorgan Chase means we can offer a broad range of unique capabilities. There are many examples of how we work across lines of business to deliver the firm to our clients. Our partnership with the Corporate & Investment Bank has never been stronger. We were extremely active last year, leading 833 financing transactions, including 31 initial public offerings, and advising clients on 67 merger and acquisition (M&A) transactions. In addition, the Corporate & Investment Bank's treasury services products are essential to our business, generating \$2.4 billion in revenue last year.

The Consumer & Community Banking network has been critical to the success of our Middle Market Banking business. Our clients used Chase branches almost 18 million times last year. Increasingly, they use our commercial card and merchant processing services, and we see an opportunity to bring specialized payments solutions to even more clients.

Ultimately, there are many reasons why clients choose us. They recognize the quality of our professionals, the value of our brand, our financial strength and stability, our global reach and the ease of dealing with one firm for all of their financial services needs.

2013 results

Although the economy remained fragile and competition intensified in 2013, we continued to stay focused, invest in our business and maintain our risk discipline. Commercial Banking delivered revenue of \$7.0 billion and net income of \$2.6 billion, up 2% and down 3%, respectively, from 2012. Demonstrating our strong partnerships across the company, we had record-setting revenue in several areas, including investment banking revenue² of \$1.7 billion, Card Services revenue² of \$438 million and International Banking revenue of \$261 million.

Even as many of our clients remained cautious, paying down debt and increasing liquidity, Commercial Banking continued to perform and has delivered 14 consecutive quarters of overall loan growth. Importantly, we achieved these results while adhering to our strict credit standards, and our net charge-off rate of 0.03% was one of the best in the industry. A solid credit culture and strong risk discipline have been critical to the success and stability of our franchise.

We continued to see our Middle Market Banking expansion strategy deliver steady results. Since 2006, we have successfully entered 16 major new markets across the country. Commercial Banking's growth in the Florida market is one of many excellent examples highlighting this progress. Five years ago, we entered the state with 20 employees and seven Middle Market Banking clients.

By 2013, our Florida business had 77 employees, 250 clients, and more than \$1.3 billion in loans and \$1.2 billion in deposits. Over time, we believe this to be a tremendous opportunity to expand and deepen our Middle Market Banking franchise. Our long-term success will depend upon continuous investment, patience and the determination to stick to our strategy.

Since 2008, we have concentrated on selectively building our real estate loan portfolios, and the success of our real estate business remains a highlight. Commercial Term Lending saw record loan growth and continued to be the top multifamily lender in the U.S. Real Estate Banking had a record \$9 billion in loan originations last year, and we continued to see excellent opportunities to support our clients and grow our portfolio. Exemplifying our strong focus on local communities, Community Development Banking remained quite active. The team completed transactions that financed the development of more than 8,200 units of affordable housing across the U.S., as well as other community-based projects, including charter schools, health clinics and grocers.

Overall, return on equity for the business was 19%. We achieved these returns despite a materially higher capital allocation and continual significant investments to grow our franchise and improve our compliance capabilities and controls. While we are proud of these results and our business is strong, we are committed to making Commercial Banking even better.

Looking ahead

As the U.S. economy continues to improve and our clients gain the confidence to increase borrowing for

new projects and growth initiatives, we stand ready to support them. With greater economic activity, we expect to see more M&A and capital markets transactions, and we will work closely with the Corporate & Investment Bank to assist in these efforts. Our corporate clients are increasingly expanding outside the U.S., and we are well-placed to help them. In addition, to help our clients navigate transformational changes in key industries, we have invested in specialized teams covering areas that include healthcare, energy and technology.

A top priority across the firm is ensuring we fully meet the letter and spirit of all regulations governing our business. We will continue to improve our regulatory and compliance processes, and we have asked several of our key executives to lead those efforts full time.

In 2013, the Commercial Banking team rose to the occasion and overcame market uncertainty and regulatory challenges. I want to thank our dedicated professionals for their continued commitment and hard work. I am incredibly proud of what we have accomplished.

We have a solid foundation built upon our people and the extraordinary capabilities and scope of our firm. I believe we have the strategy and resources in place to continue to deliver dynamic opportunities for our employees, a great experience for our clients and strong returns for our shareholders.



Douglas Petno
CEO, Commercial Banking

2013 HIGHLIGHTS AND ACCOMPLISHMENTS

Performance highlights

- Record revenue of \$7 billion
- Grew end-of-period loans 7%; 14 consecutive quarters of loan growth
- Generated return on equity of 19% on \$13.5 billion of allocated capital
- Continued superior credit quality – net charge-off ratio at 0.03% for second consecutive year

Leadership positions

- #1 traditional middle market syndicated lender³
- #1 U.S. multifamily lender⁴

- Recognized with 2013 Greenwich Associates' Excellence Awards in Middle Market online services, international service and treasury management and Mid-Corporate Banking investment banking and international service

Business segment highlights

- Middle Market Banking – Record revenue of more than \$3 billion; nearly 800 new client relationships; double-digit growth in both loans and deposits in expansion markets
- Corporate Client Banking – Record gross investment banking revenue² and credit quality improvement
- Commercial Term Lending – Record growth: \$6 billion increase in multifamily loan balances (up 17%)

- Real Estate Banking – Record originations (up 35%); 6% deposit growth
- Community Development Banking – More than \$1 billion in new commitments, supporting ~8,200 affordable housing units in the U.S.

Firmwide contribution

- Commercial Banking clients accounted for 29% of total North America investment banking fees⁵
- \$2.4 billion in treasury services revenue
- Almost \$100 billion in assets under management from Commercial Banking clients, generating close to \$500 million in Investment Management revenue

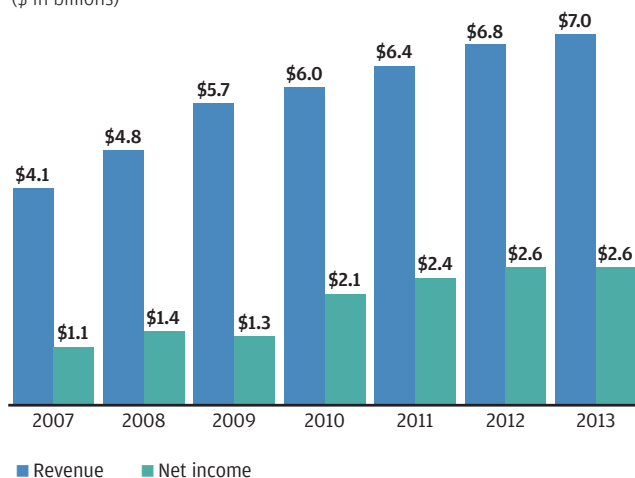
- Nearly \$440 million in Card Services revenue²

Progress in key growth areas

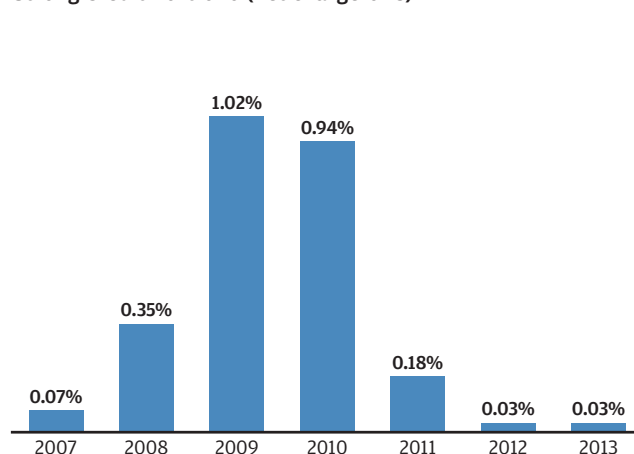
- Middle Market expansion – Record revenue of \$287 million; 46% CAGR⁶ since 2011
- Investment banking – Record gross revenue² of \$1.7 billion; 9% CAGR⁶ since 2011
- International Banking – Record revenue⁷ of \$261 million; 16% CAGR⁶ since 2011

Strong Growth and Resilient Earnings

(\$ in billions)



Strong Credit Portfolio (net charge-offs)



¹ Based on total number of revenue-producing employees

² Investment banking and Card Services revenue represents gross revenue generated by Commercial Banking clients. Investment banking includes Banking and Markets revenue. Card Services includes Commercial Card and Paymentech revenue

³ Thomson Reuters as of year-end 2013. Traditional middle market is defined as credit facilities of < \$100 million from clients with < \$500 million in revenue

⁴ Federal Deposit Insurance Corporation data as of 4Q 2013

⁵ Calculated based on gross domestic investment banking fees for syndicated and leveraged finance, M&A, equity underwriting and bond underwriting

⁶ Compound annual growth rate

⁷ Denotes overseas revenue from U.S. multinational clients

Asset Management



Mary Callahan Erdoes

Strong fiduciary culture of managing money

In Asset Management, our heritage of managing client assets dates back over 180 years. During that time, we've stood side by side with our clients as markets have reached record highs, hit bottom and seen everything in between. Through the highs and lows, clients have relied on us to help them see through the noise to make smart, long-term decisions that are always in their best interests.

Our strong fiduciary culture enables us to provide advice and solutions that help individuals retire more comfortably, pension funds meet their obligations, universities reinvest in important endeavors and wealthy families ensure lasting legacies. Although difficult to quantify, those are our ultimate measures of success.

60% of the largest institutions and many of the world's wealthiest individuals

The core roots of our business began with serving the world's most sophisticated institutional clients. Today, not only do we work with 60% of the largest pensions and sovereigns, we

also advise wealthy families and individuals on everything from money management to trusts and estates to mortgages, banking and lending.

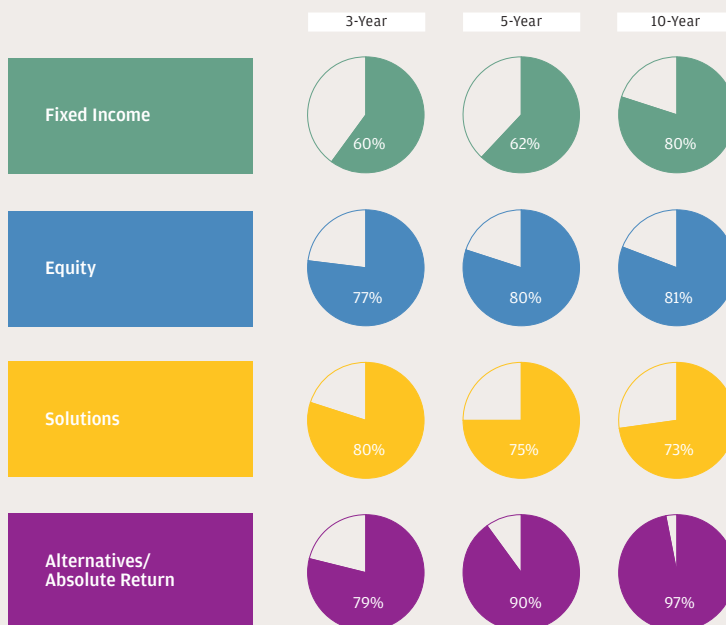
3,000 intermediaries investing for clients

Our success in working with institutions and individuals provided the foundation for packaging our investment expertise into mutual funds. Globally, more than 3,000 financial intermediary firms invest on their clients' behalf in our full range of solutions, which spans fixed income, equities, multi-asset and alternatives strategies.

20,000 people in 30+ countries

Across the more than 30 countries where we operate, all of our 20,000 employees live by our ethos of first-class business in a first-class way. The heart of what they do is managing money for our clients. We are proud that 241 of our mutual funds ranked 4 or 5 stars by Morningstar and that 80% of all our assets

% of 2013 AUM Over Peers/Benchmark¹ (net of fees)



¹ Fixed Income, Equity and Solutions represent percentage of mutual fund assets under management (AUM) in top two quartiles vs. Lipper, Morningstar and Nomura peers; Alternatives/Absolute Return represent percentage of AUM exceeding benchmark

are in the first or second performance quartile during the 10-year period.

Part of a global leader in every segment

In addition to insights from some of the industry's best advisors and strategists, we can offer clients solutions that span their broad personal and business financial needs by partnering across the JPMorgan Chase franchise, which has best-in-class

consumer and community banking, commercial banking and investment banking capabilities.

Half a trillion in five years

The stability and strength of the relationships we have built – some of which span generations and more than 100 years – perhaps are most evident in the \$475 billion of cumulative positive long-term flows we

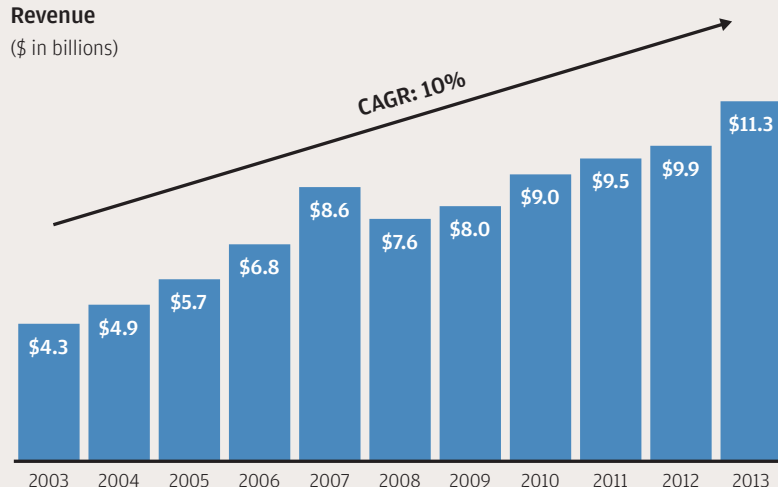
received following the 2008 financial crisis. Since 2009, we have achieved positive net flows from every channel, every asset class and every region.

19 quarters and 11 years

Equally impressive, our investment management business reached its 19th consecutive quarter of net long-term inflows, the longest such streak by any of our key competitors. Our wealth management business marked its 11th year of positive client flows, as well as record year-end balances in deposits, mortgages and loans.

Revenue

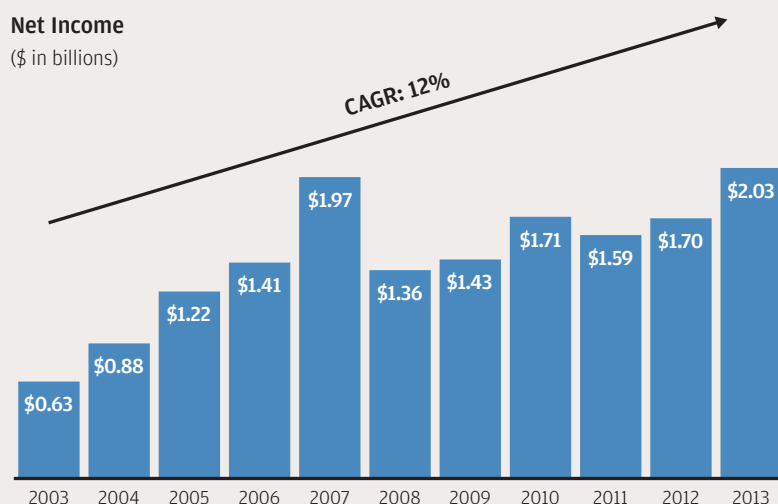
(\$ in billions)



CAGR = Compound annual growth rate

Net Income

(\$ in billions)



Record financial results driven by continued investment

Asset Management's financial performance maintained its steady growth trajectory in 2013. Our revenue of \$11.3 billion, net income of \$2.0 billion and client assets of \$2.3 trillion all were records – up 14%, 19% and 12%, respectively. While that's clearly an outstanding year, our long-term performance is just as strong, with a 10-year compound annual growth rate² of 10% for revenue, 12% for net income and 7% for client assets.

1,000+ new advisors and continued reinvestment

Our financial success is the result of having advisors who are laser-focused on our clients' needs and our constant dedication to growing the business by continually reinvesting in our people, technology and innovation. We have been focused on adding top talent on the ground where

² The 10-year compound annual growth rate for revenue, net income and client assets is based upon pro forma combined historical financial information reflecting how the operations of JPMorgan Chase & Co. and Bank One may have appeared on a combined basis had the two companies actually been merged as of January 1, 2003

clients need us most. We have hired more than 1,000 advisors globally since 2009. It's a virtuous cycle: As revenue and net income increase, both provide us with capital to fuel future growth and strengthen our infrastructure and coverage of clients around the world.

Priority #1: Controls

As we continue to invest, we also are scaling our infrastructure to ensure we have the appropriate oversight and controls. We've made great progress in these efforts, which will remain a top priority in 2014. We have a strong partnership with our regulators around the world and are committed to maintaining a world-class culture of compliance and controls.

2014 strategic priorities

Our long-term strategy and approach mean that many of our priorities remain consistent with what I have shared in recent years. Four of our core focuses continue to be:

- Strong investment performance across a broad range of products.
- Predictable delivery of financial targets.
- Continuous reinvestment into the business.
- Global enhancement of our clients' experience.

Deepening our client relationships

In addition, one of our biggest opportunities in 2014 is deepening existing client relationships. With strong performance across our franchise and a best-in-class offering spanning virtually every product and region, we want to meet even more of our clients' needs. When we can solve multiple problems for our clients, it simplifies their lives and enables them to get more complete financial solutions.

Sustaining leadership in alternatives and multi-asset strategies

Innovation also continues to be an important focus area for us, particularly in alternatives and multi-asset solutions, where more clients are turning to find enhanced returns.

We are the second-largest alternatives/absolute return manager with \$207 billion in client assets. A number of our Alternatives strategies have exhibited consistent long-term outperformance, including U.S. Core Real Estate, Private Equity, Multi-Strategy Fund of Funds and Global Macro. In these funds, 100% of our assets under management have outperformed their benchmark over the three- and five-year periods.

Above all, we are humbled to have consistently maintained our clients' trust and confidence for nearly two centuries. There's no greater privilege or responsibility than being entrusted with a client's assets, and we are grateful every day that clients choose us as their first call.



Mary Callahan Erdoes
CEO, Asset Management

2013 HIGHLIGHTS AND ACCOMPLISHMENTS

- #1 Ultra-High-Net-Worth Global Private Bank, *Euromoney*
- #1 Equity and Fixed Income Private Bank Portfolio Management, *Euromoney*
- #1 U.S. and overall active equity mutual fund flows, *Strategic Insight*
- Best Private Bank in Asia, *WealthBriefing Asia*
- #1 U.S. Mid-Cap Value Equity Manager of the Year, *Institutional Investor*
- #1 Institutional Money Market Fund Manager Worldwide, *iMoneyNet*
- Top European Buy-side Firm, *Thomson Reuters Extel*
- Second-largest hedge fund manager, *Absolute Return*
- #1 Non-U.S. Equity Growth Manager of the Year, *Institutional Investor*
- #1 U.S. Real Estate Money Manager, *Pensions & Investments*
- Best Asset Management Company for Asia, *The Asset*

Corporate Responsibility



Peter Scher

About corporate responsibility

Tremendous progress has been made in recent decades to address many of the world's most pressing social, economic and environmental problems. But a host of challenges persist, and there is an urgent need to find solutions that create greater economic opportunity for more people.

Companies like JPMorgan Chase have a responsibility to be part of the solution, not only because it's the right thing to do but because our own long-term success depends on the success of our communities and the people, companies and institutions we serve.

In the past, most corporations found it sufficient to fulfill this responsibility by simply donating money to charities. But today, we recognize that spurring greater economic growth and employment requires much more than writing checks. At a time when public sector resources are increasingly constrained, there is a compelling need for the private sector to do even more – in our case, by putting our financial expertise in the service of broader community needs. We are at our best when our core business helps communities thrive.

To be sure, the financial resources that firms provide are critical, but they are only one of many assets we can bring to bear. We can help make a difference by leveraging the skills, technology, data and expertise we use to drive our own business and then applying these assets to meet the global challenges that impact our communities.

At JPMorgan Chase, corporate responsibility always has been central to how we do business, starting with operating with integrity in all we do and extending to all the ways we help our clients and communities navigate a complex global economy. We strive to develop innovative programs that leverage the core strengths, capabilities and expertise of our business and our people – and those of our partners – to maximize our impact. We are very proud of what we accomplished in 2013.

2013 results

To help reduce unemployment and expand economic opportunity, we launched New Skills at Work, an unprecedented \$250 million, five-year initiative aimed at helping close the skills gap around the world (see next page). The effort brings together our resources and capabilities with those of proven partners to help

address the mismatch between the skills available in the workforce and those that employers need in order to grow their business.

Ongoing global health challenges presented another opportunity to work with great partners to launch a groundbreaking initiative. In partnership with the Bill & Melinda Gates Foundation, we created the Global Health Investment Fund to attract private capital into an investment vehicle with the potential to save millions of lives in low-income countries (see next page).

And there are many more examples of our work over the last year. JPMorgan Chase has collaborated with best-in-class partners to address the unique challenges military and veterans face in employment, education and housing; to help metro areas create global trade strategies through our Global Cities Initiative with The Brookings Institution; and to advance environmental stewardship and spur innovation across our business in partnership with our clients. And we roll up our sleeves to support these and other initiatives – last year, our employees provided more than 540,000 hours of volunteer service in local communities around the globe.

While there is much we were proud of during 2013, we know there is much more work to be done. The more we can break down the traditional barriers among the public, private and non-profit sectors, the more we can achieve for our communities. It is a tall order, but JPMorgan Chase is profoundly optimistic about how much can be accomplished when people come together to do extraordinary things.

A stylized, handwritten signature of Peter Scher in black ink.

Peter Scher
Head of Corporate Responsibility

New Skills at Work



Helping people gain the skills they need to compete for jobs can transform lives – and strengthen economies. That’s why JPMorgan Chase launched **New Skills at Work**, a \$250 million, five-year initiative aimed at helping inform and accelerate efforts to develop a demand-driven approach to education and skills training.

The numbers seem contradictory: Unemployment is high across the globe, yet recent data reveal that employers are having trouble finding workers who are trained for the jobs that are available, particularly in middle-skill jobs – those jobs that require more than a high school but less than a four-year degree. Around the world, employers, educators, policymakers, training organizations and others have recognized the critical importance of tackling this skills gap. JPMorgan Chase believes doing so can be one of our most powerful tools for reducing unemployment, strengthening economies and creating more broadly shared prosperity.

New Skills at Work, the largest-ever private sector philanthropic effort in this area, will help address the skills gap by:

- **Encouraging industry collaboration:** Convening people from across sectors to share experiences and formulate strategies for building demand-driven workforce training systems
- **Investing in training programs:** Making targeted investments to strengthen and scale the most effective workforce training programs
- **Improving data:** Sponsoring data-driven analysis of skills demand and supply gaps in local markets

JPMorgan Chase has identified an initial set of best-in-class partner organizations, and we will add new local and regional partners in 2014. Our national partners in the U.S. include the Aspen Institute’s Forum for Community Solutions, Jobs for the Future, National Academy Foundation, National Fund for Workforce Solutions, Year Up and YouthBuild USA, and in the U.K., they include the Institute for Public Policy Research and Participle.

Global Health Investment Fund



Emerging scientific and technological advances hold great hope for addressing infectious diseases and medical conditions that kill millions of people every year, mainly in low-income countries. But breakthroughs can save lives only if these new developments make it out of clinical trials and into the marketplace. And that requires financing. Filling that need is the new \$108 million **Global Health Investment Fund (GHIF)** from JPMorgan Chase and the Bill & Melinda Gates Foundation.

The GHIF is a unique vehicle that was structured to attract investment capital as an alternative to grant-based funding for global health, building upon research and development executed by visionary philanthropists, sovereign donors and industry leaders over the past decade. The GHIF is intended to act as a pilot both to attract more capital of this nature into the global health sector and to serve as a model for delivering impact via investment in other sectors.

The GHIF brings together a diverse pool of investors to provide financing to advance the development of drugs, vaccines, diagnostics and other interventions against diseases that disproportionately burden low-income countries while at the same time seek a financial return for investors. The social impact of the fund will be achieved by focusing investments on diseases like tuberculosis, malaria, HIV and diarrhea and on conditions that contribute to maternal and infant mortality; investments will also include requirements to ensure the accessibility of products to the populations most in need. Financial returns will be linked to commercial success in developed country markets, while investors’ downside is limited by a partial backstop provided by the Bill & Melinda Gates Foundation and the Swedish government. This structure allows individual investors, corporations, private foundations, development finance institutions and others to come together around the shared objective of ensuring that cutting-edge global health technologies reach the populations most in need.

2013 HIGHLIGHTS AND ACCOMPLISHMENTS

Supporting small business development

- Provided \$19 billion in new credit to American small businesses and, for the fourth fiscal year in a row, was the #1 U.S. Small Business Administration lender by units.
- Awarded \$3 million through our Mission Main StreetSM Grants program to support small businesses around the U.S. that are making a positive impact in their communities.
- Provided seed grants to four small business clusters across the U.S. to foster the development of investing networks, facilitate innovation and technology transfer, provide access to specialized suppliers and speed commercialization of new technologies.

Building financial capability

- Provided nearly \$7 million in grants to leading nonprofits to promote the financial capability of consumers in cities around the world, including \$1.15 million to Bank On 2.0, a program sponsored by the Cities for Financial Empowerment Fund to create a national approach in the U.S. to delivering safe, affordable banking products and services to low-income and underbanked people.
- Provided \$600,000 over two years to Mission Asset Fund to help replicate its Lending Circle program, in which individuals in a community borrow from and loan to one another via zero-fee, zero-interest credit-building social loans and to develop high-quality financial education resources to support participants.
- Became the first financial institution to adopt The Pew Charitable Trusts' new model disclosure box for reloadable prepaid cards for Chase Liquid[®].

Strengthening local economies and communities

- Provided approximately \$1.1 billion in community development loans and \$1.6 billion in equity investments to build or preserve 45,000 units of affordable housing for low- and moderate-income families in more than 260 U.S. cities.
- Lent \$181 million to community development financial institutions (CDFI) that leveraged our capital to secure financing for more affordable housing, schools, healthcare clinics and small businesses.

- Launched the CDFI Collaboratives program, a three-year, \$33 million philanthropic initiative to foster growth, collaboration and capacity building among smaller, regionally focused CDFIs that can uniquely reach communities that lack access to affordable financial products and services.

- Provided more than \$31 million to nonprofits working to help first-time homebuyers, to offer home ownership counseling and to develop affordable housing in the U.S.



- Donated \$275 million in the form of more than 6,100 free or discounted homes since 2008 to community associations, municipalities, veterans groups and nonprofit housing providers across the U.S., with nearly 1,600 homes donated or discounted in 2013 alone.

- Launched the Global Cities Exchange, a network of U.S. and international cities that will develop and implement regional strategies to boost global trade and investment. The network is part of the Global Cities Initiative, a joint project with The Brookings Institution launched in 2012 aimed at helping metropolitan leaders strengthen their regional economy.

- Launched New Skills at Work, a \$250 million, five-year workforce development initiative (see previous page).

Honoring U.S. military and veterans



- Continued our leadership of the 100,000 Jobs Mission, a coalition of employers that collectively hired 117,439 U.S. military veterans by the end of 2013, prompting it to double its hiring goal to 200,000 veterans by 2020. JPMorgan Chase has hired more than 6,300 veterans since 2011.

- Joined the U.S. Department of Defense Military Spouse Employment Partnership, committing to recruit, hire, promote and retain military spouses.

- Launched internal training programs to help military-experienced employees assimilate into the firm and to educate our hiring managers about the skills that servicemembers bring to the table. We made our Military 101 program for hiring managers publicly available to other employers.

- Provided grants totaling more than \$1 million to educational institutions focused on improving veteran performance and retention in higher education.

Promoting sustainable investing

- Led our industry in an effort to support responsible natural gas development by engaging with more than 100 oil and gas clients to understand how they manage environmental and community impacts from hydraulic fracturing, by funding research and by convening our clients to share insights on best practices.
- Worked with a group of peer investment banks to develop the Green Bond Principles, a set of voluntary guidelines designed to promote integrity and transparency in the growing market for Green Bonds, which are issued to finance environmentally beneficial projects.
- Announced the Global Health Investment Fund, a \$108 million innovative social impact fund (see previous page) and invested an additional \$9 million in best-in-class funds addressing the needs of low-income populations around the world.

Increasing transparency with stakeholders

- Collaborated with Ceres to engage a group of external stakeholders in a dialogue focused on sharing perspectives and priorities to help us enhance our approach to environmental sustainability and corporate responsibility.
- Convened regular Chase Advisory Panel sessions with experts from leading U.S. consumer policy groups to gain insight into the challenges facing low- and moderate-income consumers and learn how Chase can better serve them.
- Strengthened the firm's political disclosure and accountability policies, which led a leading nonprofit oversight organization to score JPMorgan Chase in the top 10 companies on the Center for Political Accountability-Zicklin Index of Corporate Political Accountability and Disclosure.

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Financial

FIVE-YEAR SUMMARY OF CONSOLIDATED FINANCIAL HIGHLIGHTS

(unaudited)

As of or for the year ended December 31,

(in millions, except per share, ratio and headcount data)

	2013	2012	2011	2010	2009
Selected income statement data					
Total net revenue	\$ 96,606	\$ 97,031	\$ 97,234	\$ 102,694	\$ 100,434
Total noninterest expense	70,467	64,729	62,911	61,196	52,352
Pre-provision profit	26,139	32,302	34,323	41,498	48,082
Provision for credit losses	225	3,385	7,574	16,639	32,015
Income before income tax expense and extraordinary gain	25,914	28,917	26,749	24,859	16,067
Income tax expense	7,991	7,633	7,773	7,489	4,415
Income before extraordinary gain	17,923	21,284	18,976	17,370	11,652
Extraordinary gain	—	—	—	—	76
Net income	\$ 17,923	\$ 21,284	\$ 18,976	\$ 17,370	\$ 11,728
Per common share data					
Basic earnings					
Income before extraordinary gain	\$ 4.39	\$ 5.22	\$ 4.50	\$ 3.98	\$ 2.25
Net income	4.39	5.22	4.50	3.98	2.27
Diluted earnings					
Income before extraordinary gain	\$ 4.35	\$ 5.20	\$ 4.48	\$ 3.96	\$ 2.24
Net income	4.35	5.20	4.48	3.96	2.26
Cash dividends declared per share	1.44	1.20	1.00	0.20	0.20
Book value per share	53.25	51.27	46.59	43.04	39.88
Tangible book value per share ("TBVS") ^(a)	40.81	38.75	33.69	30.18	27.09
Common shares outstanding					
Average: Basic	3,782.4	3,809.4	3,900.4	3,956.3	3,862.8
Diluted	3,814.9	3,822.2	3,920.3	3,976.9	3,879.7
Common shares at period-end	3,756.1	3,804.0	3,772.7	3,910.3	3,942.0
Share price^(b)					
High	\$ 58.55	\$ 46.49	\$ 48.36	\$ 48.20	\$ 47.47
Low	44.20	30.83	27.85	35.16	14.96
Close	58.48	43.97	33.25	42.42	41.67
Market capitalization	219,657	167,260	125,442	165,875	164,261
Selected ratios					
Return on common equity ("ROE")					
Income before extraordinary gain	9%	11%	11%	10%	6%
Net income	9	11	11	10	6
Return on tangible common equity ("ROTCE") ^(a)					
Income before extraordinary gain	11	15	15	15	10
Net income	11	15	15	15	10
Return on assets ("ROA")					
Income before extraordinary gain	0.75	0.94	0.86	0.85	0.58
Net income	0.75	0.94	0.86	0.85	0.58
Return on risk-weighted assets ^{(c)(d)}					
Income before extraordinary gain	1.28	1.65	1.58	1.50	0.95
Net income	1.28	1.65	1.58	1.50	0.95
Overhead ratio	73	67	65	60	52
Loans-to-deposits ratio	57	61	64	74	68
High Quality Liquid Assets ("HQLA") (in billions) ^(e)	\$ 522	\$ 341	NA	NA	NA
Tier 1 capital ratio ^(d)	11.9%	12.6%	12.3%	12.1%	11.1%
Total capital ratio ^(d)	14.4	15.3	15.4	15.5	14.8
Tier 1 leverage ratio	7.1	7.1	6.8	7.0	6.9
Tier 1 common capital ratio ^{(d)(f)}	10.7	11.0	10.1	9.8	8.8
Selected balance sheet data (period-end)					
Trading assets	\$ 374,664	\$ 450,028	\$ 443,963	\$ 489,892	\$ 411,128
Securities ^(g)	354,003	371,152	364,793	316,336	360,390
Loans	738,418	733,796	723,720	692,927	633,458
Total assets	2,415,689	2,359,141	2,265,792	2,117,605	2,031,989
Deposits	1,287,765	1,193,593	1,127,806	930,369	938,367
Long-term debt ^(h)	267,889	249,024	256,775	270,653	289,165
Common stockholders' equity	200,020	195,011	175,773	168,306	157,213
Total stockholders' equity	211,178	204,069	183,573	176,106	165,365
Headcount⁽ⁱ⁾	251,196	258,753	259,940	239,515	221,200
Credit quality metrics					
Allowance for credit losses	\$ 16,969	\$ 22,604	\$ 28,282	\$ 32,983	\$ 32,541
Allowance for loan losses to total retained loans	2.25%	3.02%	3.84%	4.71%	5.04%
Allowance for loan losses to retained loans excluding purchased credit-impaired loans ^(j)	1.80	2.43	3.35	4.46	5.51
Nonperforming assets	\$ 9,706	\$ 11,906	\$ 11,315	\$ 16,682	\$ 19,948
Net charge-offs	5,802	9,063	12,237	23,673	22,965
Net charge-off rate	0.81%	1.26%	1.78%	3.39%	3.42%

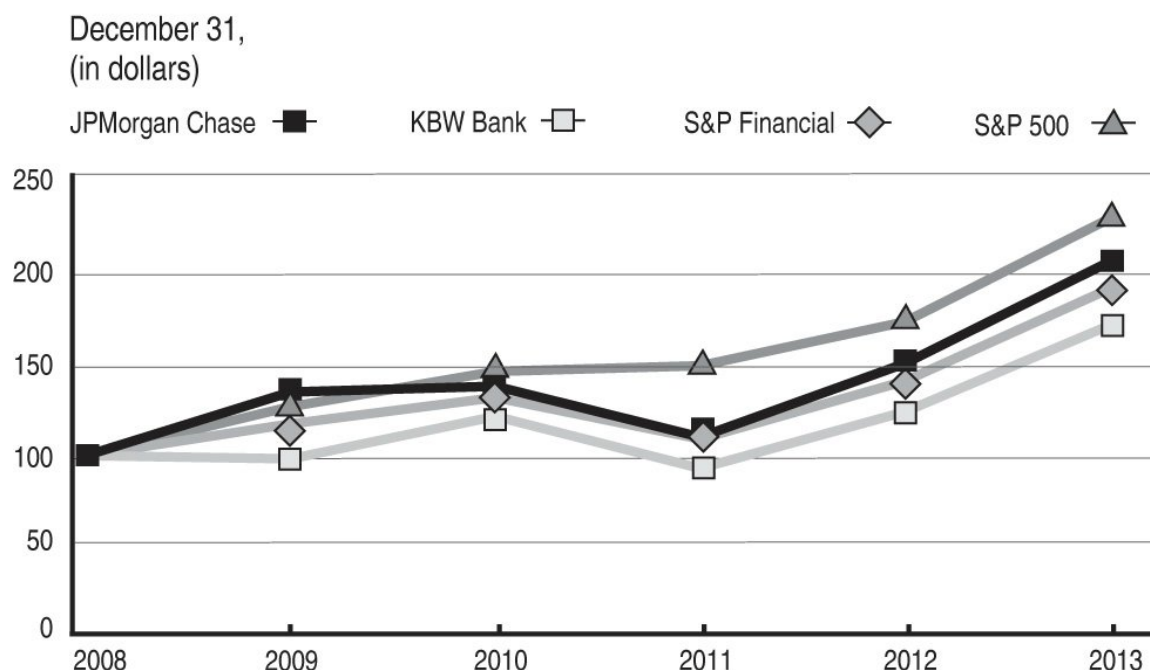
- (a) TBVS and ROTCE are non-GAAP financial measures. TBVS represents the Firm's tangible common equity divided by period-end common shares. ROTCE measures the Firm's annualized earnings as a percentage of tangible common equity. For further discussion of these measures, see Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 82-83 of this Annual Report.
- (b) Share prices shown for JPMorgan Chase's common stock are from the New York Stock Exchange. JPMorgan Chase's common stock is also listed and traded on the London Stock Exchange and the Tokyo Stock Exchange.
- (c) Return on Basel I risk-weighted assets is the annualized earnings of the Firm divided by its average risk-weighted assets ("RWA").
- (d) Basel 2.5 rules became effective for the Firm on January 1, 2013. The implementation of these rules in the first quarter of 2013 resulted in an increase of approximately \$150 billion in RWA compared with the Basel I rules. The implementation of these rules also resulted in decreases of the Firm's Tier 1 capital, Total capital and Tier 1 common capital ratios by 140 basis points, 160 basis points and 120 basis points, respectively, at March 31, 2013. For further discussion of Basel 2.5, see Regulatory capital on pages 160-167 of this Annual Report.
- (e) The Firm began estimating its total HQLA as of December 31, 2012, based on its current understanding of the Basel III LCR rules. For further discussion about HQLA, including its components, see Liquidity Risk on page 172 of this Annual Report.
- (f) Basel I Tier 1 common capital ratio ("Tier 1 common ratio") is Tier 1 common capital ("Tier 1 common") divided by RWA. The Firm uses Tier 1 common capital along with the other capital measures to assess and monitor its capital position. For further discussion of the Tier 1 common capital ratio, see Regulatory capital on pages 161-165 of this Annual Report.
- (g) Included held-to-maturity balances of \$24.0 billion at December 31, 2013. Held-to-maturity balances for the other periods were not material.
- (h) Included unsecured long-term debt of \$199.4 billion, \$200.6 billion, \$231.3 billion, \$238.2 billion and \$258.1 billion, respectively, as of December 31, of each year presented.
- (i) Effective January 1, 2013, interns are excluded from the firmwide and business segment headcount metrics. Prior periods were revised to conform with this presentation.
- (j) Excludes the impact of residential real estate purchased credit-impaired ("PCI") loans. For further discussion, see Allowance for credit losses on pages 139-141 of this Annual Report.

FIVE-YEAR STOCK PERFORMANCE

The following table and graph compare the five-year cumulative total return for JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") common stock with the cumulative return of the S&P 500 Index, the KBW Bank Index and the S&P Financial Index. The S&P 500 Index is a commonly referenced U.S. equity benchmark consisting of leading companies from different economic sectors. The KBW Bank Index seeks to reflect the performance of banks and thrifts that are publicly-traded in the U.S. and is composed of 24 leading national money center and regional banks and thrifts. The S&P Financial Index is an index of 81 financial companies, all of which are components of the S&P 500. The Firm is a component of all three industry indices.

The following table and graph assume simultaneous investments of \$100 on December 31, 2008, in JPMorgan Chase common stock and in each of the above indices. The comparison assumes that all dividends are reinvested.

December 31, (in dollars)	2008	2009	2010	2011	2012	2013
JPMorgan Chase	\$ 100.00	\$ 134.36	\$ 137.45	\$ 110.00	\$ 149.79	\$ 204.78
KBW Bank Index	100.00	98.24	121.19	93.08	123.69	170.39
S&P Financial Index	100.00	117.15	131.36	108.95	140.27	190.19
S&P 500 Index	100.00	126.45	145.49	148.55	172.31	228.10



Management's discussion and analysis

This section of JPMorgan Chase's Annual Report for the year ended December 31, 2013 ("Annual Report"), provides Management's discussion and analysis ("MD&A") of the financial condition and results of operations of JPMorgan Chase. See the Glossary of Terms on pages 341-345 for definitions of terms used throughout this Annual Report. The MD&A included in this Annual Report contains statements that are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements are based on the current beliefs and expectations of JPMorgan Chase's management and are subject to significant risks and uncertainties. These risks and uncertainties could cause the Firm's actual results to differ materially from those set forth in such forward-looking statements. Certain of such risks and uncertainties are described herein (see Forward-looking Statements on page 181 of this Annual Report) and in JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2013 ("2013 Form 10-K"), in Part I, Item 1A: Risk factors; reference is hereby made to both.

INTRODUCTION

JPMorgan Chase & Co., a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America ("U.S."), with operations worldwide; the Firm has \$2.4 trillion in assets and \$211.2 billion in stockholders' equity as of December 31, 2013. The Firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing, asset management and private equity. Under the J.P. Morgan and Chase brands, the Firm serves millions of customers in the U.S. and many of the world's most prominent corporate, institutional and government clients.

JPMorgan Chase's principal bank subsidiaries are JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), a national bank with U.S. branches in 23 states, and Chase Bank USA, National Association ("Chase Bank USA, N.A."), a national bank that is the Firm's credit card-issuing bank. JPMorgan Chase's principal nonbank subsidiary is J.P. Morgan Securities LLC ("JPMorgan Securities"), the Firm's U.S. investment banking firm. The bank and nonbank subsidiaries of JPMorgan Chase operate nationally as well as through overseas branches and subsidiaries, representative offices and subsidiary foreign banks. One of the Firm's principal operating subsidiaries in the United Kingdom ("U.K.") is J.P. Morgan Securities plc (formerly J.P. Morgan Securities Ltd.), a subsidiary of JPMorgan Chase Bank, N.A.

JPMorgan Chase's activities are organized, for management reporting purposes, into four major reportable business segments, as well as a Corporate/Private Equity segment. The Firm's consumer business is the Consumer & Community Banking segment. The Corporate & Investment Bank, Commercial Banking, and Asset Management segments comprise the Firm's wholesale businesses. A description of the Firm's business segments, and the products and services they provide to their respective client bases, follows.

Consumer & Community Banking

Consumer & Community Banking ("CCB") serves consumers and businesses through personal service at bank branches and through ATMs, online, mobile and telephone banking. CCB is organized into Consumer & Business Banking, Mortgage Banking (including Mortgage Production, Mortgage Servicing and Real Estate Portfolios) and Card, Merchant Services & Auto ("Card"). Consumer & Business Banking offers deposit and investment products and services to consumers, and lending, deposit, and cash management and payment solutions to small businesses. Mortgage Banking includes mortgage origination and servicing activities, as well as portfolios comprised of residential mortgages and home equity loans, including the purchased credit-impaired ("PCI") portfolio acquired in the Washington Mutual transaction. Card issues credit cards to consumers and small businesses, provides payment services to corporate and public sector clients through its commercial card products, offers payment processing services to merchants, and provides auto and student loan services.

Corporate & Investment Bank

The Corporate & Investment Bank (“CIB”) comprised of Banking and Markets & Investor Services, offers a broad suite of investment banking, market-making, prime brokerage, and treasury and securities products and services to a global client base of corporations, investors, financial institutions, government and municipal entities. Within Banking, the CIB offers a full range of investment banking products and services in all major capital markets, including advising on corporate strategy and structure, capital-raising in equity and debt markets, as well as loan origination and syndication. Also included in Banking is Treasury Services, which includes transaction services, comprised primarily of cash management and liquidity solutions, and trade finance products. The Markets & Investor Services segment of the CIB is a global market-maker in cash securities and derivative instruments, and also offers sophisticated risk management solutions, prime brokerage, and research. Markets & Investor Services also includes the Securities Services business, a leading global custodian which includes custody, fund accounting and administration, and securities lending products sold principally to asset managers, insurance companies and public and private investment funds.

Commercial Banking

Commercial Banking (“CB”) delivers extensive industry knowledge, local expertise and dedicated service to U.S. and U.S. multinational clients, including corporations, municipalities, financial institutions and nonprofit entities with annual revenue generally ranging from \$20 million to \$2 billion. CB provides financing to real estate investors and owners. Partnering with the Firm’s other businesses, CB provides comprehensive financial solutions, including lending, treasury services, investment banking and asset management to meet its clients’ domestic and international financial needs.

Asset Management

Asset Management (“AM”), with client assets of \$2.3 trillion, is a global leader in investment and wealth management. AM clients include institutions, high-net-worth individuals and retail investors in every major market throughout the world. AM offers investment management across all major asset classes including equities, fixed income, alternatives and money market funds. AM also offers multi-asset investment management, providing solutions to a broad range of clients’ investment needs. For individual investors, AM also provides retirement products and services, brokerage and banking services including trusts and estates, loans, mortgages and deposits. The majority of AM’s client assets are in actively managed portfolios.

Corporate/Private Equity

The Corporate/Private Equity segment comprises Private Equity, Treasury and Chief Investment Office (“CIO”) and Other Corporate, which includes corporate staff units and expense that is centrally managed. Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm’s liquidity, funding and structural interest rate and foreign exchange risks, as well as executing the Firm’s capital plan. The major Other Corporate units include Real Estate, Central Technology, Legal, Compliance, Finance, Human Resources, Internal Audit, Risk Management, Oversight & Control, Corporate Responsibility and various Other Corporate groups. Other centrally managed expense includes the Firm’s occupancy and pension-related expense that are subject to allocation to the businesses.

EXECUTIVE OVERVIEW

This executive overview of the MD&A highlights selected information and may not contain all of the information that is important to readers of this Annual Report. For a complete description of events, trends and uncertainties, as well as the enterprise risks and critical accounting estimates affecting the Firm and its various lines of business, this Annual Report should be read in its entirety.

Economic environment

The global economy regained momentum in 2013, led by faster growth in the advanced economies, helped by decisive policy actions in the U.S., European Union, U.K., and Japan. Uncertainties about U.S. fiscal policy were reduced substantially by year-end, as were extreme downside risks to performance in the Eurozone and China that had been concerns earlier in the year. In addition, real consumer spending in the U.S. was supported late in the year by solid job growth, falling gasoline prices, and rising equity and house prices.

The U.S. economic forecast for 2014 looks for a gradual acceleration in real sales growth and for inflation to remain well below the Federal Reserve's Open Market Committee's long-run target of 2%. If the economic forecast for 2014 is realized, the tapering of asset purchases by the Federal Reserve's Open Market Committee will proceed and is expected to be completed before the end of 2014. However, the forecast does not look for a first rate hike by the Federal Reserve's Open Market Committee until sometime in 2015.

The European Central Bank's ("ECB") support in stabilizing European financial markets, along with the constructive steps taken by the European Union to lay the groundwork for a more coherent banking union, helped the region to return to growth during the first half of 2013. However, later in the year, the pace of the Eurozone's recovery remained slow, high unemployment tested the social and political stability of several of Europe's weaker economies, and Cyprus became the fourth country in the Eurozone to receive a full bail-out. While Germany and the northern European economies continued to drive growth, elsewhere in Europe growth was more subdued. More encouraging were signs that the peripheral economies in the region are showing signs of healing.

Economic performance in Asia was mixed in 2013. Japan boomed; in contrast, activity decelerated across much of the rest of the region. Growth outcomes were also mixed across Latin America. Economic activity decelerated in Mexico. Brazil began 2013 with positive momentum but then lost significant steam, with a widening gap between projected growth outcomes and inflation indicators. Policy uncertainties, slowing China demand for commodities, credit overhangs, and elevated inflation all weighed on investment in many emerging countries.

In summary, there is reason to be optimistic about the U.S. economic outlook in 2014. The economy finally appears to have broken out of the 2% range of growth experienced in the first several years of recovery, and the extent of both fiscal policy restraint and fiscal policy uncertainty should be sharply reduced. While growth in emerging markets is expected to remain subdued, economic activity is expected to continue accelerating in Europe.

Financial performance of JPMorgan Chase

Year ended December 31,

(in millions, except per share data and ratios)

	2013	2012	Change
Selected income statement data			
Total net revenue	\$ 96,606	\$ 97,031	– %
Total noninterest expense	70,467	64,729	9
Pre-provision profit	26,139	32,302	(19)
Provision for credit losses	225	3,385	(93)
Net income	17,923	21,284	(16)
Diluted earnings per share	4.35	5.20	(16)
Return on common equity	9%	11%	
Capital ratios			
Tier 1 capital	11.9	12.6	
Tier 1 common	10.7	11.0	

Summary of 2013 Results

JPMorgan Chase reported full-year 2013 net income of \$17.9 billion, or \$4.35 per share, on net revenue of \$96.6 billion. Net income decreased by \$3.3 billion, or 16%, compared with net income of \$21.3 billion, or \$5.20 per share, in 2012. ROE for the year was 9%, compared with 11% for the prior year.

The decrease in net income in 2013 was driven by a higher noninterest expense, partially offset by lower provision for credit losses. The increase in noninterest expense was driven by higher legal expense. The reduction in the provision for credit losses reflected continued favorable credit trends across the consumer and wholesale portfolios.

The decline in the provision for credit losses reflected lower consumer and wholesale provisions as net charge-offs decreased and the related allowance for credit losses was reduced by \$5.6 billion in 2013. The decline in the allowance reflected improved home prices in the residential real estate portfolios, as well as improved delinquency trends in the residential real estate, credit card loan and wholesale portfolios. Firmwide, net charge-offs were \$5.8 billion for the year, down \$3.3 billion, or 36%, from 2012, which included \$800 million of incremental charge-offs related to regulatory guidance. Nonperforming assets at year-end were \$9.7 billion, down \$2.2 billion, or 18%. Total firmwide allowance for credit losses was \$17.0 billion, resulting in a loan loss coverage ratio of 1.80%, excluding the purchased credit-impaired portfolio, compared with 2.43% in 2012.

The Firm's results reflected strong underlying performance across its four major reportable business segments, with strong lending and deposit growth. Consumer & Business Banking within Consumer & Community Banking was #1 in deposit growth for the second year in a row and #1 in customer satisfaction among the largest banks for the second year in a row as measured by The American Customer Satisfaction Index ("ACSI"). In Card, Merchant Services & Auto, credit card sales volume (excluding Commercial Card) was up 10% for the year. The Corporate & Investment Bank maintained its #1 ranking in Global Investment Banking Fees and reported record assets under custody of \$20.5 trillion at December 31, 2013. Commercial Banking loans increased to a record \$137.1 billion, a 7% increase compared with the prior year. Asset Management achieved nineteen consecutive quarters of positive net long-term client flows into assets under management. Asset Management also increased loan balances to a record \$95.4 billion at December 31, 2013.

JPMorgan Chase ended the year with a Basel I Tier 1 common ratio of 10.7%, compared with 11% at year-end 2012. The Firm estimated that its Tier 1 common ratio under the Basel III Advanced Approach on a fully phased-in basis, based on the interim final rule issued in October 2013, was 9.5% as of December 31, 2013. Total deposits increased to \$1.3 trillion, up 8% from the prior year. Total stockholders' equity at December 31, 2013, was \$211.2 billion. (The Basel I and III Tier 1 common ratios are non-GAAP financial measures, which the Firm uses along with the other capital measures, to assess and monitor its capital position. For further discussion of the Tier 1 common capital ratios, see Regulatory capital on pages 161-165 of this Annual Report.)

During 2013, the Firm worked to help its customers, corporate clients and the communities in which it does business. The Firm provided credit to and raised capital of more than \$2.1 trillion for its clients during 2013; this included \$19 billion lent to small businesses and \$79 billion to nonprofit and government entities, including states, municipalities, hospitals and universities. The Firm also originated more than 800,000 mortgages.

The discussion that follows highlights the performance of each business segment compared with the prior year and presents results on a managed basis. Managed basis starts with the reported results under accounting principles generally accepted in the United States of America ("U.S. GAAP") and, for each line of business and the Firm as a whole, includes certain reclassifications to present total net revenue on a tax-equivalent basis. For more information about managed basis, as well as other non-GAAP financial measures used by management to evaluate the performance of each line of business, see pages 82-83 of this Annual Report.

Consumer & Community Banking net income increased compared with the prior year due to lower provision for credit losses and lower noninterest expense, predominantly offset by lower net revenue. Net interest income decreased, driven by lower deposit margins, lower loan balances due to net portfolio runoff and spread compression in Credit Card, largely offset by the impact of higher deposit balances. Noninterest revenue decreased, driven by lower mortgage fees and related income, partially offset by higher card income. The provision for credit losses was \$335 million compared with \$3.8 billion in the prior year. The current-year provision reflected a \$5.5 billion reduction in the allowance for loan losses and total net charge-offs of \$5.8 billion. The prior-year provision reflected a \$5.5 billion reduction in the allowance for loan losses and total net charge-offs of \$9.3 billion, including \$800 million of incremental charge-offs related to regulatory guidance. Noninterest expense decreased compared with the prior year, driven by lower mortgage servicing expense, partially offset by investments in Chase Private Client expansion, higher non-MBS related legal expense in Mortgage Production, higher auto lease depreciation and costs related to the control agenda.

Corporate & Investment Bank net income increased by 2% compared with the prior year. Net revenue included a \$1.5 billion loss from the implementation of a funding valuation adjustment ("FVA") framework for over-the-counter ("OTC") derivatives and structured notes in the fourth quarter, and a \$452 million loss from debit valuation adjustments ("DVA") on structured notes and derivative liabilities. The prior year net revenue included a \$930 million loss from DVA. Banking revenue increased compared with the prior year, reflecting higher lending and investment banking fees revenue, partially offset by Treasury Services revenue which was down slightly from the prior year. Lending revenue increased driven by gains on securities received from restructured loans. Investment banking fees revenue increased compared with the prior year driven by higher equity and debt underwriting fees, partially offset by lower advisory fees. Excluding FVA (effective fourth quarter 2013) and DVA, Markets and Investor Services revenue increased compared with the prior year. The provision for credit losses was a lower benefit reflecting lower recoveries compared with the prior year. Noninterest expense was slightly down from the prior year primarily driven by lower compensation expense.

Commercial Banking net income was slightly lower for 2013 compared with the prior year, reflecting higher noninterest expense and an increase in the provision for credit losses, partially offset by higher net revenue. Net interest income increased, driven by growth in loan balances and the proceeds from a lending-related workout, partially offset by lower purchase discounts recognized on loan repayments. Noninterest expense increased, primarily reflecting higher product- and headcount-related expense.

Management's discussion and analysis

Asset Management net income increased in 2013, driven by higher net revenue, largely offset by higher noninterest expense. Net revenue increased, driven by net client inflows, the effect of higher market levels and net interest income resulting from higher loan and deposit balances. Noninterest expense increased, driven by higher headcount related expenses, higher performance-based compensation and costs related to the control agenda.

Corporate/Private Equity reported a higher net loss compared with the prior year driven by higher noninterest expense partially offset by higher net revenue. Noninterest expense for 2013 included \$10.2 billion in legal expenses compared with \$3.7 billion in the prior year. The current year net revenue included a \$1.3 billion gain from the sale of Visa shares and a \$493 million gain from the sale of One Chase Manhattan Plaza. The prior year net revenue included losses from the synthetic credit portfolio in the CIO.

Consent Orders and Settlements

During the course of 2013, the Firm continued to make progress on its control, regulatory, and litigation agenda and put some significant issues behind it. In January 2013, the Firm entered into the Consent Orders with its banking regulators relating to the Firm's Bank Secrecy Act/Anti-Money Laundering policies, procedures and controls, and with respect to the risk management and control functions in the CIO, as well as with respect to its other trading activities. Other settlements during the year included the Consent Orders entered into in September 2013 concerning oversight of third parties, operational processes and control functions related to credit card collections litigation practices and to billing practices for credit monitoring products formerly offered by the Firm; the settlements in November 2013 of certain repurchase representation and warranty claims by a group of institutional investors and with the U.S. Department of Justice, several other federal agencies and several State Attorneys General relating to certain residential mortgage-backed securitization activities of the Firm, Bear Stearns and Washington Mutual; the Deferred Prosecution Agreement entered into in January 2014 with the U.S. Department of Justice and related agreements with the OCC and FinCEN relating to Bernard L. Madoff Investment Securities LLC and the Firm's AML compliance programs; and the February 2014 settlement entered into with several federal government agencies relating to the Firm's participation in certain federal mortgage insurance programs.

In addition to the payment of restitution and, in several instances, significant penalties, these Consent Orders and settlements require that the Firm modify or enhance its processes and controls with respect to, among other items, its mortgage foreclosure and servicing procedures, Anti-Money Laundering procedures, oversight of third parties, credit card litigation practices, and risk management, model governance, and other control functions related to the CIO and certain other trading activities at the Firm. The Firm believes it was in the best interest of the company and its

shareholders to accept responsibility for these matters, resolve them, and move forward. These settlements will allow the Firm to focus on continuing to serve its clients and communities, and to continue to build the Firm's businesses.

Business outlook

The following forward-looking statements are based on the current beliefs and expectations of JPMorgan Chase's management and are subject to significant risks and uncertainties. These risks and uncertainties could cause the Firm's actual results to differ materially from those set forth in such forward-looking statements. See Forward-Looking Statements on page 181 of this Annual Report and the Risk Factors section on pages 9–18 of the 2013 Form 10-K.

As a global financial services firm, JPMorgan Chase is subject to extensive regulation under state and federal laws in the United States, as well as the applicable laws of each of the various other jurisdictions outside the U.S. in which the Firm does business. The Firm is currently experiencing an unprecedented increase in regulations and supervision, and such changes could have a significant impact on how the Firm conducts business. For a summary of the more significant rules and regulations to which it currently is or will shortly be subject, as well as the more noteworthy rules and regulations currently being proposed to be implemented, see Supervision and Regulation on pages 1–9 of the 2013 Form 10-K.

Having reached the minimum capital levels required by the new and proposed rules, the Firm intends to continue to hold excess capital in order to support its businesses. However, the new rules will require the Firm to modify its on- and off-balance sheet assets and liabilities to meet the supplementary leverage ratio requirements, restrict or limit the way the Firm offers products to customers or charges fees for services, exit certain activities and product offerings, and make structural changes with respect to which of its legal entities offer certain products in order to comply with the margin, extraterritoriality and clearing rules promulgated pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act").

The Firm intends to respond to the new financial architecture resulting from this changing landscape in a way that will allow it to grow its revenues over time, manage its expenses, and comply with the new regulatory requirements, while at the same time investing in its businesses and meeting the needs of its customers and clients. Initiatives will include a disciplined approach to capital and liquidity management as well as optimization of the Firm's balance sheet. The Firm intends to continue to meet the higher U.S. and Basel III liquidity requirements and make progress towards meeting all of its capital targets in advance of regulatory deadlines, while at the same time returning capital to its shareholders. For further information, see Liquidity Risk Management and Capital Management on pages 168–173 and 160–167, respectively, of this Annual Report.

The Firm is also devoting substantial resources in order to continue to execute on its control and regulatory agendas. In 2012, it established its Oversight and Control function, which works closely with all control disciplines, including Compliance, Legal, Risk Management, Internal Audit and other functions, to provide a cohesive and centralized view of control functions and issues and to address complex control-related projects that are cross-line of business and that have significant regulatory impact or respond to regulatory actions such as the Consent Orders. See Operational Risk Management on pages 155–157 in this Annual Report for further information on the Oversight and Control function. The Firm's control agenda is receiving significant senior management and Board of Director attention and oversight, and represents a very high priority for the Firm, with 23 work-streams currently underway involving more than 3,500 employees. In 2013, the Firm increased the amount spent on the control agenda by approximately \$1 billion, and expects to spend an incremental amount of slightly more than \$1 billion on the control agenda in 2014.

The Firm is also executing a business simplification agenda that will allow it to focus on core activities for its core clients and better manage its operational, regulatory and litigation risks. These initiatives include ceasing student loan originations, ceasing to offer traveler's checks and money orders for non-customers, exiting certain high-complexity arrangements (such as third-party lockbox services), and being more selective about on-boarding certain customers, among other initiatives. These business simplification changes will not fundamentally change the breadth of the Firm's business model. However, they are anticipated to reduce both revenues and expenses over time, although the effect on annualized net income is expected to be modest. In addition, the efforts are also expected to have the benefit of freeing up capital over time.

The Firm expects it will continue to make appropriate adjustments to its business and operations, capital and liquidity management practices, and legal entity structure in the year ahead in response to developments in the legal and regulatory, as well as business and economic, environment in which it operates.

2014 Business Outlook

JPMorgan Chase's outlook for the full year 2014 should be viewed against the backdrop of the global and U.S. economies, financial markets activity, the geopolitical environment, the competitive environment, client activity levels, and regulatory and legislative developments in the U.S. and other countries where the Firm does business. Each of these inter-related factors will affect the performance of the Firm and its lines of business.

The Firm expects that net interest margin will be relatively stable in the near term. Firmwide adjusted expense is expected to be below \$59 billion for the full year 2014, excluding firmwide (Corporate and non-Corporate) legal expenses and foreclosure-related matters, even as the Firm continues to invest in controls and compliance.

In the Mortgage Banking business within CCB, management expects that higher levels of mortgage interest rates will continue to have a negative impact on refinancing volumes and margins, and, accordingly, the pretax income of Mortgage Production is anticipated to be modestly negative for the first quarter of 2014. For Real Estate Portfolios within Mortgage Banking, if delinquencies continue to trend down and the macro-economic environment remains stable or improves, management expects charge-offs to decline and a further reduction in the allowance for loan losses.

In Card Services within CCB, the Firm expects that spread compression will continue in 2014; the shift from high-rate and low-FICO balances is expected to be replaced by more engaged customers or transactors, which is expected to positively affect card spend and credit performance in 2014. If current positive credit trends continue, the card-related allowance for loan losses could be reduced over the course of 2014.

The currently anticipated results for CCB described above could be adversely affected if economic conditions, including U.S. housing prices or the unemployment rate, do not continue to improve. Management continues to closely monitor the portfolios in these businesses.

In Private Equity, within the Corporate/Private Equity segment, earnings will likely continue to be volatile and influenced by capital markets activity, market levels, the performance of the broader economy and investment-specific factors.

For Treasury and CIO, within the Corporate/Private Equity segment, as the Firm continues to reinvest its investment securities portfolio, net interest income is expected to improve and to reach break-even during the second half of 2014.

Management's discussion and analysis

Business events

Visa B Shares

In December 2013, the Firm sold 20 million Visa Class B shares, resulting in a net pretax gain of approximately \$1.3 billion recorded in Other income. After the sale, the Firm continues to own approximately 40 million Visa Class B shares. For further information, see Note 2 on pages 326-332 of this Annual Report.

One Chase Manhattan Plaza

On December 17, 2013, the Firm sold One Chase Manhattan Plaza, an office building located in New York City, and recognized a pretax gain of \$493 million in Other Income.

Other events

For information about the Firm's announcements regarding the physical commodities business, One Equity Partners, and the student loan business, see Note 2 on pages 326-332 of this Annual Report.

Subsequent events

Settlement agreement with The U.S. Departments Of Justice, Housing and Urban Development, and Veterans Affairs, and The Federal Housing Administration

On February 4, 2014, the Firm announced that it had reached a settlement with the U.S. Attorney's Office for the Southern District of New York, Federal Housing Administration ("FHA"), the U.S. Department of Housing and Urban Development ("HUD"), and the U.S. Department of Veterans Affairs ("VA") resolving claims relating to the Firm's participation in federal mortgage insurance programs overseen by FHA, HUD and VA ("FHA Settlement"). Under the FHA Settlement, which relates to FHA and VA insurance claims that have been paid to the Firm from 2002 through the date of the settlement, the Firm will pay \$614 million in cash, and agree to enhance its quality control program for loans that are submitted in the future to FHA's Direct Endorsement Lender Program. The Firm is fully reserved for the settlement, and any financial impact related to exposure on future claims is not expected to be significant. For information about the ongoing collectibility of insurance reimbursements on loans sold to Ginnie Mae, see Note 31 on pages 326-332 of this Annual Report.

Madoff Litigation and Investigations

On January 7, 2014, the Firm announced that certain of its bank subsidiaries had entered into settlements with various governmental agencies in resolution of investigations relating to Bernard L. Madoff Investment Securities LLC ("BLMIS"). The Firm and certain of its subsidiaries also entered into settlements with several private parties in resolution of civil litigation relating to BLMIS. At the same time, certain bank subsidiaries of the Firm consented to the assessment of a civil money penalty by the OCC in connection with various Bank Secrecy Act/Anti-Money Laundering deficiencies, including with relation to the BLMIS fraud, and JPMorgan Chase Bank, N.A. additionally agreed to the assessment of a civil money penalty by the Financial Crimes Enforcement Network for failure to detect and adequately report suspicious transactions relating to BLMIS. For further information on these settlements, see Note 31 on pages 326-332 of this Annual Report.

CONSOLIDATED RESULTS OF OPERATIONS

The following section provides a comparative discussion of JPMorgan Chase's Consolidated Results of Operations on a reported basis for the three-year period ended December 31, 2013. Factors that relate primarily to a single business segment are discussed in more detail within that business segment. For a discussion of the Critical Accounting Estimates Used by the Firm that affect the Consolidated Results of Operations, see pages 174-178 of this Annual Report.

Revenue

Year ended December 31,

(in millions)	2013	2012	2011
Investment banking fees	\$ 6,354	\$ 5,808	\$ 5,911
Principal transactions ^(a)	10,141	5,536	10,005
Lending- and deposit-related fees	5,945	6,196	6,458
Asset management, administration and commissions	15,106	13,868	14,094
Securities gains	667	2,110	1,593
Mortgage fees and related income	5,205	8,687	2,721
Card income	6,022	5,658	6,158
Other income ^(b)	3,847	4,258	2,605
Noninterest revenue	53,287	52,121	49,545
Net interest income	43,319	44,910	47,689
Total net revenue	\$ 96,606	\$ 97,031	\$ 97,234

(a) Included a \$(1.5) billion loss in the fourth quarter of 2013 as a result of implementing an FVA framework for OTC derivatives and structured notes. Also included DVA on structured notes and derivative liabilities measured at fair value. DVA gains/(losses) were \$(452) million, \$(930) million and \$1.4 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) Included operating lease income of \$1.5 billion, \$1.3 billion and \$1.2 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

2013 compared with 2012

Total net revenue for 2013 was \$96.6 billion, down by \$425 million, or less than 1%. The results of 2013 were driven by lower mortgage fees and related income, net interest income, and securities gains. These items were predominantly offset by higher principal transactions revenue, and asset management, administration and commissions revenue.

Investment banking fees increased compared with the prior year, reflecting higher equity and debt underwriting fees, partially offset by lower advisory fees. Equity and debt underwriting fees increased, driven by strong market issuance and improved wallet share in equity capital markets and loans. Advisory fees decreased, as the industry-wide M&A wallet declined. For additional information on investment banking fees, see CIB segment results on pages 98-102 and Note 7 on pages 234-235 of this Annual Report.

Principal transactions revenue, which consists of revenue primarily from the Firm's market-making and private equity investing activities, increased compared with the prior year. The current-year period reflected CIB's strong equity markets revenue, partially offset by a \$1.5 billion loss as a result of implementing a funding valuation adjustment ("FVA") framework for OTC derivatives and structured notes in the fourth quarter of 2013, and a \$452 million loss from DVA on structured notes and derivative liabilities (compared with a \$930 million loss from DVA in the prior year). The prior year included a \$5.8 billion loss on the synthetic credit portfolio incurred by CIO in the six months ended June 30, 2012; a \$449 million loss on the index credit derivative positions retained by CIO in the three months ended September 30, 2012; and additional modest losses incurred by CIB from the synthetic credit portfolio in the last six months of 2012; these were partially offset by a \$665 million gain recognized in 2012 in Other Corporate, representing the recovery on a Bear Stearns-related subordinated loan. For additional information on principal transactions revenue, see CIB and Corporate/Private Equity segment results on pages 98-102 and 109-111, respectively, and Note 7 on pages 234-235 of this Annual Report.

Lending- and deposit-related fees decreased compared with the prior year, largely due to lower deposit-related fees in CCB, resulting from reductions in certain product and transaction fees. For additional information on lending- and deposit-related fees, see the segment results for CCB on pages 86-97, CIB on pages 98-102 and CB on pages 103-105 of this Annual Report.

Asset management, administration and commissions revenue increased from 2012. The increase was driven by higher investment management fees in AM, due to net client inflows, the effect of higher market levels, and higher performance fees, as well as higher investment sales revenue in CCB. For additional information on these fees and commissions, see the segment discussions for CIB on pages 98-102, CCB on pages 86-97, AM on pages 106-108, and Note 7 on pages 234-235 of this Annual Report.

Securities gains decreased compared with the prior-year period, reflecting the results of repositioning the CIO available-for-sale ("AFS") portfolio. For additional information on securities gains, see the Corporate/Private Equity segment discussion on pages 109-111, and Note 12 on pages 249-254 of this Annual Report.

Mortgage fees and related income decreased in 2013 compared with 2012. The decrease resulted from lower Mortgage Banking net production and servicing revenue. The decrease in net production revenue was due to lower margins and volumes. The decrease in net servicing revenue was predominantly due to lower mortgage servicing rights ("MSR") risk management results. For additional

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information on mortgage fees and related income, see CCB's Mortgage Banking's discussion on pages 92–93, and Note 17 on pages 299–304 of this Annual Report.

Card income increased compared with the prior year period. The increase was driven by higher net interchange income on credit and debit cards and merchant servicing revenue, due to growth in sales volume. For additional information on credit card income, see the CCB segment results on pages 86–97 of this Annual Report.

Other income decreased in 2013 compared with the prior year, predominantly reflecting lower revenues from significant items recorded in Corporate/Private Equity. In 2013, the Firm recognized a \$1.3 billion gain on the sale of Visa shares, a \$493 million gain from the sale of One Chase Manhattan Plaza, and a modest loss related to the redemption of trust preferred securities ("TruPS"). In 2012, the Firm recognized a \$1.1 billion benefit from the Washington Mutual bankruptcy settlement and an \$888 million extinguishment gain related to the redemption of TruPS. The net decrease was partially offset by higher revenue in CIB, largely from client-driven activity.

Net interest income decreased in 2013 compared with the prior year, primarily reflecting the impact of the runoff of higher yielding loans and originations of lower yielding loans, and lower trading-related net interest income. The decrease in net interest income was partially offset by lower long-term debt and other funding costs. The Firm's average interest-earning assets were \$2.0 trillion in 2013, and the net interest yield on those assets, on a fully taxable-equivalent ("FTE") basis, was 2.23%, a decrease of 25 basis points from the prior year.

2012 compared with 2011

Total net revenue for 2012 was \$97.0 billion, down slightly from 2011. Results for 2012 were driven by lower principal transactions revenue from losses incurred by CIO, and lower net interest income. These items were predominantly offset by higher mortgage fees and related income and higher other income.

Investment banking fees decreased slightly from 2011, reflecting lower advisory fees on lower industry-wide volumes, and to a lesser extent, slightly lower equity underwriting fees on industry-wide volumes that were flat from the prior year. These declines were predominantly offset by record debt underwriting fees, driven by favorable market conditions and the impact of continued low interest rates.

Principal transactions revenue decreased compared with 2011, predominantly due to \$5.8 billion of losses incurred by CIO from the synthetic credit portfolio for the six months ended June 30, 2012, and \$449 million of losses incurred by CIO from the retained index credit derivative positions for the three months ended September 30, 2012; and additional modest losses incurred by CIB from the synthetic credit portfolio in the last six months of 2012.

Principal transaction revenue also included a \$930 million loss in 2012, compared with a \$1.4 billion gain in 2011,

from DVA on structured notes and derivative liabilities, resulting from the tightening of the Firm's credit spreads. These declines were partially offset by higher market-making revenue in CIB, driven by strong client revenue and higher revenue in rates-related products, as well as a \$665 million gain recognized in Other Corporate associated with the recovery on a Bear Stearns-related subordinated loan. Private equity gains decreased in 2012, predominantly due to lower unrealized and realized gains on private investments, partially offset by higher unrealized gains on public securities.

Lending- and deposit-related fees decreased in 2012 compared with the prior year. The decrease predominantly reflected lower lending-related fees in CIB and lower deposit-related fees in CCB.

Asset management, administration and commissions revenue decreased from 2011, largely driven by lower brokerage commissions in CIB. This decrease was largely offset by higher asset management fees in AM driven by net client inflows, the effect of higher market levels, and higher performance fees; and higher investment service fees in CCB, as a result of growth in sales of investment products.

Securities gains increased, compared with the 2011 level, reflecting the results of repositioning the CIO AFS securities portfolio.

Mortgage fees and related income increased significantly in 2012 compared with 2011, due to higher Mortgage Banking net production and servicing revenue. The increase in net production revenue, reflected wider margins driven by favorable market conditions; and higher volumes due to historically low interest rates and the Home Affordable Refinance Programs ("HARP"). The increase in net servicing revenue resulted from a favorable swing in risk management results related to mortgage servicing rights ("MSR"), which was a gain of \$619 million in 2012, compared with a loss of \$1.6 billion in 2011.

Card income decreased during 2012, driven by lower debit card revenue, reflecting the impact of the Durbin Amendment; and to a lesser extent, higher amortization of loan origination costs. The decrease in credit card income was offset partially by higher net interchange income associated with growth in credit card sales volume, and higher merchant servicing revenue.

Other income increased in 2012 compared with the prior year, largely due to a \$1.1 billion benefit from the Washington Mutual bankruptcy settlement, and \$888 million of extinguishment gains in Corporate/Private Equity related to the redemption of TruPS. The extinguishment gains were related to adjustments applied to the cost basis of the TruPS during the period they were in a qualified hedge accounting relationship. These items were offset partially by the absence of a prior-year gain on the sale of an investment in AM.

Net interest income decreased in 2012 compared with the prior year, predominantly reflecting the impact of lower average trading asset balances, the runoff of higher-yielding

loans, faster prepayment of mortgage-backed securities, limited reinvestment opportunities, as well as the impact of lower interest rates across the Firm's interest-earning assets. The decrease in net interest income was partially offset by lower deposit and other borrowing costs. The Firm's average interest-earning assets were \$1.8 trillion for 2012, and the net yield on those assets, on a fully taxable-equivalent ("FTE") basis, was 2.48%, a decrease of 26 basis points from 2011.

Provision for credit losses

Year ended December 31,

(in millions)	2013	2012	2011
Consumer, excluding credit card	\$ (1,871)	\$ 302	\$ 4,672
Credit card	2,179	3,444	2,925
Total consumer	308	3,746	7,597
Wholesale	(83)	(361)	(23)
Total provision for credit losses	\$ 225	\$ 3,385	\$ 7,574

2013 compared with 2012

The provision for credit losses decreased compared with the prior year, due to a decline in the provision for total consumer credit losses. The decrease in the consumer provision was attributable to continued reductions in the allowance for loan losses, resulting from the impact of improved home prices on the residential real estate portfolio, and improved delinquency trends in the residential real estate and credit card portfolios, as well as lower net charge-offs partially due to the prior-year incremental charge-offs recorded in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy. The wholesale provision in the current period reflected a favorable credit environment and stable credit quality trends. For a more detailed discussion of the loan portfolio and the allowance for credit losses, see the segment discussions for CCB on pages 86–97, CIB on pages 98–102, CB on pages 103–105, and Allowance For Credit Losses on pages 139–141 of this Annual Report.

2012 compared with 2011

The provision for credit losses decreased by \$4.2 billion from 2011. The decrease was driven by a lower provision for consumer, excluding credit card loans, which reflected a reduction in the allowance for loan losses, due primarily to lower estimated losses in the non-PCI residential real estate portfolio as delinquency trends improved, partially offset by the impact of charge-offs of Chapter 7 loans. A higher level of recoveries and lower charge-offs in the wholesale provision also contributed to the decrease. These items were partially offset by a higher provision for credit card loans, largely due to a smaller reduction in the allowance for loan losses in 2012 compared with the prior year.

Noninterest expense

Year ended December 31,

(in millions)	2013	2012	2011
Compensation expense	\$30,810	\$30,585	\$29,037
Noncompensation expense:			
Occupancy	3,693	3,925	3,895
Technology, communications and equipment	5,425	5,224	4,947
Professional and outside services	7,641	7,429	7,482
Marketing	2,500	2,577	3,143
Other ^{(a)(b)}	19,761	14,032	13,559
Amortization of intangibles	637	957	848
Total noncompensation expense	39,657	34,144	33,874
Total noninterest expense	\$70,467	\$64,729	\$62,911

(a) Included firmwide legal expense of \$11.1 billion, \$5.0 billion and \$4.9 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) Included FDIC-related expense of \$1.5 billion, \$1.7 billion and \$1.5 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

2013 compared with 2012

Total noninterest expense for 2013 was \$70.5 billion, up by \$5.7 billion, or 9%, compared with the prior year. The increase was predominantly due to higher legal expense.

Compensation expense increased in 2013 compared with the prior year, due to the impact of investments across the businesses, including front office sales and support staff, as well as costs related to the Firm's control agenda; partially offset by lower compensation expense in CIB and a decline in CCB's mortgage business, which included the effect of lower servicing headcount.

Noncompensation expense increased in 2013 from the prior year. The increase was due to higher other expense, reflecting \$11.1 billion of firmwide legal expense, predominantly in Corporate/Private Equity, representing additional reserves for several litigation and regulatory proceedings, compared with \$5.0 billion of expense in the prior year. Investments in the businesses, higher legal-related professional services expense, and costs related to the Firm's control agenda also contributed to the increase. The increase was offset partially by lower mortgage servicing expense in CCB and lower occupancy expense for the Firm, which predominantly reflected the absence of charges recognized in 2012 related to vacating excess space. For a further discussion of legal expense, see Note 31 on pages 326–332 of this Annual Report. For a discussion of amortization of intangibles, refer to Note 17 on pages 299–304 of this Annual Report.

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2012 compared with 2011

Total noninterest expense for 2012 was \$64.7 billion, up by \$1.8 billion, or 3%, from 2011. Compensation expense drove the increase from the prior year.

Compensation expense increased from the prior year, predominantly due to investments in the businesses, including the sales force in CCB and bankers in the other businesses, partially offset by lower compensation expense in CIB.

Noncompensation expense for 2012 increased from the prior year, reflecting continued investments in the businesses, including branch builds in CCB; higher expense related to growth in business volume in CIB and CCB; higher regulatory deposit insurance assessments; expenses related to exiting a non-core product and writing-off intangible assets in CCB; and higher legal expense in Corporate/Private Equity. These increases were partially offset by lower legal expense in AM and CCB (including the Independent Foreclosure Review settlement) and lower marketing expense in CCB.

Income tax expense

Year ended December 31, (in millions, except rate)	2013	2012	2011
Income before income tax expense	\$25,914	\$28,917	\$26,749
Income tax expense	7,991	7,633	7,773
Effective tax rate	30.8%	26.4%	29.1%

2013 compared with 2012

The increase in the effective tax rate compared with the prior year was predominantly due to the effect of higher nondeductible expense related to litigation and regulatory proceedings in 2013. This was largely offset by the impact of lower reported pre-tax income in combination with changes in the mix of income and expense subject to U.S. federal, state and local taxes, business tax credits, tax benefits associated with prior year tax adjustments and audit resolutions. For additional information on income taxes, see Critical Accounting Estimates Used by the Firm on pages 174-178 and Note 26 on pages 313-315 of this Annual Report.

2012 compared with 2011

The decrease in the effective tax rate compared with the prior year was largely the result of changes in the proportion of income subject to U.S. federal and state and local taxes, as well as higher tax benefits associated with tax audits and tax-advantaged investments. This was partially offset by higher reported pretax income and lower benefits associated with the disposition of certain investments. The current and prior periods include deferred tax benefits associated with state and local income taxes.

BALANCE SHEET ANALYSIS

Selected Consolidated Balance Sheets data

December 31, (in millions)	2013	2012	Change
Assets			
Cash and due from banks	\$ 39,771	\$ 53,723	(26)%
Deposits with banks	316,051	121,814	159
Federal funds sold and securities purchased under resale agreements	248,116	296,296	(16)
Securities borrowed	111,465	119,017	(6)
Trading assets:			
Debt and equity instruments	308,905	375,045	(18)
Derivative receivables	65,759	74,983	(12)
Securities	354,003	371,152	(5)
Loans	738,418	733,796	1
Allowance for loan losses	(16,264)	(21,936)	(26)
Loans, net of allowance for loan losses	722,154	711,860	1
Accrued interest and accounts receivable	65,160	60,933	7
Premises and equipment	14,891	14,519	3
Goodwill	48,081	48,175	—
Mortgage servicing rights	9,614	7,614	26
Other intangible assets	1,618	2,235	(28)
Other assets	110,101	101,775	8
Total assets	\$ 2,415,689	\$ 2,359,141	2
Liabilities			
Deposits	\$ 1,287,765	\$ 1,193,593	8
Federal funds purchased and securities loaned or sold under repurchase agreements	181,163	240,103	(25)
Commercial paper	57,848	55,367	4
Other borrowed funds	27,994	26,636	5
Trading liabilities:			
Debt and equity instruments	80,430	61,262	31
Derivative payables	57,314	70,656	(19)
Accounts payable and other liabilities	194,491	195,240	—
Beneficial interests issued by consolidated VIEs	49,617	63,191	(21)
Long-term debt	267,889	249,024	8
Total liabilities	2,204,511	2,155,072	2
Stockholders' equity	211,178	204,069	3
Total liabilities and stockholders' equity	\$ 2,415,689	\$ 2,359,141	2 %

Consolidated Balance Sheets overview

Total assets increased by \$56.5 billion or 2%, and total liabilities increased by \$49.4 billion or 2%, from December 31, 2012. The following is a discussion of the significant changes in the specific line item captions on the Consolidated Balance Sheets during 2013.

Cash and due from banks and deposits with banks

The net increase reflected the placement of the Firm's excess funds with various central banks, predominantly Federal Reserve Banks. For additional information, refer to the Liquidity Risk Management discussion on pages 168-173 of this Annual Report.

Federal funds sold and securities purchased under resale agreements; and securities borrowed

The decrease in securities purchased under resale agreements and securities borrowed was predominantly due to a shift in the deployment of the Firm's excess cash by Treasury.

Trading assets and liabilities – debt and equity instruments

The decrease in trading assets was driven by client-driven market-making activity in CIB, which resulted in lower levels of debt securities. For additional information, refer to Note 3 on pages 195-215 of this Annual Report.

The increase in trading liabilities was driven by client-driven market-making activity in CIB, which resulted in higher levels of short positions in debt and equity securities.

Trading assets and liabilities – derivative receivables and payables

Derivative receivables and payables decreased predominantly due to reductions in interest rate derivatives driven by an increase in interest rates and reductions in commodity derivatives due to market movements. The decreases were partially offset by an increase in equity derivatives driven by a rise in equity markets.

For additional information, refer to Derivative contracts on pages 135-136, and Note 3 and Note 6 on pages 195-215 and 220-233, respectively, of this Annual Report.

Securities

The decrease in securities was largely due to repositioning which resulted in lower levels of corporate debt, non-U.S. government securities and non-U.S. residential MBS. The decrease was partially offset by higher levels of U.S. Treasury and government agency obligations and obligations of U.S. states and municipalities. For additional information related to securities, refer to the discussion in the Corporate/Private Equity segment on pages 109-111, and Note 3 and Note 12 on pages 195-215 and 249-254, respectively, of this Annual Report.

Loans and allowance for loan losses

Loans increased predominantly due to continued growth in wholesale loans partially offset by a decrease in consumer,

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excluding credit card loans, predominantly due to paydowns and the charge-off or liquidation of delinquent loans, partially offset by new mortgage and auto originations.

The allowance for loan losses decreased as a result of a \$5.5 billion reduction in the consumer allowance, reflecting the impact of improved home prices on the residential real estate portfolio and improved delinquency trends in the residential real estate and credit card portfolios. For a more detailed discussion of the loan portfolio and the allowance for loan losses, refer to Credit Risk Management on pages 119-141, and Notes 3, 4, 14 and 15 on pages 195-215, 215-218, 258-283 and 284-287, respectively, of this Annual Report.

Premises and Equipment

The increase in premises and equipment was largely due to investments in CBB in the U.S. and other investments in facilities globally.

Mortgage servicing rights

The increase was predominantly due to originations and changes in market interest rates, partially offset by collection/realization of expected cash flows, dispositions, and changes in valuation due to model inputs and assumptions. For additional information on MSRs, see Note 17 on pages 299-304 of this Annual Report.

Other assets

The increase is primarily driven by the implementation of gross initial margin requirements for certain U.S. counterparties for exchange-traded derivatives ("ETD"), higher ETD margin balances, and mandatory clearing for certain over-the-counter derivative contracts in the U.S.

Deposits

The increase was due to growth in both wholesale and consumer deposits. The increase in wholesale client balances was due to higher short-term deposits as well as growth in client operating balances. Consumer deposit balances increased from the effect of continued strong growth in business volumes and strong customer retention. For more information on consumer deposits, refer to the CCB segment discussion on pages 86-97; the Liquidity Risk Management discussion on pages 168-173; and Notes 3 and 19 on pages 195-215 and 305, respectively, of this Annual Report. For more information on wholesale client deposits, refer to the AM, CB and CIB segment discussions on pages 106-108, 103-105 and 98-102, respectively, of this Annual Report.

Federal funds purchased and securities loaned or sold under repurchase agreements

The decrease was predominantly due to a change in the mix of the Firm's funding sources. For additional information on the Firm's Liquidity Risk Management, see pages 168-173 of this Annual Report.

Commercial paper and other borrowed funds

Commercial paper increased slightly due to higher commercial paper issuance from wholesale funding markets and an increase in the volume of liability balances related to CIB's liquidity management product, whereby clients choose to sweep their deposits into commercial paper. Other borrowed funds increased slightly due to higher secured short-term borrowings to meet short-term funding needs. For additional information on the Firm's Liquidity Risk Management and other borrowed funds, see pages 168-173 of this Annual Report.

Accounts payable and other liabilities

Accounts payable and other liabilities remained relatively flat compared with the prior year. For additional information on the Firm's accounts payable and other liabilities, see Note 20 on page 305 of this Annual Report.

Beneficial interests issued by consolidated VIEs

Beneficial interests issued by consolidated VIEs decreased primarily due to unwinds of municipal bond vehicles, net credit card maturities and a reduction in outstanding conduit commercial paper held by third parties. For additional information on Firm-sponsored VIEs and loan securitization trusts, see Note 16 on pages 288-299 of this Annual Report.

Long-term debt

The increase was primarily due to net issuances, which also reflected the redemption of trust preferred securities in the second quarter of 2013. For additional information on the Firm's long-term debt activities, see the Liquidity Risk Management discussion on pages 168-173 of this Annual Report.

Stockholders' equity

Total stockholders' equity increased, predominantly due to net income; net issuance of preferred stock; and the issuances and commitments to issue under the Firm's employee stock-based compensation plans. The increase was partially offset by the declaration of cash dividends on common and preferred stock, repurchases of common stock and a net decrease in accumulated other comprehensive income. The net decrease in accumulated other comprehensive income was primarily related to the decline in fair value of U.S. government agency issued MBS and obligations of U.S. states and municipalities due to market changes, as well as net realized gains. For additional information on the Firm's capital actions, see Capital actions on pages 166-167 of this Annual Report.

OFF-BALANCE SHEET ARRANGEMENTS AND CONTRACTUAL CASH OBLIGATIONS

In the normal course of business, the Firm enters into various contractual obligations that may require future cash payments. Certain obligations are recognized on-balance sheet, while others are off-balance sheet under U.S. GAAP. The Firm is involved with several types of off-balance sheet arrangements, including through nonconsolidated special-purpose entities (“SPEs”), which are a type of VIE, and through lending-related financial instruments (e.g., commitments and guarantees).

Special-purpose entities

The most common type of VIE is an SPE. SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. SPEs are an important part of the financial markets, including the mortgage- and asset-backed securities and commercial paper markets, as they provide market liquidity by facilitating investors’ access to specific portfolios of assets and risks. SPEs may be organized as trusts, partnerships or corporations and are typically established for a single, discrete purpose. SPEs are not typically operating entities and usually have a limited life and no employees. The basic SPE structure involves a company selling assets to the SPE; the SPE funds the purchase of those assets by issuing securities to investors.

JPMorgan Chase uses SPEs as a source of liquidity for itself and its clients by securitizing financial assets, and by creating investment products for clients. The Firm is involved with SPEs through multi-seller conduits, investor intermediation activities, and loan securitizations. See Note 16 on pages 288-299 for further information on these types of SPEs.

The Firm holds capital, as deemed appropriate, against all SPE-related transactions and related exposures, such as derivative transactions and lending-related commitments and guarantees.

The Firm has no commitments to issue its own stock to support any SPE transaction, and its policies require that transactions with SPEs be conducted at arm’s length and reflect market pricing. Consistent with this policy, no JPMorgan Chase employee is permitted to invest in SPEs with which the Firm is involved where such investment would violate the Firm’s Code of Conduct. These rules prohibit employees from self-dealing and acting on behalf of the Firm in transactions with which they or their family have any significant financial interest.

Implications of a credit rating downgrade to JPMorgan Chase Bank, N.A.

For certain liquidity commitments to SPEs, JPMorgan Chase Bank, N.A. could be required to provide funding if its short-term credit rating were downgraded below specific levels, primarily “P-1”, “A-1” and “F1” for Moody’s, Standard & Poor’s and Fitch, respectively. These liquidity commitments support the issuance of asset-backed commercial paper by both Firm-administered consolidated and third-party

sponsored nonconsolidated SPEs. In the event of such a short-term credit rating downgrade, JPMorgan Chase Bank, N.A., absent other solutions, would be required to provide funding to the SPE, if the commercial paper could not be reissued as it matured. The aggregate amounts of commercial paper outstanding, issued by both Firm-administered and third-party sponsored SPEs, that are held by third parties as of December 31, 2013 and 2012, was \$15.5 billion and \$18.1 billion, respectively. The aggregate amounts of commercial paper outstanding could increase in future periods should clients of the Firm-administered consolidated or third-party sponsored nonconsolidated SPEs draw down on certain unfunded lending-related commitments. These unfunded lending-related commitments were \$9.2 billion and \$10.9 billion at December 31, 2013 and 2012, respectively. The Firm could facilitate the refinancing of some of the clients’ assets in order to reduce the funding obligation. For further information, see the discussion of Firm-administered multi-seller conduits in Note 16 on pages 292-293 of this Annual Report.

The Firm also acts as liquidity provider for certain municipal bond vehicles. The Firm’s obligation to perform as liquidity provider is conditional and is limited by certain termination events, which include bankruptcy or failure to pay by the municipal bond issuer or credit enhancement provider, an event of taxability on the municipal bonds or the immediate downgrade of the municipal bond to below investment grade. See Note 16 on pages 288-299 of this Annual Report for additional information.

Off-balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the counterparty draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm’s view, representative of its actual future credit exposure or funding requirements. For further discussion of lending-related financial instruments, guarantees and other commitments, and the Firm’s accounting for them, see Lending-related commitments on page 135, and Note 29 (including the table that presents the related amounts by contractual maturity as of December 31, 2013) on pages 318-324 of this Annual Report. For a discussion of loan repurchase liabilities, see Mortgage repurchase liability on pages 78-79 and Note 29 on pages 318-324, respectively, of this Annual Report.

Contractual cash obligations

The accompanying table summarizes, by remaining maturity, JPMorgan Chase's significant contractual cash obligations at December 31, 2013. The contractual cash obligations included in the table below reflect the minimum contractual obligation under legally enforceable contracts with terms that are both fixed and determinable. Excluded from the below table are certain liabilities with variable cash flows and/or no contractual maturity.

The carrying amount of on-balance sheet obligations on the Consolidated Balance Sheets may differ from the minimum contractual amount of the obligations reported below. For a discussion of mortgage loan repurchase liabilities, see Mortgage repurchase liability on pages 78–79 of this Annual Report. For further discussion of other obligations, see the Notes to Consolidated Financial Statements in this Annual Report.

Contractual cash obligations

By remaining maturity at December 31, (in millions)	2013					2012
	2014	2015-2016	2017-2018	After 2018	Total	Total
On-balance sheet obligations						
Deposits ^(a)	\$ 1,269,092	\$ 11,382	\$ 2,143	\$ 3,970	\$ 1,286,587	\$ 1,191,776
Federal funds purchased and securities loaned or sold under repurchase agreements	177,109	2,097	608	1,349	181,163	240,103
Commercial paper	57,848	—	—	—	57,848	55,367
Other borrowed funds ^(a)	15,655	—	—	—	15,655	15,357
Beneficial interests issued by consolidated VIEs ^(a)	21,578	12,567	7,986	5,490	47,621	62,021
Long-term debt ^(a)	41,966	74,900	64,354	75,519	256,739	231,223
Other ^(b)	2,864	1,214	973	2,669	7,720	7,012
Total on-balance sheet obligations	1,586,112	102,160	76,064	88,997	1,853,333	1,802,859
Off-balance sheet obligations						
Unsettled reverse repurchase and securities borrowing agreements ^(c)	38,211	—	—	—	38,211	34,871
Contractual interest payments ^(d)	7,230	10,363	6,778	23,650	48,021	56,280
Operating leases ^(e)	1,936	3,532	2,796	6,002	14,266	14,915
Equity investment commitments ^(f)	516	82	28	1,493	2,119	1,909
Contractual purchases and capital expenditures ^(g)	1,227	1,042	615	541	3,425	3,052
Obligations under affinity and co-brand programs	921	1,861	447	54	3,283	4,306
Other	11	—	—	—	11	34
Total off-balance sheet obligations	50,052	16,880	10,664	31,740	109,336	115,367
Total contractual cash obligations	\$ 1,636,164	\$ 119,040	\$ 86,728	\$ 120,737	\$ 1,962,669	\$ 1,918,226

- (a) Excludes structured notes where the Firm is not obligated to return a stated amount of principal at the maturity of the notes, but is obligated to return an amount based on the performance of the structured notes.
- (b) Primarily includes dividends declared on preferred and common stock, deferred annuity contracts, pension and postretirement obligations and insurance liabilities. Prior periods were revised to conform with the current presentation.
- (c) For further information, refer to unsettled reverse repurchase and securities borrowing agreements in Note 29 on pages 321–322 of this Annual Report.
- (d) Includes accrued interest and future contractual interest obligations. Excludes interest related to structured notes where the Firm's payment obligation is based on the performance of certain benchmarks.
- (e) Includes noncancelable operating leases for premises and equipment used primarily for banking purposes and for energy-related tolling service agreements. Excludes the benefit of noncancelable sublease rentals of \$2.6 billion and \$1.9 billion at December 31, 2013 and 2012, respectively. Prior periods were revised to conform with the current presentation.
- (f) At December 31, 2013 and 2012, included unfunded commitments of \$215 million and \$370 million, respectively, to third-party private equity funds that are generally fair valued at net asset value as discussed in Note 3 on pages 195–215 of this Annual Report; and \$1.9 billion and \$1.5 billion of unfunded commitments, respectively, to other equity investments.
- (g) Prior periods were revised to conform with the current presentation.

Mortgage repurchase liability

In connection with the Firm's mortgage loan sale and securitization activities with Fannie Mae and Freddie Mac (the "GSEs") and other mortgage loan sale and private-label securitization transactions, the Firm has made representations and warranties that the loans sold meet certain requirements. The Firm has been, and may be, required to repurchase loans and/or indemnify the GSEs (e.g., with "make-whole" payments to reimburse the GSEs for realized losses on liquidated loans) and other investors for losses due to material breaches of these representations

and warranties. To the extent that repurchase demands that are received relate to loans that the Firm purchased from third parties that remain viable, the Firm typically will have the right to seek a recovery of related repurchase losses from the third party.

On October 25, 2013, the Firm announced it had reached a \$1.1 billion agreement with the Federal Housing Finance Agency ("FHFA") to resolve, other than certain limited types of exposures, outstanding and future mortgage repurchase demands associated with loans sold to the GSEs from 2000

to 2008 (“FHFA Settlement Agreement”). The majority of the mortgage repurchase demands that the Firm had received from the GSEs related to loans originated from 2005 to 2008.

The Firm has recognized a mortgage repurchase liability of \$681 million and \$2.8 billion as of December 31, 2013 and 2012, respectively. The amount of the mortgage repurchase liability at December 31, 2013, relates to repurchase losses associated with loans sold in connection with loan sale and securitization transactions with the GSEs that are not covered by the FHFA Settlement Agreement (e.g., post-2008 loan sale and securitization transactions, mortgage insurance rescissions and certain mortgage insurance settlement-related exposures, as well as certain other specific exclusions). At December 31, 2013, the Firm had outstanding repurchase demands of \$330 million and unresolved mortgage insurance rescission notices of \$263 million (excluding mortgage insurance rescission notices on loans for which a repurchase demand also has been received).

The following table summarizes the change in the mortgage repurchase liability for each of the periods presented.

Summary of changes in mortgage repurchase liability

Year ended December 31, (in millions)	2013	2012	2011
Repurchase liability at beginning of period	\$ 2,811	\$ 3,557	\$ 3,285
Net realized losses ^{(a)(b)}	(1,561)	(1,158)	(1,263)
Reclassification to litigation reserve ^(c)	(179)	—	—
Provision for repurchase losses ^(d)	(390)	412	1,535
Repurchase liability at end of period	\$ 681	\$ 2,811	\$ 3,557

(a) Presented net of third-party recoveries and includes principal losses and accrued interest on repurchased loans, “make-whole” settlements, settlements with claimants, and certain related expense. Make-whole settlements were \$414 million, \$524 million and \$640 million, for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) The 2013 amount includes \$1.1 billion for the FHFA Settlement Agreement.

(c) Prior to December 31, 2013, in the absence of a repurchase demand by a party to the relevant contracts, the Firm’s decision to repurchase loans from private-label securitization trusts when it determined it had an obligation to do so was recognized in the mortgage repurchase liability. Pursuant to the terms of the RMBS Trust Settlement, all repurchase obligations relating to the subject private-label securitization trusts, whether resulting from a repurchase demand or otherwise, are now recognized in the Firm’s litigation reserves for this settlement. The RMBS Trust Settlement is fully accrued as of December 31, 2013.

(d) Included a provision related to new loan sales of \$20 million, \$112 million and \$52 million, for the years ended December 31, 2013, 2012 and 2011, respectively.

Private label securitizations

The liability related to repurchase demands associated with private label securitizations is separately evaluated by the Firm in establishing its litigation reserves.

On November 15, 2013, the Firm announced it had reached a \$4.5 billion agreement with 21 major institutional investors to make a binding offer to the trustees of 330 residential mortgage-backed securities trusts issued by J.P.Morgan, Chase and Bear Stearns (“RMBS Trust Settlement”) to resolve all representation and warranty claims, as well as all servicing claims, on all trusts issued by J.P.Morgan, Chase and Bear Stearns between 2005 and 2008. The RMBS Trust Settlement may be subject to court approval. For further information about the RMBS Trust Settlement, see Note 31 on pages 326–332 of this Annual Report.

In addition, from 2005 to 2008, Washington Mutual made certain loan level representations and warranties in connection with approximately \$165 billion of residential mortgage loans that were originally sold or deposited into private-label securitizations by Washington Mutual. Of the \$165 billion, approximately \$75 billion has been repaid. In addition, approximately \$47 billion of the principal amount of such loans has liquidated with an average loss severity of 59%. Accordingly, the remaining outstanding principal balance of these loans as of December 31, 2013, was approximately \$43 billion, of which \$10 billion was 60 days or more past due. The Firm believes that any repurchase obligations related to these loans remain with the FDIC receivership.

For additional information regarding the mortgage repurchase liability, see Note 29 on pages 318–324 of this Annual Report.

CASH FLOWS ANALYSIS

For the years ended December 31, 2013, 2012 and 2011, cash and due from banks decreased \$14.0 billion and \$5.9 billion, and increased \$32.0 billion, respectively. The following discussion highlights the major activities and transactions that affected JPMorgan Chase's cash flows during 2013, 2012 and 2011, respectively.

Cash flows from operating activities

JPMorgan Chase's operating assets and liabilities support the Firm's capital markets and lending activities, including the origination or purchase of loans initially designated as held-for-sale. Operating assets and liabilities can vary significantly in the normal course of business due to the amount and timing of cash flows, which are affected by client-driven and risk management activities, and market conditions. Management believes cash flows from operations, available cash balances and the Firm's ability to generate cash through short- and long-term borrowings are sufficient to fund the Firm's operating liquidity needs.

For the year ended December 31, 2013, net cash provided by operating activities was \$108.0 billion, and it was significantly higher than net income. This resulted from a decrease in trading assets - debt and equity instruments driven by client-driven market-making activity in CIB, which resulted in lower levels of debt securities; and an increase in trading liabilities - debt and equity instruments driven by client-driven market-making activity in CIB, which resulted in higher levels of short positions in debt and equity securities. Net cash generated from operating activities also reflected adjustments for noncash items such as deferred taxes, depreciation and amortization, and stock-based compensation. Partially offsetting these cash inflows was cash used for loans originated and purchased with an initial intent to sell, which was slightly higher than the cash proceeds received from sales and paydowns of the loans, and also reflected significantly higher levels of activities over the prior-year period.

For the year ended December 31, 2012, net cash provided by operating activities was \$25.1 billion. This resulted from a decrease in securities borrowed reflecting a shift in the deployment of excess cash to resale agreements, as well as lower client activity in CIB, and lower trading assets - derivative receivables, primarily related to the decline in the U.S. dollar and tightening of credit spreads. Partially offsetting these cash inflows was a decrease in accounts payable and other liabilities predominantly due to lower CIB client balances, and an increase in trading assets - debt and equity instruments driven by client-driven market-making activity in CIB. Net cash generated from operating activities was higher than net income largely as a result of adjustments for noncash items such as depreciation and amortization, provision for credit losses, and stock-based compensation. Cash used to acquire loans was slightly higher than cash proceeds received from sales and paydowns of such loans originated and purchased with an

initial intent to sell, and also reflected a lower level of activity compared with the prior-year period.

For the year ended December 31, 2011, net cash provided by operating activities was \$95.9 billion, and it was significantly higher than net income. This resulted from a net decrease in trading assets and liabilities - debt and equity instruments, driven by client-driven market-making activity in CIB; an increase in accounts payable and other liabilities predominantly due to higher CIB client balances, and a decrease in accrued interest and accounts receivables, primarily in CIB, driven by a large reduction in customer margin receivables due to changes in client activity. Net cash generated from operating activities also reflected adjustments for noncash items such as the provision for credit losses, depreciation and amortization, and stock-based compensation. Additionally, cash provided from sales and paydowns of loans originated or purchased with an initial intent to sell was higher than cash used to acquire such loans. Partially offsetting these cash proceeds was an increase in securities borrowed, predominantly in Corporate due to higher excess cash positions at year-end.

Cash flows from investing activities

The Firm's investing activities predominantly include loans originated to be held for investment, the investment securities portfolio and other short-term interest-earning assets. For the year ended December 31, 2013, net cash of \$150.5 billion was used in investing activities. This resulted from an increase in deposits with banks reflecting the placement of the Firm's excess funds with various central banks, predominantly Federal Reserve banks; and continued growth of wholesale loans. Partially offsetting this cash outflow was a decrease in securities purchased under resale agreements predominantly due to a shift in the deployment of the Firm's excess cash by Treasury; a decrease in consumer loans excluding credit card loans, predominantly due to paydowns and liquidation of delinquent loans, partially offset by new mortgage and auto originations; and proceeds from maturities and sales of investment securities which were higher than the cash used to acquire new investment securities.

For the year ended December 31, 2012, net cash of \$119.8 billion was used in investing activities. This resulted from an increase in securities purchased under resale agreements due to deployment of the Firm's excess cash by Treasury; higher deposits with banks reflecting placements of the Firm's excess cash with various central banks, primarily Federal Reserve Banks; and higher levels of wholesale loans, primarily in CB and AM, driven by higher wholesale activity across most of the Firm's regions and businesses. Partially offsetting these cash outflows were a decline in consumer, excluding credit card, loans predominantly due to mortgage-related paydowns and portfolio runoff, and a decline in credit card loans due to higher repayment rates; and proceeds from maturities and sales of AFS securities,

which were higher than the cash used to acquire new AFS securities.

For the year ended December 31, 2011, net cash of \$170.8 billion was used in investing activities. This resulted from a significant increase in deposits with banks reflecting the placement of funds with various central banks, including Federal Reserve Banks, predominantly resulting from the overall growth in wholesale client deposits; an increase in loans reflecting continued growth in client activity across all of the Firm's wholesale businesses and regions; net purchases of AFS securities, largely due to repositioning of the portfolio in Corporate in response to changes in the market environment; and an increase in securities purchased under resale agreements, predominantly in Corporate due to higher excess cash positions at year-end. Partially offsetting these cash outflows were a decline in consumer, excluding credit card, loan balances due to paydowns and portfolio runoff, and in credit card loans, due to higher repayment rates, runoff of the Washington Mutual portfolio and the Firm's sale of the Kohl's portfolio.

Cash flows from financing activities

The Firm's financing activities predominantly include taking customer deposits, and issuing long-term debt as well as preferred and common stock. For the year ended December 31, 2013, net cash provided by financing activities was \$28.3 billion. This increase was driven by growth in both wholesale and consumer deposits; net issuances of long-term borrowings, which also reflected the redemption of trust preferred securities in the second quarter of 2013; and proceeds from the net issuance of preferred stock. The increase in wholesale client deposit balances was due to higher short-term deposits as well as growth in client operating balances. Consumer deposit balances increased from the effect of continued strong growth in business volumes and strong customer retention. Partially offsetting these cash inflows was a decrease in securities loaned or sold under repurchase agreements, predominantly due to a change in the mix of the Firm's funding sources; repurchases of common stock; and payments of cash dividends on common and preferred stock.

For the year ended December 31, 2012, net cash provided by financing activities was \$87.7 billion. This was driven by proceeds from long-term borrowings and a higher level of securitized credit cards; an increase in deposits due to growth in both consumer and wholesale deposits; an increase in federal funds purchased and securities loaned or sold under repurchase agreements due to higher secured financings of the Firm's assets; an increase in commercial paper issuance in the wholesale funding markets to meet short-term funding needs, partially offset by a decline in the volume of client deposits and other third-party liability balances related to CIB's liquidity management product; an increase in other borrowed funds due to higher secured and unsecured short-term borrowings to meet short-term funding needs; and proceeds from the issuance of preferred stock. Partially offsetting these cash inflows were

redemptions and maturities of long-term borrowings, including trust preferred securities, and securitized credit cards; and payments of cash dividends on common and preferred stock and repurchases of common stock and warrants.

For the year ended December 31, 2011, net cash provided by financing activities was \$107.7 billion. This was largely driven by a significant increase in deposits, predominantly due to an overall growth in wholesale client balances and, to a lesser extent, consumer deposit balances. The increase in wholesale client balances, particularly in CIB and CB, was primarily driven by lower returns on other available alternative investments and low interest rates during 2011, and in AM, driven by growth in the number of clients and level of deposits. In addition, there was an increase in commercial paper due to growth in the volume of liability balances in sweep accounts related to CIB's cash management program. Cash was used to reduce securities sold under repurchase agreements, predominantly in CIB, reflecting the lower funding requirements of the Firm based on lower trading inventory levels, and change in the mix of funding sources; for net repayments of long-term borrowings, including a decrease in long-term debt, predominantly due to net redemptions and maturities, as well as a decline in long-term beneficial interests issued by consolidated VIEs due to maturities of Firm-sponsored credit card securitization transactions; to reduce other borrowed funds, predominantly driven by maturities of short-term secured borrowings, unsecured bank notes and short-term Federal Home Loan Banks ("FHLB") advances; and for repurchases of common stock and warrants, and payments of cash dividends on common and preferred stock.

EXPLANATION AND RECONCILIATION OF THE FIRM'S USE OF NON-GAAP FINANCIAL MEASURES

The Firm prepares its consolidated financial statements using accounting principles generally accepted in the U.S. ("U.S. GAAP"); these financial statements appear on pages 184-188 of this Annual Report. That presentation, which is referred to as "reported" basis, provides the reader with an understanding of the Firm's results that can be tracked consistently from year to year and enables a comparison of the Firm's performance with other companies' U.S. GAAP financial statements.

In addition to analyzing the Firm's results on a reported basis, management reviews the Firm's results and the results of the lines of business on a "managed" basis, which is a non-GAAP financial measure. The Firm's definition of managed basis starts with the reported U.S. GAAP results and includes certain reclassifications to present total net revenue for the Firm (and each of the business segments) on a FTE basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in

the managed results on a basis comparable to taxable investments and securities. This non-GAAP financial measure allows management to assess the comparability of revenue arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense. These adjustments have no impact on net income as reported by the Firm as a whole or by the lines of business.

Management also uses certain non-GAAP financial measures at the business-segment level, because it believes these other non-GAAP financial measures provide information to investors about the underlying operational performance and trends of the particular business segment and, therefore, facilitate a comparison of the business segment with the performance of its competitors. Non-GAAP financial measures used by the Firm may not be comparable to similarly named non-GAAP financial measures used by other companies.

The following summary table provides a reconciliation from the Firm's reported U.S. GAAP results to managed basis.

	2013			2012			2011		
Year ended December 31, (in millions, except ratios)	Reported Results	Fully taxable-equivalent adjustments ^(a)	Managed basis	Reported Results	Fully taxable-equivalent adjustments ^(a)	Managed basis	Reported Results	Fully taxable-equivalent adjustments ^(a)	Managed basis
Other income	\$ 3,847	\$ 2,495	\$ 6,342	\$ 4,258	\$ 2,116	\$ 6,374	\$ 2,605	\$ 2,003	\$ 4,608
Total noninterest revenue	53,287	2,495	55,782	52,121	2,116	54,237	49,545	2,003	51,548
Net interest income	43,319	697	44,016	44,910	743	45,653	47,689	530	48,219
Total net revenue	96,606	3,192	99,798	97,031	2,859	99,890	97,234	2,533	99,767
Pre-provision profit	26,139	3,192	29,331	32,302	2,859	35,161	34,323	2,533	36,856
Income before income tax expense	25,914	3,192	29,106	28,917	2,859	31,776	26,749	2,533	29,282
Income tax expense	7,991	3,192	11,183	7,633	2,859	10,492	7,773	2,533	10,306
Overhead ratio	73%	NM	71%	67%	NM	65%	65%	NM	63%

(a) Predominantly recognized in CIB and CB business segments and Corporate/Private Equity.

Tangible common equity ("TCE"), ROTCE, tangible book value per share ("TBVS"), and Tier 1 common under Basel I and III rules are each non-GAAP financial measures. TCE represents the Firm's common stockholders' equity (i.e., total stockholders' equity less preferred stock) less goodwill and identifiable intangible assets (other than MSRs), net of related deferred tax liabilities. ROTCE measures the Firm's earnings as a percentage of TCE. TBVS represents the Firm's tangible common equity divided by period-end common shares. Tier 1 common under Basel I and III rules are used by management, along with other capital measures, to assess and monitor the Firm's capital position. TCE, ROTCE, and TBVS are meaningful to the Firm, as well as investors and analysts, in assessing the Firm's use of equity. The Firm uses ROTCE, a non-GAAP financial measure, to evaluate its use of equity and to facilitate comparisons with competitors. For additional information on Tier 1 common under Basel I and III, see Regulatory capital on pages 161-165 of this Annual Report.

Calculation of certain U.S. GAAP and non-GAAP metrics

The following U.S. GAAP and non-GAAP measures, we calculated as follows:

Return on common equity

Net income* / Average common stockholders' equity

Return on tangible common equity

Net income* / Average tangible common equity

Return on assets

Reported net income / Total average assets

Return on risk-weighted assets

Annualized earnings / Average risk-weighted assets

Overhead ratio

Total noninterest expense / Total net revenue

* Represents net income applicable to common equity

Average tangible common equity

Year ended December 31, (in millions)	2013	2012	2011
Common stockholders' equity	\$ 196,409	\$ 184,352	\$ 173,266
Less: Goodwill	48,102	48,176	48,632
Less: Certain identifiable intangible assets	1,950	2,833	3,632
Add: Deferred tax liabilities ^(a)	2,885	2,754	2,635
Tangible common equity	\$ 149,242	\$ 136,097	\$ 123,637

(a) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating TCE.

Core net interest income

In addition to reviewing net interest income on a managed basis, management also reviews core net interest income to assess the performance of its core lending, investing (including asset-liability management) and deposit-raising activities (which excludes the impact of CIB's market-based activities). The core data presented below are non-GAAP financial measures due to the exclusion of CIB's market-based net interest income and the related assets. Management believes this exclusion provides investors and analysts a more meaningful measure by which to analyze the non-market-related business trends of the Firm and provides a comparable measure to other financial institutions that are primarily focused on core lending, investing and deposit-raising activities.

Core net interest income data

Year ended December 31, (in millions, except rates)	2013	2012	2011
Net interest income - managed basis ^{(a)(b)}	\$ 44,016	\$ 45,653	\$ 48,219
Less: Market-based net interest income	4,979	5,787	7,329
Core net interest income^(a)	\$ 39,037	\$ 39,866	\$ 40,890
Average interest-earning assets	\$ 1,970,231	\$ 1,842,417	\$ 1,761,355
Less: Average market-based earning assets	504,218	499,339	519,655
Core average interest-earning assets	\$ 1,466,013	\$ 1,343,078	\$ 1,241,700
Net interest yield on interest-earning assets - managed basis	2.23%	2.48%	2.74%
Net interest yield on market-based activities	0.99	1.16	1.41
Core net interest yield on core average interest-earning assets	2.66%	2.97%	3.29%

(a) Interest includes the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable.

(b) For a reconciliation of net interest income on a reported and managed basis, see reconciliation from the Firm's reported U.S. GAAP results to managed basis on page 82 of this Annual Report.

2013 compared with 2012

Core net interest income decreased by \$829 million to \$39.0 billion for 2013, and core average interest-earning assets increased by \$122.9 billion in 2013 to \$1,466.0 billion. The decline in net interest income in 2013 primarily reflected the impact of the runoff of higher yielding loans and originations of lower yielding loans. The decrease in net interest income was partially offset by lower long-term debt and other funding costs. The increase in average interest-earning assets reflected the impact of higher deposits with banks. The core net interest yield decreased by 31 basis points to 2.66% in 2013, primarily reflecting the impact of a significant increase in deposits with banks and lower loan yields, partially offset by the impact of lower long-term debt yields and deposit rates.

2012 compared with 2011

Core net interest income decreased by \$1.0 billion to \$39.9 billion for 2012, and core average interest-earning assets increased by \$101.4 billion in 2012 to \$1,343.1 billion. The decline in net interest income in 2012 reflected the impact of the runoff of higher-yielding loans, faster prepayment of mortgage-backed securities, and limited reinvestment opportunities, as well as the impact of lower interest rates across the Firm's interest-earning assets. The decrease in net interest income was partially offset by lower deposit and other borrowing costs. The increase in average interest-earning assets was driven by higher deposits with banks and other short-term investments, increased levels of loans, and an increase in investment securities. The core net interest yield decreased by 32 basis points to 2.97% in 2012, primarily driven by the runoff of higher-yielding loans, lower customer loan rates, higher financing costs associated with mortgage-backed securities, and limited reinvestment opportunities, slightly offset by lower customer deposit rates.

BUSINESS SEGMENT RESULTS

The Firm is managed on a line of business basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset Management. In addition, there is a Corporate/Private Equity segment.

The business segments are determined based on the products and services provided, or the type of customer

served, and they reflect the manner in which financial information is currently evaluated by management. Results of these lines of business are presented on a managed basis. For a definition of managed basis, see Explanation and Reconciliation of the Firm's use of non-GAAP financial measures, on pages 82-83 of this Annual Report.

JPMorgan Chase						
Consumer Businesses			Wholesale Businesses			
Consumer & Community Banking			Corporate & Investment Bank		Commercial Banking	Asset Management
Consumer & Business Banking	Mortgage Banking	Card, Merchant Services & Auto	Banking	Markets & Investor Services		
- Consumer Banking - Business Banking - Chase Wealth Management	- Mortgage Production - Mortgage Servicing - Real Estate Portfolios	- Card Services - Credit Card - Merchant Services - Auto & Student	- Investment Banking - Treasury Services - Lending	- Fixed Income Markets - Equity Markets - Securities Services - Credit Adjustments & Other	- Middle Market Banking - Corporate Client Banking - Commercial Term Lending - Real Estate Banking	- Private Banking - Investment Management

Description of business segment reporting methodology

Results of the business segments are intended to reflect each segment as if it were essentially a stand-alone business. The management reporting process that derives business segment results allocates income and expense using market-based methodologies. The Firm continues to assess the assumptions, methodologies and reporting classifications used for segment reporting, and further refinements may be implemented in future periods.

Revenue sharing

When business segments join efforts to sell products and services to the Firm's clients, the participating business segments agree to share revenue from those transactions. The segment results reflect these revenue-sharing agreements.

Funds transfer pricing

Funds transfer pricing is used to allocate interest income and expense to each business and transfer the primary interest rate risk exposures to the Treasury group within Corporate/Private Equity. The allocation process is unique

to each business segment and considers the interest rate risk, liquidity risk and regulatory requirements of that segment as if it were operating independently, and as compared with its stand-alone peers. This process is overseen by senior management and reviewed by the Firm's Asset-Liability Committee ("ALCO").

Business segment capital allocation changes

Each business segment is allocated capital by taking into consideration stand-alone peer comparisons, regulatory capital requirements (as estimated under Basel III) and economic risk measures. The amount of capital assigned to each business is referred to as equity. Effective January 1, 2013, the Firm refined the capital allocation framework to align it with the line of business structure described above. The increase in equity levels for the lines of businesses is largely driven by evolving regulatory requirements and the higher capital targets the Firm has established under the Basel III Advanced Approach. For further information about these capital changes, see Line of business equity on pages 165-166 of this Annual Report.

Expense allocation

Where business segments use services provided by support units within the Firm, or another business segment, the costs of those services are allocated to the respective business segments. The expense is generally allocated based on actual cost and upon usage of the services provided. In contrast, certain other expense related to certain corporate functions, or to certain technology and

operations, are not allocated to the business segments and are retained in Corporate. Retained expense includes: parent company costs that would not be incurred if the segments were stand-alone businesses; adjustments to align certain corporate staff, technology and operations allocations with market prices; and other items not aligned with a particular business segment.

Segment Results – Managed Basis

The following table summarizes the business segment results for the periods indicated.

Year ended December 31, (in millions)	Total net revenue			Total noninterest expense			Pre-provision profit/(loss)		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Consumer & Community Banking ^(a)	\$ 46,026	\$ 49,884	\$ 45,619	\$ 27,842	\$ 28,827	\$ 27,637	\$ 18,184	\$ 21,057	\$ 17,982
Corporate & Investment Bank	34,225	34,326	33,984	21,744	21,850	21,979	12,481	12,476	12,005
Commercial Banking	6,973	6,825	6,418	2,610	2,389	2,278	4,363	4,436	4,140
Asset Management	11,320	9,946	9,543	8,016	7,104	7,002	3,304	2,842	2,541
Corporate/Private Equity ^(a)	1,254	(1,091)	4,203	10,255	4,559	4,015	(9,001)	(5,650)	188
Total	\$ 99,798	\$ 99,890	\$ 99,767	\$ 70,467	\$ 64,729	\$ 62,911	\$ 29,331	\$ 35,161	\$ 36,856

Year ended December 31, (in millions, except ratios)	Provision for credit losses			Net income/(loss)			Return on equity		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Consumer & Community Banking ^(a)	\$ 335	\$ 3,774	\$ 7,620	\$ 10,749	\$ 10,551	\$ 6,105	23%	25%	15%
Corporate & Investment Bank	(232)	(479)	(285)	8,546	8,406	7,993	15	18	17
Commercial Banking	85	41	208	2,575	2,646	2,367	19	28	30
Asset Management	65	86	67	2,031	1,703	1,592	23	24	25
Corporate/Private Equity ^(a)	(28)	(37)	(36)	(5,978)	(2,022)	919	NM	NM	NM
Total	\$ 225	\$ 3,385	\$ 7,574	\$ 17,923	\$ 21,284	\$ 18,976	9%	11%	11%

(a) The 2012 and 2011 data for certain income statement line items (predominantly net interest income, compensation and noncompensation expense) were revised to reflect the transfer of certain technology and operations, as well as real estate-related functions and staff, from Corporate/Private Equity to CCB, effective January 1, 2013.

CONSUMER & COMMUNITY BANKING

Consumer & Community Banking (“CCB”) serves consumers and businesses through personal service at bank branches and through ATMs, online, mobile and telephone banking. CCB is organized into Consumer & Business Banking, Mortgage Banking (including Mortgage Production, Mortgage Servicing and Real Estate Portfolios) and Card, Merchant Services & Auto (“Card”). Consumer & Business Banking offers deposit and investment products and services to consumers, and lending, deposit, and cash management and payment solutions to small businesses. Mortgage Banking includes mortgage origination and servicing activities, as well as portfolios comprised of residential mortgages and home equity loans, including the PCI portfolio acquired in the Washington Mutual transaction. Card issues credit cards to consumers and small businesses, provides payment services to corporate and public sector clients through its commercial card products, offers payment processing services to merchants, and provides auto and student loan services.

Selected income statement data^(a)

Year ended December 31,

(in millions, except ratios)	2013	2012	2011
Revenue			
Lending- and deposit-related fees	\$ 2,983	\$ 3,121	\$ 3,219
Asset management, administration and commissions	2,116	2,093	2,046
Mortgage fees and related income	5,195	8,680	2,714
Card income	5,785	5,446	6,152
All other income	1,473	1,473	1,183
Noninterest revenue	17,552	20,813	15,314
Net interest income	28,474	29,071	30,305
Total net revenue	46,026	49,884	45,619
Provision for credit losses	335	3,774	7,620
Noninterest expense			
Compensation expense	11,686	11,632	10,329
Noncompensation expense	15,740	16,420	16,669
Amortization of intangibles	416	775	639
Total noninterest expense	27,842	28,827	27,637
Income before income tax expense	17,849	17,283	10,362
Income tax expense	7,100	6,732	4,257
Net income	\$ 10,749	\$10,551	\$ 6,105
Financial ratios			
Return on common equity	23%	25%	15%
Overhead ratio	60	58	61

(a) The 2012 and 2011 data for certain income statement line items (predominantly net interest income, compensation and noncompensation expense) were revised to reflect the transfer of certain technology and operations, as well as real estate-related functions and staff, from Corporate/Private Equity to CCB, effective January 1, 2013.

2013 compared with 2012

Consumer & Community Banking net income was \$10.7 billion, an increase of \$198 million, or 2%, compared with the prior year, due to lower provision for credit losses and lower noninterest expense, predominantly offset by lower net revenue.

Net revenue was \$46.0 billion, a decrease of \$3.9 billion, or 8%, compared with the prior year. Net interest income was \$28.5 billion, down \$597 million, or 2%, driven by lower deposit margins, lower loan balances due to net portfolio runoff and spread compression in Credit Card, largely offset by higher deposit balances. Noninterest revenue was \$17.6 billion, a decrease of \$3.3 billion, or 16%, driven by lower mortgage fees and related income, partially offset by higher card income.

The provision for credit losses was \$335 million, compared with \$3.8 billion in the prior year. The current-year provision reflected a \$5.5 billion reduction in the allowance for loan losses and total net charge-offs of \$5.8 billion. The prior-year provision reflected a \$5.5 billion reduction in the allowance for loan losses and total net charge-offs of \$9.3 billion, including \$800 million of incremental charge-offs related to regulatory guidance. For more information, including net charge-off amounts and rates, see Consumer Credit Portfolio on pages 120–129 of this Annual Report.

Noninterest expense was \$27.8 billion, a decrease of \$985 million, or 3%, from the prior year, driven by lower mortgage servicing expense, partially offset by investments in Chase Private Client expansion, higher non-MBS related legal expense in Mortgage Production, higher auto lease depreciation, and costs related to the control agenda.

2012 compared with 2011

Consumer & Community Banking net income was \$10.6 billion, up 73% when compared with the prior year. The increase was driven by higher net revenue and lower provision for credit losses, partially offset by higher noninterest expense.

Net revenue was \$49.9 billion, up \$4.3 billion, or 9%, compared with the prior year. Net interest income was \$29.1 billion, down \$1.2 billion, or 4%, driven by lower deposit margins and lower loan balances due to portfolio runoff, largely offset by higher deposit balances.

Noninterest revenue was \$20.8 billion, up \$5.5 billion, or 36%, driven by higher mortgage fees and related income, partially offset by lower debit card revenue, reflecting the impact of the Durbin Amendment.

The provision for credit losses was \$3.8 billion compared with \$7.6 billion in the prior year. The current-year provision reflected a \$5.5 billion reduction in the allowance for loan losses due to improved delinquency trends and reduced estimated losses in the real estate and credit card loan portfolios. Current-year total net charge-offs were \$9.3 billion, including \$800 million of incremental charge-offs

related to regulatory guidance. Excluding these charge-offs, net charge-offs during the year would have been \$8.5 billion compared with \$11.8 billion in the prior year. For more information, including net charge-off amounts and rates, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.

Noninterest expense was \$28.8 billion, an increase of \$1.2 billion, or 4%, compared with the prior year, driven by higher production expense reflecting higher volumes, and investments in sales force, partially offset by lower costs related to mortgage-related matters and lower marketing expense in Card.

Selected metrics

As of or for the year ended
December 31,

(in millions, except
headcount)

	2013	2012	2011
Selected balance sheet data (period-end)^(a)			
Total assets	\$ 452,929	\$ 467,282	\$ 486,697
Loans:			
Loans retained	393,351	402,963	425,581
Loans held-for-sale and loans at fair value ^(b)	7,772	18,801	12,796
Total loans	401,123	421,764	438,377
Deposits	464,412	438,517	397,868
Equity	46,000	43,000	41,000
Selected balance sheet data (average)^(a)			
Total assets	456,468	467,641	491,035
Loans:			
Loans retained	392,797	408,559	429,975
Loans held-for-sale and loans at fair value ^(b)	15,812	18,006	17,187
Total loans	408,609	426,565	447,162
Deposits	453,304	413,948	382,702
Equity	46,000	43,000	41,000
Headcount^(a)	151,333	164,391	166,053

- (a) The 2012 and 2011 data for certain balance sheet line items (predominantly total assets) as well as headcount were revised to reflect the transfer of certain technology and operations, as well as real estate-related functions and staff, from Corporate/Private Equity to CCB, effective January 1, 2013.
- (b) Predominantly consists of prime mortgages originated with the intent to sell that are accounted for at fair value and classified as trading assets on the Consolidated Balance Sheets.

Selected metrics

As of or for the year ended
December 31,

(in millions, except ratios and
where otherwise noted)

	2013	2012	2011
Credit data and quality statistics			
Net charge-offs ^{(a)(b)}	\$ 5,826	\$ 9,280	\$ 11,815
Nonaccrual loans:			
Nonaccrual loans retained	7,455	9,114	7,354
Nonaccrual loans held-for-sale and loans at fair value	40	39	103
Total nonaccrual loans^{(c)(d)(e)(f)}	7,495	9,153	7,457
Nonperforming assets ^{(c)(d)(e)(f)}	8,149	9,830	8,292
Allowance for loan losses ^(a)	12,201	17,752	23,256
Net charge-off rate ^{(b)(g)}	1.48%	2.27%	2.75%
Net charge-off rate, excluding PCI loans ^{(a)(b)(g)}	1.73	2.68	3.27
Allowance for loan losses to period-end loans retained	3.10	4.41	5.46
Allowance for loan losses to period-end loans retained, excluding PCI loans ^(h)	2.36	3.51	4.87
Allowance for loan losses to nonaccrual loans retained, excluding credit card ^{(c)(f)(h)}	57	72	143
Nonaccrual loans to total period-end loans, excluding credit card ^(f)	2.74	3.12	2.44
Nonaccrual loans to total period-end loans, excluding credit card and PCI loans ^{(c)(f)}	3.40	3.91	3.10
Business metrics			
Number of:			
Branches	5,630	5,614	5,508
ATMs	19,211	18,699	17,235
Active online customers (in thousands)	33,742	31,114	29,749
Active mobile customers (in thousands)	15,629	12,359	8,203

- (a) Net charge-offs and net charge-off rates for the year ended December 31, 2013 excluded \$53 million of write-offs in the PCI portfolio. These write-offs decreased the allowance for loan losses for PCI loans. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.
- (b) Net charge-offs and net charge-off rates for the year ended December 31, 2012, included \$800 million of charge-offs, recorded in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") to be charged off to the net realizable value of the collateral and to be considered nonaccrual, regardless of their delinquency status. Excluding these charge-offs, net charge-offs for the year ended December 31, 2012, would have been \$8.5 billion and excluding these charge-offs and PCI loans, the net charge-off rate for the year ended December 31, 2012, would have been 2.45%. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.
- (c) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.
- (d) Certain mortgages originated with the intent to sell are classified as trading assets on the Consolidated Balance Sheets.
- (e) At December 31, 2013, 2012 and 2011, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of \$8.4 billion, \$10.6 billion, and \$11.5 billion, respectively, that are 90 or more days past due; (2) real estate owned insured by U.S. government agencies of \$2.0 billion, \$1.6 billion, and \$954 million, respectively; and (3) student loans insured by U.S. government agencies under the Federal Family Education Loan Program ("FFELP") of \$428 million, \$525 million, and \$551 million, respectively, that are 90 or more days past due. These amounts have been excluded from nonaccrual loans based upon the government guarantee.
- (f) Nonaccrual loans included \$3.0 billion of loans at December 31, 2012, based upon regulatory guidance. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.
- (g) Loans held-for-sale and loans accounted for at fair value were excluded when calculating the net charge-off rate.
- (h) An allowance for loan losses of \$4.2 billion at December 31, 2013, and \$5.7 billion at December 31, 2012 and 2011 was recorded for PCI loans; these amounts were also excluded from the applicable ratios.

Consumer & Business Banking

Selected income statement data^(a)

Year ended December 31,

(in millions, except ratios)	2013	2012	2011
Revenue			
Lending- and deposit-related fees	\$ 2,942	\$ 3,068	\$ 3,160
Asset management, administration and commissions	1,815	1,638	1,561
Card income	1,495	1,353	2,024
All other income	492	498	473
Noninterest revenue	6,744	6,557	7,218
Net interest income	10,566	10,594	10,732
Total net revenue	17,310	17,151	17,950
Provision for credit losses	347	311	419
Noninterest expense	12,162	11,490	11,336
Income before income tax expense	4,801	5,350	6,195
Net income	\$ 2,881	\$ 3,203	\$ 3,699
Return on common equity	26%	36%	39%
Overhead ratio	70	67	63
Overhead ratio, excluding core deposit intangibles ^(b)	69	66	62
Equity (period-end and average)	\$ 11,000	\$ 9,000	\$ 9,500

(a) The 2012 and 2011 data for certain income statement line items were revised to reflect the transfer of certain functions and staff from Corporate/Private Equity to CCB, effective January 1, 2013.

(b) Consumer & Business Banking ("CBB") uses the overhead ratio (excluding the amortization of core deposit intangibles ("CDI")), a non-GAAP financial measure, to evaluate the underlying expense trends of the business. Including CDI amortization expense in the overhead ratio calculation would result in a higher overhead ratio in the earlier years and a lower overhead ratio in later years; this method would therefore result in an improving overhead ratio over time, all things remaining equal. This non-GAAP ratio excluded CBB's CDI amortization expense related to prior business combination transactions of \$163 million, \$200 million, and \$238 million for the years ended December 31, 2013, 2012 and 2011, respectively.

2013 compared with 2012

Consumer & Business Banking net income was \$2.9 billion, a decrease of \$322 million, or 10%, compared with the prior year, due to higher noninterest expense, partially offset by higher noninterest revenue.

Net revenue was \$17.3 billion, up 1% compared with the prior year. Net interest income was \$10.6 billion, flat compared with the prior year, driven by higher deposit balances, offset by lower deposit margin. Noninterest revenue was \$6.7 billion, an increase of 3%, driven by higher investment sales revenue and debit card revenue, partially offset by lower deposit-related fees.

The provision for credit losses was \$347 million, compared with \$311 million in the prior year.

Noninterest expense was \$12.2 billion, up 6% from the prior year, reflecting continued investments in the business, and costs related to the control agenda.

2012 compared with 2011

Consumer & Business Banking net income was \$3.2 billion, a decrease of \$496 million, or 13%, compared with the prior year. The decrease was driven by lower net revenue and higher noninterest expense, partially offset by lower provision for credit losses.

Net revenue was \$17.2 billion, down 4% from the prior year. Net interest income was \$10.6 billion, down 1% from the prior year, driven by the impact of lower deposit margins, predominantly offset by higher deposit balances. Noninterest revenue was \$6.6 billion, down 9% from the prior year, driven by lower debit card revenue, reflecting the impact of the Durbin Amendment.

The provision for credit losses was \$311 million, compared with \$419 million in the prior year. The current-year provision reflected a \$100 million reduction in the allowance for loan losses. Net charge-offs were \$411 million compared with \$494 million in the prior year.

Noninterest expense was \$11.5 billion, up 1% from the prior year, resulting from investment in the sales force and new branch builds.

Selected metrics

As of or for the year ended December 31,

(in millions, except ratios)	2013	2012	2011
Business metrics			
Business banking origination volume	\$ 5,148	\$ 6,542	\$ 5,827
Period-end loans	19,416	18,883	17,652
Period-end deposits: ^(a)			
Checking	187,182	170,354	147,821
Savings	238,223	216,422	191,891
Time and other	26,022	31,753	36,746
Total period-end deposits	451,427	418,529	376,458
Average loans	18,844	18,104	17,121
Average deposits: ^(a)			
Checking	176,005	153,422	136,602
Savings	229,341	204,449	182,587
Time and other	29,227	34,224	41,577
Total average deposits	434,573	392,095	360,766
Deposit margin	2.32%	2.57%	2.82%
Average assets ^(a)	\$ 37,174	\$ 34,431	\$ 32,886

(a) The 2012 and 2011 data for certain balance sheet line items were revised to reflect the transfer of certain functions and staff from Corporate/Private Equity to CCB, effective January 1, 2013.

Selected metrics

As of or for the year ended
December 31,

(in millions, except ratios and
where otherwise noted)

	2013	2012	2011
Credit data and quality statistics			
Net charge-offs	\$ 337	\$ 411	\$ 494
Net charge-off rate	1.79%	2.27%	2.89%
Allowance for loan losses	\$ 707	\$ 698	\$ 798
Nonperforming assets	391	488	710
Retail branch business metrics			
Investment sales volume	\$ 35,050	\$ 26,036	\$ 22,716
Client investment assets	188,840	158,502	137,853
% managed accounts	36%	29%	24%
Number of:			
Chase Private Client locations	2,149	1,218	262
Personal bankers	23,588	23,674	24,308
Sales specialists	5,740	6,076	6,017
Client advisors	3,044	2,963	3,201
Chase Private Clients	215,888	105,700	21,723
Accounts (in thousands) ^(a)	29,437	28,073	26,626

(a) Includes checking accounts and Chase LiquidSM cards (launched in the second quarter of 2012).

Mortgage Banking

Selected income statement data

Year ended December 31,

(in millions, except ratios)

	2013	2012	2011
Revenue			
Mortgage fees and related income	\$ 5,195	\$ 8,680	\$ 2,714
All other income	283	475	490
Noninterest revenue	5,478	9,155	3,204
Net interest income	4,548	4,808	5,324
Total net revenue	10,026	13,963	8,528
Provision for credit losses	(2,681)	(490)	3,580
Noninterest expense	7,602	9,121	8,256
Income/(loss) before income tax expense/(benefit)	5,105	5,332	(3,308)
Net income/(loss)	\$ 3,082	\$ 3,341	\$ (2,138)
Return on equity	16%	19%	(14)%
Overhead ratio	76	65	97
Equity (period-end and average)	\$ 19,500	\$ 17,500	\$15,500

2013 compared with 2012

Mortgage Banking net income was \$3.1 billion, a decrease of \$259 million, or 8%, compared with the prior year, driven by lower net revenue, predominantly offset by a higher benefit from the provision for credit losses and lower noninterest expense.

Net revenue was \$10.0 billion, a decrease of \$3.9 billion compared with the prior year. Net interest income was \$4.5 billion, a decrease of \$260 million, or 5%, driven by lower loan balances due to net portfolio runoff. Noninterest revenue was \$5.5 billion, a decrease of \$3.7 billion, driven by lower mortgage fees and related income.

The provision for credit losses was a benefit of \$2.7 billion, compared with a benefit of \$490 million in the prior year. The current year reflected a \$3.8 billion reduction in the allowance for loan losses due to continued improvement in home prices and delinquencies. The prior year included a \$3.9 billion reduction in the allowance for loan losses.

Noninterest expense was \$7.6 billion, a decrease of \$1.5 billion, or 17%, from the prior year, due to lower servicing expense, partially offset by higher non-MBS related legal expense in Mortgage Production.

2012 compared with 2011

Mortgage Banking net income was \$3.3 billion, compared with a net loss of \$2.1 billion in the prior year. The increase was driven by higher net revenue and lower provision for credit losses, partially offset by higher noninterest expense.

Net revenue was \$14.0 billion, up \$5.4 billion, or 64%, compared with the prior year. Net interest income was \$4.8 billion, down \$516 million, or 10%, resulting from lower loan balances due to net portfolio runoff. Noninterest revenue was \$9.2 billion, up \$6.0 billion compared with the prior year, driven by higher mortgage fees and related income.

The provision for credit losses was a benefit of \$490 million, compared with a provision expense of \$3.6 billion in the prior year. The current year reflected a \$3.85 billion reduction in the allowance for loan losses due to improved delinquency trends and lower estimated losses.

Noninterest expense was \$9.1 billion, an increase of \$865 million, or 10%, compared with the prior year, driven by higher production expense reflecting higher volumes, partially offset by lower costs related to mortgage-related matters.

Management's discussion and analysis

Functional results

Year ended December 31,

(in millions, except ratios)

	2013	2012	2011
Mortgage Production			
Production revenue	\$ 2,673	\$ 5,783	\$ 3,395
Production-related net interest & other income	909	787	840
Production-related revenue, excluding repurchase (losses)/benefits	3,582	6,570	4,235
Production expense ^(a)	3,088	2,747	1,895
Income, excluding repurchase (losses)/benefits	494	3,823	2,340
Repurchase (losses)/benefits	331	(272)	(1,347)
Income before income tax expense	825	3,551	993
Mortgage Servicing			
Loan servicing revenue	3,552	3,772	4,134
Servicing-related net interest & other income	411	407	390
Servicing-related revenue	3,963	4,179	4,524
Changes in MSR asset fair value due to collection/realization of expected cash flows	(1,094)	(1,222)	(1,904)
Default servicing expense	2,069	3,707	3,814
Core servicing expense	904	1,033	1,031
Income/(loss), excluding MSR risk management	(104)	(1,783)	(2,225)
MSR risk management, including related net interest income/(expense)	(268)	616	(1,572)
Income/(loss) before income tax expense/(benefit)	(372)	(1,167)	(3,797)
Real Estate Portfolios			
Noninterest revenue	(209)	43	38
Net interest income	3,721	4,049	4,554
Total net revenue	3,512	4,092	4,592
Provision for credit losses	(2,693)	(509)	3,575
Noninterest expense	1,553	1,653	1,521
Income/(loss) before income tax expense/(benefit)	4,652	2,948	(504)
Mortgage Banking income/(loss) before income tax expense/(benefit)	\$ 5,105	\$ 5,332	\$ (3,308)
Mortgage Banking net income/(loss)	\$ 3,082	\$ 3,341	\$ (2,138)
Overhead ratios			
Mortgage Production	79%	43%	65%
Mortgage Servicing	114	133	462
Real Estate Portfolios	44	40	33

(a) Includes provision for credit losses associated with Mortgage Production.

Selected income statement data

Year ended December 31,

(in millions)

	2013	2012	2011
Supplemental mortgage fees and related income details			
Net production revenue:			
Production revenue	\$ 2,673	\$ 5,783	\$ 3,395
Repurchase (losses)/benefits	331	(272)	(1,347)
Net production revenue	3,004	5,511	2,048
Net mortgage servicing revenue:			
Operating revenue:			
Loan servicing revenue	3,552	3,772	4,134
Changes in MSR asset fair value due to collection/realization of expected cash flows	(1,094)	(1,222)	(1,904)
Total operating revenue	2,458	2,550	2,230
Risk management:			
Changes in MSR asset fair value due to market interest rates and other ^(a)	2,119	(587)	(5,390)
Other changes in MSR asset fair value due to other inputs and assumptions in model ^(b)	(511)	(46)	(1,727)
Changes in derivative fair value and other	(1,875)	1,252	5,553
Total risk management	(267)	619	(1,564)
Total net mortgage servicing revenue	2,191	3,169	666
Mortgage fees and related income	\$ 5,195	\$ 8,680	\$ 2,714

- (a) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.
- (b) Represents the aggregate impact of changes in model inputs and assumptions such as projected cash flows (e.g. cost to service), discount rates and changes in prepayments other than those attributable to changes in market interest rates (e.g. changes in prepayments due to changes in home prices).

Net production revenue includes net gains or losses on originations and sales of mortgage loans, other production-related fees and losses related to the repurchase of previously-sold loans.

Net mortgage servicing revenue includes the following components:

(a) Operating revenue predominantly represents the return on Mortgage Servicing's MSR asset and includes:

- Actual gross income earned from servicing third-party mortgage loans, such as contractually specified servicing fees and ancillary income; and
- The change in the fair value of the MSR asset due to the collection or realization of expected cash flows.

(b) Risk management represents the components of Mortgage Servicing's MSR asset that are subject to ongoing risk management activities, together with derivatives and other instruments used in those risk management activities

Mortgage origination channels comprise the following:

Retail – Borrowers who buy or refinance a home through direct contact with a mortgage banker employed by the Firm using a branch office, the Internet or by phone. Borrowers are frequently referred to a mortgage banker by a banker in a Chase branch, real estate brokers, home builders or other third parties.

Wholesale – Includes loans guaranteed by the U.S. Department of Agriculture under its Section 502 Guaranteed Loan program that serves low-and-moderate income families in small rural communities.

Correspondent – Banks, thrifts, other mortgage banks and other financial institutions that sell closed loans to the Firm.

2013 compared with 2012

Mortgage Production pretax income was \$825 million, a decrease of \$2.7 billion from the prior year, reflecting lower margins, lower volumes and higher legal expense, partially offset by a benefit in repurchase losses. Production-related revenue, excluding repurchase losses, was \$3.6 billion, a decrease of \$3.0 billion, or 45%, from the prior year, largely reflecting lower margins and lower volumes from rising rates. Production expense was \$3.1 billion, an increase of \$341 million from the prior year, due to higher non-MBS related legal expense and higher compensation-related expense. Repurchase losses for the current year reflected a benefit of \$331 million, compared with repurchase losses of \$272 million in the prior year. The current year reflected a reduction in repurchase liability largely as a result of the settlement with the GSEs. For further information, see Mortgage repurchase liability on pages 78-79 of this Annual Report.

Mortgage Servicing pretax loss was \$372 million, compared with a pretax loss of \$1.2 billion in the prior year, driven by lower expense, partially offset by mortgage servicing rights ("MSR") risk management loss. Mortgage net servicing-related revenue was \$2.9 billion, a decrease of \$88 million. MSR risk management was a loss of \$268 million, compared with income of \$616 million in the prior year, driven by the net impact of various changes in model inputs and assumptions. See Note 17 on pages 299-304 of this Annual Report for further information regarding changes in value of the MSR asset and related hedges.

Servicing expense was \$3.0 billion, a decrease of \$1.8 billion from the prior year, reflecting lower costs associated with the Independent Foreclosure Review and lower servicing headcount.

Real Estate Portfolios pretax income was \$4.7 billion, up \$1.7 billion from the prior year, due to a higher benefit from the provision for credit losses, partially offset by lower net revenue. Net revenue was \$3.5 billion, a decrease of \$580 million, or 14%, from the prior year. This decrease was due to lower net interest income, resulting from lower loan balances due to net portfolio runoff, and lower noninterest revenue due to higher loan retention. The provision for credit losses was a benefit of \$2.7 billion, compared with a benefit of \$509 million in the prior year. The current-year provision reflected a \$3.8 billion reduction in the allowance for loan losses, \$2.3 billion from the non credit-impaired allowance and \$1.5 billion from the purchased credit-impaired allowance, reflecting continued improvement in home prices and delinquencies. The prior-year provision included a \$3.9 billion reduction in the allowance for loan losses from the non credit-impaired allowance. Net charge-offs were \$1.1 billion, compared with \$3.3 billion in the prior year. Prior-year total net charge-offs included \$744 million of incremental charge-offs reported in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy. See Consumer Credit Portfolio on pages 120-129 of this Annual Report for the net charge-off amounts and rates. Noninterest expense was \$1.6 billion, a decrease of \$100 million, or 6%, compared with the prior year, driven by lower foreclosed asset expense due to lower foreclosure inventory, largely offset by higher FDIC-related expense.

2012 compared with 2011

Mortgage Production pretax income was \$3.6 billion, an increase of \$2.6 billion compared with the prior year. Mortgage production-related revenue, excluding repurchase losses, was \$6.6 billion, an increase of \$2.3 billion, or 55%, from the prior year. These results reflected wider margins, driven by favorable market conditions, and higher volumes due to historically low interest rates and the Home Affordable Refinance Programs ("HARP"). Production expense, including credit costs, was \$2.7 billion, an increase of \$852 million, or 45%, reflecting higher volumes and additional litigation costs. Repurchase losses were \$272 million, compared with \$1.3 billion in the prior year. The current-year reflected a reduction in the repurchase liability of \$683 million compared with a build of \$213 million in the prior year, primarily driven by improved cure rates on Agency repurchase demands and lower outstanding repurchase demand pipeline. For further information, see Mortgage repurchase liability on pages 78-79 of this Annual Report.

Mortgage Servicing reported a pretax loss of \$1.2 billion, compared with a pretax loss of \$3.8 billion in the prior year. Mortgage servicing revenue, including amortization, was \$3.0 billion, an increase of \$337 million, or 13%, from the

Management's discussion and analysis

prior year, driven by lower mortgage servicing rights ("MSR") asset amortization expense as a result of lower MSR asset value, partially offset by lower loan servicing revenue due to the decline in the third-party loans serviced. MSR risk management income was \$616 million, compared with a loss of \$1.6 billion in the prior year. The prior year MSR risk management loss was driven by refinements to the valuation model and related inputs. See Note 17 on pages 299-304 of this Annual Report for further information regarding changes in value of the MSR asset and related hedges. Servicing expense was \$4.7 billion, down 2% from the prior year, but elevated in both the current and prior year primarily due to higher default servicing costs.

Real Estate Portfolios pretax income was \$2.9 billion, compared with a pretax loss of \$504 million in the prior year. The improvement was driven by a benefit from the provision for credit losses, reflecting the continued improvement in credit trends, partially offset by lower net revenue. Net revenue was \$4.1 billion, down \$500 million, or 11%, from the prior year. The decrease was driven by a decline in net interest income as a result of lower loan balances due to net portfolio runoff. The provision for credit losses reflected a benefit of \$509 million, compared with a provision expense of \$3.6 billion in the prior year. The current-year provision reflected a \$3.9 billion reduction in the non credit-impaired allowance for loan losses due to improved delinquency trends and lower estimated losses. Current-year net charge-offs totaled \$3.3 billion, including \$744 million of incremental charge-offs reported in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy, compared with \$3.8 billion in the prior year. See Consumer Credit Portfolio on pages 120-129 of this Annual Report for the net charge-off amounts and rates. Nonaccrual loans were \$7.9 billion, compared with \$5.9 billion in the prior year. Excluding the impact of certain regulatory guidance, nonaccrual loans would have been \$4.9 billion at December 31, 2012. For more information on the reporting of Chapter 7 loans and performing junior liens that are subordinate to senior liens that are 90 days or more past due as nonaccrual, see Consumer Credit Portfolio on pages 120-129 of this Annual Report. Noninterest expense was \$1.7 billion, up \$132 million, or 9%, compared with the prior year due to an increase in servicing costs.

PCI Loans

Included within Real Estate Portfolios are PCI loans that the Firm acquired in the Washington Mutual transaction. For PCI loans, the excess of the undiscounted gross cash flows expected to be collected over the carrying value of the loans (the "accretable yield") is accreted into interest income at a level rate of return over the expected life of the loans.

The net spread between the PCI loans and the related liabilities are expected to be relatively constant over time, except for any basis risk or other residual interest rate risk that remains and for certain changes in the accretable yield percentage (e.g., from extended loan liquidation periods

and from prepayments). As of December 31, 2013, the remaining weighted-average life of the PCI loan portfolio is expected to be 8 years. The loan balances are expected to decline more rapidly over the next three years as the most troubled loans are liquidated, and more slowly thereafter as the remaining troubled borrowers have limited refinancing opportunities. Similarly, default and servicing expense are expected to be higher in the earlier years and decline over time as liquidations slow down.

For further information, see Note 14, PCI loans, on pages 274-276 of this Annual Report.

Mortgage Production and Servicing

Selected metrics

As of or for the year ended
December 31,

(in millions, except ratios)	2013	2012	2011
Selected balance sheet data			
Period-end loans:			
Prime mortgage, including option ARMs ^(a)	\$ 15,136	\$ 17,290	\$ 16,891
Loans held-for-sale and loans at fair value ^(b)	7,446	18,801	12,694
Average loans:			
Prime mortgage, including option ARMs ^(a)	16,495	17,335	14,580
Loans held-for-sale and loans at fair value ^(b)	15,717	17,573	16,354
Average assets	57,131	59,837	59,891
Repurchase liability (period-end) ^(c)	651	2,530	3,213
Credit data and quality statistics			
Net charge-offs:			
Prime mortgage, including option ARMs	12	19	5
Net charge-off rate:			
Prime mortgage, including option ARMs	0.07%	0.11%	0.03%
30+ day delinquency rate ^(d)	2.75	3.05	3.15
Nonperforming assets ^(e)	\$ 559	\$ 638	\$ 716

- (a) Predominantly represents prime loans repurchased from Government National Mortgage Association ("Ginnie Mae") pools, which are insured by U.S. government agencies. See further discussion of loans repurchased from Ginnie Mae pools in Mortgage repurchase liability on pages 78-79 of this Annual Report.
- (b) Predominantly consists of prime mortgages originated with the intent to sell that are accounted for at fair value and classified as trading assets on the Consolidated Balance Sheets.
- (c) For more information on the Firm's mortgage repurchase liability, see Mortgage repurchase liability on pages 78-79 of this Annual Report.
- (d) At December 31, 2013, 2012 and 2011, excluded mortgage loans insured by U.S. government agencies of \$9.6 billion, \$11.8 billion, and \$12.6 billion, respectively, that are 30 or more days past due. These amounts have been excluded from nonaccrual loans based upon the government guarantee. For further discussion, see Note 14 on pages 258-283 of this Annual Report which summarizes loan delinquency information.
- (e) At December 31, 2013, 2012 and 2011, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of \$8.4 billion, \$10.6 billion, and \$11.5 billion, respectively, that are 90

or more days past due; and (2) real estate owned insured by U.S. government agencies of \$2.0 billion, \$1.6 billion, and \$954 million, respectively. These amounts have been excluded from nonaccrual loans based upon the government guarantee. For further discussion, see Note 14 on pages 258-283 of this Annual Report which summarizes loan delinquency information.

Selected metrics

As of or for the year ended
December 31,

(in millions, except ratios and where otherwise noted)	2013	2012	2011
Business metrics (in billions)			
Mortgage origination volume by channel			
Retail	\$ 77.0	\$ 101.4	\$ 87.2
Wholesale ^(a)	0.2	0.3	0.5
Correspondent ^(a)	88.3	79.1	57.9
Total mortgage origination volume^(b)	\$ 165.5	\$ 180.8	\$ 145.6
Mortgage application volume by channel			
Retail	\$ 108.0	\$ 164.5	\$ 137.2
Wholesale ^(a)	0.2	0.7	1.0
Correspondent ^(a)	89.0	100.5	66.5
Total mortgage application volume	\$ 197.2	\$ 265.7	\$ 204.7
Third-party mortgage loans serviced (period-end)	\$ 815.5	\$ 859.4	\$ 902.2
Third-party mortgage loans serviced (average)	837.3	847.0	937.6
MSR carrying value (period-end)	9.6	7.6	7.2
Ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period- end)	1.18%	0.88%	0.80%
Ratio of loan servicing-related revenue to third-party mortgage loans serviced (average)	0.40	0.46	0.44
MSR revenue multiple ^(c)	2.95x	1.91x	1.82x

(a) Includes rural housing loans sourced through brokers and correspondents, which are underwritten and closed with pre-funding loan approval from the U.S. Department of Agriculture Rural Development, which acts as the guarantor in the transaction.

(b) Firmwide mortgage origination volume was \$176.4 billion, \$189.9 billion, and \$154.2 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

(c) Represents the ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period-end) divided by the ratio of loan servicing-related revenue to third-party mortgage loans serviced (average).

Real Estate Portfolios

Selected metrics

As of or for the year ended
December 31,

(in millions)	2013	2012	2011
Loans, excluding PCI			
Period-end loans owned:			
Home equity	\$ 57,863	\$ 67,385	\$ 77,800
Prime mortgage, including option ARMs	49,463	41,316	44,284
Subprime mortgage	7,104	8,255	9,664
Other	551	633	718
Total period-end loans owned	\$114,981	\$117,589	\$132,466
Average loans owned:			
Home equity	\$ 62,369	\$ 72,674	\$ 82,886
Prime mortgage, including option ARMs	44,988	42,311	46,971
Subprime mortgage	7,687	8,947	10,471
Other	588	675	773
Total average loans owned	\$115,632	\$124,607	\$141,101
PCI loans			
Period-end loans owned:			
Home equity	\$ 18,927	\$ 20,971	\$ 22,697
Prime mortgage	12,038	13,674	15,180
Subprime mortgage	4,175	4,626	4,976
Option ARMs	17,915	20,466	22,693
Total period-end loans owned	\$ 53,055	\$ 59,737	\$ 65,546
Average loans owned:			
Home equity	\$ 19,950	\$ 21,840	\$ 23,514
Prime mortgage	12,909	14,400	16,181
Subprime mortgage	4,416	4,777	5,170
Option ARMs	19,236	21,545	24,045
Total average loans owned	\$ 56,511	\$ 62,562	\$ 68,910
Total Real Estate Portfolios			
Period-end loans owned:			
Home equity	\$ 76,790	\$ 88,356	\$100,497
Prime mortgage, including option ARMs	79,416	75,456	82,157
Subprime mortgage	11,279	12,881	14,640
Other	551	633	718
Total period-end loans owned	\$168,036	\$177,326	\$198,012
Average loans owned:			
Home equity	\$ 82,319	\$ 94,514	\$106,400
Prime mortgage, including option ARMs	77,133	78,256	87,197
Subprime mortgage	12,103	13,724	15,641
Other	588	675	773
Total average loans owned	\$172,143	\$187,169	\$210,011
Average assets	\$163,898	\$175,712	\$197,096
Home equity origination volume	2,124	1,420	1,127

Management's discussion and analysis

Credit data and quality statistics

As of or for the year ended
December 31,
(in millions, except ratios)

	2013	2012	2011
Net charge-offs, excluding PCI loans: ^{(a)(b)}			
Home equity	\$ 966	\$ 2,385	\$ 2,472
Prime mortgage, including option ARMs	41	454	682
Subprime mortgage	90	486	626
Other	10	16	25
Total net charge-offs, excluding PCI loans	\$ 1,107	\$ 3,341	\$ 3,805
Net charge-off rate, excluding PCI loans: ^(b)			
Home equity	1.55%	3.28%	2.98%
Prime mortgage, including option ARMs	0.09	1.07	1.45
Subprime mortgage	1.17	5.43	5.98
Other	1.70	2.37	3.23
Total net charge-off rate, excluding PCI loans	0.96	2.68	2.70
Net charge-off rate - reported: ^{(a)(b)}			
Home equity	1.17%	2.52%	2.32%
Prime mortgage, including option ARMs	0.05	0.58	0.78
Subprime mortgage	0.74	3.54	4.00
Other	1.70	2.37	3.23
Total net charge-off rate - reported	0.64	1.79	1.81
30+ day delinquency rate, excluding PCI loans: ^(c)	3.66%	5.03%	5.69%
Allowance for loan losses, excluding PCI loans	\$ 2,568	\$ 4,868	\$ 8,718
Allowance for PCI loans: ^(a)	4,158	5,711	5,711
Allowance for loan losses	\$ 6,726	\$ 10,579	\$ 14,429
Nonperforming assets: ^{(d)(e)}	6,919	8,439	6,638
Allowance for loan losses to period-end loans retained	4.00%	5.97%	7.29%
Allowance for loan losses to period-end loans retained, excluding PCI loans	2.23	4.14	6.58

- (a) Net charge-offs and net charge-off rates for the year ended December 31, 2013 excluded \$53 million of write-offs in the PCI portfolio. These write-offs decreased the allowance for loan losses for PCI loans. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.
- (b) Net charge-offs and net charge-off rates for the year ended December 31, 2012, included \$744 million of charge-offs related to regulatory guidance. Excluding these charges-offs, net charge-offs for the year ended December 31, 2012, would have been \$1.8 billion, \$410 million and \$416 million for the home equity, prime mortgage, including option ARMs, and subprime mortgage portfolios, respectively. Net charge-off rates for the same period, excluding these charge-offs and PCI loans, would have been 2.41%, 0.97% and 4.65% for the home equity, prime mortgage, including option ARMs, and subprime mortgage portfolios, respectively. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.
- (c) The 30+ day delinquency rate for PCI loans was 15.31%, 20.14%, and 23.30% at December 31, 2013, 2012 and 2011, respectively.
- (d) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.
- (e) Nonperforming assets at December 31, 2012, included loans based upon regulatory guidance. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.

Mortgage servicing-related matters

The financial crisis resulted in unprecedented levels of delinquencies and defaults of 1-4 family residential real estate loans. Such loans required varying degrees of loss mitigation activities. Foreclosure is usually a last resort, and accordingly, the Firm has made, and continues to make, significant efforts to help borrowers remain in their homes.

The Firm has a well-defined foreclosure prevention process when a borrower fails to pay on his or her loan. The Firm makes multiple attempts, in various ways, to contact the borrower in an effort to pursue home retention or options other than foreclosure. If the Firm is unable to contact a borrower, the Firm completes various reviews of the borrower's facts and circumstances before a foreclosure sale is completed. Over the last year, the average delinquency period for the borrower at the time of foreclosure was approximately 28 months.

The high volume of delinquent and defaulted mortgages experienced during the financial crisis placed a significant amount of stress on servicing operations in the industry. The GSEs impose compensatory fees on mortgage servicers, including the Firm, if such servicers are unable to comply with the foreclosure timetables mandated by the GSEs. The Firm has incurred, and continues to incur, compensatory fees, which are reported in default servicing expense. The Firm has made, and will continue to make changes to and refine its mortgage operations to address mortgage servicing, loss mitigation, and foreclosure issues.

Since 2011, the Firm has entered into Consent Orders and settlements with federal and state governmental agencies and private parties related to mortgage servicing, origination, and residential mortgage-backed securities activities. The terms of these Consent Orders and settlements vary, but in general, required cash compensatory payments or fines and/or "borrower relief," including principal reductions, refinancing, short sale assistance, and other specified types of borrower relief. The Firm has satisfied or is committed to satisfying these obligations within the mandated timeframes.

Other obligations required under Consent Orders and settlements, as well as under new regulatory requirements, include enhanced mortgage servicing and foreclosure standards and processes. Among other initiatives, the Firm has implemented a new Customer Assistance Specialist organization to serve as a single point of contact for borrowers requiring assistance in the foreclosure or loss mitigation process; implemented specific controls on "dual tracking" of foreclosure and loss mitigation activities; strengthened its compliance program to ensure mortgage servicing and foreclosure operations comply with applicable legal requirements; and made technological enhancements to automate and streamline processes for document management, payment processing, training, and skills assessment. For further information on these settlements and Consent Orders, see Note 2 and Note 31 on pages 192-

194 and pages 326-332, respectively, of this Annual Report.

The mortgage servicing consent order is subject to ongoing oversight by the Mortgage Compliance Committee of the Board, and certain Consent Orders and settlements are the subject of ongoing reporting to various regulators, and the Office of Mortgage Settlement Oversight (“OMSO”).

Card, Merchant Services & Auto

Selected income statement data

Year ended December 31, (in millions, except ratios)	2013	2012	2011
Revenue			
Card income	\$ 4,289	\$ 4,092	\$ 4,127
All other income	1,041	1,009	765
Noninterest revenue	5,330	5,101	4,892
Net interest income	13,360	13,669	14,249
Total net revenue	18,690	18,770	19,141
Provision for credit losses	2,669	3,953	3,621
Noninterest expense	8,078	8,216	8,045
Income before income tax expense	7,943	6,601	7,475
Net income	\$ 4,786	\$ 4,007	\$ 4,544
ROE	31%	24%	28%
Overhead ratio	43	44	42
Equity (period-end and average)	\$ 15,500	\$ 16,500	\$ 16,000

2013 compared with 2012

Card, Merchant Services & Auto net income was \$4.8 billion, an increase of \$779 million, or 19%, compared with the prior year, driven by lower provision for credit losses.

Net revenue was \$18.7 billion, flat compared with the prior year. Net interest income was \$13.4 billion, down \$309 million, or 2%, from the prior year. The decrease was primarily driven by spread compression in Credit Card and Auto and lower average credit card loan balances, largely offset by the impact of lower revenue reversals associated with lower net charge-offs in Credit Card. Noninterest revenue was \$5.3 billion, an increase of \$229 million, or 4%, compared with the prior year primarily driven by higher net interchange income, auto lease income and merchant servicing revenue, largely offset by lower revenue from an exited non-core product and a gain on an investment security recognized in the prior year.

The provision for credit losses was \$2.7 billion, compared with \$4.0 billion in the prior year. The current-year provision reflected lower net charge-offs and a \$1.7 billion reduction in the allowance for loan losses due to lower estimated losses reflecting improved delinquency trends and restructured loan performance. The prior-year provision included a \$1.6 billion reduction in the allowance for loan losses. The Credit Card net charge-off rate was 3.14%, down from 3.95% in the prior year; and the 30+ day delinquency rate was 1.67%, down from 2.10% in the prior year. The Auto net charge-off rate was 0.31%, down from 0.39% in the prior year.

Management's discussion and analysis

Noninterest expense was \$8.1 billion, a decrease of \$138 million, or 2%, from the prior year. This decrease is due to one-time expense items recognized in the prior year related to the exit of a non-core product and the write-off of intangible assets associated with a non-strategic relationship. The reduction in expenses was partially offset by increased auto lease depreciation and payments to customers required by a regulatory Consent Order during 2013.

2012 compared with 2011

Card, Merchant Services & Auto net income was \$4.0 billion, a decrease of \$537 million, or 12%, compared with the prior year. The decrease was driven by lower net revenue and higher provision for credit losses.

Net revenue was \$18.8 billion, a decrease of \$371 million, or 2%, from the prior year. Net interest income was \$13.7 billion, down \$580 million, or 4%, from the prior year. The decrease was driven by narrower loan spreads and lower average loan balances, partially offset by lower revenue reversals associated with lower net charge-offs. Noninterest revenue was \$5.1 billion, an increase of \$209 million, or 4%, from the prior year. The increase was driven by higher net interchange income, including lower partner revenue-sharing due to the impact of the Kohl's portfolio sale on April 1, 2011, and higher merchant servicing revenue, partially offset by higher amortization of loan origination costs.

The provision for credit losses was \$4.0 billion, compared with \$3.6 billion in the prior year. The current-year provision reflected lower net charge-offs and a \$1.6 billion reduction in the allowance for loan losses due to lower estimated losses. The prior-year provision included a \$3.9 billion reduction in the allowance for loan losses. The Credit Card net charge-off rate was 3.95%, down from 5.44% in the prior year; and the 30+ day delinquency rate was 2.10%, down from 2.81% in the prior year. The net charge-off rate would have been 3.88% absent a policy change on restructured loans that do not comply with their modified payment terms. The Auto net charge-off rate was 0.39%, up from 0.32% in the prior year, including \$53 million of charge-offs related to regulatory guidance. Excluding these charge-offs, the net charge-off rate would have been 0.28%.

Noninterest expense was \$8.2 billion, an increase of \$171 million, or 2%, from the prior year, driven by expenses related to a non-core product that is being exited and the write-off of intangible assets associated with a non-strategic relationship, partially offset by lower marketing expense.

Selected metrics

As of or for the year ended December 31, (in millions, except ratios and where otherwise noted)

	2013	2012	2011
Selected balance sheet data (period-end)			
Loans:			
Credit Card	\$127,791	\$127,993	\$132,277
Auto	52,757	49,913	47,426
Student	10,541	11,558	13,425
Total loans	\$191,089	\$189,464	\$193,128
Selected balance sheet data (average)			
Total assets	\$198,265	\$197,661	\$201,162
Loans:			
Credit Card	123,613	125,464	128,167
Auto	50,748	48,413	47,034
Student	11,049	12,507	13,986
Total loans	\$185,410	\$186,384	\$189,187
Business metrics			
Credit Card, excluding Commercial Card			
Sales volume (in billions)	\$ 419.5	\$ 381.1	\$ 343.7
New accounts opened	7.3	6.7	8.8
Open accounts	65.3	64.5	65.2
Accounts with sales activity	32.3	30.6	30.7
% of accounts acquired online	55%	51%	32%
Merchant Services (Chase Paymentech Solutions)			
Merchant processing volume (in billions)	\$ 750.1	\$ 655.2	\$ 553.7
Total transactions (in billions)	35.6	29.5	24.4
Auto & Student			
Origination volume (in billions)			
Auto	\$ 26.1	\$ 23.4	\$ 21.0
Student	0.1	0.2	0.3

The following are brief descriptions of selected business metrics within Card, Merchant Services & Auto.

Card Services includes the Credit Card and Merchant Services businesses.

Merchant Services is a business that processes transactions for merchants.

Total transactions - Number of transactions and authorizations processed for merchants.

Commercial Card provides a wide range of payment services to corporate and public sector clients worldwide through the commercial card products. Services include procurement, corporate travel and entertainment, expense management services, and business-to-business payment solutions.

Sales volume - Dollar amount of cardmember purchases, net of returns.

Open accounts - Cardmember accounts with charging privileges.

Auto origination volume - Dollar amount of auto loans and leases originated.

Selected metrics

As of or for the year ended
December 31,
(in millions, except ratios)

	2013	2012	2011
Credit data and quality statistics			
Net charge-offs:			
Credit Card	\$ 3,879	\$ 4,944	\$ 6,925
Auto ^(a)	158	188	152
Student	333	377	434
Total net charge-offs	\$ 4,370	\$ 5,509	\$ 7,511
Net charge-off rate:			
Credit Card ^(b)	3.14%	3.95%	5.44%
Auto ^(a)	0.31	0.39	0.32
Student	3.01	3.01	3.10
Total net charge-off rate	2.36	2.96	3.99
Delinquency rates			
30+ day delinquency rate:			
Credit Card ^(c)	1.67	2.10	2.81
Auto	1.15	1.25	1.13
Student ^(d)	2.56	2.13	1.78
Total 30+ day delinquency rate	1.58	1.87	2.32
90+ day delinquency rate - Credit Card ^(c)			
	0.80	1.02	1.44
Nonperforming assets ^(e)	\$ 280	\$ 265	\$ 228
Allowance for loan losses:			
Credit Card	\$ 3,795	\$ 5,501	\$ 6,999
Auto & Student	953	954	1,010
Total allowance for loan losses	\$ 4,748	\$ 6,455	\$ 8,009
Allowance for loan losses to period-end loans:			
Credit Card ^(c)	2.98%	4.30%	5.30%
Auto & Student	1.51	1.55	1.66
Total allowance for loan losses to period-end loans	2.49	3.41	4.15

- (a) Net charge-offs and net charge-off rates for the year ended December 31, 2012, included \$53 million of charge-offs of Chapter 7 loans. Excluding these incremental charge-offs, net charge-offs for the year ended December 31, 2012 would have been \$135 million, and the net charge-off rate would have been 0.28%. For further information, see Consumer Credit Portfolio on pages 120-129 of this Annual Report.
- (b) Average credit card loans included loans held-for-sale of \$95 million, \$433 million, and \$833 million for the years ended December 31, 2013, 2012 and 2011, respectively. These amounts are excluded when calculating the net charge-off rate.
- (c) Period-end credit card loans included loans held-for-sale of \$326 million and \$102 million at December 31, 2013 and 2011, respectively. There were no loans held-for-sale at December 31, 2012. These amounts are excluded when calculating delinquency rates and the allowance for loan losses to period-end loans.
- (d) Excluded student loans insured by U.S. government agencies under the FFELP of \$737 million, \$894 million and \$989 million at December 31, 2013, 2012 and 2011, respectively, that are 30 or more days past due. These amounts are excluded as reimbursement of insured amounts is proceeding normally.
- (e) Nonperforming assets excluded student loans insured by U.S. government agencies under the FFELP of \$428 million, \$525 million and \$551 million at December 31, 2013, 2012 and 2011, respectively, that are 90 or more days past due. These amounts are excluded as reimbursement of insured amounts is proceeding normally.

Card Services supplemental information

Year ended December 31,
(in millions, except ratios)

	2013	2012	2011
Revenue			
Noninterest revenue	\$ 3,977	\$ 3,887	\$ 3,740
Net interest income	11,466	11,611	12,084
Total net revenue	15,443	15,498	15,824
Provision for credit losses	2,179	3,444	2,925
Noninterest expense	6,245	6,566	6,544
Income before income tax expense	7,019	5,488	6,355
Net income	\$ 4,235	\$ 3,344	\$ 3,876
Percentage of average loans:			
Noninterest revenue	3.22%	3.10%	2.92%
Net interest income	9.28	9.25	9.43
Total net revenue	12.49	12.35	12.35

CORPORATE & INVESTMENT BANK

The Corporate & Investment Bank ("CIB") offers a broad suite of investment banking, market-making, prime brokerage, and treasury and securities products and services to a global client base of corporations, investors, financial institutions, government and municipal entities. Within Banking, the CIB offers a full range of investment banking products and services in all major capital markets, including advising on corporate strategy and structure, capital-raising in equity and debt markets, as well as loan origination and syndication. Also included in Banking is Treasury Services, which includes transaction services, comprised primarily of cash management and liquidity solutions, and trade finance products. The Markets & Investor Services segment of the CIB is a global market-maker in cash securities and derivative instruments, and also offers sophisticated risk management solutions, prime brokerage, and research. Markets & Investor Services also includes the Securities Services business, a leading global custodian which holds, values, clears and services securities, cash and alternative investments for investors and broker-dealers, and manages depositary receipt programs globally.

Selected income statement data

Year ended December 31, (in millions, except ratios)	2013	2012	2011
Financial ratios			
Return on common equity ^(a)	15%	18%	17%
Overhead ratio ^(b)	64	64	65
Compensation expense as percentage of total net revenue ^(c)	32	33	34
Revenue by business			
Advisory	\$ 1,315	\$ 1,491	\$ 1,792
Equity underwriting	1,499	1,026	1,181
Debt underwriting	3,517	3,252	2,886
Total investment banking fees	6,331	5,769	5,859
Treasury Services	4,135	4,249	3,841
Lending	1,595	1,331	1,054
Total Banking	12,061	11,349	10,754
Fixed Income Markets ^(d)	15,468	15,412	14,784
Equity Markets	4,758	4,406	4,476
Securities Services	4,082	4,000	3,861
Credit Adjustments & Other ^(e)	(2,144)	(841)	109
Total Markets & Investor Services	22,164	22,977	23,230
Total net revenue	\$ 34,225	\$ 34,326	\$ 33,984

- (a) Return on equity excluding FVA (effective fourth quarter 2013) and DVA, a non-GAAP financial measure, was 17%, 19% and 15% for the years ended December 31, 2013, 2012 and 2011, respectively.
- (b) Overhead ratio excluding FVA (effective fourth quarter 2013) and DVA, a non-GAAP financial measure, was 60%, 62% and 68% for the years ended December 31, 2013, 2012 and 2011, respectively.
- (c) Compensation expense as a percentage of total net revenue excluding FVA (effective fourth quarter 2013) and DVA, a non-GAAP financial measure, was 30%, 32% and 36% for the years ended December 31, 2013, 2012 and 2011, respectively.
- (d) Includes results of the synthetic credit portfolio that was transferred from the CIO effective July 2, 2012.
- (e) Primarily credit portfolio credit valuation adjustments ("CVA") net of associated hedging activities; DVA gains/(losses) on structured notes and derivative liabilities of \$(452) million, \$(930) million and \$1.4 billion for the years ended December 31, 2013, 2012 and 2011, respectively; a \$(1.5) billion loss in the fourth quarter of 2013 as a result of implementing an FVA framework for OTC derivatives and structured notes, and nonperforming derivative receivable results.

Selected income statement data

Year ended December 31, (in millions)	2013	2012	2011
Revenue			
Investment banking fees	\$ 6,331	\$ 5,769	\$ 5,859
Principal transactions ^(a)	9,289	9,510	8,347
Lending- and deposit-related fees	1,884	1,948	2,098
Asset management, administration and commissions	4,713	4,693	4,955
All other income	1,593	1,184	1,264
Noninterest revenue	23,810	23,104	22,523
Net interest income	10,415	11,222	11,461
Total net revenue^(b)	34,225	34,326	33,984
Provision for credit losses	(232)	(479)	(285)
Noninterest expense			
Compensation expense	10,835	11,313	11,654
Noncompensation expense	10,909	10,537	10,325
Total noninterest expense	21,744	21,850	21,979
Income before income tax expense	12,713	12,955	12,290
Income tax expense	4,167	4,549	4,297
Net income	\$ 8,546	\$ 8,406	\$ 7,993

- (a) Included a \$(1.5) billion loss in the fourth quarter of 2013 as a result of implementing a FVA framework for OTC derivatives and structured notes. Also included DVA on structured notes and derivative liabilities. DVA gains/(losses) were \$(452) million, \$(930) million and \$1.4 billion for the years ended December 31, 2013, 2012 and 2011, respectively.
- (b) Included tax-equivalent adjustments, predominantly due to income tax credits related to affordable housing and alternative energy investments, as well as tax-exempt income from municipal bond investments of \$2.3 billion, \$2.0 billion and \$1.9 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

CIB provides several non-GAAP financial measures which exclude the impact of FVA (effective fourth quarter 2013) and DVA on: net revenue, net income, compensation ratio, overhead ratio, and return on equity. The ratio for the allowance for loan losses to end-of-period loans is calculated excluding the impact of consolidated Firm-administered multi-seller conduits and trade finance, to provide a more meaningful assessment of CIB's allowance coverage ratio. These measures are used by management to assess the underlying performance of the business and for comparability with peers.

2013 compared with 2012

Net income was \$8.6 billion, up 2% compared with the prior year.

Net revenue was \$34.2 billion compared with \$34.3 billion in the prior year. Net revenue in the current year's fourth quarter included a \$1.5 billion loss as a result of implementing a funding valuation adjustment ("FVA") framework for over-the-counter ("OTC") derivatives and structured notes. The FVA framework incorporates the impact of funding into the Firm's valuation estimates for OTC derivatives and structured notes and reflects an industry migration towards incorporating the market cost of unsecured funding in the valuation of such instruments. The loss recorded in the fourth quarter of 2013 is a one-time adjustment arising on implementation of the new FVA framework. In future periods the Firm will incorporate FVA in its estimates of fair value for OTC derivatives and structured notes from the date of initial recognition.

Net revenue also included a \$452 million loss from debit valuation adjustments ("DVA") on structured notes and derivative liabilities, compared with a loss of \$930 million in the prior year. Excluding the impact of FVA (effective fourth quarter of 2013) and DVA, net revenue was \$36.1 billion and net income was \$9.7 billion, compared with \$35.3 billion and \$9.0 billion in the prior year, respectively.

Banking revenues were \$12.1 billion, compared with \$11.3 billion in the prior year. Investment banking fees were \$6.3 billion, up 10% from the prior year, driven by higher equity underwriting fees of \$1.5 billion (up 46%) and record debt underwriting fees of \$3.5 billion (up 8%), partially offset by lower advisory fees of \$1.3 billion (down 12%). Equity underwriting results were driven by higher industry-wide issuance and an increase in the Firm's wallet share compared with the prior year, according to Dealogic. Industry-wide loan syndication volumes and wallet increased as the low rate environment continued to fuel refinancing activity. The Firm also ranked #1 in wallet and volumes shares across high grade, high yield and loan products. Advisory fees were lower compared with the prior year as industry-wide completed M&A wallet declined 13%. The Firm maintained its #2 ranking and improved share for both announced and completed volumes during the period.

Treasury Services revenue was \$4.1 billion, down 3% compared with the prior year, primarily reflecting lower trade finance spreads, partially offset by higher net interest income on higher deposit balances. Lending revenue was

\$1.6 billion, up from \$1.3 billion, in the prior year reflecting net interest income on retained loans, fees on lending related commitments, as well as gains on securities received from restructured loans.

Markets and Investor Services revenue was \$22.2 billion compared to \$23.0 billion in the prior year. Combined Fixed Income and Equity Markets revenue was \$20.2 billion, up from \$19.8 billion the prior year. Fixed Income Markets revenue of \$15.5 billion was slightly higher reflecting consistently strong client revenue and lower losses from the synthetic credit portfolio, which was partially offset by lower rates-related revenue given an uncertain rate outlook and low spread environment. Equities Markets revenue of \$4.8 billion was up 8% compared with the prior year driven by higher revenue in derivatives and cash equities products as well as Prime Services primarily on higher balances. Securities Services revenue was \$4.1 billion compared with \$4.0 billion in the prior year on higher custody and fund services revenue primarily driven by record assets under custody of \$20.5 trillion. Credit Adjustments & Other was a loss of \$2.1 billion predominantly driven by FVA (effective the fourth quarter of 2013) and DVA.

The provision for credit losses was a benefit of \$232 million, compared with a benefit of \$479 million in the prior year. The current year benefit reflected lower recoveries as compared to 2012 as the prior year benefited from the restructuring of certain nonperforming loans. Net recoveries were \$78 million, compared with \$284 million in the prior year reflecting a continued favorable credit environment with stable credit quality trends. Nonperforming loans were down 57% from the prior year.

Noninterest expense of \$21.7 billion was slightly down compared with the prior year, driven by lower compensation expense, offset by higher non compensation expense related to higher litigation expense as compared to the prior year. The compensation ratio, excluding the impact of DVA and FVA which was effective for the fourth quarter of 2013, was 30% and 32% for 2013 and 2012, respectively.

Return on equity was 15% on \$56.5 billion of average allocated capital and 17% excluding FVA (effective fourth quarter of 2013) and DVA.

2012 compared with 2011

Net income was \$8.4 billion, up 5% compared with the prior year. These results primarily reflected slightly higher net revenue compared with 2011, lower noninterest expense and a larger benefit from the provision for credit losses. Net revenue was \$34.3 billion, compared with \$34.0 billion in the prior year. Net revenue included a \$930 million loss from DVA on structured notes and derivative liabilities resulting from the tightening of the Firm's credit spreads. Excluding the impact of DVA, net revenue was \$35.3 billion and net income was \$9.0 billion, compared with \$32.5 billion and \$7.1 billion in the prior year, respectively.

Banking revenues were \$11.3 billion, compared with \$10.8 billion in the prior year. Investment banking fees were

Management's discussion and analysis

\$5.8 billion, down 2% from the prior year; these consisted of record debt underwriting fees of \$3.3 billion (up 13%), advisory fees of \$1.5 billion (down 17%) and equity underwriting fees of \$1.0 billion (down 13%). Industry-wide debt capital markets volumes were at their second highest annual level since 2006, as the low rate environment continued to fuel issuance and refinancing activity. In contrast there was lower industry-wide announced mergers and acquisitions activity, while industry-wide equity underwriting volumes remained steady. Treasury Services revenue was a record \$4.2 billion compared with \$3.8 billion in the prior year driven by continued deposit balance growth and higher average trade loans outstanding during the year. Lending revenue was \$1.3 billion, compared with \$1.1 billion in the prior year due to higher net interest income on increased average retained loans as well as higher fees on lending-related commitments. This was partially offset by higher fair value losses on credit risk-related hedges of the retained loan portfolio.

Markets and Investor Services revenue was \$23.0 billion compared to \$23.2 billion in the prior year. Combined Fixed Income and Equity Markets revenue was \$19.8 billion, up from \$19.3 billion the prior year as client revenue remained strong across most products, with particular strength in rates-related products, which improved from the prior year. 2012 generally saw credit spread tightening and lower volatility in both the credit and equity markets compared with the prior year, during which macroeconomic concerns, including those in the Eurozone, caused credit spread widening and generally more volatile market conditions, particularly in the second half of the year. Securities Services revenue was \$4.0 billion compared with \$3.9 billion the prior year primarily driven by higher deposit balances. Assets under custody grew to a record \$18.8 trillion by the end of 2012, driven by both market appreciation as well as net inflows. Credit Adjustments & Other was a loss of \$841 million, driven predominantly by DVA, which was a loss of \$930 million due to the tightening of the Firm's credit spreads.

The provision for credit losses was a benefit of \$479 million, compared with a benefit of \$285 million in the prior year, as credit trends remained stable. The 2012 benefit reflected recoveries and a net reduction in the allowance for credit losses, both related to the restructuring of certain nonperforming loans, credit trends and other portfolio activities. Net recoveries were \$284 million, compared with net charge-offs of \$161 million in the prior year. Nonperforming loans were down 35% from the prior year.

Noninterest expense was \$21.9 billion, down 1%, driven primarily by lower compensation expense.

Return on equity was 18% on \$47.5 billion of average allocated capital.

Selected metrics

As of or for the year ended
December 31,
(in millions, except
headcount)

	2013	2012	2011
Selected balance sheet data (period-end)			
Assets	\$ 843,577	\$ 876,107	\$ 845,095
Loans:			
Loans retained ^(a)	95,627	109,501	111,099
Loans held-for-sale and loans at fair value	11,913	5,749	3,016
Total loans	107,540	115,250	114,115
Equity	56,500	47,500	47,000
Selected balance sheet data (average)			
Assets	\$ 859,071	\$ 854,670	\$ 868,930
Trading assets-debt and equity instruments	321,585	312,944	348,234
Trading assets-derivative receivables	70,353	74,874	73,200
Loans:			
Loans retained ^(a)	104,864	110,100	91,173
Loans held-for-sale and loans at fair value	5,158	3,502	3,221
Total loans	110,022	113,602	94,394
Equity	56,500	47,500	47,000
Headcount	52,250	52,022	53,557

(a) Loans retained includes credit portfolio loans, trade finance loans, other held-for-investment loans and overdrafts.

Selected metrics

As of or for the year ended
December 31,
(in millions, except ratios
and where otherwise noted)

	2013	2012	2011
Credit data and quality statistics			
Net charge-offs/ (recoveries)	\$ (78)	\$ (284)	\$ 161
Nonperforming assets:			
Nonaccrual loans:			
Nonaccrual loans retained ^{(a)(b)}	163	535	1,039
Nonaccrual loans held-for-sale and loans at fair value ^(c)	180	254	166
Total nonaccrual loans	343	789	1,205
Derivative receivables	415	239	293
Assets acquired in loan satisfactions	80	64	79
Total nonperforming assets	838	1,092	1,577
Allowance for credit losses:			
Allowance for loan losses	1,096	1,300	1,501
Allowance for lending-related commitments	525	473	467
Total allowance for credit losses	1,621	1,773	1,968
Net charge-off/(recovery) rate ^(a)	(0.07)	(0.26)	0.18%
Allowance for loan losses to period-end loans retained ^(a)	1.15	1.19	1.35
Allowance for loan losses to period-end loans retained, excluding trade finance and conduits	2.02	2.52	3.06
Allowance for loan losses to nonaccrual loans retained ^{(a)(b)}	672	243	144
Nonaccrual loans to total period-end loans ^(c)	0.32	0.68	1.06
Business metrics			
Assets under custody ("AUC") by asset class (period-end) in billions:			
Fixed Income	\$ 11,903	\$ 11,745	\$ 10,926
Equity	6,913	5,637	4,878
Other ^(d)	1,669	1,453	1,066
Total AUC	\$ 20,485	\$ 18,835	\$ 16,870
Client deposits and other third party liabilities (average) ^(e)	\$ 383,667	\$ 355,766	\$ 318,802
Trade finance loans (period-end)	30,752	35,783	36,696

(e) Client deposits and other third party liabilities pertain to the Treasury Services and Securities Services businesses, and include deposits, as well as deposits that are swept to on-balance sheet liabilities (e.g., commercial paper, federal funds purchased and securities loaned or sold under repurchase agreements) as part of their client cash management program.

Market shares and rankings^(a)

Year ended December 31,	2013		2012		2011	
	Market Share	Rankings	Market Share	Rankings	Market Share	Rankings
Global investment banking fees^(b)	8.6%	#1	7.5%	#1	8.1%	#1
Debt, equity and equity-related						
Global	7.3	1	7.2	1	6.7	1
U.S.	11.8	1	11.5	1	11.1	1
Syndicated loans						
Global	10.0	1	9.5	1	10.8	1
U.S.	17.5	1	17.6	1	21.2	1
Long-term debt^(c)						
Global	7.2	1	7.1	1	6.7	1
U.S.	11.7	1	11.6	1	11.2	1
Equity and equity-related						
Global ^(d)	8.2	2	7.8	4	6.8	3
U.S.	12.1	2	10.4	5	12.5	1
Announced M&A^(e)						
Global	23.0	2	19.9	2	18.3	2
U.S.	36.1	1	24.3	2	26.7	2

(a) Source: Dealogic. Global Investment Banking fees reflects the ranking of fees and market share. The remaining rankings reflects transaction volume and market share. Global announced M&A is based on transaction value at announcement; because of joint M&A assignments, M&A market share of all participants will add up to more than 100%. All other transaction volume-based rankings are based on proceeds, with full credit to each book manager/equal if joint.

(b) Global investment banking fees rankings exclude money market, short-term debt and shelf deals.

(c) Long-term debt rankings include investment-grade, high-yield, supranationals, sovereigns, agencies, covered bonds, asset-backed securities ("ABS") and mortgage-backed securities; and exclude money market, short-term debt, and U.S. municipal securities.

(d) Global equity and equity-related ranking includes rights offerings and Chinese A-Shares.

(e) Announced M&A reflects the removal of any withdrawn transactions. U.S. announced M&A represents any U.S. involvement ranking.

- (a) Loans retained includes credit portfolio loans, trade finance loans, other held-for-investment loans and overdrafts.
- (b) Allowance for loan losses of \$51 million, \$153 million and \$263 million were held against these nonaccrual loans at December 31, 2013, 2012 and 2011, respectively.
- (c) In 2013 certain loans that resulted from restructurings that were previously classified as performing were reclassified as nonperforming loans. Prior periods were revised to conform with the current presentation.
- (d) Consists of mutual funds, unit investment trusts, currencies, annuities, insurance contracts, options and other contracts.

Management's discussion and analysis

International metrics

Year ended December 31,

(in millions)	2013	2012	2011
Total net revenue^(a)			
Europe/Middle East/Africa	\$ 10,509	\$ 10,639	\$ 11,102
Asia/Pacific	4,698	4,100	4,589
Latin America/Caribbean	1,329	1,524	1,409
Total international net revenue	16,536	16,263	17,100
North America	17,689	18,063	16,884
Total net revenue	\$ 34,225	\$ 34,326	\$ 33,984
Loans (period-end)^(a)			
Europe/Middle East/Africa	\$ 29,392	\$ 30,266	\$ 29,484
Asia/Pacific	22,151	27,193	27,803
Latin America/Caribbean	8,362	10,220	9,692
Total international loans	59,905	67,679	66,979
North America	35,722	41,822	44,120
Total loans	\$ 95,627	\$ 109,501	\$ 111,099
Client deposits and other third-party liabilities (average)^(a)			
Europe/Middle East/Africa	\$ 143,807	\$ 127,326	\$ 123,920
Asia/Pacific	54,428	51,180	43,524
Latin America/Caribbean	15,301	11,052	12,625
Total international	213,536	189,558	180,069
North America	170,131	166,208	138,733
Total client deposits and other third-party liabilities	\$ 383,667	\$ 355,766	\$ 318,802
AUC (period-end) (in billions)^(a)			
North America	\$ 11,299	\$ 10,504	\$ 9,735
All other regions	9,186	8,331	7,135
Total AUC	\$ 20,485	\$ 18,835	\$ 16,870

(a) Total net revenue is based predominantly on the domicile of the client or location of the trading desk, as applicable. Loans outstanding (excluding loans held-for-sale and loans at fair value), client deposits and other third-party liabilities, and AUC are based predominantly on the domicile of the client.

COMMERCIAL BANKING

Commercial Banking delivers extensive industry knowledge, local expertise and dedicated service to U.S. and U.S. multinational clients, including corporations, municipalities, financial institutions and nonprofit entities with annual revenue generally ranging from \$20 million to \$2 billion. CB provides financing to real estate investors and owners. Partnering with the Firm's other businesses, CB provides comprehensive financial solutions, including lending, treasury services, investment banking and asset management to meet its clients' domestic and international financial needs.

Selected income statement data

Year ended December 31,
(in millions, except ratios)

	2013	2012	2011
Revenue			
Lending- and deposit-related fees	\$ 1,033	\$ 1,072	\$ 1,081
Asset management, administration and commissions	116	130	136
All other income ^(a)	1,149	1,081	978
Noninterest revenue	2,298	2,283	2,195
Net interest income	4,675	4,542	4,223
Total net revenue^(b)	6,973	6,825	6,418
Provision for credit losses	85	41	208
Noninterest expense			
Compensation expense ^(c)	1,115	1,014	936
Noncompensation expense ^(c)	1,472	1,348	1,311
Amortization of intangibles	23	27	31
Total noninterest expense	2,610	2,389	2,278
Income before income tax expense	4,278	4,395	3,932
Income tax expense	1,703	1,749	1,565
Net income	\$ 2,575	\$ 2,646	\$ 2,367
Revenue by product			
Lending	\$ 3,826	\$ 3,675	\$ 3,455
Treasury services	2,429	2,428	2,270
Investment banking	575	545	498
Other	143	177	195
Total Commercial Banking revenue	\$ 6,973	\$ 6,825	\$ 6,418
Investment banking revenue, gross	\$ 1,676	\$ 1,597	\$ 1,421
Revenue by client segment			
Middle Market Banking ^(d)	\$ 3,019	\$ 2,971	\$ 2,803
Corporate Client Banking ^(d)	1,824	1,819	1,603
Commercial Term Lending	1,215	1,194	1,168
Real Estate Banking	549	438	416
Other	366	403	428
Total Commercial Banking revenue	\$ 6,973	\$ 6,825	\$ 6,418
Financial ratios			
Return on common equity	19%	28%	30%
Overhead ratio	37	35	35

(a) Includes revenue from investment banking products and commercial card transactions.

(b) Total net revenue included tax-equivalent adjustments from income tax credits related to equity investments in designated community development entities that provide loans to qualified businesses in low-

income communities, as well as tax-exempt income from municipal bond activity of \$407 million, \$381 million, and \$345 million for the years ended December 31, 2013, 2012 and 2011, respectively.

- (c) Effective July 1, 2012, certain Treasury Services product sales staff supporting CB were transferred from CIB to CB. As a result, compensation expense for these sales staff is now reflected in CB's compensation expense rather than as an allocation from CIB in noncompensation expense. CB's and CIB's previously reported headcount, compensation expense and noncompensation expense have been revised to reflect this transfer.
- (d) Effective January 1, 2013, the financial results of financial institution clients were transferred to Corporate Client Banking from Middle Market Banking. Prior periods were revised to conform with this presentation.

CB revenue comprises the following:

Lending includes a variety of financing alternatives, which are predominantly provided on a basis secured by receivables, inventory, equipment, real estate or other assets. Products include term loans, revolving lines of credit, bridge financing, asset-based structures, leases, commercial card products and standby letters of credit.

Treasury services includes revenue from a broad range of products and services that enable CB clients to manage payments and receipts, as well as invest and manage funds.

Investment banking includes revenue from a range of products providing CB clients with sophisticated capital-raising alternatives, as well as balance sheet and risk management tools through advisory, equity underwriting, and loan syndications. Revenue from Fixed Income and Equity market products available to CB clients is also included. Investment banking revenue, gross, represents total revenue related to investment banking products sold to CB clients.

Other product revenue primarily includes tax-equivalent adjustments generated from Community Development Banking activity and certain income derived from principal transactions.

Commercial Banking is divided into four primary client segments for management reporting purposes: Middle Market Banking, Commercial Term Lending, Corporate Client Banking, and Real Estate Banking.

Middle Market Banking covers corporate, municipal and nonprofit clients, with annual revenue generally ranging between \$20 million and \$500 million.

Commercial Term Lending primarily provides term financing to real estate investors/owners for multifamily properties as well as financing office, retail and industrial properties.

Corporate Client Banking covers clients with annual revenue generally ranging between \$500 million and \$2 billion and focuses on clients that have broader investment banking needs.

Real Estate Banking provides full-service banking to investors and developers of institutional-grade real estate properties.

Other primarily includes lending and investment activity within the Community Development Banking and Chase Capital businesses.

2013 compared with 2012

Net income was \$2.6 billion, a decrease of \$71 million, or 3%, from the prior year, driven by an increase in noninterest expense and the provision for credit losses partially offset by an increase in net revenue.

Management's discussion and analysis

Net revenue was a record \$7.0 billion, an increase of \$148 million, or 2%, from the prior year. Net interest income was \$4.7 billion, up by \$133 million, or 3%, driven by higher loan balances and the proceeds from a lending-related workout, partially offset by lower purchase discounts recognized on loan repayments. Noninterest revenue was \$2.3 billion, flat compared with the prior year.

Revenue from Middle Market Banking was \$3.0 billion, an increase of \$48 million, or 2%, from the prior year. Revenue from Commercial Term Lending was \$1.2 billion, an increase of \$21 million, or 2%, from the prior year. Revenue from Corporate Client Banking was \$1.8 billion, flat compared with the prior year. Revenue from Real Estate Banking was \$549 million, an increase of \$111 million, or 25%, driven by the proceeds from a lending related-workout.

The provision for credit losses was \$85 million, compared with \$41 million in the prior year. Net charge-offs were \$43 million (0.03% net charge-off rate) compared with net charge-offs of \$35 million (0.03% net charge-off rate) in 2012. Nonaccrual loans were \$514 million, down by \$159 million, or 24%, due to repayments. The allowance for loan losses to period-end retained loans was 1.97%, down slightly from 2.06%.

Noninterest expense was \$2.6 billion, an increase of \$221 million, or 9%, from the prior year, reflecting higher product- and headcount-related expense.

2012 compared with 2011

Record net income was \$2.6 billion, an increase of \$279 million, or 12%, from the prior year. The improvement was driven by an increase in net revenue and a decrease in the provision for credit losses, partially offset by higher noninterest expense.

Net revenue was a record \$6.8 billion, an increase of \$407 million, or 6%, from the prior year. Net interest income was \$4.5 billion, up by \$319 million, or 8%, driven by growth in loans and client deposits, partially offset by spread compression. Loan growth was strong across all client segments and industries. Noninterest revenue was \$2.3 billion, up by \$88 million, or 4%, compared with the prior year, largely driven by increased investment banking revenue.

Revenue from Middle Market Banking was \$3.0 billion, an increase of \$168 million, or 6%, from the prior year driven by higher loans and client deposits, partially offset by lower spreads from lending and deposit products. Revenue from Commercial Term Lending was \$1.2 billion, an increase of \$26 million, or 2%. Revenue from Corporate Client Banking was \$1.8 billion, an increase of \$216 million, or 13%, driven by growth in loans and client deposits and higher revenue from investment banking products, partially offset by lower lending spreads. Revenue from Real Estate Banking was \$438 million, an increase of \$22 million, or 5%, partially driven by higher loan balances.

The provision for credit losses was \$41 million, compared with \$208 million in the prior year. Net charge-offs were \$35 million (0.03% net charge-off rate) compared with net charge-offs of \$187 million (0.18% net charge-off rate) in 2011. The decrease in the provision and net charge-offs was largely driven by improving trends in the credit quality of the portfolio. Nonaccrual loans were \$673 million, down by \$380 million, or 36%, due to repayments and loan sales. The allowance for loan losses to period-end retained loans was 2.06%, down from 2.34%.

Noninterest expense was \$2.4 billion, an increase of \$111 million, or 5%, from the prior year, reflecting higher compensation expense driven by expansion, portfolio growth and increased regulatory requirements.

Selected metrics

As of or for the year ended December 31, (in millions, except headcount and ratios)

	2013	2012	2011
Selected balance sheet data (period-end)			
Total assets	\$ 190,782	\$ 181,502	\$ 158,040
Loans:			
Loans retained ^(a)	135,750	126,996	111,162
Loans held-for-sale and loans at fair value	1,388	1,212	840
Total loans	\$ 137,138	\$ 128,208	\$ 112,002
Equity	13,500	9,500	8,000
Period-end loans by client segment			
Middle Market Banking ^(b)	\$ 52,289	\$ 50,552	\$ 44,224
Corporate Client Banking ^(b)	20,925	21,707	16,960
Commercial Term Lending	48,925	43,512	38,583
Real Estate Banking	11,024	8,552	8,211
Other	3,975	3,885	4,024
Total Commercial Banking loans	\$ 137,138	\$ 128,208	\$ 112,002
Selected balance sheet data (average)			
Total assets	\$ 185,776	\$ 165,111	\$ 146,230
Loans:			
Loans retained ^(a)	131,100	119,218	103,462
Loans held-for-sale and loans at fair value	930	882	745
Total loans	\$ 132,030	\$ 120,100	\$ 104,207
Client deposits and other third-party liabilities ^(c)	198,356	195,912	174,729
Equity	13,500	9,500	8,000
Average loans by client segment			
Middle Market Banking ^(b)	\$ 51,830	\$ 47,009	\$ 40,497
Corporate Client Banking ^(b)	20,918	19,572	14,255
Commercial Term Lending	45,989	40,872	38,107
Real Estate Banking	9,582	8,562	7,619
Other	3,711	4,085	3,729
Total Commercial Banking loans	\$ 132,030	\$ 120,100	\$ 104,207
Headcount^{(d)(e)}	6,848	6,117	5,782

(a) Effective January 1, 2013, whole loan financing agreements, previously reported as other assets, were reclassified as loans. For the year ended December 31, 2013, the impact on period-end and average loans was \$1.6 billion.

(b) Effective January 1, 2013, the financial results of financial institution clients were transferred to Corporate Client Banking from Middle Market Banking. Prior periods were revised to conform with this presentation.

(c) Client deposits and other third-party liabilities include deposits, as well as deposits that are swept to on-balance sheet liabilities (e.g., commercial paper, federal funds purchased, and securities loaned or sold under repurchase agreements) as part of client cash management programs.

(d) Effective January 1, 2013, headcount includes transfers from other business segments largely related to operations, technology and other support staff.

(e) Effective July 1, 2012, certain Treasury Services product sales staff supporting CB were transferred from CIB to CB. For further discussion of this transfer, see footnote (c) on page 103 of this Annual Report.

As of or for the year ended December 31, (in millions, except headcount and ratios)

	2013	2012	2011
Credit data and quality statistics			
Net charge-offs	\$ 43	\$ 35	\$ 187
Nonperforming assets			
Nonaccrual loans:			
Nonaccrual loans retained ^(a)	471	644	1,036
Nonaccrual loans held-for-sale and loans at fair value	43	29	17
Total nonaccrual loans	514	673	1,053
Assets acquired in loan satisfactions	15	14	85
Total nonperforming assets	529	687	1,138
Allowance for credit losses:			
Allowance for loan losses	2,669	2,610	2,603
Allowance for lending-related commitments	142	183	189
Total allowance for credit losses	2,811	2,793	2,792
Net charge-off rate ^(b)	0.03%	0.03%	0.18%
Allowance for loan losses to period-end loans retained	1.97	2.06	2.34
Allowance for loan losses to nonaccrual loans retained ^(a)	567	405	251
Nonaccrual loans to total period-end loans	0.37	0.52	0.94

(a) Allowance for loan losses of \$81 million, \$107 million and \$176 million was held against nonaccrual loans retained at December 31, 2013, 2012 and 2011, respectively.

(b) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off rate.

ASSET MANAGEMENT

Asset Management, with client assets of \$2.3 trillion, is a global leader in investment and wealth management. AM clients include institutions, high-net-worth individuals and retail investors in every major market throughout the world. AM offers investment management across all major asset classes including equities, fixed income, alternatives and money market funds. AM also offers multi-asset investment management, providing solutions to a broad range of clients' investment needs. For individual investors, AM also provides retirement products and services, brokerage and banking services including trusts and estates, loans, mortgages and deposits. The majority of AM's client assets are in actively managed portfolios.

Selected income statement data

Year ended December 31,
(in millions, except ratios)

	2013	2012	2011
Revenue			
Asset management, administration and commissions	\$ 8,232	\$ 7,041	\$ 6,748
All other income	797	806	1,147
Noninterest revenue	9,029	7,847	7,895
Net interest income	2,291	2,099	1,648
Total net revenue	11,320	9,946	9,543
Provision for credit losses	65	86	67
Noninterest expense			
Compensation expense	4,875	4,405	4,152
Noncompensation expense	3,002	2,608	2,752
Amortization of intangibles	139	91	98
Total noninterest expense	8,016	7,104	7,002
Income before income tax expense	3,239	2,756	2,474
Income tax expense	1,208	1,053	882
Net income	\$ 2,031	\$ 1,703	\$ 1,592
Revenue by client segment			
Private Banking	\$ 6,020	\$ 5,426	\$ 5,116
Institutional	2,536	2,386	2,273
Retail	2,764	2,134	2,154
Total net revenue	\$11,320	\$ 9,946	\$ 9,543
Financial ratios			
Return on common equity	23%	24%	25%
Overhead ratio	71	71	73
Pretax margin ratio	29	28	26

2013 compared with 2012

Net income was \$2.0 billion, an increase of \$328 million, or 19%, from the prior year, reflecting higher net revenue, largely offset by higher noninterest expense.

Net revenue was \$11.3 billion, an increase of \$1.4 billion, or 14%, from the prior year. Noninterest revenue was \$9.0 billion, up \$1.2 billion, or 15%, from the prior year, due to net client inflows, the effect of higher market levels and higher performance fees. Net interest income was \$2.3

billion, up \$192 million, or 9%, from the prior year, due to higher loan and deposit balances, partially offset by narrower loan and deposit spreads.

Revenue from Private Banking was \$6.0 billion, up 11% from the prior year due to higher net interest income from loan and deposit balances and higher brokerage revenue. Revenue from Retail was \$2.8 billion, up 30% due to net client inflows and the effect of higher market levels. Revenue from Institutional was \$2.5 billion, up 6% due to higher valuations of seed capital investments, the effect of higher market levels and higher performance fees.

The provision for credit losses was \$65 million, compared with \$86 million in the prior year.

Noninterest expense was \$8.0 billion, an increase of \$912 million, or 13%, from the prior year, primarily due to higher headcount-related expense driven by continued front office expansion efforts, higher performance-based compensation and costs related to the control agenda.

2012 compared with 2011

Net income was \$1.7 billion, an increase of \$111 million, or 7%, from the prior year. These results reflected higher net revenue, partially offset by higher noninterest expense and a higher provision for credit losses.

Net revenue was \$9.9 billion, an increase of \$403 million, or 4%, from the prior year. Noninterest revenue was \$7.8 billion, down \$48 million, or 1%, due to lower loan-related revenue and the absence of a prior-year gain on the sale of an investment. These decreases were predominantly offset by net client inflows, higher valuations of seed capital investments, the effect of higher market levels, higher brokerage revenue and higher performance fees. Net interest income was \$2.1 billion, up \$451 million, or 27%, due to higher loan and deposit balances.

Revenue from Private Banking was \$5.4 billion, up 6% from the prior year due to higher net interest income from loan and deposit balances and higher brokerage revenue, partially offset by lower loan-related fee revenue. Revenue from Institutional was \$2.4 billion, up 5% due to net client inflows and the effect of higher market levels. Revenue from Retail was \$2.1 billion, down 1% due to the absence of a prior-year gain on the sale of an investment, predominantly offset by higher valuations of seed capital investments and higher performance fees.

The provision for credit losses was \$86 million, compared with \$67 million in the prior year.

Noninterest expense was \$7.1 billion, an increase of \$102 million, or 1%, from the prior year, due to higher performance-based compensation and higher headcount-related expense, partially offset by the absence of non-client-related litigation expense.

Selected metrics

Business metrics

As of or for the year ended December 31, (in millions, except headcount, ranking data, ratios and where otherwise noted)

	2013	2012	2011
Number of:			
Client advisors	2,962	2,821	2,883
% of customer assets in 4 & 5 Star Funds ^(a)	49%	47%	43%
% of AUM in 1 st and 2 nd quartiles: ^(b)			
1 year	68	67	48
3 years	68	74	72
5 years	69	76	78

Selected balance sheet data (period-end)

Total assets	\$122,414	\$108,999	\$ 86,242
Loans ^(c)	95,445	80,216	57,573
Deposits	146,183	144,579	127,464
Equity	9,000	7,000	6,500

Selected balance sheet data (average)

Total assets	\$113,198	\$ 97,447	\$ 76,141
Loans	86,066	68,719	50,315
Deposits	139,707	129,208	106,421
Equity	9,000	7,000	6,500

Headcount	20,048	18,465	18,036

Credit data and quality statistics

Net charge-offs	\$ 40	\$ 64	\$ 92
Nonaccrual loans	167	250	317
Allowance for credit losses:			
Allowance for loan losses	278	248	209
Allowance for lending-related commitments	5	5	10
Total allowance for credit losses	283	253	219
Net charge-off rate	0.05%	0.09%	0.18%
Allowance for loan losses to period-end loans	0.29	0.31	0.36
Allowance for loan losses to nonaccrual loans	166	99	66
Nonaccrual loans to period-end loans	0.17	0.31	0.55

AM firmwide disclosures^(d)

Total net revenue	\$ 13,391	\$ 11,443	\$ 10,715
Client assets (in billions) ^(e)	2,534	2,244	2,035
Number of client advisors	6,006	5,784	6,084

(a) Derived from Morningstar for the U.S., the U.K., Luxembourg, France, Hong Kong and Taiwan; and Nomura for Japan.

(b) Quartile ranking sourced from: Lipper for the U.S. and Taiwan; Morningstar for the U.K., Luxembourg, France and Hong Kong; and Nomura for Japan.

(c) Included \$18.9 billion, \$10.9 billion and \$2.1 billion of prime mortgage loans reported in the Consumer, excluding credit card, loan portfolio at December 31, 2013, 2012 and 2011, respectively. For the same periods, excluded \$3.7 billion, \$6.7 billion and \$13.0 billion of

prime mortgage loans reported in the CIO portfolio within the Corporate/Private Equity segment, respectively.

(d) Includes Chase Wealth Management ("CWM"), which is a unit of Consumer & Business Banking. The firmwide metrics are presented in order to capture AM's partnership with CWM. Management reviews firmwide metrics in assessing the financial performance of AM's client asset management business.

(e) Excludes CWM client assets that are managed by AM.

AM's client segments comprise the following:

Private Banking offers investment advice and wealth management services to high- and ultra-high-net-worth individuals, families, money managers, business owners and small corporations worldwide, including investment management, capital markets and risk management, tax and estate planning, banking, capital raising and specialty-wealth advisory services.

Institutional brings comprehensive global investment services – including asset management, pension analytics, asset-liability management and active risk-budgeting strategies – to corporate and public institutions, endowments, foundations, non-profit organizations and governments worldwide.

Retail provides worldwide investment management services and retirement planning and administration, through financial intermediaries and direct distribution of a full range of investment products.

J.P. Morgan Asset Management has two high-level measures of its overall fund performance.

- Percentage of assets under management in funds rated 4- and 5-stars (three years). Mutual fund rating services rank funds based on their risk-adjusted performance over various periods. A 5-star rating is the best and represents the top 10% of industry-wide ranked funds. A 4-star rating represents the next 22% of industry wide ranked funds. The worst rating is a 1-star rating.
- Percentage of assets under management in first- or second- quartile funds (one, three and five years). Mutual fund rating services rank funds according to a peer-based performance system, which measures returns according to specific time and fund classification (small-, mid-, multi- and large-cap).

Management's discussion and analysis

Client assets

2013 compared with 2012

Client assets were \$2.3 trillion at December 31, 2013, an increase of \$248 billion, or 12%, compared with the prior year. Assets under management were \$1.6 trillion, an increase of \$172 billion, or 12%, from the prior year, due to net inflows to long-term products and the effect of higher market levels. Custody, brokerage, administration and deposit balances were \$745 billion, up \$76 billion, or 11%, from the prior year, due to the effect of higher market levels and custody inflows, partially offset by brokerage outflows.

2012 compared with 2011

Client assets were \$2.1 trillion at December 31, 2012, an increase of \$174 billion, or 9%, from the prior year. Assets under management were \$1.4 trillion, an increase of \$90 billion, or 7%, due to the effect of higher market levels and net inflows to long-term products, partially offset by net outflows from liquidity products. Custody, brokerage, administration and deposit balances were \$669 billion, up \$84 billion, or 14%, due to the effect of higher market levels and custody and brokerage inflows.

Client assets

December 31, (in billions)	2013	2012	2011
Assets by asset class			
Liquidity	\$ 451	\$ 458	\$ 501
Fixed income	330	330	287
Equity	370	277	236
Multi-asset and alternatives	447	361	312
Total assets under management	1,598	1,426	1,336
Custody/brokerage/ administration/deposits	745	669	585
Total client assets	\$ 2,343	\$ 2,095	\$ 1,921
Alternatives client assets	158	142	134
Assets by client segment			
Private Banking	\$ 361	\$ 318	\$ 291
Institutional	777	741	722
Retail	460	367	323
Total assets under management	\$ 1,598	\$ 1,426	\$ 1,336
Private Banking	\$ 977	\$ 877	\$ 781
Institutional	777	741	723
Retail	589	477	417
Total client assets	\$ 2,343	\$ 2,095	\$ 1,921
Mutual fund assets by asset class			
Liquidity	\$ 392	\$ 410	\$ 458
Fixed income	137	136	107
Equity	198	139	116
Multi-asset and alternatives	77	46	39
Total mutual fund assets	\$ 804	\$ 731	\$ 720

Year ended December 31, (in billions)	2013	2012	2011
Assets under management rollforward			
Beginning balance	\$ 1,426	\$ 1,336	\$ 1,298
Net asset flows:			
Liquidity	(4)	(41)	20
Fixed income	8	27	36
Equity	34	8	—
Multi-asset and alternatives	48	23	15
Market/performance/other impacts	86	73	(33)
Ending balance, December 31	\$ 1,598	\$ 1,426	\$ 1,336

Client assets rollforward			
Beginning balance	\$ 2,095	\$ 1,921	\$ 1,840
Net asset flows	80	60	123
Market/performance/other impacts	168	114	(42)
Ending balance, December 31	\$ 2,343	\$ 2,095	\$ 1,921

International metrics

Year ended December 31, (in billions, except where otherwise noted)	2013	2012	2011
Total net revenue (in millions)^(a)			
Europe/Middle East/Africa	\$ 1,852	\$ 1,641	\$ 1,704
Asia/Pacific	1,175	967	971
Latin America/Caribbean	867	772	808
North America	7,426	6,566	6,060
Total net revenue	\$ 11,320	\$ 9,946	\$ 9,543
Assets under management			
Europe/Middle East/Africa	\$ 305	\$ 258	\$ 278
Asia/Pacific	132	114	105
Latin America/Caribbean	47	45	34
North America	1,114	1,009	919
Total assets under management	\$ 1,598	\$ 1,426	\$ 1,336
Client assets			
Europe/Middle East/Africa	\$ 367	\$ 317	\$ 329
Asia/Pacific	180	160	139
Latin America/Caribbean	117	110	89
North America	1,679	1,508	1,364
Total client assets	\$ 2,343	\$ 2,095	\$ 1,921

(a) Regional revenue is based on the domicile of the client.

CORPORATE/PRIVATE EQUITY

The Corporate/Private Equity segment comprises Private Equity, Treasury and Chief Investment Office (“CIO”), and Other Corporate, which includes corporate staff units and expense that is centrally managed. Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm’s liquidity, funding and structural interest rate and foreign exchange risks, as well as executing the Firm’s capital plan. The major Other Corporate units include Real Estate, Central Technology, Legal, Compliance, Finance, Human Resources, Internal Audit, Risk Management, Oversight & Control, Corporate Responsibility and various Other Corporate groups. Other centrally managed expense includes the Firm’s occupancy and pension-related expense that are subject to allocation to the businesses.

Selected income statement data^(a)

Year ended December 31, (in millions, except headcount)	2013	2012	2011
Revenue			
Principal transactions	\$ 563	\$ (4,268)	\$ 1,434
Securities gains	666	2,024	1,600
All other income	1,864	2,434	587
Noninterest revenue	3,093	190	3,621
Net interest income	(1,839)	(1,281)	582
Total net revenue^(b)	1,254	(1,091)	4,203
Provision for credit losses	(28)	(37)	(36)
Noninterest expense			
Compensation expense	2,299	2,221	1,966
Noncompensation expense ^(c)	13,208	6,972	6,325
Subtotal	15,507	9,193	8,291
Net expense allocated to other businesses	(5,252)	(4,634)	(4,276)
Total noninterest expense	10,255	4,559	4,015
Income before income tax expense/(benefit)	(8,973)	(5,613)	224
Income tax expense/(benefit)	(2,995)	(3,591)	(695)
Net income/(loss)	\$ (5,978)	\$ (2,022)	\$ 919
Total net revenue			
Private equity	\$ 589	\$ 601	\$ 836
Treasury and CIO	(792)	(3,064)	3,196
Other Corporate ^(a)	1,457	1,372	171
Total net revenue	\$ 1,254	\$ (1,091)	\$ 4,203
Net income/(loss)			
Private equity	\$ 285	\$ 292	\$ 391
Treasury and CIO	(676)	(2,093)	1,349
Other Corporate ^(a)	(5,587)	(221)	(821)
Total net income/(loss)	\$ (5,978)	\$ (2,022)	\$ 919
Total assets (period-end)^(a)	\$805,987	\$ 725,251	\$ 689,718
Headcount^(a)	20,717	17,758	16,653

(a) The 2012 and 2011 data for certain income statement line items (predominantly net interest income, compensation, and non compensation) were revised to reflect the transfer of certain technology and operations, as well as real estate-related functions and staff from Corporate/Private Equity to CCB, effective January 1, 2013.

For further information on this transfer, see footnote (a) on page 86 of this Annual Report.

- (b) Included tax-equivalent adjustments, predominantly due to tax-exempt income from municipal bond investments of \$480 million, \$443 million and \$298 million for the years ended December 31, 2013, 2012 and 2011, respectively.
- (c) Included litigation expense of \$10.2 billion, \$3.7 billion and \$3.2 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

2013 compared with 2012

Net loss was \$6.0 billion, compared with a net loss of \$2.0 billion in the prior year.

Private Equity reported net income of \$285 million, compared with net income of \$292 million in the prior year. Net revenue was of \$589 million, compared with \$601 million in the prior year.

Treasury and CIO reported a net loss of \$676 million, compared with a net loss of \$2.1 billion in the prior year. Net revenue was a loss of \$792 million, compared with a loss of \$3.1 billion in the prior year. Net revenue in the current year includes \$659 million of net securities gains from the sales of available-for-sale investment securities, compared with securities gains of \$2.0 billion and \$888 million of pretax extinguishment gains related to the redemption of trust preferred capital debt securities in the prior year. The extinguishment gains were related to adjustments applied to the cost basis of the trust preferred securities during the period they were in a qualified hedge accounting relationship. The prior year loss also reflected \$5.8 billion of losses incurred by CIO from the synthetic credit portfolio for the six months ended June 30, 2012, and \$449 million of losses from the retained index credit derivative positions for the three months ended September 30, 2012. Current year net interest income was a loss of \$1.4 billion compared with a loss of \$683 million in the prior year, primarily due to low interest rates and limited reinvestment opportunities. Net interest income improved in the fourth quarter of 2013 due to higher interest rates and better reinvestment opportunities.

Other Corporate reported a net loss of \$5.6 billion, compared with a net loss of \$221 million in the prior year. Current year noninterest revenue was \$1.8 billion compared with \$1.8 billion in the prior year. Current year noninterest revenue included gains of \$1.3 billion and \$493 million on the sales of Visa shares and One Chase Manhattan Plaza, respectively. Noninterest revenue in the prior year included a \$1.1 billion benefit for the Washington Mutual bankruptcy settlement and a \$665 million gain for the recovery on a Bear Stearns-related subordinated loan. Noninterest expense of \$9.7 billion was up \$5.9 billion compared to the prior year. The current year included \$10.2 billion of legal expense, including reserves for litigation and regulatory proceedings compared with \$3.7 billion of expense for additional litigation reserves, largely for mortgage-related matters, in the prior year.

Management's discussion and analysis

2012 compared with 2011

Net loss was \$2.0 billion, compared with a net income of \$919 million in the prior year.

Private Equity reported net income of \$292 million, compared with net income of \$391 million in the prior year. Net revenue was \$601 million, compared with \$836 million in the prior year, due to lower unrealized and realized gains on private investments, partially offset by higher unrealized gains on public securities. Noninterest expense was \$145 million, down from \$238 million in the prior year.

Treasury and CIO reported a net loss of \$2.1 billion, compared with net income of \$1.3 billion in the prior year. Net revenue was a loss of \$3.1 billion, compared with net revenue of \$3.2 billion in the prior year. The current year loss reflected \$5.8 billion of losses incurred by CIO from the synthetic credit portfolio for the six months ended June 30, 2012, and \$449 million of losses from the retained index credit derivative positions for the three months ended September 30, 2012. These losses were partially offset by securities gains of \$2.0 billion. The current year revenue reflected \$888 million of extinguishment gains related to the redemption of trust preferred securities, which are included in all other income in the above table. The extinguishment gains were related to adjustments applied to the cost basis of the trust preferred securities during the period they were in a qualified hedge accounting relationship. Net interest income was negative \$683 million, compared with \$1.4 billion in the prior year, primarily reflecting the impact of lower portfolio yields and higher deposit balances across the Firm.

Other Corporate reported a net loss of \$221 million, compared with a net loss of \$821 million in the prior year. Noninterest revenue of \$1.8 billion was driven by a \$1.1 billion benefit for the Washington Mutual bankruptcy settlement, which is included in all other income in the above table, and a \$665 million gain from the recovery on a Bear Stearns-related subordinated loan. Noninterest expense of \$3.8 billion was up \$1.0 billion compared with the prior year. The current year included expense of \$3.7 billion for additional litigation reserves, largely for mortgage-related matters. The prior year included expense of \$3.2 billion for additional litigation reserves.

Treasury and CIO overview

Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding and structural interest rate and foreign exchange risks, as well as executing the Firm's capital plan. The risks managed by Treasury and CIO arise from the activities undertaken by the Firm's four major reportable business segments to serve their respective client bases, which generate both on- and off-balance sheet assets and liabilities.

CIO achieves the Firm's asset-liability management objectives generally by investing in high-quality securities that are managed for the longer-term as part of the Firm's AFS and HTM investment securities portfolios (the "investment securities portfolio"). CIO also uses derivatives, as well as securities that are not classified as AFS or HTM, to meet the Firm's asset-liability management objectives. For further information on derivatives, see Note 6 on pages 220-233 of this Annual Report. For further information about securities not classified within the AFS or HTM portfolio, see Note 3 on pages 195-215 of this Annual Report. The Treasury and CIO investment securities portfolio primarily consists of U.S. and non-U.S. government securities, agency and non-agency mortgage-backed securities, other asset-backed securities, corporate debt securities and obligations of U.S. states and municipalities. At December 31, 2013, the total Treasury and CIO investment securities portfolio was \$347.6 billion; the average credit rating of the securities comprising the Treasury and CIO investment securities portfolio was AA+ (based upon external ratings where available and where not available, based primarily upon internal ratings that correspond to ratings as defined by S&P and Moody's). See Note 12 on pages 249-254 of this Annual Report for further information on the details of the Firm's investment securities portfolio.

For further information on liquidity and funding risk, see Liquidity Risk Management on pages 168-173 of this Annual Report. For information on interest rate, foreign exchange and other risks, Treasury and CIO Value-at-risk ("VaR") and the Firm's structural interest rate-sensitive revenue at risk, see Market Risk Management on pages 142-148 of this Annual Report.

Selected income statement and balance sheet data

As of or for the year ended December 31, (in millions)	2013	2012	2011
Securities gains	\$ 659	\$ 2,028	\$ 1,385
Investment securities portfolio (average)	353,712	358,029	330,885
Investment securities portfolio (period-end) ^(a)	347,562	365,421	355,605
Mortgage loans (average)	5,145	10,241	13,006
Mortgage loans (period-end)	3,779	7,037	13,375

(a) Period-end investment securities included held-to-maturity balance of \$24.0 billion at December 31, 2013. Held-to-maturity balances for the other periods were not material.

Private Equity portfolio

Selected income statement and balance sheet data

Year ended December 31, (in millions)	2013	2012	2011
Private equity gains/(losses)			
Realized gains	\$ (170)	\$ 17	\$ 1,842
Unrealized gains/(losses) ^(a)	734	639	(1,305)
Total direct investments	564	656	537
Third-party fund investments	137	134	417
Total private equity gains/ (losses)^(b)	\$ 701	\$ 790	\$ 954

- (a) Includes reversals of unrealized gains and losses that were recognized in prior periods and have now been realized.
- (b) Included in principal transactions revenue in the Consolidated Statements of Income.

Private equity portfolio information^(a)

Direct investments

December 31, (in millions)	2013	2012	2011
Publicly held securities			
Carrying value	\$ 1,035	\$ 578	\$ 805
Cost	672	350	573
Quoted public value	1,077	578	896
Privately held direct securities			
Carrying value	5,065	5,379	4,597
Cost	6,022	6,584	6,793
Third-party fund investments^(b)			
Carrying value	1,768	2,117	2,283
Cost	1,797	1,963	2,452
Total private equity portfolio			
Carrying value	\$ 7,868	\$ 8,074	\$ 7,685
Cost	8,491	8,897	9,818

- (a) For more information on the Firm's policies regarding the valuation of the private equity portfolio, see Note 3 on pages 195–215 of this Annual Report.
- (b) Unfunded commitments to third-party private equity funds were \$215 million, \$370 million and \$789 million at December 31, 2013, 2012 and 2011, respectively.

2013 compared with 2012

The carrying value of the private equity portfolio at December 31, 2013 was \$7.9 billion, down from \$8.1 billion at December 31, 2012. The decrease in the portfolio was predominantly driven by sales of investments, partially offset by new investments and unrealized gains.

2012 compared with 2011

The carrying value of the private equity portfolio at December 31, 2012 was \$8.1 billion, up from \$7.7 billion at December 31, 2011. The increase in the portfolio was predominantly driven by new investments and unrealized gains, partially offset by sales of investments.

INTERNATIONAL OPERATIONS

During the years ended December 31, 2013, 2012 and 2011, the Firm recorded \$24.0 billion, \$18.5 billion and \$24.5 billion, respectively, of managed revenue derived from clients, customers and counterparties domiciled outside of North America. Of those amounts, 65%, 57% and 66%, respectively, were derived from Europe/Middle

East/Africa ("EMEA"); 26%, 30% and 25%, respectively, from Asia/Pacific; and 9%, 13% and 9%, respectively, from Latin America/Caribbean. For additional information regarding international operations, see Note 32 on page 333 of this Annual Report.

International wholesale activities

The Firm is committed to meeting the needs of its clients as part of a coordinated international business strategy.

Set forth below are certain key metrics related to the Firm's wholesale international operations, including, for each of EMEA, Asia/Pacific and Latin America/Caribbean, the number of countries in each such region in which they operate, front-office headcount, number of significant clients, revenue and selected balance-sheet data.

As of or for the year ended December 31, (in millions, except headcount and where otherwise noted)	EMEA			Asia/Pacific			Latin America/Caribbean		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Revenue ^(a)	\$ 15,441	\$ 10,398	\$ 16,141	\$ 6,138	\$ 5,590	\$ 5,971	\$ 2,233	\$ 2,327	\$ 2,232
Countries of operation ^(b)	33	33	33	17	17	16	9	9	9
New offices	—	—	1	—	2	2	—	—	4
Total headcount ^(c)	15,560	15,485	16,185	21,699	20,509	20,212	1,495	1,435	1,380
Front-office headcount	6,285	5,805	5,937	4,353	4,166	4,263	655	591	524
Significant clients ^(d)	1,071	1,008	950	498	509	496	177	162	138
Deposits (average) ^(e)	\$ 192,064	\$ 169,693	\$ 168,882	\$ 56,440	\$ 57,329	\$ 57,684	\$ 5,546	\$ 4,823	\$ 5,318
Loans (period-end) ^(f)	45,571	40,760	36,637	26,560	30,287	31,119	29,214	30,322	25,141
Assets under management (in billions)	305	258	278	132	114	105	47	45	34
Client assets (in billions)	367	317	329	180	160	139	117	110	89
Assets under custody (in billions)	7,348	6,502	5,430	1,607	1,577	1,426	231	252	279

Note: International wholesale operations is comprised of CIB, AM, CB and Treasury and CIO.

- (a) Revenue is based predominantly on the domicile of the client, the location from which the client relationship is managed, or the location of the trading desk.
- (b) Countries of operation represents locations where the Firm has a physical presence with employees actively engaged in "client facing" activities.
- (c) Total headcount includes all employees, including those in service centers, located in the region. Effective January 1, 2013, interns are excluded from the firmwide and business segment headcount metrics. Prior periods were revised to conform with this presentation.
- (d) Significant clients are defined as companies with over \$1 million in revenue over a trailing 12-month period in the region (excludes private banking clients).
- (e) Deposits are based on the location from which the client relationship is managed.
- (f) Loans outstanding are based predominantly on the domicile of the borrower and exclude loans held-for-sale and loans carried at fair value.

ENTERPRISE-WIDE RISK MANAGEMENT

Risk is an inherent part of JPMorgan Chase's business activities. The Firm employs a holistic approach to risk management that is intended to ensure the broad spectrum of risk types are considered in managing its business activities.

The Firm believes effective risk management requires:

- Acceptance of responsibility by all individuals within the Firm;
- Ownership of risk management within each line of business; and
- Firmwide structures for risk governance and oversight.

Firmwide Risk Management is overseen and managed on an enterprise-wide basis. The Firm's Chief Executive Officer ("CEO"), Chief Financial Officer ("CFO"), Chief Risk Officer ("CRO") and Chief Operating Officer ("COO") develop and set the risk management framework and governance structure for the Firm which is intended to provide comprehensive controls and ongoing management of the major risks inherent in the Firm's business activities. The

Firm's risk management framework is intended to create a culture of risk transparency and awareness, and personal responsibility throughout the Firm where collaboration, discussion, escalation and sharing of information are encouraged. The CEO, CFO, CRO and COO are ultimately responsible and accountable to the Firm's Board of Directors.

The Firm believes that risk management is the responsibility of every employee. Employees are expected to operate with the highest standards of integrity and identify, escalate, and correct mistakes. The Firm's risk culture strives for continual improvement through ongoing employee training and development, as well as talent retention. The Firm also approaches its incentive compensation arrangements through an integrated risk, compensation and financial management framework to encourage a culture of risk awareness and personal accountability. The Firm's overall objective in managing risk is to protect the safety and soundness of the Firm, and avoid excessive risk taking.

Management's discussion and analysis

The following sections outline the key risks that are inherent in the Firm's business activities.

	Risk	Definition	Key risk management metrics	Page references
Risks managed centrally	Capital risk	The risk the Firm has insufficient capital resources to support the Firm's business activities and related risks.	Risk-based capital ratios, Supplementary Leverage ratio	160-167
	Liquidity risk	The risk the Firm will not have the appropriate amount, composition or tenor of funding and liquidity to support its assets and obligations.	LCR; Stress; Parent Holding Company Pre-Funding	168-173
	Non-USD FX risk	Risk arising from capital investments, forecasted expense and revenue, investment securities portfolio or issuing debt in denominations other than the U.S. dollar.	FX Net Open Position ("NOP")	220, 229-231
	Structural interest rate risk	Risk resulting from the Firm's traditional banking activities (both on- and off-balance sheet positions) arising from the extension of loans and credit facilities, taking deposits and issuing debt, and the impact of the CIO investment securities portfolio.	Earnings-at-risk	147-148
Risks managed on an LOB aligned basis	Country risk	Risk that a sovereign's unwillingness or inability to pay will result in market, credit, or other losses.	Default exposure at 0% recovery, Stress	149-152
	Credit risk	Risk of loss from obligor or counterparty default.	Total exposure; industry and geographic concentrations; risk ratings; delinquencies; loss experience; stress	117-141
	Fiduciary risk	Risk of failing to exercise the applicable standard of care or to act in the best interests of clients or treat all clients fairly as required under applicable law or regulation.	Not Applicable	159
	Legal risk	Risk of loss or imposition of damages, fines, penalties or other liability arising from failure to comply with a contractual obligation or to comply with laws or regulations to which the Firm is subject.	Not Applicable	158
	Market risk	Risk of loss arising from adverse changes in the value of the Firm's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity and commodity prices and their implied volatilities, and credit spreads.	VaR, Stress, Sensitivities	142-148
	Model risk	Risk of a material inaccuracy in the quantification of the value of, or an inaccuracy of the identification and measurement of a position held by or activity engaged in by the Firm.	Model Status, Model Tier	153
	Operational risk	Risk of loss resulting from inadequate or failed processes or systems, human factors or external events	Various metrics- see page 156	155-157
	Principal risk	Risk of an adverse change in the value of privately-held financial assets and instruments, typically representing an ownership or junior capital position. These positions have unique risks due to their illiquidity or for which there is less observable market or valuation data.	Carrying Value, Stress	154
	Regulatory and Compliance risk	Risk of regulatory actions, including fines or penalties, arising from the failure to comply with the various U.S. federal and state laws and regulations and the laws and regulations of the various jurisdictions outside the United States in which the Firm conducts business.	Not Applicable	158
	Reputation risk	Risk that an action, transaction, investment or event will reduce the trust that clients, shareholders, employees or the broader public has in the Firm's integrity or competence.	Not Applicable	159

Risk governance and oversight

The Board of Directors provides oversight of risk principally through the Board of Directors' Risk Policy Committee ("DRPC"), Audit Committee and, with respect to compensation, Compensation & Management Development Committee.

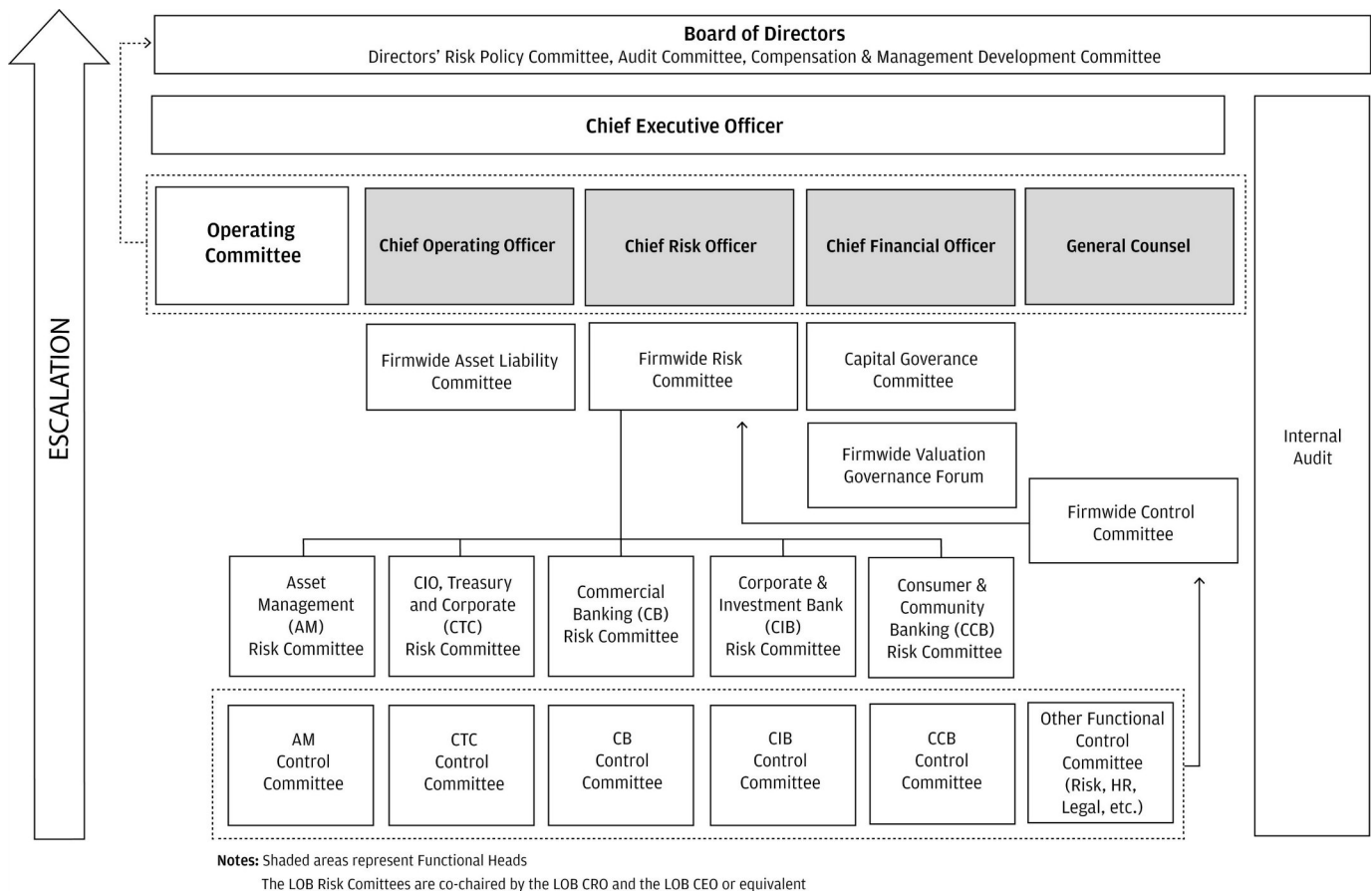
The Firm's overall risk appetite is established by management taking into consideration the Firm's capital and liquidity positions, earnings power, and diversified business model. The risk appetite framework is a tool to measure the capacity to take risk and is expressed in loss tolerance parameters at the Firm and/or LOB levels, including net income loss tolerances, liquidity limits and market limits. Performance against these parameters informs management's strategic decisions and is reported to the DRPC.

The Firm-level risk appetite parameters are set and approved by the Firm's CEO, CFO, CRO and COO. LOB-level risk appetite parameters are set by the LOB CEO, CFO, and CRO and are approved by the Firm's functional heads as noted above. Firmwide LOB diversification allows the sum of the LOBs' loss tolerances to be greater than the Firmwide loss tolerance.

The CRO is responsible for the overall direction of the Firm's Risk Management function and is the head of the Risk Management Organization. The LOBs and legal entities are ultimately responsible for managing the risks inherent in their respective business activities.

The Firm's Risk Management Organization and other Firmwide functions with risk-related responsibilities (i.e., Regulatory Capital Management Office ("RCMO"), Oversight and Control Group, Valuation Control Group ("VCG"), Legal and Compliance) provide independent oversight of the monitoring, evaluation and escalation of risk.

The chart below illustrates the Firm's Risk Governance structure and certain key management level committees that are primarily responsible for key risk-related functions; there are additional committees not represented in the chart (e.g. Firmwide Fiduciary Risk Committee, and other functional forums) that are also responsible for management and oversight of risk. Additionally, the chart illustrates how the primary escalation mechanism works.



In assisting the Board in its oversight of risk, primary responsibility with respect to credit risk, primary responsibility with respect to credit risk, market risk, structural interest rate risk, principal risk, liquidity risk, country risk, fiduciary risk and model risk rests with the DRPC, while primary responsibility with respect to operating risk, legal risk and compliance risk rests with the Audit Committee. Each committee of the Board oversees reputation risk issues within its scope of responsibility.

The Directors' Risk Policy Committee ("DRPC") assists the Board in its oversight of management's exercise of its responsibility to (i) assess and manage the Firm's risk; (ii) ensure that there is in place an effective system reasonably designed to evaluate and control such risks throughout the Firm; and (iii) manage capital and liquidity planning and analysis. The DRPC reviews and approves Primary Risk Policies (as designated by the DRPC), reviews firmwide value-at-risk, stress limits and any other metrics agreed to with management, and performance against such metrics. The Firm's CRO, LOB CROs, LOB CEOs, heads of risk for Country Risk, Market Risk, Wholesale Credit Risk, Consumer Credit Risk, Model Risk, Risk Management Policy, Reputation Risk Governance, Fiduciary Risk Governance, and Operational Risk Governance (all referred to as Firmwide Risk Executives) meet with and provide updates and escalations to the DRPC. Additionally, breaches in risk

appetite tolerances, liquidity issues that may have a material adverse impact on the Firm and other significant matters as determined by the CRO or Firmwide functions with risk responsibility are escalated to the DRPC.

The Audit Committee assists the Board in its oversight of guidelines and policies that govern the process by which risk assessment and management is undertaken. In addition, the Audit Committee reviews with management the system of internal control that is relied upon to provide reasonable assurance of compliance with the Firm's execution of operational risk. In addition, Internal Audit, an independent function within the Firm that provides independent and objective assessments of the control environment, reports directly to the Audit Committee and administratively to the CEO. Internal Audit conducts independent reviews to evaluate the Firm's internal control structure and compliance with applicable regulatory requirements and is responsible for providing the Audit Committee, senior management and regulators with an independent assessment of the Firm's ability to manage and control risk.

The Compensation & Management Development Committee, assists the Board in its oversight of the Firm's compensation programs and reviews and approves the Firm's overall compensation philosophy and practices. The Committee

Management's discussion and analysis

reviews the Firm's compensation practices as they relate to risk and risk management in light of the Firm's objectives, including its safety and soundness and the avoidance of excessive risk taking. The Committee reviews and approves the terms of compensation award programs, including recovery provisions, restrictive covenants and vesting periods. The Committee also reviews and approves the Firm's overall incentive compensation pools and reviews those of each of the Firm's lines of business and Corporate/Private Equity segment. The Committee reviews the performance and approves all compensation awards for the Firm's Operating Committee on a name-by-name basis. The full Board's independent directors review the performance and approve the compensation of the Firm's CEO.

Among the Firm's management level committees that are primarily responsible for key risk-related functions are:

The Asset-Liability Committee ("ALCO"), chaired by the Corporate Treasurer under the direction of the COO, monitors the Firm's overall liquidity risk. ALCO is responsible for reviewing and approving the Firm's liquidity policy and contingency funding plan. ALCO also reviews the Firm's funds transfer pricing policy (through which lines of business "transfer" interest rate and foreign exchange risk to Treasury), overall structural interest rate risk position, funding requirements and strategy, and the Firm's securitization programs (and any required liquidity support by the Firm of such programs).

The Capital Governance Committee, chaired by the Firm's CFO, is responsible for reviewing the Firm's Capital Management Policy and the principles underlying capital issuance and distribution alternatives. The Committee is also responsible for governing the capital adequacy assessment process, including overall design, assumptions and risk streams; and, ensuring that capital stress test programs are designed to adequately capture the idiosyncratic risks across the Firm's businesses.

The Firmwide Risk Committee ("FRC") provides oversight of the risks inherent in the Firm's businesses, including market, credit, principal, structural interest rate, operational risk framework, fiduciary, reputational, country, liquidity and model risks. The Committee is co-chaired by the Firm's CEO and CRO. Members of the committee include the the Firm's COO, LOB CEOs, LOB CROs, General Counsel, and other senior managers from risk and control functions. This committee serves as an escalation point for risk topics and issues raised by the Firm's Operating Committee, the Line of Business Risk Committees, Firmwide Control Committee ("FCC") and other subordinate committees.

The Firmwide Control Committee ("FCC") provides a forum for senior management to review and discuss firmwide operational risks including existing and emerging issues, as well as operational risk metrics, management and execution. The FCC serves as an escalation point for significant issues raised from LOB and Functional Control Committees, particularly those with potential enterprise-wide impact. The FCC (as well as the LOB and Functional Control Committees) oversees the risk and control environment, which includes reviewing the identification, management and monitoring of operational risk, control issues, remediation actions and enterprise-wide trends. The FCC escalates significant issues to the FRC.

Each LOB Risk Committee is responsible for decisions relating to risk strategy, policy, measurement and control within its respective LOB. The committee is co-chaired by the LOB CRO and LOB CEO or equivalent. The committee has a clear set of escalation rules and it is the responsibility of committee members to escalate line of business risk topics to the Firmwide Risk Committee as appropriate.

Other corporate functions and forums with risk management-related responsibilities include:

The Firm's Oversight and Control Group is comprised of dedicated control officers within each of the lines of business and Corporate functional areas, as well as a central oversight team. The group is charged with enhancing the Firm's controls by looking within and across the lines of business and Corporate functional areas to identify and control issues. The group enables the Firm to detect control problems more quickly, escalate issues promptly and get the right people involved to understand common themes and interdependencies among the various parts of the Firm. The group works closely with the Firm's other control-related functions, including Compliance, Legal, Internal Audit and Risk Management, to effectively remediate identified control issues across all affected areas of the Firm. As a result, the group facilitates the effective execution of the Firm's control framework and helps support operational risk management across the Firm.

The Firmwide Valuation Governance Forum ("VGF") is composed of senior finance and risk executives and is responsible for overseeing the management of risks arising from valuation activities conducted across the Firm. The VGF is chaired by the firmwide head of the Valuation Control function (under the direction of the Firm's CFO), and also includes sub-forums for the CIB, Mortgage Bank, and certain corporate functions, including Treasury and CIO.

In addition to the committees, forums and groups listed above, the Firm has other management committees and forums at the LOB and regional levels, where risk-related topics are discussed and escalated as necessary. The membership of these committees is composed of senior management of the Firm including representation from the business and various control functions. The committees meet regularly to discuss a broad range of topics.

The JPMorgan Chase Bank N.A. Board of Directors is responsible for the oversight of management on behalf of JPMorgan Chase Bank N.A. The JPMorgan Chase Bank N.A. Board accomplishes this function acting directly and through the principal standing committees of the Firm's Board of Directors. Risk oversight on behalf of JPMorgan Chase Bank N.A. is primarily the responsibility of the Firm's DRPC, Audit Committee and, with respect to compensation-related matters, the Compensation & Management Development Committee.

CREDIT RISK MANAGEMENT

Credit risk is the risk of loss from obligor or counterparty default. The Firm provides credit to a variety of customers, ranging from large corporate and institutional clients to individual consumers and small businesses. In its consumer businesses, the Firm is exposed to credit risk through its residential real estate, credit card, auto, business banking and student lending businesses. Originated mortgage loans are retained in the mortgage portfolio, or securitized or sold to U.S. government agencies and U.S. government-sponsored enterprises; other types of consumer loans are typically retained on balance sheet. In its wholesale businesses, the Firm is exposed to credit risk through its underwriting, lending and derivatives activities with and for clients and counterparties, as well as through its operating services activities, such as cash management and clearing activities. A portion of the loans originated or acquired by the Firm's wholesale businesses are generally retained on the balance sheet; the Firm's syndicated loan business distributes a significant percentage of originations into the market and is an important component of portfolio management.

Credit risk organization

Credit risk management is overseen by the Chief Risk Officer and implemented within the lines of business. The Firm's credit risk management governance consists of the following activities:

- Establishing a comprehensive credit risk policy framework
- Monitoring and managing credit risk across all portfolio segments, including transaction and line approval
- Assigning and managing credit authorities in connection with the approval of all credit exposure
- Managing criticized exposures and delinquent loans
- Determining the allowance for credit losses and ensuring appropriate credit risk-based capital management

Risk identification and measurement

Credit Risk Management works in partnership with the business segments in identifying and aggregating exposures across all lines of business. To measure credit risk, the Firm employs several methodologies for estimating the likelihood of obligor or counterparty default. Methodologies for measuring credit risk vary depending on several factors, including type of asset (e.g., consumer versus wholesale), risk measurement parameters (e.g., delinquency status and borrower's credit score versus wholesale risk-rating) and risk management and collection processes (e.g., retail collection center versus centrally managed workout groups). Credit risk measurement is based on the probability of default of an obligor or counterparty, the loss severity given a default event and the exposure at default.

Based on these factors and related market-based inputs, the Firm estimates credit losses for its exposures. Probable credit losses inherent in the consumer and wholesale loan

portfolios are reflected in the allowance for loan losses, and probable credit losses inherent in lending-related commitments are reflected in the allowance for lending-related commitments. These losses are estimated using statistical analyses and other factors as described in Note 15 on pages 284–287 of this Annual Report. In addition, potential and unexpected credit losses are reflected in the allocation of credit risk capital and represent the potential volatility of actual losses relative to the established allowances for loan losses and lending-related commitments. The analyses for these losses include stress testing (considering alternative economic scenarios) as described in the Stress Testing section below.

The methodologies used to estimate credit losses depend on the characteristics of the credit exposure, as described below.

Scored exposure

The scored portfolio is generally held in CCB and includes residential real estate loans, credit card loans, certain auto and business banking loans, and student loans. For the scored portfolio, credit loss estimates are based on statistical analysis of credit losses over discrete periods of time and are estimated using portfolio modeling, credit scoring, and decision-support tools, which consider loan level factors such as delinquency status, credit scores, collateral values, and other risk factors. Credit loss analyses also consider, as appropriate, uncertainties and other factors, including those related to current macroeconomic and political conditions, the quality of underwriting standards, and other internal and external factors. The factors and analysis are updated on a quarterly basis or more frequently as market conditions dictate.

Risk-rated exposure

Risk-rated portfolios are generally held in CIB, CB and AM, but also include certain business banking and auto dealer loans held in CCB that are risk-rated because they have characteristics similar to commercial loans. For the risk-rated portfolio, credit loss estimates are based on estimates of the probability of default and loss severity given a default. The estimation process begins with risk-ratings that are assigned to each loan facility to differentiate risk within the portfolio. These risk-ratings are reviewed on an ongoing basis by Credit Risk management and revised as needed to reflect the borrower's current financial position, risk profile and related collateral. The probability of default is the likelihood that a loan will default and not be fully repaid by the borrower. The probability of default is estimated for each borrower, and a loss given default is estimated considering the collateral and structural support for each credit facility. The calculations and assumptions are based on management information systems and methodologies that are under continual review.

Management's discussion and analysis

Stress testing

Stress testing is important in measuring and managing credit risk in the Firm's credit portfolio. The process assesses the potential impact of alternative economic and business scenarios on estimated credit losses for the Firm. Economic scenarios, and the parameters underlying those scenarios, are defined centrally and applied across the businesses. These scenarios are articulated in terms of macroeconomic factors, and the stress test results may indicate credit migration, changes in delinquency trends and potential losses in the credit portfolio. In addition to the periodic stress testing processes, management also considers additional stresses outside these scenarios, as necessary. The Firm uses stress testing to inform our decisions on setting risk appetite both at a Firm and line of business level, as well as for assessing the impact of stress on industry concentrations.

Risk monitoring and management

The Firm has developed policies and practices that are designed to preserve the independence and integrity of the approval and decision-making process of extending credit to ensure credit risks are assessed accurately, approved properly, monitored regularly and managed actively at both the transaction and portfolio levels. The policy framework establishes credit approval authorities, concentration limits, risk-rating methodologies, portfolio review parameters and guidelines for management of distressed exposures. In addition, certain models, assumptions and inputs used in evaluating and monitoring credit risk are independently validated by groups that are separate from the line of businesses.

For consumer credit risk, delinquency and other trends, including any concentrations at the portfolio level, are monitored, as certain of these trends can be modified through changes in underwriting policies and portfolio guidelines. Consumer Risk Management evaluates delinquency and other trends against business expectations, current and forecasted economic conditions, and industry benchmarks. Loss mitigation strategies are employed for all residential real estate portfolios. These strategies include interest rate reductions, term or payment extensions, principal and interest deferral and other actions intended to minimize economic loss and avoid foreclosure. Historical and forecasted trends are incorporated into the modeling of estimated consumer credit losses and are part of the monitoring of the credit risk profile of the portfolio. Under the Firm's model risk policy, new significant risk management models, as well as major changes to such models, are required to be reviewed and approved by the Model Review Group prior to implementation into the operating environment. Internal Audit also periodically tests the internal controls around the modeling process including the integrity of the data utilized. For a discussion of the Model Review Group, see page 153 of this Annual Report. For further discussion of consumer loans, see Note 14 on pages 258–283 of this Annual Report.

Wholesale credit risk is monitored regularly at an aggregate portfolio, industry and individual counterparty level with established concentration limits that are reviewed and revised, as deemed appropriate by management, typically on an annual basis. Industry and counterparty limits, as measured in terms of exposure and economic credit risk capital, are subject to stress-based loss constraints.

Management of the Firm's wholesale credit risk exposure is accomplished through a number of means including:

- Loan underwriting and credit approval process
- Loan syndications and participations
- Loan sales and securitizations
- Credit derivatives
- Use of master netting agreements
- Collateral and other risk-reduction techniques

In addition to Risk Management, Internal Audit performs periodic exams, as well as continuous review, where appropriate, of the Firm's consumer and wholesale portfolios. For risk-rated portfolios, a credit review group within Internal Audit is responsible for:

- Independently assessing and validating the changing risk grades assigned to exposures; and
- Evaluating the effectiveness of business units' risk-ratings, including the accuracy and consistency of risk grades, the timeliness of risk grade changes and the justification of risk grades in credit memoranda

Risk reporting

To enable monitoring of credit risk and effective decision-making, aggregate credit exposure, credit quality forecasts, concentration levels and risk profile changes are reported regularly to senior Credit Risk Management. Detailed portfolio reporting of industry, customer, product and geographic concentrations occurs monthly, and the appropriateness of the allowance for credit losses is reviewed by senior management at least on a quarterly basis. Through the risk reporting and governance structure, credit risk trends and limit exceptions are provided regularly to, and discussed with, senior management and the Board of Directors as appropriate.

CREDIT PORTFOLIO

2013 Credit Risk Overview

The credit environment in 2013 continued to improve, with reduced concerns around the European financial crisis and improving market conditions in the U.S. Over the course of the year, the Firm continued to actively manage its underperforming and nonaccrual loans and reduce such exposures through repayments, loan sales and workouts. The Firm saw decreased downgrade, default and charge-off activity and improved consumer delinquency trends. The Firm increased its overall lending activity driven by the wholesale businesses. The combination of these factors resulted in an improvement in the credit quality of the portfolio compared with 2012 and contributed to the Firm's reduction in the allowance for credit losses. For further discussion of the consumer credit environment and consumer loans, see Consumer Credit Portfolio on pages 120-129 and Note 14 on pages 258-283 of this Annual Report. For further discussion of wholesale credit environment and wholesale loans, see Wholesale Credit Portfolio on pages 130-138 and Note 14 on pages 258-283 of this Annual Report.

The following tables present the Firm's credit-related information with respect to its credit portfolio. Total credit exposure was \$1.9 trillion at December 31, 2013, an increase of \$2.2 billion from December 31, 2012, reflecting an increase in the wholesale portfolio of \$13.7 billion offset by a decrease in the consumer portfolio of \$11.5 billion. For further information on the changes in the credit portfolio, see Consumer Credit Portfolio on pages 120-129, and Wholesale Credit Portfolio on pages 130-138, of this Annual Report.

In the following tables, reported loans include loans retained (i.e., held-for-investment); loans held-for-sale (which are carried at the lower of cost or fair value, with valuation changes recorded in noninterest revenue); and certain loans accounted for at fair value. In addition, the Firm records certain loans accounted for at fair value in trading assets. For further information regarding these loans see Note 3 on pages 195-215 of this Annual Report. For additional information on the Firm's loans and derivative receivables, including the Firm's accounting policies, see Note 14 and Note 6 on pages 258-283 and 220-233, respectively, of this Annual Report.

For further information regarding the credit risk inherent in the Firm's investment securities portfolio, see Note 12 on pages 249-254 of this Annual Report.

Total credit portfolio

December 31, 2013 (in millions)	Credit exposure		Nonperforming ^{(c)(d)(e)}	
	2013	2012	2013	2012
Loans retained	\$ 724,177	\$ 726,835	\$ 8,317	\$ 10,609
Loans held-for-sale	12,230	4,406	26	18
Loans at fair value ^(a)	2,011	2,555	197	265
Total loans - reported	738,418	733,796	8,540	10,892
Derivative receivables	65,759	74,983	415	239
Receivables from customers and other	26,883	23,761	—	—
Total credit-related assets	831,060	832,540	8,955	11,131
Assets acquired in loan satisfactions				
Real estate owned	NA	NA	710	738
Other	NA	NA	41	37
Total assets acquired in loan satisfactions	NA	NA	751	775
Total assets	831,060	832,540	9,706	11,906
Lending-related commitments	1,031,672	1,027,988	206	355
Total credit portfolio	\$ 1,862,732	\$ 1,860,528	\$ 9,912	\$ 12,261
Credit Portfolio Management derivatives notional, net ^(b)	\$ (27,996)	\$ (27,447)	\$ (5)	\$ (25)
Liquid securities and other cash collateral held against derivatives	(14,435)	(15,201)	NA	NA

Year ended December 31, (in millions, except ratios)	2013	2012
Net charge-offs ^(f)	\$ 5,802	\$ 9,063
Average retained loans		
Loans - reported	720,152	717,035
Loans - reported, excluding residential real estate PCI loans	663,629	654,454
Net charge-off rates ^(f)		
Loans - reported	0.81%	1.26%
Loans - reported, excluding PCI	0.87	1.38

- During 2013, certain loans that resulted from restructurings that were previously classified as performing were reclassified as nonperforming loans. Prior periods were revised to conform with the current presentation.
- Represents the net notional amount of protection purchased and sold through credit derivatives used to manage both performing and nonperforming wholesale credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. Excludes the synthetic credit portfolio. For additional information, see Credit derivatives on pages 137-138 and Note 6 on pages 220-233 of this Annual Report.
- Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.
- At December 31, 2013 and 2012, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of \$8.4 billion and \$10.6 billion, respectively, that are 90 or more days past due; (2) real estate owned insured by U.S. government agencies of \$2.0 billion and \$1.6 billion, respectively; and (3) student loans insured by U.S. government agencies under the FFELP of \$428 million and \$525 million, respectively, that are 90 or more days past due. These amounts have been excluded from nonaccrual loans based upon the government guarantee. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance issued by the Federal Financial Institutions Examination Council ("FFIEC").
- At December 31, 2013 and 2012, total nonaccrual loans represented 1.16% and 1.48%, respectively, of total loans.
- Net charge-offs and net charge-off rates for the year ended December 31, 2012, included \$800 million of incremental charge-offs of Chapter 7 loans. See Consumer Credit Portfolio on pages 120-129 of this Annual Report for further details.

CONSUMER CREDIT PORTFOLIO

JPMorgan Chase's consumer portfolio consists primarily of residential real estate loans, credit card loans, auto loans, business banking loans, and student loans. The Firm's focus is on serving the prime segment of the consumer credit market. For further information on consumer loans, see Note 14 on pages 258-283 of this Annual Report.

A substantial portion of the consumer loans acquired in the Washington Mutual transaction were identified as purchased credit-impaired ("PCI") based on an analysis of high-risk characteristics, including product type, loan-to-value ("LTV") ratios, FICO risk scores and delinquency status. These PCI loans are accounted for on a pool basis, and the pools are considered to be performing. For further information on PCI loans see Note 14 on pages 258-283 of this Annual Report.

The credit performance of the consumer portfolio continues to improve as the economy slowly expands and home prices improve. Loss rates are improving, particularly in the credit card and residential real estate portfolios. Early-stage residential real estate delinquencies (30-89 days delinquent), excluding government guaranteed loans, declined from December 31, 2012. Late-stage delinquencies (150+ days delinquent) continued to decline but remain elevated. The elevated level of the late-stage delinquent loans is due, in part, to loss mitigation activities currently being undertaken and to elongated foreclosure processing timelines. Losses related to these loans continue to be recognized in accordance with the Firm's standard charge-off practices, but some delinquent loans that would otherwise have been foreclosed upon remain in the mortgage and home equity loan portfolios.

The following table presents consumer credit-related information with respect to the credit portfolio held by CCB as well as for prime mortgage loans held in the Asset Management and the Corporate/Private Equity segments for the dates indicated. For further information about the Firm's nonaccrual and charge-off accounting policies, see Note 14 on pages 258-283 of this Annual Report.

Consumer credit portfolio

As of or for the year ended December 31, (in millions, except ratios)	Credit exposure		Nonaccrual loans ^{(f)(g)}		Net charge-offs ^{(h)(i)}		Average annual net charge-off rate ^{(h)(i)(j)}	
	2013	2012	2013	2012	2013	2012	2013	2012
Consumer, excluding credit card								
Loans, excluding PCI loans and loans held-for-sale								
Home equity - senior lien	\$ 17,113	\$ 19,385	\$ 932	\$ 931	\$ 132	\$ 279	0.72%	1.33%
Home equity - junior lien	40,750	48,000	1,876	2,277	834	2,106	1.90	4.07
Prime mortgage, including option ARMs	87,162	76,256	2,666	3,445	59	487	0.07	0.64
Subprime mortgage	7,104	8,255	1,390	1,807	90	486	1.17	5.43
Auto ^(a)	52,757	49,913	161	163	158	188	0.31	0.39
Business banking	18,951	18,883	385	481	337	411	1.81	2.27
Student and other	11,557	12,191	86	70	297	340	2.51	2.58
Total loans, excluding PCI loans and loans held-for-sale	235,394	232,883	7,496	9,174	1,907	4,297	0.82	1.81
Loans - PCI								
Home equity	18,927	20,971	NA	NA	NA	NA	NA	NA
Prime mortgage	12,038	13,674	NA	NA	NA	NA	NA	NA
Subprime mortgage	4,175	4,626	NA	NA	NA	NA	NA	NA
Option ARMs	17,915	20,466	NA	NA	NA	NA	NA	NA
Total loans - PCI	53,055	59,737	NA	NA	NA	NA	NA	NA
Total loans - retained	288,449	292,620	7,496	9,174	1,907	4,297	0.66	1.43
Loans held-for-sale ^(b)	614	—	—	—	—	—	—	—
Total consumer, excluding credit card loans	289,063	292,620	7,496	9,174	1,907	4,297	0.66	1.43
Lending-related commitments								
Home equity - senior lien ^(c)	13,158	15,180						
Home equity - junior lien ^(c)	17,837	21,796						
Prime mortgage	4,817	4,107						
Subprime mortgage	—	—						
Auto	8,309	7,185						
Business banking	11,251	11,092						
Student and other	685	796						
Total lending-related commitments	56,057	60,156						
Receivables from customers ^(d)	139	113						
Total consumer exposure, excluding credit card	345,259	352,889						
Credit Card								
Loans retained ^(e)	127,465	127,993	—	1	3,879	4,944	3.14	3.95
Loans held-for-sale	326	—	—	—	—	—	—	—
Total credit card loans	127,791	127,993	—	1	3,879	4,944	3.14	3.95
Lending-related commitments ^(c)	529,383	533,018						
Total credit card exposure	657,174	661,011						
Total consumer credit portfolio	\$ 1,002,433	\$ 1,013,900	\$ 7,496	\$ 9,175	\$ 5,786	\$ 9,241	1.40%	2.17%
Memo: Total consumer credit portfolio, excluding PCI	\$ 949,378	\$ 954,163	\$ 7,496	\$ 9,175	\$ 5,786	\$ 9,241	1.62%	2.55%

(a) At December 31, 2013 and 2012, excluded operating lease-related assets of \$5.5 billion and \$4.7 billion, respectively.

(b) Represents prime mortgage loans held-for-sale.

(c) Credit card and home equity lending-related commitments represent the total available lines of credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit would be used at the same time. For credit card and home equity commitments (if certain conditions are met), the Firm can reduce or cancel these lines of credit by providing the borrower notice or, in some cases, without notice as permitted by law.

(d) Receivables from customers primarily represent margin loans to retail brokerage customers, which are included in accrued interest and accounts receivable on the Consolidated Balance Sheets.

(e) Includes accrued interest and fees net of an allowance for the uncollectible portion of accrued interest and fee income.

(f) At December 31, 2013 and 2012, nonaccrual loans excluded: (1) mortgage loans insured by U.S. government agencies of \$8.4 billion and \$10.6 billion, respectively, that are 90 or more days past due; and (2) student loans insured by U.S. government agencies under the FFELP of \$428 million and \$525 million, respectively, that are 90 or more days past due. These amounts have been excluded from nonaccrual loans based upon the government guarantee. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

Management's discussion and analysis

- (g) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.
- (h) Charge-offs and net charge-off rates for the year ended December 31, 2012, included incremental Chapter 7 loan net charge-offs of \$91 million for senior lien home equity, \$539 million for junior lien home equity, \$47 million for prime mortgage, including option ARMs, \$70 million for subprime mortgage and \$53 million for auto loans. Net charge-off rates for the year ended December 31, 2012, excluding these incremental net charge-offs would have been 0.90%, 3.03%, 0.58%, 4.65% and 0.28% for the senior lien home equity, junior lien home equity, prime mortgage, including option ARMs, subprime mortgages and auto loans, respectively. See Consumer Credit Portfolio on pages 120-129 of this Annual Report for further details.
- (i) Net charge-offs and net charge-off rates excluded \$53 million of write-offs of prime mortgages in the PCI portfolio for the year ended December 31, 2013. See Consumer Credit Portfolio on pages 120-129 of this Annual Report for further details.
- (j) Average consumer loans held-for-sale were \$209 million and \$433 million, respectively, for the years ended December 31, 2013 and 2012. These amounts were excluded when calculating net charge-off rates.

Consumer, excluding credit card

Portfolio analysis

Consumer loan balances declined during the year ended December 31, 2013, due to paydowns and the charge-off or liquidation of delinquent loans, partially offset by new mortgage and auto originations. Credit performance has improved across most portfolios but residential real estate charge-offs and delinquent loans remain elevated compared with pre-recessionary levels.

The following discussion relates to the specific loan and lending-related categories. PCI loans are generally excluded from individual loan product discussions and are addressed separately below. For further information about the Firm's consumer portfolio, including information about delinquencies, loan modifications and other credit quality indicators, see Note 14 on pages 258-283 of this Annual Report.

Home equity: The home equity portfolio at December 31, 2013, was \$57.9 billion, compared with \$67.4 billion at December 31, 2012. The decrease in this portfolio primarily reflected loan paydowns and charge-offs. Early-stage delinquencies showed improvement from December 31, 2012, for both senior and junior lien home equity loans. Late-stage delinquencies also improved from December 31, 2012, but continue to be elevated as improvement in the number of loans becoming severely delinquent was offset by higher average carrying value on these loans, reflecting improving collateral values. Senior lien nonaccrual loans were flat compared with the prior year while junior lien nonaccrual loans decreased in 2013. Net charge-offs for both senior and junior lien home equity loans declined when compared with the prior year as a result of improvement in delinquencies and home prices, as well as the impact of prior year incremental charge-offs reported in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy.

Approximately 20% of the Firm's home equity portfolio consists of home equity loans ("HELOANS") and the remainder consists of home equity lines of credit ("HELOCs"). HELOANS are generally fixed-rate, closed-end, amortizing loans, with terms ranging from 3-30 years. Approximately half of the HELOANS are senior liens and the remainder are junior liens. In general, HELOCs originated by the Firm are revolving loans for a 10-year period, after which time the HELOC recasts into a loan with a 20-year amortization period. At the time of origination, the borrower typically selects one of two minimum payment

options that will generally remain in effect during the revolving period: a monthly payment of 1% of the outstanding balance, or interest-only payments based on a variable index (typically Prime). HELOCs originated by Washington Mutual were generally revolving loans for a 10-year period, after which time the HELOC converts to an interest-only loan with a balloon payment at the end of the loan's term.

The unpaid principal balance of non-PCI HELOCs outstanding was \$50 billion at December 31, 2013. Based on the contractual terms of the loans, \$30 billion of the non-PCI HELOCs outstanding are scheduled to recast at which time the borrower must begin to make fully amortizing payments, of which, \$7 billion, \$8 billion and \$7 billion are scheduled to recast in 2015, 2016 and 2017, respectively. However, of the \$30 billion in non-PCI HELOCs scheduled to recast, approximately \$14 billion are currently expected to recast, with the remaining \$16 billion representing loans to borrowers who are expected to prepay (including borrowers who appear to have the ability to refinance based on the borrower's LTV ratio and FICO score) or are loans that are expected to charge-off. The Firm has considered this payment recast risk in its allowance for loan losses based upon the estimated amount of payment shock (i.e., the excess of the fully-amortizing payment over the interest-only payment in effect prior to recast) expected to occur at the payment recast date, along with the corresponding estimated probability of default and loss severity assumptions. Certain factors, such as future developments in both unemployment and home prices, could have a significant impact on the expected and/or actual performance of these loans.

The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are exhibiting a material deterioration in their credit risk profile or when the collateral does not support the loan amount. The Firm will continue to evaluate both the near-term and longer-term repricing and recast risks inherent in its HELOC portfolio to ensure that changes in the Firm's estimate of incurred losses are appropriately considered in the allowance for loan losses and that the Firm's account management practices are appropriate given the portfolio's risk profile.

At December 31, 2013, the Firm estimated that its home equity portfolio contained approximately \$2.3 billion of current junior lien loans where the borrower has a first mortgage loan that is either delinquent or has been modified ("high-risk seconds"), compared with \$3.1 billion

at December 31, 2012. Such loans are considered to pose a higher risk of default than that of junior lien loans for which the senior lien is neither delinquent nor modified. The Firm estimates the balance of its total exposure to high-risk seconds on a quarterly basis using internal data and loan level credit bureau data (which typically provides the delinquency status of the senior lien). The estimated balance of these high-risk seconds may vary from quarter to quarter for reasons such as the movement of related senior liens into and out of the 30+ day delinquency bucket.

Current high risk junior liens

December 31, (in billions)	2013	2012
Junior liens subordinate to:		
Modified current senior lien	\$ 0.9	\$ 1.1
Senior lien 30 – 89 days delinquent	0.6	0.9
Senior lien 90 days or more delinquent ^(a)	0.8	1.1
Total current high risk junior liens	\$ 2.3	\$ 3.1

(a) Junior liens subordinate to senior liens that are 90 days or more past due are classified as nonaccrual loans. At both December 31, 2013 and 2012, excluded approximately \$100 million of junior liens that are performing but not current, which were also placed on nonaccrual in accordance with the regulatory guidance.

Of the estimated \$2.3 billion of high-risk junior liens at December 31, 2013, the Firm owns approximately 5% and services approximately 25% of the related senior lien loans to the same borrowers. The performance of the Firm's junior lien loans is generally consistent regardless of whether the Firm owns, services or does not own or service the senior lien. The increased probability of default associated with these higher-risk junior lien loans was considered in estimating the allowance for loan losses.

Mortgage: Mortgage loans at December 31, 2013, including prime, subprime and loans held-for-sale, were \$94.9 billion, compared with \$84.5 billion at December 31, 2012. The mortgage portfolio increased in 2013 as retained prime mortgage originations, which represent loans with high credit quality, were greater than paydowns and the charge-off or liquidation of delinquent loans. Net charge-offs decreased from the prior year reflecting continued home price improvement and favorable delinquency trends. Delinquency levels remain elevated compared with pre-recessionary levels.

Prime mortgages, including option adjustable-rate mortgages ("ARMs") and loans held-for-sale, were \$87.8 billion at December 31, 2013, compared with \$76.3 billion at December 31, 2012. Prime mortgage loans increased as retained originations exceeded paydowns, the run-off of option ARM loans and the charge-off or liquidation of delinquent loans. Excluding loans insured by U.S. government agencies, both early-stage and late-stage delinquencies showed improvement from December 31, 2012. Nonaccrual loans decreased from the prior year but remain elevated as a result of elongated foreclosure processing timelines. Net charge-offs continued to improve, as a result of improvement in delinquencies and home prices.

At December 31, 2013 and 2012, the Firm's prime mortgage portfolio included \$14.3 billion and \$15.6 billion, respectively, of mortgage loans insured and/or guaranteed by U.S. government agencies, of which \$9.6 billion and \$11.8 billion, respectively, were 30 days or more past due, including \$8.4 billion and \$10.6 billion, respectively, which were 90 days or more past due. Following the Firm's settlement regarding loans insured under federal mortgage insurance programs overseen by FHA, HUD, and VA, the Firm will continue to monitor exposure on future claim payments for government insured loans; however, any financial impact related to exposure on future claims is not expected to be significant.

At December 31, 2013 and 2012, the Firm's prime mortgage portfolio included \$15.6 billion and \$16.0 billion, respectively, of interest-only loans, which represented 18% and 21% of the prime mortgage portfolio, respectively. These loans have an interest-only payment period generally followed by an adjustable-rate or fixed-rate fully amortizing payment to maturity and are typically originated as higher-balance loans to higher-income borrowers. The decrease in this portfolio was primarily due to voluntary prepayments, as borrowers are generally refinancing into lower rate products. To date, losses on this portfolio generally have been consistent with the broader prime mortgage portfolio and the Firm's expectations. The Firm continues to monitor the risks associated with these loans.

Non-PCI option ARM loans acquired by the Firm as part of the Washington Mutual transaction, which are included in the prime mortgage portfolio, were \$5.6 billion and \$6.5 billion and represented 6% and 9% of the prime mortgage portfolio at December 31, 2013 and 2012, respectively. The decrease in option ARM loans resulted from portfolio runoff. As of December 31, 2013, approximately 4% of option ARM borrowers were delinquent. Substantially all of the remaining borrowers were making amortizing payments, although such payments are not necessarily fully amortizing and may be subject to risk of payment shock due to future payment recast. The Firm estimates the following balances of option ARM loans will undergo a payment recast that results in a payment increase: \$807 million in 2014, \$675 million in 2015 and \$164 million in 2016. As the Firm's option ARM loans, other than those held in the PCI portfolio, are primarily loans with lower LTV ratios and higher borrower FICO scores, it is possible that many of these borrowers will be able to refinance into a lower rate product, which would reduce this payment recast risk. To date, losses realized on option ARM loans that have undergone payment recast have been immaterial and consistent with the Firm's expectations.

Subprime mortgages at December 31, 2013, were \$7.1 billion, compared with \$8.3 billion at December 31, 2012. The decrease was due to portfolio runoff. Early-stage and late-stage delinquencies as well as nonaccrual loans have improved from December 31, 2012, but remain at elevated

Management's discussion and analysis

levels. Net charge-offs continued to improve as a result of improvement in delinquencies and home prices.

Auto: Auto loans at December 31, 2013, were \$52.8 billion, compared with \$49.9 billion at December 31, 2012. Loan balances increased due to new originations, partially offset by paydowns and payoffs. Delinquencies and nonaccrual loans improved compared with December 31, 2012. Net charge-offs decreased from the prior year due to prior year incremental charge-offs reported in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy. Loss levels are considered low as a result of favorable trends in both loss frequency and loss severity, mainly due to enhanced underwriting standards and a strong used car market. The auto loan portfolio reflected a high concentration of prime-quality credits.

Business banking: Business banking loans at December 31, 2013, were \$19.0 billion, compared with \$18.9 billion at December 31, 2012. Business Banking loans primarily include loans that are collateralized, often with personal loan guarantees, and may also include Small Business Administration guarantees. Nonaccrual loans showed improvement from December 31, 2012. Net charge-offs declined for the year ended December 31, 2013, compared with the year ended December 31, 2012.

Student and other: Student and other loans at December 31, 2013, were \$11.6 billion, compared with \$12.2 billion at December 31, 2012. The decrease was primarily due to runoff of the student loan portfolio. Other loans primarily include other secured and unsecured consumer loans. Nonaccrual loans increased compared with December 31, 2012, while net charge-offs decreased for the year ended December 31, 2013, compared with the prior year.

Purchased credit-impaired loans: PCI loans at December 31, 2013, were \$53.1 billion, compared with \$59.7 billion at December 31, 2012. This portfolio represents loans acquired in the Washington Mutual transaction, which were recorded at fair value at the time of acquisition. PCI HELOCs originated by Washington Mutual were generally revolving loans for a 10-year period, after which time the HELOC converts to an interest-only loan with a balloon payment at the end of the loan's term. Substantially all undrawn HELOCs within the revolving period have been blocked.

As of December 31, 2013, approximately 19% of the option ARM PCI loans were delinquent and approximately 54% have been modified into fixed-rate, fully amortizing loans. Substantially all of the remaining loans are making amortizing payments, although such payments are not necessarily fully amortizing. This latter group of loans are subject to the risk of payment shock due to future payment recast.

Default rates generally increase on option ARM loans when payment recast results in a payment increase. The expected increase in default rates is considered in the Firm's

quarterly impairment assessment. The cumulative amount of unpaid interest added to the unpaid principal balance of the option ARM PCI pool was \$724 million and \$879 million at December 31, 2013, and December 31, 2012, respectively. The Firm estimates the following balances of option ARM PCI loans will undergo a payment recast that results in a payment increase: \$487 million in 2014, \$810 million in 2015 and \$710 million in 2016.

The following table provides a summary of lifetime principal loss estimates included in both the nonaccretable difference and the allowance for loan losses.

Summary of lifetime principal loss estimates

December 31, (in billions)	Lifetime loss estimates ^(a)		LTD liquidation losses ^(b)	
	2013	2012	2013	2012
Home equity	\$ 14.7	\$ 14.9	\$ 12.1	\$ 11.5
Prime mortgage	3.8	4.2	3.3	2.9
Subprime mortgage	3.3	3.6	2.6	2.2
Option ARMs	10.2	11.3	8.8	8.0
Total	\$ 32.0	\$ 34.0	\$ 26.8	\$ 24.6

- (a) Includes the original nonaccretable difference established in purchase accounting of \$30.5 billion for principal losses only plus additional principal losses recognized subsequent to acquisition through the provision and allowance for loan losses. The remaining nonaccretable difference for principal losses only was \$3.8 billion and \$5.8 billion at December 31, 2013 and 2012, respectively.
- (b) Life-to-date ("LTD") liquidation losses represent both realization of loss upon loan resolution and any principal forgiven upon modification. LTD liquidation losses included \$53 million of write-offs of prime mortgages for the year ended December 31, 2013.

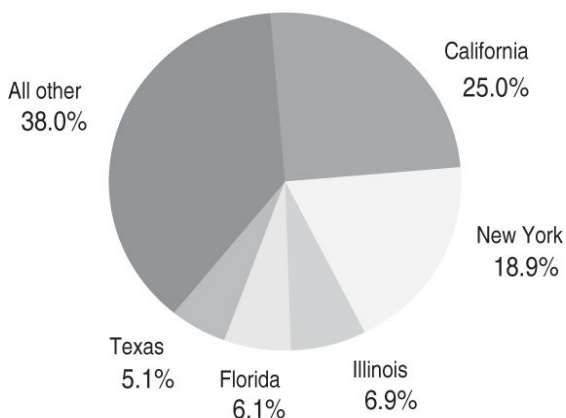
Lifetime principal loss estimates declined from December 31, 2012, to December 31, 2013, reflecting improvement in home prices and delinquencies. The decline in lifetime principal loss estimates during the year ended December 31, 2013, resulted in a \$1.5 billion reduction of the PCI allowance for loan losses (\$1.0 billion related to option ARM loans, \$200 million to subprime mortgage, \$150 million to home equity loans and \$150 million to prime mortgage). In addition, for the year ended December 31, 2013, PCI write-offs of \$53 million were recorded against the prime mortgage allowance for loan losses. For further information about the Firm's PCI loans, including write-offs, see Note 14 on pages 258-283 of this Annual Report.

As a result of reserve actions and PCI prime mortgage write-offs, the allowance for loan loss for the PCI portfolio declined from \$5.7 billion at December 31, 2012, to \$4.2 billion at December 31, 2013. The allowance for loan losses decreased from \$1.5 billion to \$494 million for the option ARM portfolio, from \$1.9 billion to \$1.7 billion for prime mortgage, from \$380 million to \$180 million for subprime mortgage and from \$1.9 billion to \$1.8 billion for the home equity portfolio from December 31, 2012 to December 31, 2013.

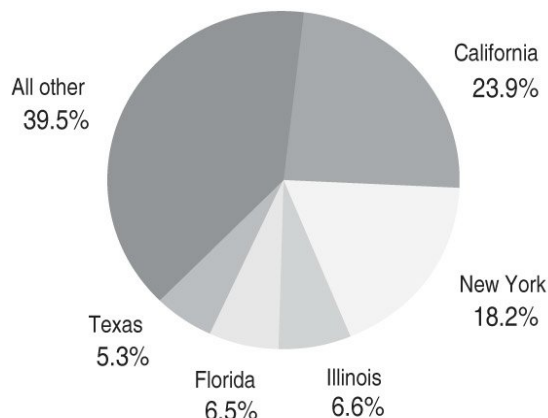
Geographic composition of residential real estate loans

At December 31, 2013, California had the greatest concentration of residential real estate loans with 25% of the total retained residential real estate loan portfolio, excluding mortgage loans insured by U.S. government agencies and PCI loans, compared with 24% at December 31, 2012. Of these loans, \$85.9 billion, or 62%, were concentrated in California, New York, Illinois, Florida and Texas at December 31, 2013, compared with \$82.4 billion, or 60%, at December 31, 2012. The unpaid principal balance of PCI loans concentrated in these five states represented 74% of total PCI loans at December 31, 2013, compared with 73% at December 31, 2012.

Top 5 States - Residential Real Estate
(at December 31, 2013)



Top 5 States - Residential Real Estate
(at December 31, 2012)



Current estimated LTVs of residential real estate loans

The current estimated average LTV ratio for residential real estate loans retained, excluding mortgage loans insured by U.S. government agencies and PCI loans, was 75% at December 31, 2013, compared with 81% at December 31, 2012. Of these loans, 9% had a current estimated LTV ratio greater than 100%, and 2% had a current estimated LTV ratio greater than 125% at December 31, 2013, compared with 20% and 8%, respectively, at December 31, 2012.

Although home prices continue to recover, the decline in home prices since 2007 has had a significant impact on the collateral values underlying the Firm's residential real estate loan portfolio. In general, the delinquency rate for loans with high LTV ratios is greater than the delinquency rate for loans in which the borrower has equity in the collateral. While a large portion of the loans with current estimated LTV ratios greater than 100% continue to pay and are current, the continued willingness and ability of these borrowers to pay remains a risk.

Management's discussion and analysis

The following table for PCI loans presents the current estimated LTV ratios, as well as the ratios of the carrying value of the underlying loans to the current estimated collateral value. Because such loans were initially measured at fair value, the ratios of the carrying value to the current estimated collateral value will be lower than the current estimated LTV ratios, which are based on the unpaid principal balances. The estimated collateral values used to calculate these ratios do not represent actual appraised loan-level collateral values; as such, the resulting ratios are necessarily imprecise and should therefore be viewed as estimates.

LTV ratios and ratios of carrying values to current estimated collateral values – PCI loans

December 31, (in millions, except ratios)	2013				2012			
	Unpaid principal balance	Current estimated LTV ratio ^(a)	Net carrying value ^(c)	Ratio of net carrying value to current estimated collateral value ^(c)	Unpaid principal balance	Current estimated LTV ratio ^(a)	Net carrying value ^(c)	Ratio of net carrying value to current estimated collateral value ^(c)
Home equity	\$ 19,830	90% ^(b)	\$ 17,169	78%	\$ 22,343	111% ^(b)	\$ 19,063	95%
Prime mortgage	11,876	83	10,312	72	13,884	104	11,745	88
Subprime mortgage	5,471	91	3,995	66	6,326	107	4,246	72
Option ARMs	19,223	82	17,421	74	22,591	101	18,972	85

- (a) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated at least quarterly based on home valuation models that utilize nationally recognized home price index valuation estimates; such models incorporate actual data to the extent available and forecasted data where actual data is not available.
- (b) Represents current estimated combined LTV for junior home equity liens, which considers all available lien positions, as well as unused lines, related to the property. All other products are presented without consideration of subordinate liens on the property.
- (c) Net carrying value includes the effect of fair value adjustments that were applied to the consumer PCI portfolio at the date of acquisition and is also net of the allowance for loan losses at December 31, 2013 and 2012 of \$1.8 billion and \$1.9 billion for home equity, \$1.7 billion and \$1.9 billion for prime mortgage, \$494 million and \$1.5 billion for option ARMs, and \$180 million and \$380 million for subprime mortgage, respectively.

The current estimated average LTV ratios were 85% and 103% for California and Florida PCI loans, respectively, at December 31, 2013, compared with 110% and 125%, respectively, at December 31, 2012. Average LTV ratios have declined consistent with recent improvement in home prices. Although home prices have improved, home prices in California and Florida are still lower than at the peak of the housing market; this continues to negatively contribute to current estimated average LTV ratios and the ratio of net carrying value to current estimated collateral value for loans in the PCI portfolio. Of the total PCI portfolio, 26% had a current estimated LTV ratio greater than 100%, and 7% had a current LTV ratio of greater than 125% at December 31, 2013, compared with 55% and 24%, respectively, at December 31, 2012.

While the current estimated collateral value is greater than the net carrying value of PCI loans, the ultimate performance of this portfolio is highly dependent on borrowers' behavior and ongoing ability and willingness to continue to make payments on homes with negative equity, as well as on the cost of alternative housing. For further information on the geographic composition and current estimated LTVs of residential real estate – non-PCI and PCI loans, see Note 14 on pages 258–283 of this Annual Report.

Loan modification activities – residential real estate loans

For both the Firm's on-balance sheet loans and loans serviced for others, more than 1.5 million mortgage modifications have been offered to borrowers and approximately 734,000 have been approved since the beginning of 2009. Of these, more than 725,000 have achieved permanent modification as of December 31,

2013. Of the remaining modifications offered, 9% are in a trial period or still being reviewed for a modification, while 91% have dropped out of the modification program or otherwise were deemed not eligible for final modification.

The Firm is participating in the U.S. Treasury's Making Home Affordable ("MHA") programs and is continuing to offer its other loss-mitigation programs to financially distressed borrowers who do not qualify for the U.S. Treasury's programs. The MHA programs include the Home Affordable Modification Program ("HAMP") and the Second Lien Modification Program ("2MP"). The Firm's other loss-mitigation programs for troubled borrowers who do not qualify for HAMP include the traditional modification programs offered by the GSEs and other governmental agencies, as well as the Firm's proprietary modification programs, which include concessions similar to those offered under HAMP and 2MP but with expanded eligibility criteria. In addition, the Firm has offered specific targeted modification programs to higher risk borrowers, many of whom were current on their mortgages prior to modification. For further information about how loans are modified, see Note 14, Loan modifications, on pages 268–273 of this Annual Report.

Loan modifications under HAMP and under one of the Firm's proprietary modification programs, which are largely modeled after HAMP, require at least three payments to be made under the new terms during a trial modification period, and must be successfully re-underwritten with income verification before the loan can be permanently modified. In the case of specific targeted modification programs, re-underwriting the loan or a trial modification period is generally not required, unless the targeted loan is

delinquent at the time of modification. When the Firm modifies home equity lines of credit, future lending commitments related to the modified loans are canceled as part of the terms of the modification.

The primary indicator used by management to monitor the success of the modification programs is the rate at which the modified loans redefault. Modification redefault rates are affected by a number of factors, including the type of loan modified, the borrower's overall ability and willingness to repay the modified loan and macroeconomic factors. Reduction in payment size for a borrower has shown to be the most significant driver in improving redefault rates.

The performance of modified loans generally differs by product type and also on whether the underlying loan is in the PCI portfolio, due both to differences in credit quality and in the types of modifications provided. Performance metrics for modifications to the residential real estate portfolio, excluding PCI loans, that have been seasoned more than six months show weighted average redefault rates of 20% for senior lien home equity, 20% for junior lien home equity, 15% for prime mortgages including option ARMs, and 26% for subprime mortgages. The cumulative performance metrics for modifications to the PCI residential real estate portfolio seasoned more than six months show weighted average redefault rates of 20% for home equity, 16% for prime mortgages, 14% for option ARMs and 29% for subprime mortgages. The favorable performance of the PCI option ARM modifications is the result of a targeted proactive program which fixes the borrower's payment at the current level. The cumulative redefault rates reflect the performance of modifications completed under both HAMP and the Firm's proprietary modification programs from October 1, 2009, through December 31, 2013.

Certain loans that were modified under HAMP and the Firm's proprietary modification programs (primarily the Firm's modification program that was modeled after HAMP) have interest rate reset provisions ("step-rate modifications"). Beginning in 2014, interest rates on these loans will generally increase by 1% per year until the rate reaches a specified cap, typically at a prevailing market interest rate for a fixed-rate loan as of the modification date. The carrying value of non-PCI loans modified in step-rate modifications was \$5 billion at December 31, 2013, with \$1 billion and \$2 billion scheduled to experience the initial interest rate increase in 2015 and 2016, respectively. The unpaid principal balance of PCI loans modified in step-rate modifications was \$11 billion at December 31, 2013, with \$2 billion and \$3 billion scheduled to experience the initial interest rate increase in 2015 and 2016, respectively. The impact of these potential interest rate increases is appropriately considered in the Firm's allowance for loan losses. The Firm will continue to monitor this risk exposure to ensure that it is appropriately considered in the Firm's allowance for loan losses.

The following table presents information as of December 31, 2013 and 2012, relating to modified on-balance sheet residential real estate loans for which concessions have been granted to borrowers experiencing financial difficulty. Modifications of PCI loans continue to be accounted for and reported as PCI loans, and the impact of the modification is incorporated into the Firm's quarterly assessment of estimated future cash flows. Modifications of consumer loans other than PCI loans are generally accounted for and reported as troubled debt restructurings ("TDRs"). For further information on TDRs for the years ended December 31, 2013 and 2012, see Note 14 on pages 258-283 of this Annual Report.

Modified residential real estate loans

December 31, (in millions)	2013		2012	
	On-balance sheet loans	Nonaccrual on-balance sheet loans ^(d)	On-balance sheet loans	Nonaccrual on-balance sheet loans ^(d)
Modified residential real estate loans, excluding PCI loans^{(a)(b)}				
Home equity - senior lien	\$ 1,146	\$ 641	\$ 1,092	\$ 607
Home equity - junior lien	1,319	666	1,223	599
Prime mortgage, including option ARMs	7,004	1,737	7,118	1,888
Subprime mortgage	3,698	1,127	3,812	1,308
Total modified residential real estate loans, excluding PCI loans	\$ 13,167	\$ 4,171	\$ 13,245	\$ 4,402
Modified PCI loans^(c)				
Home equity	\$ 2,619	NA	\$ 2,302	NA
Prime mortgage	6,977	NA	7,228	NA
Subprime mortgage	4,168	NA	4,430	NA
Option ARMs	13,131	NA	14,031	NA
Total modified PCI loans	\$ 26,895	NA	\$ 27,991	NA

(a) Amounts represent the carrying value of modified residential real estate loans.

(b) At December 31, 2013 and 2012, \$7.6 billion and \$7.5 billion, respectively, of loans modified subsequent to repurchase from Ginnie Mae in accordance with the standards of the appropriate government agency (i.e., FHA, VA, RHS) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure. For additional information about sales of loans in securitization transactions with Ginnie Mae, see Note 16 on pages 288-299 of this Annual Report.

(c) Amounts represent the unpaid principal balance of modified PCI loans.

(d) As of December 31, 2013 and 2012, nonaccrual loans included \$3.0 billion and \$2.9 billion, respectively, of TDRs for which the borrowers were less than 90 days past due. For additional information about loans modified in a TDR that are on nonaccrual status, see Note 14 on pages 258-283 of this Annual Report.

Management's discussion and analysis

Nonperforming assets

The following table presents information as of December 31, 2013 and 2012, about consumer, excluding credit card, nonperforming assets.

Nonperforming assets^(a)

December 31, (in millions)	2013	2012
Nonaccrual loans^(b)		
Residential real estate	\$ 6,864	\$ 8,460
Other consumer	632	714
Total nonaccrual loans	7,496	9,174
Assets acquired in loan satisfactions		
Real estate owned	614	647
Other	41	37
Total assets acquired in loan satisfactions	655	684
Total nonperforming assets	\$ 8,151	\$ 9,858

- (a) At December 31, 2013 and 2012, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of \$8.4 billion and \$10.6 billion, respectively, that are 90 or more days past due; (2) real estate owned insured by U.S. government agencies of \$2.0 billion and \$1.6 billion, respectively; and (3) student loans insured by U.S. government agencies under the FFELP of \$428 million and \$525 million, respectively, that are 90 or more days past due. These amounts have been excluded from nonaccrual loans based upon the government guarantee.
- (b) Excludes PCI loans that were acquired as part of the Washington Mutual transaction, which are accounted for on a pool basis. Since each pool is accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows, the past-due status of the pools, or that of individual loans within the pools, is not meaningful. Because the Firm is recognizing interest income on each pool of loans, they are all considered to be performing.

Nonaccrual loans: The following table presents changes in the consumer, excluding credit card, nonaccrual loans for the years ended December 31, 2013 and 2012.

Nonaccrual loans

Year ended December 31, (in millions)	2013	2012
Beginning balance	\$ 9,174	\$ 7,411
Additions	6,618	12,605 ^(b)
Reductions:		
Principal payments and other ^(a)	1,559	1,445
Charge-offs	1,869	2,771
Returned to performing status	3,793	4,738
Foreclosures and other liquidations	1,075	1,888
Total reductions	8,296	10,842
Net additions/(reductions)	(1,678)	1,763
Ending balance	\$ 7,496	\$ 9,174

- (a) Other reductions includes loan sales.
- (b) Included \$1.7 billion of Chapter 7 loans at September 30, 2012, and \$1.6 billion as a result of reporting performing junior lien home equity loans that are subordinate to senior liens that are 90 days or more past due as nonaccrual loans based on regulatory guidance at March 31, 2012.

Nonaccrual loans in the residential real estate portfolio totaled \$6.9 billion at December 31, 2013, of which 34% were greater than 150 days past due, compared with \$8.5 billion at December 31, 2012, of which 42% were greater than 150 days past due. In the aggregate, the unpaid principal balance of residential real estate loans greater

than 150 days past due was charged down by approximately 51% and 52% to estimated net realizable value of the collateral at December 31, 2013 and 2012, respectively. The elongated foreclosure processing timelines are expected to continue to result in elevated levels of nonaccrual loans in the residential real estate portfolios.

At December 31, 2012, the Firm reported, in accordance with regulatory guidance, \$1.7 billion of residential real estate and auto loans that were discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status. Pursuant to that guidance, these Chapter 7 loans were charged off to the net realizable value of the collateral, resulting in \$800 million of charge-offs for the year ended December 31, 2012. The Firm expects to recover a significant amount of these losses over time as principal payments are received. The Firm also began reporting performing junior liens that are subordinate to senior liens that are 90 days or more past due as nonaccrual loans in the first quarter of 2012, based upon regulatory guidance. Nonaccrual loans included \$3.0 billion of loans at December 31, 2012 based upon the regulatory guidance noted above. The prior year was not restated for the policy changes.

Real estate owned ("REO"): REO assets are managed for prompt sale and disposition at the best possible economic value. REO assets are those individual properties where the Firm receives the property in satisfaction of a debt (e.g., by taking legal title or physical possession). The Firm generally recognizes REO assets at the completion of the foreclosure process or upon execution of a deed in lieu of foreclosure with the borrower. REO assets, excluding those insured by U.S. government agencies, decreased by \$33 million from \$647 million at December 31, 2012, to \$614 million at December 31, 2013.

At December 31, 2013 and 2012, the Firm had non-PCI residential real estate loans, excluding those insured by the U.S. government agencies, with a carrying value of \$2.1 billion and \$3.4 billion, respectively; not included in REO, that were in the process of active or suspended foreclosure. The Firm also had PCI residential real estate loans that were in the process of active or suspended foreclosure at December 31, 2013 and 2012, with an unpaid principal balance of \$4.8 billion and \$8.2 billion, respectively.

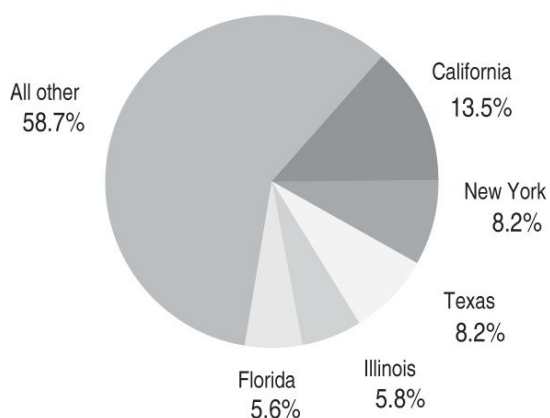
Credit Card

Total credit card loans were \$127.8 billion at December 31, 2013, a decrease of \$202 million from December 31, 2012. The 30+ day delinquency rate decreased to 1.67% at December 31, 2013, from 2.10% at December 31, 2012. For the years ended December 31, 2013 and 2012, the net charge-off rates were 3.14% and 3.95% respectively. Charge-offs have improved compared with a year ago as a result of continued improvement in delinquent loans. The credit card portfolio continues to reflect a well-seasoned,

largely rewards-based portfolio that has good U.S. geographic diversification. The greatest geographic concentration of credit card retained loans is in California, which represented 13% of total retained loans at both December 31, 2013 and 2012. Loan outstanding concentration for the top five states of California, New York, Texas, Illinois and Florida consisted of \$52.7 billion in receivables, or 41% of the retained loan portfolio, at December 31, 2013, compared with \$52.3 billion, or 41%, at December 31, 2012.

Geographic composition of Credit Card loans

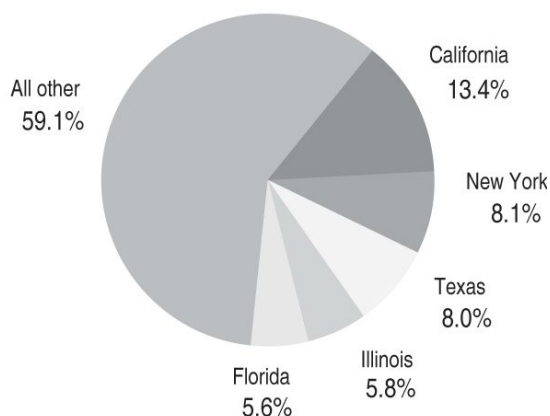
Top 5 States Credit Card - Retained
(at December 31, 2013)



Modifications of credit card loans

At December 31, 2013 and 2012, the Firm had \$3.1 billion and \$4.8 billion, respectively, of credit card loans outstanding that have been modified in TDRs. These balances included both credit card loans with modified payment terms and credit card loans that reverted back to their pre-modification payment terms because the cardholder did not comply with the modified payment terms. The decrease in modified credit card loans outstanding from December 31, 2012, was attributable to a reduction in new modifications as well as ongoing payments and charge-offs on previously modified credit card loans.

Top 5 States Credit Card - Retained
(at December 31, 2012)



Consistent with the Firm's policy, all credit card loans typically remain on accrual status until charged-off. However, the Firm establishes an allowance, which is offset against loans and charged to interest income, for the estimated uncollectible portion of accrued interest and fee income.

For additional information about loan modification programs to borrowers, see Note 14 on pages 258-283 of this Annual Report.

WHOLESALE CREDIT PORTFOLIO

The wholesale credit environment remained favorable throughout 2013 driving an increase in commercial client activity. Discipline in underwriting across all areas of lending continues to remain a key point of focus, consistent with evolving market conditions and the Firm's risk management activities. The wholesale portfolio is actively managed, in part by conducting ongoing, in-depth reviews of credit quality and of industry, product and client concentrations. During the year, wholesale criticized assets and nonperforming assets decreased from higher levels experienced in 2012, including a reduction in nonaccrual loans by 39%.

As of December 31, 2013, wholesale exposure (primarily CIB, CB and AM) increased by \$13.7 billion from December 31, 2012, primarily driven by increases of \$11.4 billion in lending-related commitments and \$8.4 billion in loans reflecting increased client activity primarily in CB and AM. These increases were partially offset by a \$9.2 billion decrease in derivative receivables. Derivative receivables decreased predominantly due to reductions in interest rate derivatives driven by an increase in interest rates and reductions in commodity derivatives due to market movements. The decreases were partially offset by an increase in equity derivatives driven by a rise in equity markets.

Wholesale credit portfolio

December 31, (in millions)	Credit exposure		Nonperforming ^(d)	
	2013	2012	2013	2012
Loans retained	\$ 308,263	\$ 306,222	\$ 821	\$ 1,434
Loans held-for-sale	11,290	4,406	26	18
Loans at fair value ^(a)	2,011	2,555	197	265
Loans - reported	321,564	313,183	1,044	1,717
Derivative receivables	65,759	74,983	415	239
Receivables from customers and other ^(b)	26,744	23,648	—	—
Total wholesale credit-related assets	414,067	411,814	1,459	1,956
Lending-related commitments	446,232	434,814	206	355
Total wholesale credit exposure	\$ 860,299	\$ 846,628	\$ 1,665	\$ 2,311
Credit Portfolio				
Management derivatives notional, net ^(c)	\$ (27,996)	\$ (27,447)	\$ (5)	\$ (25)
Liquid securities and other cash collateral held against derivatives	(14,435)	(15,201)	NA	NA

- (a) During 2013, certain loans that resulted from restructurings that were previously classified as performing were reclassified as nonperforming loans. Prior periods were revised to conform with the current presentation.
- (b) Receivables from customers and other primarily includes margin loans to prime and retail brokerage customers; these are classified in accrued interest and accounts receivable on the Consolidated Balance Sheets.
- (c) Represents the net notional amount of protection purchased and sold through credit derivatives used to manage both performing and nonperforming wholesale credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. Excludes the synthetic credit portfolio. For additional information, see Credit derivatives on pages 137-138, and Note 6 on pages 220-233 of this Annual Report.
- (d) Excludes assets acquired in loan satisfactions.

The following table presents summaries of the maturity and ratings profiles of the wholesale credit portfolio as of December 31, 2013 and 2012. The ratings scale is based on the Firm's internal risk ratings, which generally correspond to the ratings as defined by S&P and Moody's.

Wholesale credit exposure - maturity and ratings profile

December 31, 2013 (in millions, except ratios)	Maturity profile ^(e)				Ratings profile			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	Total	Investment-grade		Noninvestment-grade	
					AAA/Aaa to BBB-/Baa3		BB+/Ba1 & below	
Loans retained	\$ 108,392	\$ 124,111	\$ 75,760	\$ 308,263	\$ 226,070	\$ 82,193	\$ 308,263	73%
Derivative receivables				65,759			65,759	
Less: Liquid securities and other cash collateral held against derivatives				(14,435)			(14,435)	
Total derivative receivables, net of all collateral	13,550	15,935	21,839	51,324	44,677	6,647	51,324	87
Lending-related commitments	179,301	255,426	11,505	446,232	353,974	92,258	446,232	79
Subtotal	301,243	395,472	109,104	805,819	624,721	181,098	805,819	78
Loans held-for-sale and loans at fair value ^(a)				13,301			13,301	
Receivables from customers and other				26,744			26,744	
Total exposure - net of liquid securities and other cash collateral held against derivatives				\$ 845,864			\$ 845,864	
Credit Portfolio Management derivatives net notional by reference entity ratings profile ^{(b)(c)(d)}	\$ (1,149)	\$ (19,516)	\$ (7,331)	\$ (27,996)	\$ (24,649)	\$ (3,347)	\$ (27,996)	88%

December 31, 2012 (in millions, except ratios)	Maturity profile ^(e)				Ratings profile			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	Total	Investment-grade		Noninvestment-grade	
					AAA/Aaa to BBB-/Baa3		BB+/Ba1 & below	
Loans retained	\$ 115,227	\$ 117,673	\$ 73,322	\$ 306,222	\$ 214,446	\$ 91,776	\$ 306,222	70%
Derivative receivables				74,983			74,983	
Less: Liquid securities and other cash collateral held against derivatives				(15,201)			(15,201)	
Total derivative receivables, net of all collateral	13,344	17,310	29,128	59,782	50,069	9,713	59,782	84
Lending-related commitments	164,327	261,261	9,226	434,814	347,316	87,498	434,814	80
Subtotal	292,898	396,244	111,676	800,818	611,831	188,987	800,818	76
Loans held-for-sale and loans at fair value ^(a)				6,961			6,961	
Receivables from customers and other				23,648			23,648	
Total exposure - net of liquid securities and other cash collateral held against derivatives				\$ 831,427			\$ 831,427	
Credit Portfolio Management derivatives net notional by reference entity ratings profile ^{(b)(c)(d)}	\$ (1,579)	\$ (16,475)	\$ (9,393)	\$ (27,447)	\$ (24,622)	\$ (2,825)	\$ (27,447)	90%

(a) Represents loans held-for-sale primarily related to syndicated loans and loans transferred from the retained portfolio, and loans at fair value.

(b) These derivatives do not qualify for hedge accounting under U.S. GAAP. Excludes the synthetic credit portfolio.

(c) The notional amounts are presented on a net basis by underlying reference entity and the ratings profile shown is based on the ratings of the reference entity on which protection has been purchased.

(d) Predominantly all of the credit derivatives entered into by the Firm where it has purchased protection, including Credit Portfolio Management derivatives, are executed with investment grade counterparties.

(e) The maturity profile of retained loans, lending-related commitments and derivative receivables is based on remaining contractual maturity. Derivatives contracts that are in a receivable position at December 31, 2013, may become a payable prior to maturity based on their cash flow profile or changes in market conditions. Prior to this Annual Report, the maturity profile of derivative receivables was based on the maturity profile of average exposure (see pages 135-136 of this Annual Report for more detail); prior period amounts have been revised to conform to the current presentation.

Wholesale credit exposure - selected industry exposures

The Firm focuses on the management and diversification of its industry exposures, paying particular attention to industries with actual or potential credit concerns.

Exposures deemed criticized align with the U.S. banking regulators' definition of criticized exposures, which consist of the special mention, substandard and doubtful categories. The total criticized component of the portfolio, excluding loans held-for-sale and loans at fair value, decreased by 22% to \$12.2 billion at December 31, 2013, from \$15.6 billion at December 31, 2012, primarily due to repayments and sales.

Management's discussion and analysis

Below are summaries of the top 25 industry exposures as of December 31, 2013 and 2012. For additional information on industry concentrations, see Note 5 on page 219 of this Annual Report.

As of or for the year ended December 31, 2013 (in millions)						Selected metrics				
	Credit exposure ^(d)	Investment- grade	Noninvestment-grade ^(e)			30 days or more past due and accruing loans	Net charge- offs/ (recoveries)	Credit derivative hedges ^(f)	Liquid securities and other cash collateral held against derivative receivables	
			Noncriticized	Criticized performing	Criticized nonperforming					
Top 25 industries ^(a)										
Real Estate	\$ 87,102	\$ 62,964	\$ 21,505	\$ 2,286	\$ 347	\$ 178	\$ 6	\$ (66)	\$ (125)	
Banks & Finance Cos	66,881	56,675	9,707	431	68	14	(22)	(2,692)	(6,227)	
Oil & Gas	46,934	34,708	11,779	436	11	34	13	(227)	(67)	
Healthcare	45,910	37,635	7,952	317	6	49	3	(198)	(195)	
State & Municipal Govt ^(b)	35,666	34,563	826	157	120	40	1	(161)	(144)	
Consumer Products	34,145	21,100	12,505	537	3	4	11	(149)	(1)	
Asset Managers	33,506	26,991	6,477	38	—	217	(7)	(5)	(3,191)	
Utilities	28,983	25,521	3,045	411	6	2	28	(445)	(306)	
Retail & Consumer Services	25,068	16,101	8,453	492	22	6	—	(91)	—	
Technology	21,403	13,787	6,771	825	20	—	—	(512)	—	
Central Govt	21,049	20,633	345	71	—	—	—	(10,088)	(1,541)	
Machinery & Equipment Mfg	19,078	11,154	7,549	368	7	20	(18)	(257)	(8)	
Metals/Mining	17,434	9,266	7,508	594	66	1	16	(621)	(36)	
Business Services	14,601	7,838	6,447	286	30	9	10	(10)	(2)	
Transportation	13,975	9,683	4,165	100	27	10	8	(68)	—	
Telecom Services	13,906	9,130	4,284	482	10	—	7	(272)	(8)	
Media	13,858	7,783	5,658	315	102	6	36	(26)	(5)	
Insurance	13,761	10,681	2,757	84	239	—	(2)	(98)	(1,935)	
Building Materials/Construction	12,901	5,701	6,354	839	7	15	3	(132)	—	
Automotive	12,532	7,881	4,490	159	2	3	(3)	(472)	—	
Chemicals/Plastics	10,637	7,189	3,211	222	15	—	—	(13)	(83)	
Securities Firms & Exchanges	10,035	7,781	2,233	14	7	1	(68)	(4,169)	(175)	
Agriculture/Paper Mfg	7,387	4,238	3,064	82	3	31	—	(4)	(4)	
Aerospace/Defense	6,873	5,447	1,426	—	—	—	—	(142)	(1)	
Leisure	5,331	2,950	1,797	495	89	5	—	(10)	(14)	
All other ^(c)	201,298	180,460	19,911	692	235	1,249	(6)	(7,068)	(367)	
Subtotal	\$ 820,254	\$ 637,860	\$ 170,219	\$ 10,733	\$ 1,442	\$ 1,894	\$ 16	\$ (27,996)	\$ (14,435)	
Loans held-for-sale and loans at fair value	13,301									
Receivables from customers and other	26,744									
Total	\$ 860,299									

As of or for the year ended December 31, 2012 (in millions)	Selected metrics									
	Credit exposure ^(d)	Investment- grade	Noninvestment-grade ^(e)			30 days or more past due and accruing loans	Net charge- offs/ (recoveries)	Credit derivative hedges ^(f)	Liquid securities and other cash collateral held against derivative receivables	
			Noncriticized	Criticized performing	Criticized nonperforming					
Top 25 industries^(a)										
Real Estate	\$ 76,198	\$ 50,103	\$ 21,503	\$ 4,067	\$ 525	\$ 391	\$ 54	\$ (41)	\$ (509)	
Banks & Finance Cos	73,318	55,805	16,928	578	7	20	(34)	(3,524)	(6,027)	
Oil & Gas	42,563	31,258	11,012	270	23	9	—	(155)	(101)	
Healthcare	48,487	41,146	6,761	569	11	38	9	(238)	(459)	
State & Municipal Govt ^(b)	41,821	40,562	1,093	52	114	28	2	(186)	(221)	
Consumer Products	32,778	21,428	10,473	868	9	2	(16)	(275)	(12)	
Asset Managers	31,474	26,283	4,987	204	—	46	—	—	(2,714)	
Utilities	29,533	24,917	4,257	175	184	2	15	(315)	(368)	
Retail & Consumer Services	25,597	16,100	8,763	700	34	20	(11)	(37)	(1)	
Technology	18,488	12,089	5,683	696	20	—	1	(226)	—	
Central Govt	21,223	20,678	484	61	—	—	—	(11,620)	(1,154)	
Machinery & Equipment Mfg	18,504	10,228	7,827	444	5	—	2	(23)	—	
Metals/Mining	20,958	12,912	7,608	406	32	8	(1)	(409)	(126)	
Business Services	13,577	7,172	6,132	232	41	9	23	(10)	—	
Transportation	19,827	15,128	4,353	283	63	5	2	(82)	(1)	
Telecom Services	12,239	7,792	3,244	1,200	3	5	1	(229)	—	
Media	16,007	7,473	7,754	517	263	2	(218)	(93)	(8)	
Insurance	14,446	12,156	2,119	171	—	2	(2)	(143)	(1,729)	
Building Materials/Construction	12,377	5,690	4,172	791	4	8	1	(114)	(11)	
Automotive	11,511	6,447	5,892	101	—	—	—	(530)	—	
Chemicals/Plastics	11,591	7,234	4,172	169	16	18	2	(55)	(74)	
Securities Firms & Exchanges	5,756	4,096	1,612	46	2	—	—	(171)	(183)	
Agriculture/Paper Mfg	7,729	5,029	2,657	42	1	5	—	—	—	
Aerospace/Defense	6,702	5,518	1,150	33	1	—	—	(141)	—	
Leisure	7,748	3,160	3,724	551	313	—	(13)	(63)	(24)	
All other ^(c)	195,567	174,264	21,353	384	357	1,478	5	(8,767)	(1,479)	
Subtotal	\$ 816,019	\$ 624,668	\$ 175,713	\$ 13,610	\$ 2,028	\$ 2,096	\$ (178)	\$ (27,447)	\$ (15,201)	
Loans held-for-sale and loans at fair value	6,961									
Receivables from customers and other	23,648									
Total	\$ 846,628									

- (a) The industry rankings presented in the table as of December 31, 2012, are based on the industry rankings of the corresponding exposures at December 31, 2013, not actual rankings of such exposures at December 31, 2012.
- (b) In addition to the credit risk exposure to states and municipal governments (both U.S. and non-U.S.) at December 31, 2013 and 2012, noted above, the Firm held \$7.9 billion and \$18.2 billion, respectively, of trading securities and \$30.4 billion and \$21.7 billion, respectively, of AFS and HTM securities issued by U.S. state and municipal governments. For further information, see Note 3 and Note 12 on pages 195-215 and 249-254, respectively, of this Annual Report.
- (c) All other includes: individuals, private education and civic organizations; SPEs; and holding companies, representing approximately 64%, 22% and 5%, respectively, at December 31, 2013, and 57%, 28% and 7%, respectively, at December 31, 2012.
- (d) Credit exposure is net of risk participations and excludes the benefit of "Credit Portfolio Management derivatives net notional" held against derivative receivables or loans and "Liquid securities and other cash collateral held against derivative receivables".
- (e) Exposures deemed criticized correspond to special mention, substandard and doubtful categories as defined by US bank regulatory agencies.
- (f) Represents the net notional amounts of protection purchased and sold through credit derivatives used to manage the credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. The all other category includes purchased credit protection on certain credit indices. Credit Portfolio Management derivatives excludes the synthetic credit portfolio.

Management's discussion and analysis

Presented below is a discussion of several industries to which the Firm has significant exposure and continues to monitor because of actual or potential credit concerns. For additional information, refer to the tables on the previous pages.

- **Real estate:** Exposure to this industry increased by \$10.9 billion or 14%, in 2013 to \$87.1 billion. The increase was largely driven by growth in multifamily exposure in the CB. The credit quality of this industry improved as the investment-grade portion of the exposures to this industry increased by 26% from 2012. The ratio of nonaccrual retained loans to total retained loans decreased to 0.50% at December 31, 2013 from 0.86% at December 31, 2012. For further information on commercial real estate loans, see Note 14 on pages 258-283 of this Annual Report.
- **State and municipal governments:** Exposure to this sector decreased by \$6.2 billion in 2013 to \$35.7 billion. Lending-related commitments comprise approximately 66% of the exposure to this sector, generally in the form of liquidity and standby letter of credit facilities backing bonds and commercial paper. The credit quality of the portfolio remains high as 97% of the portfolio was rated investment-grade, unchanged from 2012. The Firm continues to actively monitor this exposure in light of the challenging environment faced by certain state and municipal governments. For further discussion of commitments for bond liquidity and standby letters of credit, see Note 29 on pages 318-324 of this Annual Report.

Loans

In the normal course of its wholesale business, the Firm provides loans to a variety of customers, ranging from large corporate and institutional clients to high-net-worth individuals. For further discussion on loans, including information on credit quality indicators, see Note 14 on pages 258-283 of this Annual Report.

The Firm actively manages its wholesale credit exposure. One way of managing credit risk is through secondary market sales of loans and lending-related commitments. During 2013 and 2012, the Firm sold \$16.3 billion and \$8.4 billion, respectively, of loans and lending-related commitments.

The following table presents the change in the nonaccrual loan portfolio for the years ended December 31, 2013 and 2012. Nonaccrual wholesale loans decreased by \$673 million from December 31, 2012, largely reflecting paydowns.

Wholesale nonaccrual loan activity

Year ended December 31, (in millions)	2013	2012
Beginning balance	\$ 1,717	\$ 2,581
Additions ^(a)	1,293	1,920
Reductions:		
Paydowns and other	1,075	1,784
Gross charge-offs	241	335
Returned to performing status	279	240
Sales	371	425
Total reductions	1,966	2,784
Net reductions	(673)	(864)
Ending balance	\$ 1,044	\$ 1,717

(a) During 2013, certain loans that resulted from restructurings that were previously classified as performing were reclassified as nonperforming loans. Prior periods were revised to conform with the current presentation.

The following table presents net charge-offs/recoveries, which are defined as gross charge-offs less recoveries, for the years ended December 31, 2013 and 2012. The amounts in the table below do not include gains or losses from sales of nonaccrual loans.

Wholesale net charge-offs/(recoveries)

Year ended December 31, (in millions, except ratios)	2013	2012
Loans - reported		
Average loans retained	\$ 307,340	\$ 291,980
Gross charge-offs	241	346
Gross recoveries	(225)	(524)
Net charge-offs/(recoveries)	16	(178)
Net charge-off/(recovery) rate	0.01%	(0.06)%

Receivables from customers

Receivables from customers primarily represent margin loans to prime and retail brokerage clients that are collateralized through a pledge of assets maintained in clients' brokerage accounts that are subject to daily minimum collateral requirements. In the event that the collateral value decreases, a maintenance margin call is made to the client to provide additional collateral into the account. If additional collateral is not provided by the client, the client's position may be liquidated by the Firm to meet the minimum collateral requirements.

Lending-related commitments

JPMorgan Chase uses lending-related financial instruments, such as commitments (including revolving credit facilities) and guarantees, to meet the financing needs of its customers. The contractual amounts of these financial instruments represent the maximum possible credit risk should the counterparties draw down on these commitments or the Firm fulfills its obligations under these guarantees, and the counterparties subsequently fails to perform according to the terms of these contracts.

In the Firm's view, the total contractual amount of these wholesale lending-related commitments is not representative of the Firm's actual future credit exposure or funding requirements. In determining the amount of credit risk exposure the Firm has to wholesale lending-related commitments, which is used as the basis for allocating credit risk capital to these commitments, the Firm has established a "loan-equivalent" amount for each commitment; this amount represents the portion of the unused commitment or other contingent exposure that is expected, based on average portfolio historical experience, to become drawn upon in an event of a default by an obligor. The loan-equivalent amount of the Firm's lending-related commitments was \$218.9 billion and \$223.7 billion as of December 31, 2013 and 2012, respectively.

Clearing services

The Firm provides clearing services for clients entering into securities and derivative transactions. Through the provision of these services the Firm is exposed to the risk of non-performance by its clients and may be required to share in losses incurred by central counterparties ("CCPs"). Where possible, the Firm seeks to mitigate its credit risk to its clients through the collection of adequate margin at inception and throughout the life of the transactions and can also cease provision of clearing services if clients do not adhere to their obligations under the clearing agreement. For further discussion of Clearing services, see Note 29 on 318-324, of this Annual Report.

Derivative contracts

In the normal course of business, the Firm uses derivative instruments predominantly for market-making activities. Derivatives enable customers to manage exposures to fluctuations in interest rates, currencies and other markets. The Firm also uses derivative instruments to manage its own credit exposure. The nature of the counterparty and the settlement mechanism of the derivative affect the credit risk to which the Firm is exposed. For over-the-counter ("OTC") derivatives the Firm is exposed to the credit risk of the derivative counterparty. For exchange traded derivatives ("ETD") such as futures and options, and "cleared" over-the-counter ("OTC-cleared") derivatives, the firm is generally exposed to the credit risk of the relevant CCP. Where possible, the Firm seeks to mitigate its credit risk exposures arising on derivatives transactions through the use of legally enforceable master netting arrangements and collateral agreements. For further discussion of derivative contracts, counterparties and settlement types, see Note 6 on pages 220-233 of this Annual Report. The following table summarizes the net derivative receivables for the periods presented.

Derivative receivables

December 31, (in millions)	Derivative receivables	
	2013	2012
Interest rate	\$ 25,782	\$ 39,205
Credit derivatives	1,516	1,735
Foreign exchange	16,790	14,142
Equity	12,227	9,266
Commodity	9,444	10,635
Total, net of cash collateral	65,759	74,983
Liquid securities and other cash collateral held against derivative receivables	(14,435)	(15,201)
Total, net of all collateral	\$ 51,324	\$ 59,782

Management's discussion and analysis

Derivative receivables reported on the Consolidated Balance Sheets were \$65.8 billion and \$75.0 billion at December 31, 2013 and 2012, respectively. These amounts represent the fair value of the derivative contracts, after giving effect to legally enforceable master netting agreements and cash collateral held by the Firm. However, in management's view, the appropriate measure of current credit risk should also take into consideration additional liquid securities (primarily U.S. government and agency securities and other G7 government bonds) and other cash collateral held by the Firm aggregating \$14.4 billion and \$15.2 billion at December 31, 2013 and 2012, respectively, that may be used as security when the fair value of the client's exposure is in the Firm's favor.

In addition to the collateral described in the preceding paragraph, the Firm also holds additional collateral (primarily: cash; G7 government securities; other liquid government-agency and guaranteed securities; and corporate debt and equity securities) delivered by clients at the initiation of transactions, as well as collateral related to contracts that have a non-daily call frequency and collateral that the Firm has agreed to return but has not yet settled as of the reporting date. Though this collateral does not reduce the balances and is not included in the table above, it is available as security against potential exposure that could arise should the fair value of the client's derivative transactions move in the Firm's favor. As of December 31, 2013 and 2012, the Firm held \$29.0 billion, of this additional collateral. The derivative receivables fair value, net of all collateral, also does not include other credit enhancements, such as letters of credit. For additional information on the Firm's use of collateral agreements, see Note 6 on pages 220-233 of this Annual Report.

While useful as a current view of credit exposure, the net fair value of the derivative receivables does not capture the potential future variability of that credit exposure. To capture the potential future variability of credit exposure, the Firm calculates, on a client-by-client basis, three measures of potential derivatives-related credit loss: Peak, Derivative Risk Equivalent ("DRE"), and Average exposure ("AVG"). These measures all incorporate netting and collateral benefits, where applicable.

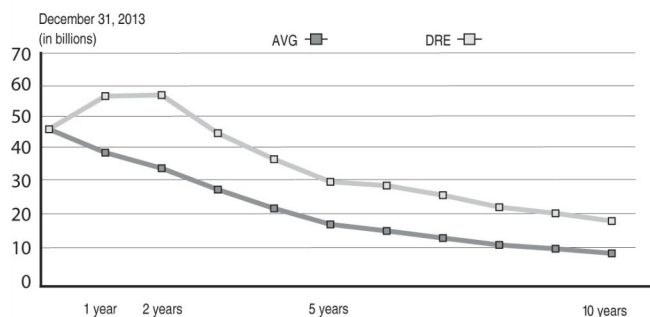
Peak exposure to a counterparty is an extreme measure of exposure calculated at a 97.5% confidence level. DRE exposure is a measure that expresses the risk of derivative exposure on a basis intended to be equivalent to the risk of loan exposures. The measurement is done by equating the unexpected loss in a derivative counterparty exposure (which takes into consideration both the loss volatility and the credit rating of the counterparty) with the unexpected loss in a loan exposure (which takes into consideration only the credit rating of the counterparty). DRE is a less extreme measure of potential credit loss than Peak and is the primary measure used by the Firm for credit approval of derivative transactions.

Finally, AVG is a measure of the expected fair value of the Firm's derivative receivables at future time periods, including the benefit of collateral. AVG exposure over the total life of the derivative contract is used as the primary metric for pricing purposes and is used to calculate credit capital and the CVA, as further described below. The three year AVG exposure was \$35.4 billion and \$42.3 billion at December 31, 2013 and 2012, respectively, compared with derivative receivables, net of all collateral, of \$51.3 billion and \$59.8 billion at December 31, 2013 and 2012, respectively.

The fair value of the Firm's derivative receivables incorporates an adjustment, the CVA, to reflect the credit quality of counterparties. The CVA is based on the Firm's AVG to a counterparty and the counterparty's credit spread in the credit derivatives market. The primary components of changes in CVA are credit spreads, new deal activity or unwinds, and changes in the underlying market environment. The Firm believes that active risk management is essential to controlling the dynamic credit risk in the derivatives portfolio. In addition, the Firm's risk management process takes into consideration the potential impact of wrong-way risk, which is broadly defined as the potential for increased correlation between the Firm's exposure to a counterparty (AVG) and the counterparty's credit quality. Many factors may influence the nature and magnitude of these correlations over time. To the extent that these correlations are identified, the Firm may adjust the CVA associated with that counterparty's AVG. The Firm risk manages exposure to changes in CVA by entering into credit derivative transactions, as well as interest rate, foreign exchange, equity and commodity derivative transactions.

The accompanying graph shows exposure profiles to derivatives over the next 10 years as calculated by the DRE and AVG metrics. The two measures generally show that exposure will decline after the first year, if no new trades are added to the portfolio.

Exposure profile of derivatives measures



The following table summarizes the ratings profile by derivative counterparty of the Firm's derivative receivables, including credit derivatives, net of other liquid securities collateral, for the dates indicated.

Ratings profile of derivative receivables

Rating equivalent

December 31, (in millions, except ratios)	2013		2012	
	Exposure net of all collateral	% of exposure net of all collateral	Exposure net of all collateral	% of exposure net of all collateral
AAA/Aaa to AA-/Aa3	\$ 12,453	24%	\$ 19,964	34%
A+/A1 to A-/A3	17,243	34	12,039	20
BBB+/Baa1 to BBB-/Baa3	14,981	29	18,066	30
BB+/Ba1 to B-/B3	5,820	11	8,434	14
CCC+/Caa1 and below	827	2	1,279	2
Total	\$ 51,324	100%	\$ 59,782	100%

As noted above, the Firm uses collateral agreements to mitigate counterparty credit risk. The percentage of the Firm's derivatives transactions subject to collateral agreements – excluding foreign exchange spot trades, which are not typically covered by collateral agreements due to their short maturity – was 86% as of December 31, 2013, largely unchanged compared with December 31, 2012.

Credit derivatives

The Firm uses credit derivatives for two primary purposes: first, in its capacity as a market-maker; and second, as an end-user, to manage the Firm's own credit risk associated with various exposures.

For a detailed description of credit derivatives, see Credit derivatives in Note 6 on pages 220–233 of this Annual Report.

Credit portfolio management activities

Included in end-user activities are credit derivatives used to mitigate the credit risk associated with traditional lending activities (loans and unfunded commitments) and derivatives counterparty exposure in the Firm's wholesale businesses (collectively, “credit portfolio management” activities). Information on credit portfolio management activities is provided in the table below. For further information on derivatives used in credit portfolio management activities, see Credit derivatives in Note 6 on pages 220–233 of this Annual Report.

The Firm also uses credit derivatives as an end-user to manage other exposures, including credit risk arising from certain AFS securities and from certain securities held in the Firm's market-making businesses. These credit derivatives, as well as the synthetic credit portfolio, are not included in credit portfolio management activities; for further information on these credit derivatives as well as credit derivatives used in the Firm's capacity as a market maker in credit derivatives, see Credit derivatives in Note 6 on pages 231–233 of this Annual Report.

Credit derivatives used in credit portfolio management activities

December 31, (in millions)	Notional amount of protection purchased and sold ^(a)	
	2013	2012
Credit derivatives used to manage:		
Loans and lending-related commitments	\$ 2,764	\$ 2,166
Derivative receivables	25,328	25,347
Total net protection purchased	28,092	27,513
Total net protection sold	96	66
Credit portfolio management derivatives notional, net	\$ 27,996	\$ 27,447

(a) Amounts are presented net, considering the Firm's net protection purchased or sold with respect to each underlying reference entity or index.

Management's discussion and analysis

The credit derivatives used in credit portfolio management activities do not qualify for hedge accounting under U.S. GAAP; these derivatives are reported at fair value, with gains and losses recognized in principal transactions revenue. In contrast, the loans and lending-related commitments being risk-managed are accounted for on an accrual basis. This asymmetry in accounting treatment, between loans and lending-related commitments and the credit derivatives used in credit portfolio management activities, causes earnings volatility that is not representative, in the Firm's view, of the true changes in value of the Firm's overall credit exposure.

The effectiveness of the Firm's credit default swap ("CDS") protection as a hedge of the Firm's exposures may vary depending on a number of factors, including the named reference entity (i.e., the Firm may experience losses on specific exposures that are different than the named reference entities in the purchased CDS), and the contractual terms of the CDS (which may have a defined credit event that does not align with an actual loss realized by the Firm) and the maturity of the Firm's CDS protection (which in some cases may be shorter than the Firm's exposures). However, the Firm generally seeks to purchase credit protection with a maturity date that is the same or similar to the maturity date of the exposure for which the protection was purchased, and remaining differences in maturity are actively monitored and managed by the Firm.

Credit portfolio hedges

The following table sets out the fair value related to the Firm's credit derivatives used in credit portfolio management activities, the fair value related to the CVA (which reflects the credit quality of derivatives counterparty exposure), as well as certain other hedges used in the risk management of CVA. These results can vary from period-to-period due to market conditions that affect specific positions in the portfolio.

Net gains and losses on credit portfolio hedges

Year ended December 31, (in millions)	2013	2012	2011
Hedges of loans and lending-related commitments	\$ (142)	\$ (163)	\$ (32)
CVA and hedges of CVA	(130)	127	(769)
Net gains/(losses)	\$ (272)	\$ (36)	\$ (801)

COMMUNITY REINVESTMENT ACT EXPOSURE

The Community Reinvestment Act ("CRA") encourages banks to meet the credit needs of borrowers in all segments of their communities, including neighborhoods with low or moderate incomes. The Firm is a national leader in community development by providing loans, investments and community development services in communities across the United States.

At December 31, 2013 and 2012, the Firm's CRA loan portfolio was approximately \$18 billion and \$16 billion, respectively. At December 31, 2013 and 2012, 50% and

62%, respectively, of the CRA portfolio were residential mortgage loans; 26% and 13%, respectively, were commercial real estate loans; 16% and 18%, respectively, were business banking loans; and 8% and 7%, respectively, were other loans. CRA nonaccrual loans were 3% and 4%, respectively, of the Firm's total nonaccrual loans. For the years ended December 31, 2013 and 2012, net charge-offs in the CRA portfolio were 1% and 3%, respectively, of the Firm's net charge-offs in both years.

ALLOWANCE FOR CREDIT LOSSES

JPMorgan Chase's allowance for loan losses covers the consumer (primarily scored) portfolio; and wholesale (risk-rated) portfolio. The allowance represents management's estimate of probable credit losses inherent in the Firm's loan portfolio. Management also determines an allowance for wholesale and certain consumer lending-related commitments.

The allowance for loan losses includes an asset-specific component, a formula-based component, and a component related to PCI loans. For a further discussion of the components of the allowance for credit losses and related management judgments, see Critical Accounting Estimates Used by the Firm on pages 174-178 and Note 15 on pages 284-287 of this Annual Report.

At least quarterly, the allowance for credit losses is reviewed by the Chief Risk Officer, the Chief Financial Officer and the Controller of the Firm, and discussed with the Risk Policy and Audit Committees of the Board of Directors of the Firm. As of December 31, 2013, JPMorgan Chase deemed the allowance for credit losses to be appropriate and sufficient to absorb probable credit losses inherent in the portfolio.

The allowance for credit losses was \$17.0 billion at December 31, 2013, a decrease of \$5.6 billion from \$22.6 billion at December 31, 2012. The decrease in the allowance for loan losses was due to a \$5.5 billion reduction in the consumer portfolio allowance reflecting lower estimated losses due to the impact of improved home prices on the residential real estate portfolio and improved delinquency trends in the residential real estate and credit card portfolios. However, relatively high unemployment, uncertainties regarding the ultimate success of loan modifications, and the risk attributes of certain loans within the portfolio (e.g., loans with high LTV ratios, junior lien loans that are subordinate to a delinquent or modified senior lien, HELOCs with future payment recast) continued to contribute to uncertainty regarding the performance of the residential real estate portfolio; these uncertainties were considered in estimating the allowance for loan losses.

The consumer, excluding credit card, allowance for loan losses decreased \$3.8 billion from December 31, 2012, of which \$2.3 billion was from the real estate portfolio non credit-impaired allowance and \$1.6 billion from the PCI allowance. The decrease in the allowance was largely due to the impact of improved home prices as well as improved delinquency trends. For additional information about delinquencies and nonaccrual loans in the consumer, excluding credit card, loan portfolio, see Consumer Credit Portfolio on pages 120-129 and Note 14 on pages 258-283 of this Annual Report.

The credit card allowance for loan losses decreased by \$1.7 billion from December 31, 2012. The decrease included reductions in both the asset-specific and formula-based allowance. The reduction in the asset-specific allowance, which relates to loans restructured in TDRs, largely reflects the changing profile of the TDR portfolio. The volume of new TDRs, which have higher loss rates due to expected redefaults, continues to decrease, and the loss rate on existing TDRs is also decreasing over time as previously restructured loans continue to perform. The reduction in the formula-based allowance was primarily driven by the continuing trend of improving delinquencies and a reduction in bankruptcies. For additional information about delinquencies in the credit card loan portfolio, see Consumer Credit Portfolio on pages 120-129 and Note 14 on pages 258-283 of this Annual Report.

The wholesale allowance was relatively unchanged reflecting a favorable credit environment and stable credit quality trends.

The allowance for lending-related commitments for both the consumer, excluding credit card, and wholesale portfolios, which is reported in other liabilities, was \$705 million and \$668 million at December 31, 2013, and December 31, 2012, respectively.

Management's discussion and analysis

Summary of changes in the allowance for credit losses

Year ended December 31, (in millions, except ratios)	2013				2012			
	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Allowance for loan losses								
Beginning balance at January 1,	\$ 12,292	\$ 5,501	\$ 4,143	\$ 21,936	\$ 16,294	\$ 6,999	\$ 4,316	\$ 27,609
Gross charge-offs	2,754	4,472	241	7,467	4,805 ^(d)	5,755	346	10,906
Gross recoveries	(847)	(593)	(225)	(1,665)	(508)	(811)	(524)	(1,843)
Net charge-offs/(recoveries)	1,907	3,879	16	5,802	4,297 ^(d)	4,944	(178)	9,063
Write-offs of PCI loans ^(a)	53	—	—	53	—	—	—	—
Provision for loan losses	(1,872)	2,179	(119)	188	302	3,444	(359)	3,387
Other	(4)	(6)	5	(5)	(7)	2	8	3
Ending balance at December 31,	\$ 8,456	\$ 3,795	\$ 4,013	\$ 16,264	\$ 12,292	\$ 5,501	\$ 4,143	\$ 21,936
Impairment methodology								
Asset-specific ^(b)	\$ 601	\$ 971	\$ 181	\$ 1,753	\$ 729	\$ 1,681	\$ 319	\$ 2,729
Formula-based	3,697	2,824	3,832	10,353	5,852	3,820	3,824	13,496
PCI	4,158	—	—	4,158	5,711	—	—	5,711
Total allowance for loan losses	\$ 8,456	\$ 3,795	\$ 4,013	\$ 16,264	\$ 12,292	\$ 5,501	\$ 4,143	\$ 21,936
Allowance for lending-related commitments								
Beginning balance at January 1,	\$ 7	\$ —	\$ 661	\$ 668	\$ 7	\$ —	\$ 666	\$ 673
Provision for lending-related commitments	1	—	36	37	—	—	(2)	(2)
Other	—	—	—	—	—	—	(3)	(3)
Ending balance at December 31,	\$ 8	\$ —	\$ 697	\$ 705	\$ 7	\$ —	\$ 661	\$ 668
Impairment methodology								
Asset-specific	\$ —	\$ —	\$ 60	\$ 60	\$ —	\$ —	\$ 97	\$ 97
Formula-based	8	—	637	645	7	—	564	571
Total allowance for lending-related commitments	\$ 8	\$ —	\$ 697	\$ 705	\$ 7	\$ —	\$ 661	\$ 668
Total allowance for credit losses	\$ 8,464	\$ 3,795	\$ 4,710	\$ 16,969	\$ 12,299	\$ 5,501	\$ 4,804	\$ 22,604
Memo:								
Retained loans, end of period	\$ 288,449	\$ 127,465	\$ 308,263	\$ 724,177	\$ 292,620	\$ 127,993	\$ 306,222	\$ 726,835
Retained loans, average	289,294	123,518	307,340	720,152	300,024	125,031	291,980	717,035
PCI loans, end of period	53,055	—	6	53,061	59,737	—	19	59,756
Credit ratios								
Allowance for loan losses to retained loans	2.93%	2.98%	1.30%	2.25%	4.20%	4.30%	1.35 %	3.02%
Allowance for loan losses to retained nonaccrual loans ^(c)	113	NM	489	196	134	NM	289	207
Allowance for loan losses to retained nonaccrual loans excluding credit card	113	NM	489	150	134	NM	289	155
Net charge-off/(recovery) rates	0.66	3.14	0.01	0.81	1.43 ^(d)	3.95	(0.06)	1.26
Credit ratios, excluding residential real estate PCI loans								
Allowance for loan losses to retained loans	1.83	2.98	1.30	1.80	2.83	4.30	1.35	2.43
Allowance for loan losses to retained nonaccrual loans ^(c)	57	NM	489	146	72	NM	289	153
Allowance for loan losses to retained nonaccrual loans excluding credit card ^(b)	57	NM	489	100	72	NM	289	101
Net charge-off/(recovery) rates	0.82%	3.14%	0.01%	0.87%	1.81% ^(d)	3.95%	(0.06)%	1.38%

(a) Write-offs of PCI loans are recorded against the allowance for loan losses when actual losses for a pool exceed estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. Any write-offs of PCI loans are recognized when the underlying loan is removed from a pool (e.g., upon liquidation).

(b) Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR.

(c) The Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

(d) Net charge-offs and net charge-off rates for the year ended December 31, 2012, included \$800 million of charge-offs of Chapter 7 loans. See Consumer Credit Portfolio on pages 120-129 of this Annual Report for further details.

Provision for credit losses

For the year ended December 31, 2013, the provision for credit losses was \$225 million, down by 93% from 2012. The provision for the year ended December 31, 2013 included a \$5.6 billion reduction in the allowance for loan losses, due to the impact of improved home prices on the residential real estate portfolio and improved delinquency trends in the residential real estate and credit card portfolios.

Total consumer provision for credit losses was \$308 million in 2013, compared with \$3.7 billion in 2012. The decline in the total consumer provision was attributable to continued reductions in the allowance for loan losses, resulting from the impact of improved home prices on the residential real

estate portfolio, and improved delinquency trends in the residential real estate and credit card portfolios, as well as lower net charge-offs, partially due to the prior year incremental charge-offs of \$800 million recorded in accordance with regulatory guidance on certain loans discharged under Chapter 7 bankruptcy.

In 2013 the wholesale provision for credit losses was a benefit of \$83 million, compared with a benefit of \$361 million in 2012. The current periods' wholesale provision for credit losses reflected a favorable credit environment and stable credit quality trends. For further information on the provision for credit losses, see the Consolidated Results of Operations on pages 71-74 of this Annual Report.

Year ended December 31, (in millions)	Provision for loan losses			Provision for lending-related commitments			Total provision for credit losses		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Consumer, excluding credit card	\$ (1,872)	\$ 302	\$ 4,670	\$ 1	\$ —	\$ 2	\$ (1,871)	\$ 302	\$ 4,672
Credit card	2,179	3,444	2,925	—	—	—	2,179	3,444	2,925
Total consumer	307	3,746	7,595	1	—	2	308	3,746	7,597
Wholesale	(119)	(359)	17	36	(2)	(40)	(83)	(361)	(23)
Total provision for credit losses	\$ 188	\$ 3,387	\$ 7,612	\$ 37	\$ (2)	\$ (38)	\$ 225	\$ 3,385	\$ 7,574

MARKET RISK MANAGEMENT

Market risk is the potential for adverse changes in the value of the Firm's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices, implied volatilities or credit spreads.

Market risk management

Market Risk is an independent risk management function that works in close partnership with the lines of business, including Treasury and CIO within Corporate/Private Equity, to identify and monitor market risks throughout the Firm and to define market risk policies and procedures. The Market Risk function reports to the Firm's CRO.

Market Risk seeks to control risk, facilitate efficient risk/return decisions, reduce volatility in operating performance and provide transparency into the Firm's market risk profile for senior management, the Board of Directors and regulators. Market Risk is responsible for the following functions:

- Establishment of a market risk policy framework
- Independent measurement, monitoring and control of line of business and firmwide market risk
- Definition, approval and monitoring of limits
- Performance of stress testing and qualitative risk assessments

Risk identification and classification

Each line of business is responsible for the management of the market risks within its units. The independent risk management group responsible for overseeing each line of business is charged with ensuring that all material market risks are appropriately identified, measured, monitored and managed in accordance with the risk policy framework set out by Market Risk.

Risk measurement

Tools used to measure risk

Because no single measure can reflect all aspects of market risk, the Firm uses various metrics, both statistical and nonstatistical, including:

- VaR
- Economic-value stress testing
- Nonstatistical risk measures
- Loss advisories
- Profit and loss drawdowns
- Risk identification for large exposures ("RIFLEs")
- Earnings-at-risk

The following table summarizes by LOB the predominant business activities that give rise to market risks, and the market risk management tools utilized to manage those risks; CB is not presented in the table below as it does not give rise to significant market risk.

Risk identification and classification for business activities

LOB	Predominant business activities and related market risks	Positions included in Risk Management VaR	Positions included in other risk measures (Not included in Risk Management VaR)^{(a)(b)}
CIB	• Makes markets and services its clients' activity in products across fixed income, foreign exchange, equities and commodities • Market risk arising from market making and other derivatives activities which may lead to a potential decline in net income as a result of changes in market prices; e.g. rates and credit spreads	• Trading assets/liabilities - debt and equity instruments, and derivatives • Certain securities purchased under resale agreements and securities borrowed • Certain securities loaned or sold under repurchase agreements • Structured notes, see Note 4 on pages 215-218 of this Annual Report • Derivative CVA • Hedges of the retained loan portfolio and CVA, classified as derivatives	• Principal investing activities • Retained loan portfolio • Deposits
CCB	• Origination and servicing of mortgage loans • Complex, non-linear interest rate risks, as well as basis risk • Non-linear risk arises primarily from prepayment options embedded in mortgages and changes in the probability of newly originated mortgage commitments actually closing • Basis risk results from differences in the relative movements of the rate indices underlying mortgage exposure and other interest rates	<i>Mortgage Banking</i> • Mortgage pipeline loans, classified as derivatives • Warehouse loans, classified as trading assets - debt instruments • MSRs • Hedges of the MSRs and loans, classified as derivatives • Interest only securities, classified as trading assets and related hedges classified as derivatives	• Retained loan portfolio • Deposits
Corporate/Private equity	• Predominantly responsible for managing the Firm's liquidity, funding, structural interest rate and foreign exchange risks arising from activities undertaken by the Firm's four major reportable business segments, as well as executing the Firm's capital plan	<i>Treasury and CIO</i> • Primarily derivative positions measured at fair value through earnings, classified as derivatives	• Private Equity • Investment securities portfolio and related hedges • Deposits • Long-term debt and related hedges
AM	• Market risk arising from the Firm's initial capital investments in products, such as mutual funds, which are managed by AM	• Hedges of seed capital investments, classified as derivatives	• Initial seed capital investments • Capital invested alongside third-party investors, typically in privately distributed collective vehicles managed by AM (i.e., Co-Investments) • Retained loan portfolio • Deposits

(a) Additional market risk positions result from debit valuation adjustments ("DVA") taken on structured notes and derivative liabilities to reflect the credit quality of the Firm. Neither DVA nor the additional market risk positions resulting from it are included in VaR.

(b) During the fourth quarter of 2013, the Firm implemented a funding valuation adjustment ("FVA") framework in order to incorporate the impact of funding into its valuation estimates for OTC derivatives and structured notes. FVA gives rise to additional market risk positions, and is not currently included in VaR. Effective in the first quarter of 2014, the FVA market risk exposure and its associated hedges will be included in CIB's average VaR.

Management's discussion and analysis

Value-at-risk

JPMorgan Chase utilizes VaR, a statistical risk measure, to estimate the potential loss from adverse market moves in a normal market environment consistent with the day-to-day risk decisions made by the lines of business.

The Firm has one overarching VaR model framework, Risk Management VaR, used for risk management purposes across the Firm, which utilizes historical simulation based on data for the previous 12 months. The framework's approach assumes that historical changes in market values are representative of the distribution of potential outcomes in the immediate future. The Firm believes the use of Risk Management VaR provides a stable measure of VaR that closely aligns to the day-to-day risk management decisions made by the lines of business and provides necessary/appropriate information to respond to risk events on a daily basis.

Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. This means that, assuming current changes in market values are consistent with the historical changes used in the simulation, the Firm would expect to incur VaR "band breaks," defined as losses greater than that predicted by VaR estimates, not more than five times every 100 trading days. The number of VaR band breaks observed can differ from the statistically expected number of band breaks if the current level of market volatility is materially different from the level of market volatility during the twelve months of historical data used in the VaR calculation.

Underlying the overall VaR model framework are individual VaR models that simulate historical market returns for individual products and/or risk factors. To capture material market risks as part of the Firm's risk management framework, comprehensive VaR model calculations are performed daily for businesses whose activities give rise to market risk. These VaR models are granular and incorporate numerous risk factors and inputs to simulate daily changes in market values over the historical period; inputs are selected based on the risk profile of each portfolio as sensitivities and historical time series used to generate daily market values may be different across product types or risk management systems. The VaR model results across all portfolios are aggregated at the Firm level.

Data sources used in VaR models may be the same as those used for financial statement valuations. However, in cases where market prices are not observable, or where proxies are used in VaR historical time series, the sources may differ. In addition, the daily market data used in VaR models may be different than the independent third-party data collected for VCG price testing in their monthly valuation process (see pages 196-200 of this Annual Report for further information on the Firm's valuation process.) VaR model calculations require more timely (i.e., daily) data and a consistent source for valuation and therefore it is not

practical to use the data collected in the VCG monthly valuation process.

VaR provides a consistent framework to measure risk profiles and levels of diversification across product types and is used for aggregating risks across businesses and monitoring limits. These VaR results are reported to senior management, the Board of Directors and regulators.

Since VaR is based on historical data, it is an imperfect measure of market risk exposure and potential losses, and it is not used to estimate the impact of stressed market conditions or to manage any impact from potential stress events. In addition, based on their reliance on available historical data, limited time horizons, and other factors, VaR measures are inherently limited in their ability to measure certain risks and to predict losses, particularly those associated with market illiquidity and sudden or severe shifts in market conditions. As VaR cannot be used to determine future losses in the Firm's market risk positions, the Firm considers other metrics, such as economic-value stress testing and other techniques, as described further below, to capture and manage its market risk positions under stressed scenarios.

For certain products, specific risk parameters are not captured in VaR due to the lack of inherent liquidity and availability of appropriate historical data. The Firm uses proxies to estimate the VaR for these and other products when daily time series are not available. It is likely that using an actual price-based time series for these products, if available, would affect the VaR results presented. The Firm uses alternative methods to capture and measure those risk parameters that are not otherwise captured in VaR, including economic-value stress testing, nonstatistical measures and risk identification for large exposures as described further below.

The Firm's VaR model calculations are continuously evaluated and enhanced in response to changes in the composition of the Firm's portfolios, changes in market conditions, improvements in the Firm's modeling techniques and other factors. Such changes will also affect historical comparisons of VaR results. Model changes go through a review and approval process by the Model Review Group prior to implementation into the operating environment. For further information, see Model risk on page 153 of this Annual Report.

Separately, the Firm calculates a daily aggregated VaR in accordance with regulatory rules ("Regulatory VaR"), which is used to derive the Firm's regulatory VaR-based capital requirements under the Basel 2.5 Market Risk Rule ("Basel 2.5"). This Regulatory VaR model framework currently assumes a ten business-day holding period and an expected tail loss methodology which approximates a 99% confidence level. Regulatory VaR is applied to "covered" positions as defined by Basel 2.5, which may be different than the positions included in the Firm's Risk Management VaR. For example, credit derivative hedges of accrual loans

are included in the Firm's Risk Management VaR, while Regulatory VaR excludes these credit derivative hedges. For additional information on Regulatory VaR and the other components of market risk regulatory capital (e.g. VaR-based measure, stressed VaR-based measure and the respective backtesting) for the Firm, see JPMorgan Chase's

"Regulatory Capital Disclosures – Market Risk Pillar 3 Report" which are available on the Firm's website (<http://investor.shareholder.com/jpmorganchase/basel.cfm>) and Capital Management on pages 160–167 of this Annual Report.

The table below shows the results of the Firm's Risk Management VaR measure using a 95% confidence level.

Total VaR

As of or for the year ended December 31, (in millions)	2013			2012			At December 31,	
	Avg.	Min	Max	Avg.	Min	Max	2013	2012
CIB trading VaR by risk type								
Fixed income	\$ 43 ^(a)	\$ 23	\$ 62	\$ 83 ^(a)	\$ 47	\$ 131	\$ 36 ^(a)	\$ 69 ^(a)
Foreign exchange	7	5	11	10	6	22	9	8
Equities	13	9	21	21	12	35	14	22
Commodities and other	14	11	18	15	11	27	13	15
Diversification benefit to CIB trading VaR	(34) ^(b)	NM ^(c)	NM ^(c)	(45) ^(b)	NM ^(c)	NM ^(c)	(36) ^(b)	(39) ^(b)
CIB trading VaR	43	21	66	84	50	128	36	75
Credit portfolio VaR	13	10	18	25	16	42	11	18
Diversification benefit to CIB VaR	(9) ^(b)	NM ^(c)	NM ^(c)	(13) ^(b)	NM ^(c)	NM ^(c)	(5) ^(b)	(9) ^(b)
CIB VaR	47 ^{(a)(e)}	25	74	96 ^{(a)(e)}	58	142	42 ^{(a)(e)}	84 ^{(a)(e)}
Mortgage Banking VaR	12	4	24	17	8	43	5	24
Treasury and CIO VaR ^(f)	6 ^(a)	3	14	92 ^(d)	5 ^(d)	196 ^(d)	4	6
Asset Management VaR	4	2	5	2	— ^(g)	5	3	2
Diversification benefit to other VaR	(8) ^(b)	NM ^(c)	NM ^(c)	(10) ^(b)	NM ^(c)	NM ^(c)	(5) ^(b)	(7) ^(b)
Other VaR	14	6	28	101	18	204	7	25
Diversification benefit to CIB and other VaR	(9) ^(b)	NM ^(c)	NM ^(c)	(45) ^(b)	NM ^(c)	NM ^(c)	(5) ^(b)	(11) ^(b)
Total VaR	\$ 52	\$ 29	\$ 87	\$ 152	\$ 93	\$ 254	\$ 44	\$ 98

- (a) On July 2, 2012, CIO transferred its synthetic credit portfolio, other than a portion aggregating approximately \$12 billion notional, to CIB; CIO's retained portfolio was effectively closed out during the three months ended September 30, 2012.
- (b) Average portfolio VaR and period-end portfolio VaR were less than the sum of the VaR of the components described above, which is due to portfolio diversification. The diversification effect reflects the fact that risks are not perfectly correlated.
- (c) Designated as not meaningful ("NM"), because the minimum and maximum may occur on different days for distinct risk components, and hence it is not meaningful to compute a portfolio-diversification effect.
- (d) The Firm restated its 2012 first quarter financial statements regarding the CIO synthetic credit portfolio. The CIO VaR amounts for 2012 were not recalculated to reflect the restatement.
- (e) Effective in the fourth quarter of 2012, CIB's VaR includes the VaR of the former reportable business segments, Investment Bank and Treasury & Securities Services ("TSS"), which were combined to form the CIB business segment as a result of the reorganization of the Firm's business segments. TSS VaR was not material and was previously classified within Other VaR. Prior period VaR disclosures were not revised as a result of the business segment reorganization.
- (f) The Treasury and CIO VaR includes Treasury VaR as of the third quarter of 2013.
- (g) The minimum Asset Management VaR for 2012 was immaterial.

As presented in the table above, average Total VaR and average CIB VaR decreased during 2013 compared with 2012. These decreases were primarily driven by reduced risk in the synthetic credit portfolio and lower market volatility across multiple asset classes.

During the third quarter of 2012, the Firm applied a new VaR model to calculate VaR for CIO's synthetic credit portfolio that had been transferred to the CIB on July 2, 2012. In the first quarter of 2013, in order to achieve consistency among like products within CIB and in conjunction with the implementation of Basel 2.5 requirements, the Firm moved CIO's synthetic credit portfolio to an existing VaR model within the CIB. This change had an insignificant impact to the average fixed income VaR and average total CIB trading and credit portfolio VaR, and it had no impact to the average Total VaR compared with the model used in the third and fourth quarters of 2012.

Average Treasury and CIO VaR for the year ended December 31, 2013, decreased from 2012, predominantly reflecting the reduction in and transfer of risk from CIO's synthetic credit portfolio to the CIB on July 2, 2012. The index credit derivative positions retained by CIO were effectively closed out during the three months ended September 30, 2012.

Average Mortgage Banking VaR for the year ended December 31, 2013, decreased from 2012. The decrease is attributable to reduced risk across the Mortgage Production and Mortgage Servicing businesses.

The Firm's average Total VaR diversification benefit was \$9 million or 15% of the sum for 2013, compared with \$45 million or 23% of the sum for 2012. In general, over the course of the year, VaR exposure can vary significantly as positions change, market volatility fluctuates and diversification benefits change.

Management's discussion and analysis

VaR back-testing

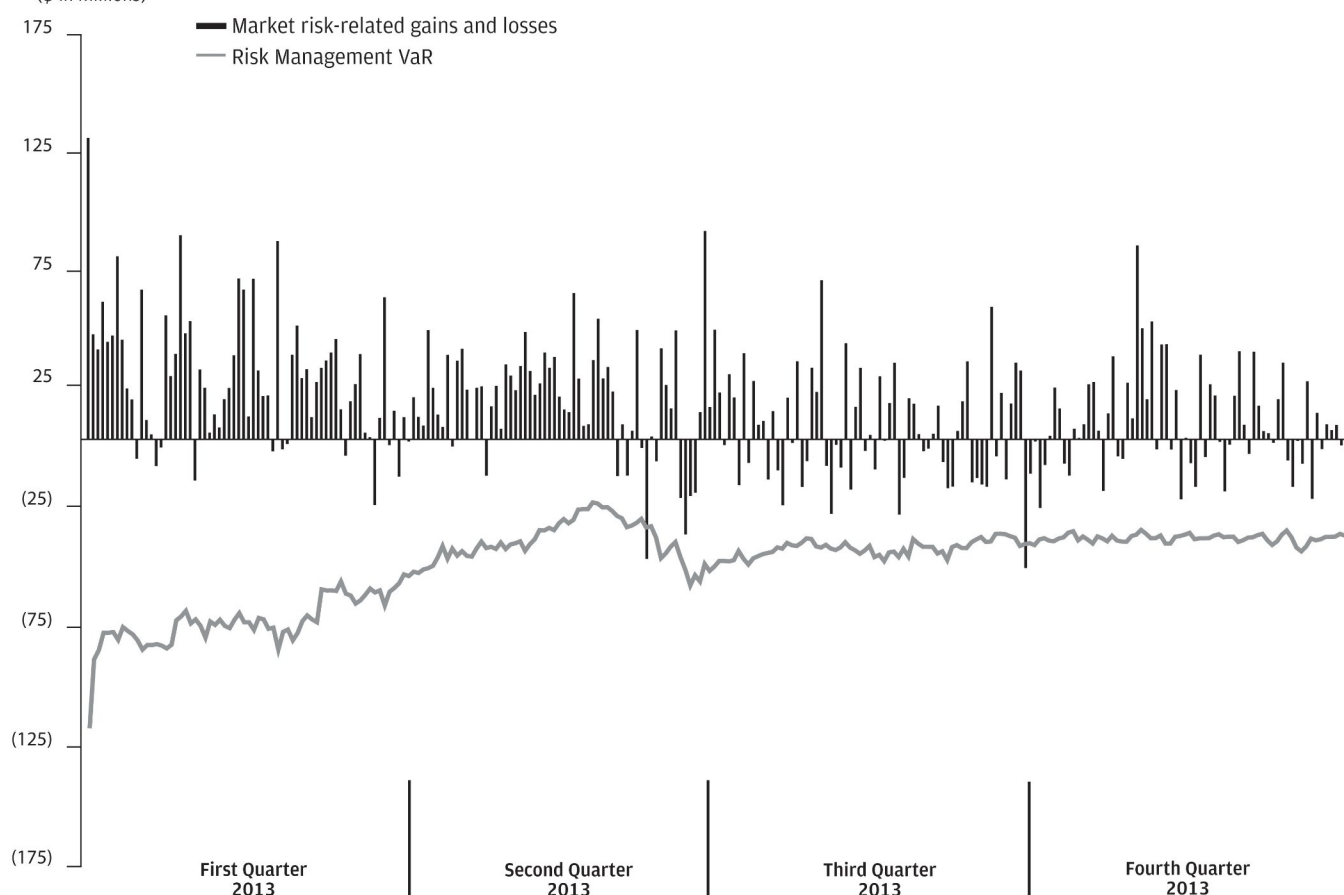
The Firm evaluates the effectiveness of its VaR methodology by back-testing, which compares the daily Risk Management VaR results with the daily gains and losses recognized on market-risk related revenue.

Effective during the fourth quarter of 2013, the Firm revised its definition of market risk-related gains and losses to be consistent with the definition used by the banking regulators under Basel 2.5. Under this definition market risk-related gains and losses are defined as: profits and losses on the Firm's Risk Management positions, *excluding* fees, commissions, fair value adjustments, net interest income, and gains and losses arising from intraday trading.

Daily market risk-related gains and losses vs. Risk Management VaR (1-day, 95% confidence level)

Year ended December 31, 2013

(\$ in millions)



Prior to the fourth quarter of 2013, the Firm disclosed a histogram which presented the results of daily backtesting against its daily market risk-related gains and losses for positions included in the Firm's Risk Management VaR calculation. Under this previous presentation, the market risk related revenue was defined as the change in value of: principal transactions revenue for CIB, and Treasury and CIO; trading-related net interest income for CIB, Treasury and CIO, and Mortgage Production and Mortgage Servicing in CCB; CIB brokerage commissions, underwriting fees or

The following chart compares the daily market risk-related gains and losses on the Firm's Risk Management positions for the year ended December 31, 2013, under the revised definition. As the chart presents market risk-related gains and losses related to those positions included in the Firm's Risk Management VaR, the results in the table below differ from the results of backtesting disclosed in the Firm's Basel 2.5 report, which are based on Regulatory VaR. The chart shows that for the year ended December 31, 2013, the Firm observed two VaR band breaks and posted gains on 177 of the 260 days in this period.

other revenue; revenue from syndicated lending facilities that the Firm intends to distribute; mortgage fees and related income for the Firm's mortgage pipeline and warehouse loans, MSRs, and all related hedges; and market-risk related revenue from Asset Management hedges; gains and losses from DVA were excluded. Under this prior measure there were no VaR band breaks nor any trading loss days for the year ended December 31, 2013.

Other risk measures

Economic-value stress testing

Along with VaR, stress testing is an important tool in measuring and controlling risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behavior as an indicator of losses, stress testing is intended to capture the Firm's exposure to unlikely but plausible events in abnormal markets. The Firm runs weekly stress tests on market-related risks across the lines of business using multiple scenarios that assume significant changes in risk factors such as credit spreads, equity prices, interest rates, currency rates or commodity prices. The framework uses a grid-based approach, which calculates multiple magnitudes of stress for both market rallies and market sell-offs for each risk factor. Stress-test results, trends and explanations based on current market risk positions are reported to the Firm's senior management and to the lines of business to allow them to better understand the sensitivity of positions to certain defined events and to enable them to manage their risks with more transparency.

Stress scenarios are defined and reviewed by Market Risk, and significant changes are reviewed by the relevant Risk Committees. While most of the scenarios estimate losses based on significant market moves, such as an equity market collapse or credit crisis, the Firm also develops scenarios to quantify risk arising from specific portfolios or concentrations of risks, which attempt to capture certain idiosyncratic market movements. Scenarios may be redefined on an ongoing basis to reflect current market conditions. Ad hoc scenarios are run in response to specific market events or concerns. Furthermore, the Firm's stress testing framework is utilized in calculating results under scenarios mandated by the Federal Reserve's CCAR and ICAAP ("Internal Capital Adequacy Assessment Process") processes.

Nonstatistical risk measures

Nonstatistical risk measures include sensitivities to variables used to value positions, such as credit spread sensitivities, interest rate basis point values and market values. These measures provide granular information on the Firm's market risk exposure. They are aggregated by line-of-business and by risk type, and are used for tactical control and monitoring limits.

Loss advisories and profit and loss drawdowns

Loss advisories and profit and loss drawdowns are tools used to highlight trading losses above certain levels of risk tolerance. Profit and loss drawdowns are defined as the decline in net profit and loss since the year-to-date peak revenue level.

Risk identification for large exposures

Individuals who manage risk positions consider potential material losses that could arise from specific, unusual events, such as a potential change in tax legislation, or a particular combination of unusual market moves. This information allows the Firm to monitor further earnings vulnerability that is not adequately covered by standard risk measures.

Earnings-at-risk

The VaR and stress-test measures described above illustrate the total economic sensitivity of the Firm's Consolidated Balance Sheets to changes in market variables. The effect of interest rate exposure on reported net income is also important as interest rate risk represents one of the Firm's significant market risks. Interest rate risk arises not only from trading activities but also from the Firm's traditional banking activities, which include extension of loans and credit facilities, taking deposits and issuing debt. The CIO, Treasury and Corporate ("CTC") Risk Committee establishes the Firm's structural interest rate risk policies and market risk limits, which are subject to approval by the Risk Policy Committee of the Firm's Board of Directors. CIO, working in partnership with the lines of business, calculates the Firm's structural interest rate risk profile and reviews it with senior management including the CTC Risk Committee and the Firm's ALCO.

Structural interest rate risk can occur due to a variety of factors, including:

- Differences in the timing among the maturity or repricing of assets, liabilities and off-balance sheet instruments.
- Differences in the amounts of assets, liabilities and off-balance sheet instruments that are repricing at the same time.
- Differences in the amounts by which short-term and long-term market interest rates change (for example, changes in the slope of the yield curve).
- The impact of changes in the maturity of various assets, liabilities or off-balance sheet instruments as interest rates change.

The Firm manages interest rate exposure related to its assets and liabilities on a consolidated, corporate-wide basis. Business units transfer their interest rate risk to Treasury through a transfer-pricing system, which takes into account the elements of interest rate exposure that can be risk-managed in financial markets. These elements include asset and liability balances and contractual rates of interest, contractual principal payment schedules, expected prepayment experience, interest rate reset dates and maturities, rate indices used for repricing, and any interest rate ceilings or floors for adjustable rate products. All transfer-pricing assumptions are dynamically reviewed.

Oversight of structural interest rate risk is managed through a dedicated risk function reporting to the CTC CRO. This risk function is responsible for providing independent oversight,

Management's discussion and analysis

creating governance over assumptions and establishing and monitoring limits for structural interest rate risk.

The Firm manages structural interest rate risk generally through its investment securities portfolio and related derivatives. The Firm evaluates its structural interest rate risk exposure through earnings-at-risk, which measures the extent to which changes in interest rates will affect the Firm's core net interest income (see page 83 of this Annual Report for further discussion of core net interest income) and interest rate-sensitive fees. Earnings-at-risk excludes the impact of trading activities and MSR, as these sensitivities are captured under VaR.

The Firm conducts simulations of changes in structural interest rate-sensitive revenue under a variety of interest rate scenarios. Earnings-at-risk scenarios estimate the potential change in this revenue, and the corresponding impact to the Firm's pretax core net interest income, over the following 12 months, utilizing multiple assumptions as described below. These scenarios highlight exposures to changes in interest rates, pricing sensitivities on deposits, optionality and changes in product mix. The scenarios include forecasted balance sheet changes, as well as prepayment and reinvestment behavior. Mortgage prepayment assumptions are based on current interest rates compared with underlying contractual rates, the time since origination, and other factors which are updated periodically based on historical experience.

JPMorgan Chase's 12-month pretax core net interest income sensitivity profiles.

(Excludes the impact of trading activities and MSRs)

(in millions)	Instantaneous change in rates ^(a)			
	+200 bps	+100 bps	-100 bps	-200 bps
December 31, 2013	\$ 4,718	\$ 2,518	NM ^(b)	NM ^(b)
December 31, 2012	3,886	2,145	NM ^(b)	NM ^(b)

(a) Instantaneous changes in interest rates present a limited view of risk, and so alternative scenarios are also reviewed.

(b) Downward 100- and 200-basis-points parallel shocks result in a federal funds target rate of zero and negative three- and six-month treasury rates. The earnings-at-risk results of such a low-probability scenario are not meaningful.

The change in earnings-at-risk from December 31, 2012, resulted from higher expected deposit balances, partially offset by repositioning the investment securities portfolio. The Firm's benefit to rising rates is largely a result of reinvesting at higher yields and assets re-pricing at a faster pace than deposits.

Additionally, another interest rate scenario used by the Firm – involving a steeper yield curve with long-term rates rising by 100 basis points and short-term rates staying at current levels – results in a 12-month pretax core net interest income benefit of \$407 million. The increase in core net interest income under this scenario reflects the Firm reinvesting at the higher long-term rates, with funding costs remaining unchanged.

Risk monitoring and control

Limits

Market risk is controlled primarily through a series of limits set in the context of the market environment and business strategy. In setting limits, the Firm takes into consideration factors such as market volatility, product liquidity and accommodation of client business and management experience. The Firm maintains different levels of limits. Corporate level limits include VaR and stress limits. Similarly, line of business limits include VaR and stress limits and may be supplemented by loss advisories, nonstatistical measurements and profit and loss drawdowns. Limits may also be allocated within the lines of business, as well as at the portfolio level.

Limits are established by Market Risk in agreement with the lines of business. Limits are reviewed regularly by Market Risk and updated as appropriate, with any changes approved by lines of business management and Market Risk. Senior management, including the Firm's Chief Executive Officer and Chief Risk Officer, are responsible for reviewing and approving certain of these risk limits on an ongoing basis. All limits that have not been reviewed within specified time periods by Market Risk are escalated to senior management. The lines of business are responsible for adhering to established limits against which exposures are monitored and reported.

Limit breaches are required to be reported in a timely manner by Risk Management to limit approvers, Market Risk and senior management. In the event of a breach, Market Risk consults with Firm senior management and lines of business senior management to determine the appropriate course of action required to return to compliance, which may include a reduction in risk in order to remedy the excess. Any Firm or line of business-level limits that are in excess for three business days or longer, or that are over limit by more than 30%, are escalated to senior management and the Firmwide Risk Committee.

COUNTRY RISK MANAGEMENT

Country risk is the risk that a sovereign event or action alters the value or terms of contractual obligations of obligors, counterparties and issuers, or adversely impacts markets related to a country. The Firm has a comprehensive country risk management framework for assessing country risks, determining risk tolerance, and measuring and monitoring direct country exposures in the Firm. The Country Risk Management group is responsible for developing guidelines and policy for managing country risk in both emerging and developed countries. The Country Risk Management group actively monitors the various portfolios giving rise to country risk to ensure the Firm's country risk exposures are diversified and that exposure levels are appropriate given the Firm's strategy and risk tolerance relative to a country.

Country risk organization

The Country Risk Management group is an independent risk management function which works in close partnership with other risk functions to identify and monitor country risk within the Firm. The Firmwide Risk Executive for Country Risk reports to the Firm's CRO.

Country Risk Management is responsible for the following functions:

- Developing guidelines and policies consistent with a comprehensive country risk framework
- Assigning sovereign ratings and assessing country risks
- Measuring and monitoring country risk exposure and stress across the Firm
- Managing country limits and reporting trends and limit breaches to senior management
- Developing surveillance tools for early identification of potential country risk concerns
- Providing country risk scenario analysis

Country risk identification and measurement

The Firm is exposed to country risk through its lending, investing, and market-making activities, whether cross-border or locally funded. Country exposure includes activity with both government and private-sector entities in a country. Under the Firm's internal country risk management approach, country exposure is reported based on the country where the majority of the assets of the obligor, counterparty, issuer or guarantor are located or where the majority of its revenue is derived, which may be different than the domicile (legal residence) or country of incorporation of the obligor, counterparty, issuer or guarantor. Country exposures are generally measured by considering the Firm's risk to an immediate default of the counterparty or obligor, with zero recovery. Assumptions are sometimes required in determining the measurement and allocation of country exposure, particularly in the case of certain tranching credit derivatives. Different measurement approaches or assumptions would affect the amount of reported country exposure.

Under the Firm's internal country risk measurement framework:

- Lending exposures are measured at the total committed amount (funded and unfunded), net of the allowance for credit losses and cash and marketable securities collateral received
- Securities financing exposures are measured at their receivable balance, net of collateral received
- Debt and equity securities are measured at the fair value of all positions, including both long and short positions
- Counterparty exposure on derivative receivables, including credit derivative receivables, is measured at the derivative's fair value, net of the fair value of the related collateral
- Credit derivatives protection purchased and sold is reported based on the underlying reference entity and is measured at the notional amount of protection purchased or sold, net of the fair value of the recognized derivative receivable or payable. Credit derivatives protection purchased and sold in the Firm's market-making activities is presented on a net basis, as such activities often result in selling and purchasing protection related to the same underlying reference entity; this reflects the manner in which the Firm manages these exposures

The Firm also has indirect exposures to country risk (for example, related to the collateral received on securities financing receivables or related to client clearing activities). These indirect exposures are managed in the normal course of business through the Firm's credit, market, and operational risk governance, rather than through Country Risk Management.

The Firm's internal country risk reporting differs from the reporting provided under FFIEC bank regulatory requirements as there are significant differences in reporting methodology. For further information on the FFIEC's reporting methodology, see Cross-border outstandings on page 357 of the 2013 Form 10-K.

Management's discussion and analysis

Country risk stress testing

The country risk stress framework aims to identify potential losses arising from a country crisis by capturing the impact of large asset price movements in a country based on market shocks combined with counterparty specific assumptions. Country Risk Management periodically defines and runs ad hoc stress scenarios for individual countries in response to specific market events and sector performance concerns.

Country risk monitoring and control

The Country Risk Management Group establishes guidelines for sovereign ratings reviews and limit management. Country stress and nominal exposures are measured under a comprehensive country limit framework. Country ratings and limits activity are actively monitored and reported on a regular basis. Country limit requirements are reviewed and approved by senior management as often as necessary, but at least annually. In addition, the Country Risk Management group uses surveillance tools for early identification of potential country risk concerns, such as signaling models and ratings indicators.

Country risk reporting

The following table presents the Firm's top 20 exposures by country (excluding the U.S.). The selection of countries is based solely on the Firm's largest total exposures by country, based on the Firm's internal country risk management approach, and does not represent the Firm's view of any actual or potentially adverse credit conditions.

Top 20 country exposures

	December 31, 2013			
(in billions)	Lending ^(a)	Trading and investing ^{(b)(c)}	Other ^(d)	Total exposure
United Kingdom	\$ 34.4	\$ 43.5	\$ 1.4	\$ 79.3
Germany	13.0	29.1	0.2	42.3
Netherlands	5.3	25.5	2.6	33.4
France	13.9	17.0	—	30.9
Switzerland	19.9	1.7	0.6	22.2
Canada	13.8	5.4	0.2	19.4
Australia	7.4	11.3	—	18.7
China	11.1	3.9	0.7	15.7
Brazil	5.7	5.6	—	11.3
India	6.8	3.8	0.1	10.7
Hong Kong	3.8	3.5	1.7	9.0
Korea	4.8	2.9	—	7.7
Italy	3.4	4.0	—	7.4
Singapore	3.4	2.0	1.3	6.7
Mexico	2.3	4.4	—	6.7
Japan	3.9	2.6	—	6.5
Sweden	1.8	4.0	0.1	5.9
Russia	4.7	0.7	—	5.4
Spain	3.2	1.3	—	4.5
Malaysia	2.4	1.5	0.6	4.5

- (a) Lending includes loans and accrued interest receivable, net of collateral and the allowance for loan losses, deposits with banks, acceptances, other monetary assets, issued letters of credit net of participations, and undrawn commitments to extend credit. Excludes intra-day and operating exposures, such as from settlement and clearing activities.
- (b) Includes market-making inventory, securities held in AFS accounts and hedging.
- (c) Includes single-name and index and tranching credit derivatives for which one or more of the underlying reference entities is in a country listed in the above table.
- (d) Includes capital invested in local entities and physical commodity inventory.

Selected European exposure

Notwithstanding the economic and fiscal situation in Europe showing signs of stabilization, with Spain and Ireland exiting their bail out programs and some encouraging progress on financial reform, the Firm continues to closely monitor its exposures in Spain, Italy, Ireland, Portugal and Greece. Management believes its exposure to these five countries is modest relative to the Firm's aggregate exposures. The Firm continues to conduct business and support client activity in these countries and, therefore, the Firm's aggregate net exposures and sector distribution may vary over time. In addition, the net exposures may be affected by changes in market conditions, including the effects of interest rates and credit spreads on market valuations.

The following table presents the Firm's direct exposure to Spain, Italy, Ireland, Portugal and Greece at December 31, 2013, as measured under the Firm's internal country risk management approach. For individual exposures, corporate clients represent approximately 93% of the Firm's non-sovereign exposure in these five countries, and substantially all of the remaining 7% of the non-sovereign exposure is to the banking sector.

December 31, 2013 (in billions)	Lending net of Allowance ^(a)	AFS securities	Trading ^(b)	Derivative collateral ^(c)	Portfolio hedging ^(d)	Total exposure
Spain						
Sovereign	\$ —	\$ 0.5	\$ (0.2)	\$ —	\$ (0.2)	0.1
Non-sovereign	3.2	—	3.3	(1.9)	(0.2)	4.4
Total Spain exposure	\$ 3.2	\$ 0.5	\$ 3.1	\$ (1.9)	\$ (0.4)	4.5
Italy						
Sovereign	\$ —	\$ —	\$ 8.0	\$ (1.0)	\$ (4.3)	2.7
Non-sovereign	3.4	—	3.0	(1.1)	(0.6)	4.7
Total Italy exposure	\$ 3.4	\$ —	\$ 11.0	\$ (2.1)	\$ (4.9)	7.4
Ireland						
Sovereign	\$ —	\$ —	\$ —	\$ —	\$ (0.1)	(0.1)
Non-sovereign	0.2	—	0.5	(0.1)	—	0.6
Total Ireland exposure	\$ 0.2	\$ —	\$ 0.5	\$ (0.1)	\$ (0.1)	0.5
Portugal						
Sovereign	\$ —	\$ —	\$ 0.1	\$ —	\$ —	0.1
Non-sovereign	0.5	—	0.9	(0.4)	(0.1)	0.9
Total Portugal exposure	\$ 0.5	\$ —	\$ 1.0	\$ (0.4)	\$ (0.1)	1.0
Greece						
Sovereign	\$ —	\$ —	\$ 0.1	\$ —	\$ —	0.1
Non-sovereign	0.1	—	0.5	(0.5)	—	0.1
Total Greece exposure	\$ 0.1	\$ —	\$ 0.6	\$ (0.5)	\$ —	0.2
Total exposure	\$ 7.4	\$ 0.5	\$ 16.2	\$ (5.0)	\$ (5.5)	13.6

- (a) Lending includes loans and accrued interest receivable, deposits with banks, acceptances, other monetary assets, issued letters of credit net of participations, and undrawn commitments to extend credit. Excludes intra-day and operating exposures, such as from settlement and clearing activities. Amounts are presented net of the allowance for credit losses of \$100 million (Spain), \$43 million (Italy), \$6 million (Ireland), \$19 million (Portugal), and \$13 million (Greece) specifically attributable to these countries. Includes \$3.0 billion of unfunded lending exposure at December 31, 2013. These exposures consist typically of committed, but unused corporate credit agreements, with market-based lending terms and covenants.
- (b) Primarily includes: \$13.9 billion of counterparty exposure on derivative and securities financings, \$1.6 billion of issuer exposure on debt and equity securities. Securities financings of approximately \$25.2 billion were collateralized with approximately \$27.5 billion of cash and marketable securities as of December 31, 2013.
- (c) Includes cash and marketable securities pledged to the Firm, of which approximately 95% of the collateral was cash at December 31, 2013.
- (d) Reflects net protection purchased through the Firm's credit portfolio management activities, which are managed separately from its market-making activities. Predominantly includes single-name CDS and also includes index credit derivatives and short bond positions.

Management's discussion and analysis

Effect of credit derivatives on selected European exposures

Country exposures in the Selected European exposure table above have been reduced by purchasing protection through single name, index, and tranching credit derivatives. The following table presents the effect of purchased and sold credit derivatives on the trading and portfolio hedging activities in the Selected European exposure table.

December 31, 2013 (in billions)	Trading			Portfolio hedging		
	Purchased	Sold	Net	Purchased	Sold	Net
Spain	\$ (92.5)	\$ 92.3	\$ (0.2)	\$ (7.8)	\$ 7.4	\$ (0.4)
Italy	(139.7)	140.9	1.2	(23.6)	18.7	(4.9)
Ireland	(7.2)	7.1	(0.1)	(0.7)	0.6	(0.1)
Portugal	(32.9)	33.2	0.3	(2.8)	2.7	(0.1)
Greece	(7.7)	7.7	—	(0.7)	0.7	—
Total	\$ (280.0)	\$ 281.2	\$ 1.2	\$ (35.6)	\$ 30.1	\$ (5.5)

Under the Firm's internal country risk management approach, credit derivatives are generally reported based on the country where the majority of the assets of the reference entity are located. Exposures are measured assuming that all of the reference entities in a particular country default simultaneously with zero recovery. For example, single-name and index credit derivatives are measured at the notional amount, net of the fair value of the derivative receivable or payable. Exposures for index credit derivatives, which may include several underlying reference entities, are determined by evaluating the relevant country for each of the reference entities underlying the named index, and allocating the applicable amount of the notional and fair value of the index credit derivative to each of the relevant countries. Tranching credit derivatives are measured at the modeled change in value of the derivative assuming the simultaneous default of all underlying reference entities in a specific country; this approach considers the tranching nature of the derivative (i.e., that some tranches are subordinate to others) and the Firm's own position in the structure.

The "Total" line in the table above represents the simple sum of the individual countries. Changes in the Firm's methodology or assumptions would produce different results.

The credit derivatives reflected in the "Portfolio hedging" column are predominantly single-name CDS used in the Firm's credit portfolio management activities, which are intended to mitigate the credit risk associated with traditional lending activities and derivative counterparty

exposure. The effectiveness of the Firm's CDS protection as a hedge of the Firm's exposures may vary depending upon a number of factors, including the maturity of the Firm's CDS protection, the named reference entity, and the contractual terms of the CDS. For further information about credit derivatives see Credit derivatives on pages 137-138, and Note 6 on pages 220-233 of this Annual Report.

The Firm's net presentation of purchased and sold credit derivatives reflects the manner in which this exposure is managed, and reflects, in the Firm's view, the substantial mitigation of market and counterparty credit risk in its credit derivative activities. Market risk is substantially mitigated because market-making activities, and to a lesser extent, hedging activities, often result in selling and purchasing protection related to the same underlying reference entity. For example, for each of the five named countries as of December 31, 2013, the protection sold by the Firm was more than 94% offset by protection purchased on the identical reference entity.

In addition, counterparty credit risk has also been substantially mitigated by the master netting and collateral agreements in place for these credit derivatives. As of December 31, 2013, 100% of the purchased protection presented in the table above is purchased under contracts that require posting of cash collateral; 88% is purchased from investment-grade counterparties domiciled outside of the selected European countries; and 68% of the protection purchased offsets protection sold on the identical reference entity, with the identical counterparty subject to a master netting agreement.

MODEL RISK MANAGEMENT

Model risk

The Firm uses models, for many purposes, but primarily for the measurement, monitoring and management of risk positions. Valuation models are employed by the Firm to value certain financial instruments which cannot otherwise be valued using quoted prices. These valuation models may also be employed as inputs to risk management models, including VaR and economic stress models. The Firm also makes use of models for a number of other purposes, including the calculation of regulatory capital requirements and estimating the allowance for credit losses.

Models are owned by various functions within the Firm based on the specific purposes of such models. For example, VaR models and certain regulatory capital models are owned by the line-of-business aligned risk management functions. Owners of models are responsible for the development, implementation and testing of their models, as well as referral of models to the Model Risk function (within the Model Risk and Development unit) for review and approval. Once models have been approved, model owners are responsible for the maintenance of a robust operating environment and must monitor and evaluate the performance of the models on an ongoing basis. Model owners may seek to enhance models in response to changes in the portfolios and for changes in product and market developments, as well as to capture improvements in available modeling techniques and systems capabilities.

The Model Risk function is part of the Firm's Model Risk and Development unit, which in turn reports to the Chief Risk Officer. The Model Risk function is independent of the model owners and reviews and approves a wide range of models, including risk management, valuation and certain regulatory capital models used by the Firm.

Models are tiered based on an internal standard according to their complexity, the exposure associated with the model and the Firm's reliance on the model. This tiering is subject to the approval of the Model Risk function. A model review conducted by the Model Risk function considers the model's

suitability for the specific uses to which it will be put. The factors considered in reviewing a model include whether the model accurately reflects the characteristics of the product and its significant risks, the selection and reliability of model inputs, consistency with models for similar products, the appropriateness of any model-related adjustments, and sensitivity to input parameters and assumptions that cannot be observed from the market. When reviewing a model, the Model Risk function analyzes and challenges the model methodology and the reasonableness of model assumptions and may perform or require additional testing, including back-testing of model outcomes. Model reviews are approved by the appropriate level of management within the Model Risk function based on the relevant tier of the model.

Under the Firm's model risk policy, new models, as well as material changes to existing models, are reviewed and approved by the Model Risk function prior to implementation in the operating environment.

In the event that the Model Risk function does not approve a model, the model owner is required to remediate the model within a time period agreed upon with the Model Risk function. The model owner is also required to resubmit the model for review to the Model Risk function and to take appropriate actions to mitigate the model risk if it is to be used in the interim. These actions will depend on the model and may include, for example, limitation of trading activity. The Firm may also implement other appropriate risk measurement tools to augment the model that is subject to remediation.

Exceptions to the Firm's model risk policy may be granted by the head of the Model Risk function to allow a model to be used prior to review or approval.

For a summary of valuations based on models, see Critical Accounting Estimates Used by the Firm on pages 176-177 and Note 3 on pages 195-215 of this Annual Report.

PRINCIPAL RISK MANAGEMENT

Principal investments are predominantly privately-held financial assets and instruments, typically representing an ownership or junior capital position, that have unique risks due to their illiquidity or for which there is less observable market or valuation data. Such investing activities, including private equity investments, mezzanine financing, and tax-oriented investments are typically intended to be held over extended investment periods and, accordingly, the Firm has no expectation for short-term gain with respect to these investments.

The Firm's approach to managing principal risk is consistent with the Firm's general risk governance structure. A firm-wide risk policy framework exists for all principal investing activities. All investments are approved by investment committees that include executives who are independent from the investing businesses. An independent valuation function is responsible for reviewing the appropriateness of the carrying values of principal investments, in accordance with relevant accounting, valuation and risk policies. Targeted levels for total and annual investments are established in order to manage the overall size of the portfolios. Industry, geographic, and position level

concentration limits are in place and intended to ensure diversification of the portfolios. The Firm also conducts stress testing on these portfolios using specific scenarios that estimate losses based on significant market moves and/or other risk events.

The Firm's principal investments are managed under various lines of business and are captured within the respective LOB's financial results. Principal investments cover multiple asset classes and occur either as a standalone investing businesses or as part of a broader business platform. Asset classes include private equity, tax equity investments including affordable housing, and mezzanine/junior debt investments. The majority of the Firm's private equity is reported separately under Corporate/Private Equity (for detailed information, see Private Equity portfolio on page 111 of this Annual Report).

OPERATIONAL RISK MANAGEMENT

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, human factors or external events.

Overview

Operational risk is inherent in each of the Firm's businesses and support activities. Operational risk can manifest itself in various ways, including errors, fraudulent acts, business interruptions, inappropriate behavior of employees, or vendors that do not perform in accordance with their arrangements. These events could result in financial losses, including litigation and regulatory fines, as well as other damage to the Firm, including reputational harm. To monitor and control operational risk, the Firm maintains an overall framework that includes oversight and governance, policies and procedures, consistent practices across the lines of business, and enterprise risk management tools intended to provide a sound and well-controlled operational environment.

The framework clarifies:

- Roles and Responsibilities
 - Ownership of the risk by the businesses and functional areas
 - Monitoring and validation by business control officers
 - Oversight by independent risk management
- Governance through business risk and control committees
- Risk Categories
- Independent review by Internal Audit
- Tools to measure, monitor, and mitigate risk

The goal is to keep operational risk at appropriate levels, in light of the Firm's financial strength, the characteristics of its businesses, the markets in which it operates, and the competitive and regulatory environment to which it is subject.

In order to strengthen the focus on the Firm's control environment and drive consistent practices across businesses and functional areas, the Firm established a Firmwide Oversight and Control Group during 2012. Oversight and Control is comprised of dedicated control officers within each of the lines of business and Corporate functional areas, as well as a central oversight team. The group is charged with enhancing the Firm's controls by looking within and across the lines of business and Corporate functional areas to identify and control issues. The group enables the Firm to detect control problems more quickly, escalate issues promptly and get the right people involved to understand common themes and interdependencies among the various parts of the Firm. The group works closely with the Firm's other control-related functions, including Compliance, Legal, Internal Audit and Risk Management, to effectively remediate identified control issues across all affected areas of the Firm. As a result, the group facilitates the effective execution of the

Firm's control framework and helps support operational risk management across the Firm.

Risk Management is responsible for defining the Operational Risk Management Framework and providing independent oversight of the framework across the Firm.

Operational risk management framework

The Firm's approach to operational risk management is intended to identify potential issues and mitigate losses by supplementing traditional control-based approaches to operational risk with risk measures, tools and disciplines that are risk-specific, consistently applied and utilized firmwide. Key themes are transparency of information, escalation of key issues and accountability for issue resolution.

In addition to the standard Basel risk event categories, the Firm has developed the operational risk categorization taxonomy below for purposes of identification, monitoring, reporting and analysis:

- Fraud risk
- Market practices
- Client management
- Processing error
- Financial reporting error
- Information risk
- Technology risk (including cybersecurity risk)
- Third-party risk
- Disruption and safety risk
- Employee risk
- Risk management error (including model risk)
- Oversight and governance errors

Key components of the Operational Risk Management Framework include:

Risk governance

The Firmwide Control Committee ("FCC") provides a forum for senior management to review and discuss firmwide operational risks including existing and emerging issues as well as operational risk metrics, management and execution. The FCC serves as an escalation point for significant issues raised from LOB and Functional Control Committees, particularly those with potential enterprise-wide impact. The FCC (as well as the LOB and Functional Control Committees) oversees the risk and control environment, which includes reviewing the identification, management and monitoring of operational risk, control issues, remediation actions and enterprise-wide trends. The FCC escalates significant issues to the FRC.

Management's discussion and analysis

Risk identification assessment

In order to evaluate and monitor operational risk, businesses and functions utilize the Firm's standard risk and control self-assessment ("RCSA") process and supporting architecture. The RCSA process requires management to identify material inherent operational risks, assess the design and operating effectiveness of relevant controls designed to mitigate such risks, and evaluate residual risk.

Action plans are developed for control issues that are identified, and businesses are held accountable for tracking and resolving issues on a timely basis.

Risk monitoring

The Firm has a process for monitoring operational risk event data, which permits analysis of errors and losses as well as trends. Such analysis, performed both at a line of business level and by risk-event type, enables identification of the causes associated with risk events faced by the businesses. Where available, the internal data can be supplemented with external data for comparative analysis with industry patterns.

Risk reporting and analysis

Operational risk management reports provide information, including actual operational loss levels, self-assessment results and the status of issue resolution to the lines of business and senior management. The purpose of these reports is to enable management to maintain operational risk at appropriate levels within each line of business, to escalate issues and to provide consistent data aggregation across the Firm's businesses and functions.

Risk measurement

Operational risk is measured using a statistical model based on the loss distribution approach. The operational risk capital model uses actual losses, a comprehensive inventory of forward looking potential loss scenarios and adjustments to reflect changes in the quality of the control environment in determining firmwide operational risk capital. This methodology is designed to comply with the Advanced Measurement rules under the Basel framework. For additional information on operational risk capital, see Regulatory Capital on pages 161-165 of this Annual Report.

Operational risk management system

The Firm's operational risk framework is supported by Phoenix, an internally designed operational risk system, which integrates the individual components of the operational risk management framework into a unified, web-based tool. Phoenix enhances the capture, reporting and analysis of operational risk data by enabling risk identification, measurement, monitoring, reporting and analysis to be done in an integrated manner across the Firm.

Audit alignment

Internal Audit utilizes a risk-based program of audit coverage to provide an independent assessment of the design and effectiveness of key controls over the Firm's operations, regulatory compliance and reporting. This includes reviewing the operational risk framework, the effectiveness of the business self-assessment process, and the loss data-collection and reporting activities.

Insurance

One of the ways operational loss is mitigated is through insurance maintained by the Firm. The Firm purchases insurance to be in compliance with local laws and regulations (e.g., workers compensation), as well as to serve other needs (e.g., property loss and public liability). Insurance may also be required by third parties with whom the Firm does business. The insurance purchased is reviewed and approved by senior management.

Cybersecurity

The Firm devotes significant resources to maintain and regularly update its systems and processes that are designed to protect the security of the Firm's computer systems, software, networks and other technology assets against attempts by third parties to obtain unauthorized access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage. The Firm and several other U.S. financial institutions continue to experience significant distributed denial-of-service attacks from technically sophisticated and well-resourced third parties which are intended to disrupt online banking services. The Firm is also regularly targeted by third-parties using malicious code and viruses, and has also experienced other attempts to breach the security of the Firm's systems and data which, in certain instances, have resulted in unauthorized access to customer account data. The Firm has established, and continues to establish, defenses on an ongoing basis to mitigate these attacks, and these cyberattacks have not, to date, resulted in any material disruption of the Firm's operations, material harm to the Firm's customers, and have not had a material adverse effect on the Firm's results of operations.

Third parties with which the Firm does business or that facilitate the Firm's business activities (e.g., vendors, exchanges, clearing houses, central depositories, and financial intermediaries) could also be sources of cybersecurity risk to the Firm, including with respect to breakdowns or failures of their systems, misconduct by the employees of such parties, or cyberattacks which could affect their ability to deliver a product or service to the Firm or result in lost or compromised information of the Firm or its clients.

The Firm is working with appropriate government agencies and other businesses, including the Firm's third-party service providers, to continue to enhance defenses and improve resiliency to cybersecurity threats.

Business resiliency

JPMorgan Chase's global resiliency and crisis management program is intended to ensure that the Firm has the ability to recover its critical business functions and supporting assets (i.e., staff, technology and facilities) in the event of a business interruption, and to remain in compliance with global laws and regulations as they relate to resiliency risk. The program includes corporate governance, awareness and training, as well as strategic and tactical initiatives to ensure that risks are properly identified, assessed, and managed.

The Firm's Global Resiliency team has established comprehensive and qualitative tracking and reporting of resiliency plans in order to proactively anticipate and manage various potential disruptive circumstances such as severe weather, technology and communications outages, flooding, mass transit shutdowns and terrorist threats,

among others. The resiliency measures utilized by the Firm include backup infrastructure for data centers, a geographically distributed workforce, dedicated recovery facilities, ensuring technological capabilities to support remote work capacity for displaced staff and accommodation of employees at alternate locations. JPMorgan Chase continues to coordinate its global resiliency program across the Firm and mitigate business continuity risks by reviewing and testing recovery procedures. The strength and proficiency of the Firm's global resiliency program has played an integral role in maintaining the Firm's business operations during and quickly after various events that have resulted in business interruptions, such as Superstorm Sandy and Hurricane Isaac in the U.S., monsoon rains in the Philippines, tsunamis in Asia, and earthquakes in Latin America.

LEGAL RISK, REGULATORY RISK, AND COMPLIANCE RISK MANAGEMENT

The Firm's success depends not only on its prudent management of the liquidity, capital, credit, market, principal and operational risks that are part of its business risks, but equally on the recognition among its many constituents – customers and clients, employees, investors, government officials, regulators, as well as the general public – that the Firm adheres consistently to a set of core values that drive the way the Firm conducts business. The Firm has established policies and procedures, and has in place various oversight functions intended to promote its core values and the Firm's culture of “doing the right thing” by doing “first class business in a first class way”.

The Firm has in place a Code of Conduct (the “Code”), and each employee is given annual training in respect of the Code and is required annually to affirm his or her compliance with the Code. The Code sets forth the Firm's core principles and fundamental values, including that no employee should ever sacrifice integrity – or give the impression that he or she has – even if one thinks it would help the Firm's business. The Code requires prompt reporting of any known or suspected violation of the Code, any internal Firm policy, or any law or regulation applicable to the Firm's business. It also requires the reporting of any illegal conduct, or conduct that violates the underlying principles of the Code, by any of the Firm's customers, suppliers, contract workers, business partners, or agents. Specified employees are specially trained and designated as “code specialists” who act as a resource to employees on Code of Conduct matters. In addition, concerns may be reported anonymously and the Firm prohibits retaliation against employees for the good faith reporting of any actual or suspected violations of the Code.

Management of conflicts of interest is essential to the maintenance of the Firm's client relationships, and its reputation. Each of the various committees of senior management that oversee and approve transactions and activities undertaken by the Firm are responsible for considering any potential conflicts that may arise from such transactions or activities. In addition, the Firm's Conflicts Office examines the Firm's wholesale transactions that may have the potential to create conflicts of interest for the Firm.

The risk of legal or regulatory fines or sanctions or of financial damage or loss due to the failure to comply with laws, rules, and regulations, is a primary focus of the Legal, Compliance and Oversight and Controls functions. In recent years, the Firm has experienced heightened scrutiny by its regulators of its compliance with regulations, and with respect to its controls and operational processes. The Firm expects such regulatory scrutiny will continue, and that regulators will increasingly use formal actions (such as Consent Orders) instead of informal supervisory actions (such as “Matters Requiring Attention”), resulting in findings of violations of law and impositions of fines and penalties.

In addition to providing legal services and advice to the Firm, and communicating and helping businesses adjust to the legal and regulatory changes facing the businesses, including the heightened scrutiny and expectations of its regulators, the global Legal function is responsible for partnering with the businesses to fully understand and assess the businesses' adherence to laws and regulations, as well as potential exposures on key litigation and transactional matters.

Global Compliance Risk Management is responsible for identifying and advising on compliance risks, establishing policies and procedures intended to mitigate and control compliance risks, implementing training and communication forums to provide appropriate oversight and coordination of compliance risks, overseeing remediation of compliance risks and issues, and independently monitoring and testing the Firm's compliance risk controls.

Legal and Compliance, together with the Oversight and Control function, share responsibility with the businesses for identifying legal, compliance and regulatory issues, escalating these issues through the Firm's risk governance structures, and, as necessary, in assisting the businesses in their remediation efforts. For information about the Oversight & Control function, see Enterprise-Wide Risk Management on pages 113–173.

FIDUCIARY RISK MANAGEMENT

Fiduciary risk is the risk of failing to exercise the applicable standard of loyalty and care, or to act in the best interests of clients or to treat all clients fairly as required under applicable law or regulation, potentially resulting in regulatory action, reputational harm or financial liability.

Depending on the fiduciary activity and capacity in which the Firm is acting, federal and state statutes, common law and regulations require the Firm to adhere to specific duties in which the Firm must always place the client's interests above its own.

Fiduciary risk governance

Fiduciary Risk Management is the responsibility of the relevant LOB risk committees. Senior business, legal, risk and compliance management, who have particular responsibility for fiduciary issues, work with the relevant LOB risk committees with the goal of ensuring that businesses providing investment, trusts and estates, or other fiduciary products or services that give rise to fiduciary duties to clients, perform at the appropriate standard relative to their fiduciary relationship with a client. Each LOB and its respective risk and governance committees are responsible for the oversight and management of the fiduciary risks in their businesses. Of particular focus are the policies and practices that address a business' responsibilities to a client, including performance and service requirements and expectations; client suitability determinations; and disclosure obligations and communications. In this way, the relevant LOB risk committees provide oversight of the Firm's efforts to monitor, measure and control the performance and risks that may arise in the delivery of products or services to clients that give rise to such fiduciary duties, as well as those stemming from any of the Firm's fiduciary responsibilities under the Firm's various employee benefit plans.

During 2013 the Firm created the Firmwide Fiduciary Risk Committee ("FFRC"). The FFRC provides a forum for discussing the risks inherent in the Firm's fiduciary activities. The Committee is responsible for a cross-LOB process to support the consistent identification, escalation and reporting of fiduciary risk issues firmwide. Issues from the FFRC may be escalated to the Firmwide Risk Committee.

REPUTATION RISK MANAGEMENT

Maintenance of the Firm's reputation is the responsibility of each individual employee of the Firm. The Firm's Reputation Risk policy explicitly vests each employee with the responsibility to consider the reputation of the Firm, rather than business benefits and regulatory requirements alone, in deciding whether to pursue any new product, transaction, client, or any other activity. Since the types of events that could harm the Firm's reputation are so varied across the Firm's lines of business, each line of business has a separate reputation risk governance infrastructure in place, which comprises three key elements: clear, documented escalation criteria appropriate to the business footprint; a designated primary discussion forum - in most cases, one or more dedicated reputation risk committees; and a list of designated contacts. Line of business reputation risk governance is overseen by a Firmwide Reputation Risk Governance function, which provides oversight of the governance infrastructure and process to support the consistent identification, escalation, management and reporting of reputation risk issues firmwide.

CAPITAL MANAGEMENT

A strong capital position is essential to the Firm's business strategy and competitive position. The Firm's capital strategy focuses on long-term stability, which enables the Firm to build and invest in market-leading businesses, even in a highly stressed environment. Prior to making any decisions on future business activities, senior management considers the implications on the Firm's capital. In addition to considering the Firm's earnings outlook, senior management evaluates all sources and uses of capital with a view to preserving the Firm's capital strength. Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative by the Firm's Board of Directors, CEO and Operating Committee. The Firm's balance sheet philosophy focuses on risk-adjusted returns, strong capital and reserves, and robust liquidity.

The Firm's capital management objectives are to hold capital sufficient to:

- Cover all material risks underlying the Firm's business activities;
- Maintain "well-capitalized" status under regulatory requirements;
- Maintain debt ratings that enable the Firm to optimize its funding mix and liquidity sources while minimizing costs;
- Retain flexibility to take advantage of future investment opportunities;
- Maintain sufficient capital in order to continue to build and invest in its businesses through the cycle and in stressed environments; and
- Distribute excess capital to shareholders while balancing other stated objectives.

These objectives are achieved through ongoing monitoring of the Firm's capital position, regular stress testing, and a capital governance framework. Capital management is intended to be flexible in order to react to a range of potential events. JPMorgan Chase has firmwide and LOB processes for ongoing monitoring and active management of its capital position.

Capital strategy and governance

The Firm's CEO and Operating Committee establish principles and guidelines for capital planning, capital issuance, usage and distributions; and, establish capital targets and minimums for the level and composition of capital in both business-as-usual and highly-stressed environments.

The Firm's capital targets and minimums are calibrated to the U.S. Basel III requirements. The Firm's target Tier 1 common ratio under the Basel III Advanced approach, on a fully phased-in basis, is 10%+. This long-term Tier 1 common ratio target level will enable the Firm to retain market access, continue the Firm's strategy to invest in and grow its businesses; and, maintain flexibility to distribute excess capital. The Firm intends to manage its capital so that it achieves the required capital levels and composition

during the transition from Basel I to Basel III, in line with, or ahead of, the required timetable.

The Firm's senior management recognizes the importance of a capital management function that supports strategic decision-making. The Firm has established the Capital Governance Committee and the Regulatory Capital Management Office ("RCMO") as key components in support of this objective. The Capital Governance Committee is responsible for reviewing the Firm's Capital Management Policy and the principles underlying capital issuance and distribution alternatives. The Committee is also responsible for governing the capital adequacy assessment process, including overall design, assumptions and risk streams, and ensuring that capital stress test programs are designed to adequately capture the idiosyncratic risks across the Firm's businesses. The RCMO is responsible for reviewing, approving and monitoring the implementation of the Firm's capital policies and strategies, as well as its capital adequacy assessment process. The Board of Director's Risk Policy Committee assesses the Firm's capital adequacy process and its components. This review encompasses determining the effectiveness of the capital adequacy process, the appropriateness of the risk tolerance levels, and the strength of the control infrastructure. For additional discussion on the Board's Risk Policy Committee, see Risk Management on pages 113-173 of this Annual Report.

Internal Capital Adequacy Assessment Process

Semiannually, the Firm completes the Internal Capital Adequacy Assessment Process ("ICAAP"), which provides management with a view of the impact of severe and unexpected events on earnings, balance sheet positions, reserves and capital. The Firm's ICAAP integrates stress testing protocols with capital planning.

The process assesses the potential impact of alternative economic and business scenarios on the Firm's earnings and capital. Economic scenarios, and the parameters underlying those scenarios, are defined centrally and applied uniformly across the businesses. These scenarios are articulated in terms of macroeconomic factors, which are key drivers of business results; global market shocks, which generate short-term but severe trading losses; and idiosyncratic operational risk events. The scenarios are intended to capture and stress key vulnerabilities and idiosyncratic risks facing the Firm. However, when defining a broad range of scenarios, realized events can always be worse. Accordingly, management considers additional stresses outside these scenarios, as necessary. ICAAP results are reviewed by management and the Board of Directors.

Comprehensive Capital Analysis and Review ("CCAR")

The Federal Reserve requires large bank holding companies, including the Firm, to submit a capital plan on an annual basis. The Federal Reserve uses the CCAR and Dodd-Frank Act Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") stress test processes

to ensure that large bank holding companies have sufficient capital during periods of economic and financial stress, and have robust, forward-looking capital assessment and planning processes in place that address each bank holding company's unique risks to enable them to have the ability to absorb losses under certain stress scenarios. Through the CCAR, the Federal Reserve evaluates each bank holding company's capital adequacy and internal capital adequacy assessment processes, as well as its plans to make capital distributions, such as dividend payments or stock repurchases.

The Firm's CCAR process is integrated into and employs the same methodologies utilized in the Firm's ICAAP process. On January 7, 2013, the Firm submitted its capital plan to the Federal Reserve under the Federal Reserve's 2013 CCAR process. On March 14, 2013, the Federal Reserve informed the Firm that it did not object to the Firm's 2013 capital plan, but asked the Firm to submit an additional capital plan.

On September 18, 2013, the Firm submitted the additional capital plan which addressed the weaknesses the Federal Reserve had identified in the Firm's original 2013 submission. On December 2, 2013, the Federal Reserve informed the Firm it did not object to the Firm's 2013 capital plan, as resubmitted.

On January 6, 2014, the Firm submitted its 2014 capital plan to the Federal Reserve under the Federal Reserve's 2014 CCAR process. The Firm expects to receive the Federal Reserve's final response to its plan no later than March 14, 2014.

For additional information on the Firm's capital actions, see Capital actions on pages 166-167, and Notes 22 and 23 on pages 309 and 310, respectively, of this Annual Report.

Capital Disciplines

The Firm uses three primary capital disciplines:

- *Regulatory capital*
- *Economic capital*
- *Line of business equity*

Regulatory capital

The Federal Reserve establishes capital requirements, including well-capitalized standards, for the consolidated financial holding company. The Office of the Comptroller of the Currency ("OCC") establishes similar capital requirements and standards for the Firm's national banks, including JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A.

In connection with the U.S. Government's Supervisory Capital Assessment Program in 2009 ("SCAP"), U.S. banking regulators developed an additional measure of capital, Tier 1 common, which is defined as Tier 1 capital less elements of Tier 1 capital not in the form of common equity, such as perpetual preferred stock, noncontrolling interests in subsidiaries and trust preferred securities. In 2013, the Federal Reserve employed a minimum 5% Tier 1 common ratio standard for CCAR purposes, in addition to other minimum capital requirements, to assess a bank holding company's capital adequacy. For the 2014 CCAR process, the Federal Reserve has introduced a requirement to include, in addition to the Basel I Tier 1 common standards, a Basel III Tier 1 common test with a minimum of 4% for 2014 projections and 4.5% for 2015 projections.

Basel I and Basel 2.5

The minimum U.S. risk-based capital requirements in effect on December 31, 2013, follow the Capital Accord ("Basel I") of the Basel Committee. In June 2012, U.S. federal banking agencies published the final rule that specifies revised market risk regulatory capital requirements ("Basel 2.5"). While the Firm is still subject to the capital requirements of Basel I, Basel 2.5 rules also became effective for the Firm on January 1, 2013. The Basel 2.5 final rule revised the scope of positions subject to the market risk capital requirements and introduced new market risk measures, which resulted in additional capital requirements for covered positions as defined. The implementation of Basel 2.5 in the first quarter of 2013 resulted in an increase of approximately \$150 billion in RWA compared with the Basel I rules at March 31, 2013. The implementation of these rules also resulted in decreases of the Firm's Tier 1 capital, Total capital and Tier 1 common capital ratios by 140 basis points, 160 basis points and 120 basis points, respectively, at March 31, 2013.

Management's discussion and analysis

A reconciliation of total stockholders' equity to Tier 1 common, Tier 1 capital and Total qualifying capital is presented in the table below.

Risk-based capital components and assets

December 31, (in millions)	2013	2012
Total stockholders' equity	\$ 211,178	\$ 204,069
Less: Preferred stock	11,158	9,058
Common stockholders' equity	200,020	195,011
Effect of certain items in accumulated other comprehensive income/(loss) excluded from Tier 1 common	(1,337)	(4,198)
Less: Goodwill ^(a)	45,320	45,663
Other intangible assets ^(a)	2,012	2,311
Fair value DVA on structured notes and derivative liabilities related to the Firm's credit quality	1,300	1,577
Investments in certain subsidiaries and other	1,164	920
Tier 1 common	148,887	140,342
Preferred stock	11,158	9,058
Qualifying hybrid securities and noncontrolling interests ^(b)	5,618	10,608
Other	—	(6)
Total Tier 1 capital	165,663	160,002
Long-term debt and other instruments qualifying as Tier 2	16,695	18,061
Qualifying allowance for credit losses	16,969	15,995
Other	(41)	(22)
Total Tier 2 capital	33,623	34,034
Total qualifying capital	\$ 199,286	\$ 194,036
Credit risk RWA	\$ 1,223,147	\$ 1,156,102
Market risk RWA	164,716	114,276
Total RWA	\$ 1,387,863	\$ 1,270,378
Total adjusted average assets	\$ 2,343,713	\$ 2,243,242

- (a) Goodwill and other intangible assets are net of any associated deferred tax liabilities.
- (b) Primarily includes trust preferred securities of certain business trusts. Under the Basel III interim final rule published by U.S. federal banking agencies in October 2013, trust preferred securities will be phased out from inclusion as Tier 1 capital, but included as Tier 2 capital, beginning in 2014 through the end of 2015 and phased out from inclusion as Tier 2 capital beginning in 2016 through the end of 2021.

Capital rollforward

The following table presents the changes in Basel I Tier 1 common, Tier 1 capital and Tier 2 capital for the year ended December 31, 2013.

Year ended December 31, (in millions)	2013
Tier 1 common at December 31, 2012	\$ 140,342
Net income applicable to common equity	17,118
Dividends declared on common stock	(5,585)
Net issuance of treasury stock	(2,845)
Changes in capital surplus	(776)
Effect of certain items in accumulated other comprehensive income/(loss) excluded from Tier 1 common	(40)
Qualifying noncontrolling minority interests in consolidated subsidiaries	(47)
DVA on structured notes and derivative liabilities	277
Goodwill and other nonqualifying intangibles (net of deferred tax liabilities)	642
Other	(199)
Increase in Tier 1 common	8,545
Tier 1 common at December 31, 2013	\$ 148,887
Tier 1 capital at December 31, 2012	\$ 160,002
Change in Tier 1 common	8,545
Net issuance of noncumulative perpetual preferred stock	2,100
Redemption of qualifying trust preferred securities	(4,942)
Other	(42)
Increase in Tier 1 capital	5,661
Tier 1 capital at December 31, 2013	\$ 165,663
Tier 2 capital at December 31, 2012	\$ 34,034
Change in long-term debt and other instruments qualifying as Tier 2	(1,366)
Change in allowance for credit losses	974
Other	(19)
Decrease in Tier 2 capital	(411)
Tier 2 capital at December 31, 2013	\$ 33,623
Total capital at December 31, 2013	\$ 199,286

RWA Rollforward

The following table presents the changes in the credit risk and market risk components of RWA under Basel I including Basel 2.5 for the year ended December 31, 2013. The rollforward categories are estimates, based on the predominant driver of the change.

(in billions)	Year ended December 31, 2013		
	Credit risk RWA	Market risk RWA	Total RWA
RWA at December 31, 2012	\$ 1,156	\$ 114	\$ 1,270
Rule changes ^(a)	39	134	
Model & data changes ^(b)	24	1	
Portfolio runoff ^(c)	(11)	(45)	
Movement in portfolio levels ^(d)	15	(39)	
Increase in RWA	67	51	118
RWA at December 31, 2013	\$ 1,223	\$ 165	\$ 1,388

(a) Rule changes refer to movements in RWA as a result of changes in regulations, in particular, Basel 2.5, which resulted in certain positions previously captured under market risk under Basel I being included as noncovered positions under credit risk RWA.

(b) Model & data changes refer to movements in RWA as a result of revised methodologies and/or treatment per regulatory guidance (exclusive of rule changes).

(c) Portfolio runoff for credit risk RWA reflects lower loan balances in Mortgage Banking and for market risk RWA reflects reduced risk from position rollofs, including changes in the synthetic credit portfolio.

(d) Movement in portfolio levels for credit risk RWA refers to changes in book size, composition, quality, as well as market movements; and for market risk RWA, refers to changes in position and market movements.

The following table presents the risk-based capital ratios for JPMorgan Chase at December 31, 2013 and 2012, under Basel I (and, for December 31, 2013, inclusive of Basel 2.5)

Risk-based capital ratios

December 31,	2013	2012
Capital ratios		
Tier 1 capital	11.9%	12.6%
Total capital	14.4	15.3
Tier 1 leverage	7.1	7.1
Tier 1 common ^(a)	10.7	11.0

(a) The Tier 1 common ratio is Tier 1 common capital divided by RWA.

At December 31, 2013 and 2012, JPMorgan Chase maintained Basel I Tier 1 and Total capital ratios in excess of the well-capitalized standards established by the Federal Reserve. In addition, at December 31, 2013 and 2012, the Firm's Basel I Tier 1 common ratio was significantly above the 2013 5% CCAR standard.

Additional information regarding the Firm's capital ratios and the federal regulatory capital standards to which the Firm is subject is presented in Note 28 on pages 316–318 of this Annual Report and the Supervision and Regulation section of the 2013 10-K. For further information on the Firm's Basel 2.5 measures and additional market risk disclosures, see the Firm's consolidated Basel 2.5 Market Risk Pillar 3 Reports which are available on the Firm's website (<http://investor.shareholder.com/jpmorganchase/basel.cfm>) within 60 days after December 31, 2013.

Basel II & Basel III

U.S. banking regulators published a final Basel II rule in December 2007, which was intended to be more risk sensitive than Basel I and eventually replace Basel I for large and internationally active U.S. banks, including the Firm. The Firm has been reporting Basel II capital ratios in parallel to the banking agencies since 2008. In October 2013, U.S. federal banking agencies published an interim final rule implementing further revisions to the Capital Accord in the U.S.; such further revisions are commonly referred to as "Basel III." Basel III is comprised of a Standardized Approach and an Advanced Approach. For large and internationally active banks, including the Firm, both the Basel III Standardized and Advanced Approaches became effective commencing January 1, 2014.

For 2014, the Basel III Standardized Approach requires the Firm to calculate its capital ratios using the Basel III definition of capital divided by the Basel I definition of RWA, inclusive of Basel 2.5 for market risk. Commencing January 1, 2015 the Basel III Standardized Approach requires the Firm to calculate the ratios using the Basel III definition of capital divided by the Basel III Standardized RWA, inclusive of Basel 2.5 for market risk.

Prior to full implementation of the Basel III Advanced Approach, the Firm is required to complete a qualification period ("parallel run") of at least four consecutive quarters (inclusive of quarters in which the Firm reported in parallel under Basel II) during which it needs to demonstrate that it meets the requirements of the rule to the satisfaction of its U.S. banking regulators. Pursuant to the requirements of the Dodd-Frank Act, the Firm, upon exiting the Basel III Advanced Approach parallel run, will be required to calculate regulatory capital ratios under both the Standardized and Advanced Approaches. The Firm's capital adequacy will be evaluated against the approach that results in the lower ratio.

Basel III revises Basel I and II by, among other things, narrowing the definition of capital, and increasing capital requirements for specific exposures. Basel III introduces a new Tier 1 common ratio requirement which has a phase-in period from 2015 to 2019. By January 1, 2019, the minimum Tier 1 common ratio requirement is 7%, comprised of a minimum ratio of 4.5% plus a 2.5% capital conservation buffer.

Global systemically important banks ("GSIBs") will also be required to maintain Tier 1 common requirements above the 7% minimum, in amounts ranging from an additional 1% to an additional 2.5%. In November 2013, the Financial Stability Board ("FSB") indicated that it would require the Firm, as well as one other bank, to hold the additional 2.5% of Tier 1 common; the requirement will be phased in beginning in 2016. The Basel Committee also stated that certain GSIBs could be required to hold as much as an additional 3.5% of Tier 1 common above the 7% minimum if they were to take actions that further increase their systemic importance. Currently, no GSIB (including the

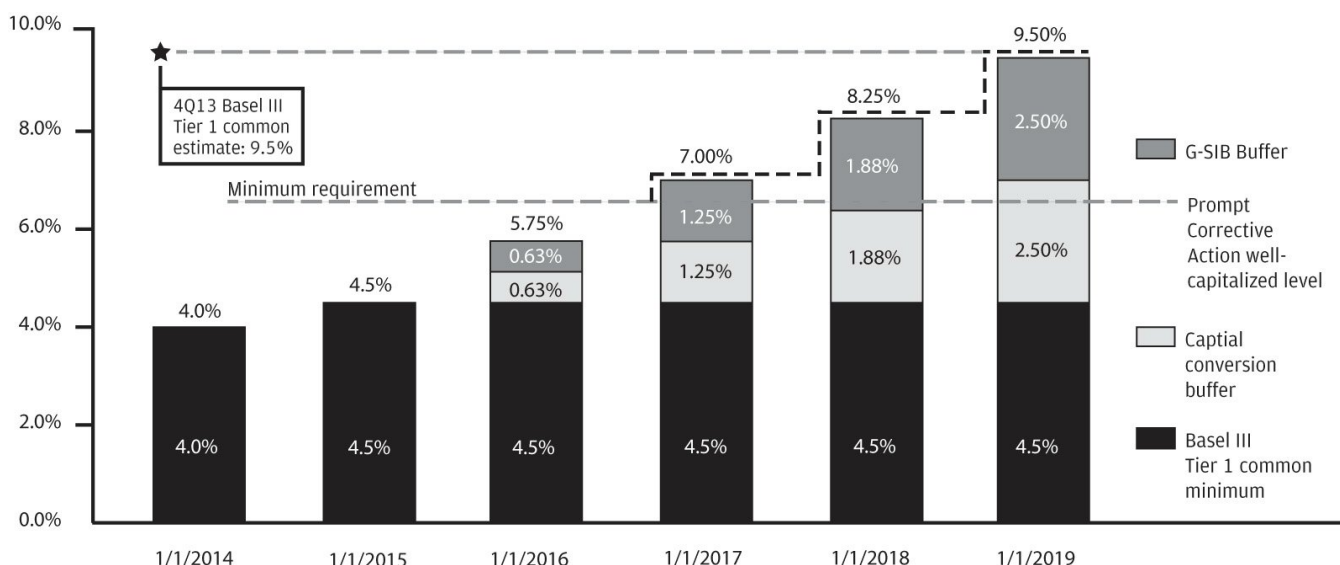
Management's discussion and analysis

Firm) is required to hold more than the additional 2.5% of Tier 1 common.

In addition, Basel III establishes a 6.5% Tier I common equity standard for the definition of "well capitalized"

under the Prompt Corrective Action ("PCA") requirements of the FDIC Improvement Act ("FDICIA"). The Tier I common equity standard is effective from the first quarter of 2015.

The following chart presents the Basel III minimum risk-based capital ratios during the transitional periods and on a fully phased-in basis. The chart also includes management's target for the Firm's Tier 1 common ratio. It is the Firm's current expectation that its Basel III Tier 1 common ratio will exceed the regulatory minimums, both during the transition period and upon full implementation in 2019 and thereafter.



The Firm estimates that its Tier 1 common ratio under the Basel III Advanced Approach on a fully phased-in basis would be 9.5% as of December 31, 2013, achieving management's previously stated objectives. The Tier 1 common ratio as calculated under the Basel III Standardized Approach is estimated at 9.4% as of December 31, 2013. The Tier 1 common ratio under both Basel I and Basel III are non-GAAP financial measures. However, such measures are used by bank regulators, investors and analysts to assess the Firm's capital position and to compare the Firm's capital to that of other financial services companies.

The following table presents a comparison of the Firm's Tier 1 common under Basel I rules to its estimated Tier 1 common under the Advanced Approach of the Basel III rules, along with the Firm's estimated risk-weighted assets. Key differences in the calculation of RWA between Basel I and Basel III Advanced Approach include: (1) Basel III credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas Basel I RWA is based on fixed supervisory risk-weightings which vary only by counterparty type and asset class; and (2) Basel III includes RWA for operational risk, whereas Basel I does not. Operational risk capital takes into consideration operational losses in the quarter following the period in which those losses were realized, and the calculation generally incorporates such losses irrespective of whether the issues or business activity giving rise to the losses have been remediated or reduced. The Firm's

operational risk capital model continues to be refined in conjunction with the Firm's Basel III Advanced Approach parallel run. As a result of model enhancements in 2013, as well as taking into consideration the legal expenses incurred by the Firm in 2013, the Firm's operational risk capital increased substantially in 2013 over 2012.

Tier 1 common under Basel III includes additional adjustments and deductions not included in Basel I Tier 1 common, such as the inclusion of accumulated other comprehensive income ("AOCI") related to AFS securities and defined benefit pension and other postretirement employee benefit ("OPEB") plans.

December 31, 2013
(in millions, except ratios)

Tier 1 common under Basel I rules	\$ 148,887
Adjustments related to AOCI for AFS securities and defined benefit pension and OPEB plans	1,474
Add back of Basel I deductions ^(a)	1,780
Deduction for deferred tax asset related to net operating loss and foreign tax credit carryforwards	(741)
All other adjustments	(198)
Estimated Tier 1 common under Basel III rules	\$ 151,202
Estimated risk-weighted assets under Basel III Advanced Approach^(b)	\$ 1,590,873
Estimated Tier 1 common ratio under Basel III Advanced Approach^(c)	9.5%

(a) Certain exposures, which are deducted from capital under Basel I, are risk-weighted under Basel III.

- (b) RWA under Basel III Advanced Approach is on a fully phased-in basis. Effective January 1, 2013, market risk RWA requirements under Basel 2.5 became largely consistent across Basel I and Basel III.
- (c) The Tier 1 common ratio under Basel III rules is Tier 1 common divided by RWA under Basel III Advanced Approach.

Additionally, the Firm estimates that its Tier 1 capital ratio under the Basel III Advanced Approach on a fully phased-in basis would be 10.2% as of December 31, 2013. The Tier 1 capital ratio as calculated under the Basel III Standardized Approach on a fully phased-in basis is estimated at 10.1% as of December 31, 2013.

Management's current objective is for the Firm to reach an estimated Basel III Tier I common ratio of 10%+ and a Basel III Tier 1 capital ratio of 11.0%, both by the end of 2014. Tier 1 common capital and the Tier 1 common and Tier 1 capital ratios under Basel III are all non-GAAP financial measures. However, such measures are used by bank regulators, investors and analysts to assess the Firm's capital position and to compare the Firm's capital to that of other financial services companies.

The Basel III interim final rule also includes a requirement for advanced approach banking organizations, including the Firm, to calculate a supplementary leverage ratio ("SLR"). The SLR, a non-GAAP financial measure, is defined as Tier 1 capital under Basel III divided by the Firm's total leverage exposure. Total leverage exposure is calculated by taking the Firm's total average on-balance sheet assets, less amounts permitted to be deducted for Tier 1 capital, and adding certain off-balance sheet exposures, such as undrawn commitments and derivatives future exposure.

Following approval of the Basel III interim final rule, the U.S. banking agencies issued proposed rulemaking relating to the SLR that would require U.S. bank holding companies, including JPMorgan Chase, to have a minimum SLR of at least 5% and insured depository institutions ("IDI"), including JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., to have a minimum SLR of at least 6%. The Firm and its IDI subsidiaries are not required to meet the minimum SLR until January 1, 2018. The Firm estimates, based on its current understanding of the U.S. rules, that if the rules were in effect at December 31, 2013, the Firm's SLR would have been approximately 4.7% and JPMorgan Chase Bank, N.A.'s SLR would have been approximately 4.7%. Management's current objective is to achieve an SLR of 5.5% for the Firm and an SLR of 6% for JPMorgan Chase Bank, N.A. each in advance of the SLR effective date.

On January 12, 2014, the Basel Committee issued a revised framework for the calculation of the denominator of the SLR. The estimated impact of these revisions would have been to reduce each of the Firm's SLR and J.P. Morgan Chase Bank, N.A.'s SLR by 10 basis points as of December 31, 2013.

The Firm's estimates of its Tier 1 common ratio under Basel III and of the Firm's and JPMorgan Chase Bank, N.A.'s SLR reflect its current understanding of the U.S. Basel III rules

based on the current published rules and on the application of such rules to its businesses as currently conducted. The actual impact on the Firm's capital and SLR ratios at the effective date of the rules may differ from the Firm's current estimates depending on changes the Firm may make to its businesses in the future, further implementation guidance from the regulators, and regulatory approval of certain of the Firm's internal risk models (or, alternatively, regulatory disapproval of the Firm's internal risk models that have previously been conditionally approved).

Economic risk capital

Economic risk capital is another of the disciplines the Firm uses to assess the capital required to support its businesses. Economic risk capital is a measure of the capital needed to cover JPMorgan Chase's business activities in the event of unexpected losses. The Firm measures economic risk capital using internal risk-assessment methodologies and models based primarily on four risk factors: credit, market, operational and private equity risk and considers factors, assumptions and inputs that differ from those required to be used for regulatory capital requirements. Accordingly economic risk capital provides a complementary measure to regulatory capital. As economic risk capital is a separate component of the capital framework for Advanced Approach banking organizations under Basel III, the Firm is currently in the process of enhancing its economic risk capital framework to address the Basel III interim final rule.

Line of business equity

The Firm's framework for allocating capital to its business segments is based on the following objectives:

- Integrate firmwide and line of business capital management activities;
- Measure performance consistently across all lines of business; and
- Provide comparability with peer firms for each of the lines of business

Equity for a line of business represents the amount the Firm believes the business would require if it were operating independently, considering capital levels for similarly rated peers, regulatory capital requirements (as estimated under Basel III) and economic risk measures. Capital is also allocated to each line of business for, among other things, goodwill and other intangibles associated with acquisitions effected by the line of business. ROE is measured and internal targets for expected returns are established as key measures of a business segment's performance.

Management's discussion and analysis

Line of business equity

Year ended December 31, (in billions)	Yearly average		
	2013	2012	2011
Consumer & Community Banking	\$ 46.0	\$ 43.0	\$ 41.0
Corporate & Investment Bank	56.5	47.5	47.0
Commercial Banking	13.5	9.5	8.0
Asset Management	9.0	7.0	6.5
Corporate/Private Equity	71.4	77.4	70.8
Total common stockholders' equity	\$ 196.4	\$ 184.4	\$ 173.3

Effective January 1, 2012, the Firm revised the capital allocated to each of its businesses, reflecting each segment's Basel III Tier 1 common capital requirements.

Effective January 1, 2013, the Firm further refined the capital allocation framework to align it with the revised line of business structure that became effective in the fourth quarter of 2012. The increase in equity levels for the lines of businesses was largely driven by the evolving regulatory requirements and higher capital targets the Firm has established under the Basel III Advanced Approach.

Effective January 1, 2014, the Firm further revised the capital allocated to certain businesses and will continue to assess the level of capital required for each line of business, as well as the assumptions and methodologies used to allocate capital to the business segments. Further refinements may be implemented in future periods.

Capital actions

Dividends

On March 18, 2011, the Board of Directors increased the Firm's quarterly common stock dividend from \$0.05 to \$0.25 per share, effective with the dividend paid on April 30, 2011, to shareholders of record on April 6, 2011.

On March 13, 2012, the Board of Directors increased the Firm's quarterly common stock dividend from \$0.25 to \$0.30 per share, effective with the dividend paid on April 30, 2012, to shareholders of record on April 5, 2012.

On May 21, 2013, the Board of Directors increased the Firm's quarterly common stock dividend from \$0.30 to \$0.38 per share, effective with the dividend paid on July 31, 2013, to shareholders of record on July 5, 2013.

The Firm's common stock dividend policy reflects JPMorgan Chase's earnings outlook, desired dividend payout ratio, capital objectives, and alternative investment opportunities.

The Firm's current expectation is to continue to target a payout ratio of approximately 30% of normalized earnings over time.

For information regarding dividend restrictions, see Note 22 and Note 27 on pages 309 and 316, respectively, of this Annual Report.

The following table shows the common dividend payout ratio based on reported net income.

Year ended December 31,	2013	2012	2011
Common dividend payout ratio	33%	23%	22%

Preferred stock

On August 27, 2012, the Firm issued \$1.3 billion of fixed-rate noncumulative perpetual preferred stock.

On February 5, 2013 the Firm issued \$900 million of noncumulative preferred stock. On each of April 23, 2013, and July 29, 2013, the Firm issued \$1.5 billion of noncumulative preferred stock.

The Firm redeemed all \$1.8 billion of its outstanding 8.625% noncumulative preferred stock, Series J on September 1, 2013.

On January 22, 2014, January 30, 2014, and February 6, 2014, the Firm issued \$2.0 billion, \$850 million, and \$75 million, respectively, of noncumulative preferred stock. For additional information on the Firm's preferred stock, see Note 22 on page 309 of this Annual Report.

Redemption of outstanding trust preferred securities

On May 8, 2013, the Firm redeemed approximately \$5.0 billion, or 100% of the liquidation amount, of the following eight series of trust preferred securities: JPMorgan Chase Capital X, XI, XII, XIV, XVI, XIX, XXIV, and BANK ONE Capital VI. For a further discussion of trust preferred securities, see Note 21 on pages 306-308 of this Annual Report.

Common equity repurchases

On March 13, 2012, the Board of Directors authorized a \$15.0 billion common equity (i.e., common stock and warrants) repurchase program. The amount of equity that may be repurchased is also subject to the amount that is set forth in the Firm's annual capital plan that is submitted to the Federal Reserve as part of the CCAR process. As part of this authorization, and in conjunction with the Firm's 2013 CCAR submission, the Board of Directors authorized the Firm to repurchase up to \$6 billion gross of common equity commencing with the second quarter of 2013 through the end of the first quarter of 2014. From April 1, 2013, through December 31, 2013, the Firm repurchased \$2.2 billion of common equity. The following table shows the Firm's repurchases of common equity for the years ended December 31, 2013, 2012 and 2011, on a trade-date basis. As of December 31, 2013, \$8.6 billion of authorized repurchase capacity remained under the \$15.0 billion repurchase program.

Year ended December 31, (in millions)	2013	2012	2011
Total number of shares of common stock repurchased	96	31	229
Aggregate purchase price of common stock repurchases	\$ 4,789	\$ 1,329	\$ 8,827
Total number of warrants repurchased	—	18	10
Aggregate purchase price of warrant repurchases	\$ —	\$ 238	\$ 122

The Firm may, from time to time, enter into written trading plans under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate repurchases in accordance with the common equity repurchase program. A Rule 10b5-1 repurchase plan allows the Firm to repurchase its equity during periods when it would not otherwise be repurchasing common equity – for example, during internal trading “black-out periods.” All purchases under a Rule 10b5-1 plan must be made according to a predefined plan established when the Firm is not aware of material nonpublic information.

The authorization to repurchase common equity will be utilized at management’s discretion, and the timing of purchases and the exact amount of common equity that may be repurchased is subject to various factors, including market conditions; legal and regulatory considerations affecting the amount and timing of repurchase activity; the Firm’s capital position (taking into account goodwill and intangibles); internal capital generation; and alternative investment opportunities. The repurchase program does not include specific price targets or timetables; may be executed through open market purchases or privately negotiated transactions, or utilizing Rule 10b5-1 programs; and may be suspended at any time.

For additional information regarding repurchases of the Firm’s equity securities, see Part II, Item 5: Market for registrant’s common equity, related stockholder matters and issuer purchases of equity securities on pages 20-21 of JPMorgan Chase’s 2013 Form 10-K.

Broker-dealer regulatory capital

JPMorgan Chase’s principal U.S. broker-dealer subsidiaries are J.P. Morgan Securities LLC (“JPMorgan Securities”) and J.P. Morgan Clearing Corp. (“JPMorgan Clearing”). JPMorgan Clearing is a subsidiary of JPMorgan Securities and provides clearing and settlement services. JPMorgan Securities and JPMorgan Clearing are each subject to Rule 15c3-1 under the Securities Exchange Act of 1934 (the “Net Capital Rule”). JPMorgan Securities and JPMorgan Clearing are also each registered as futures commission merchants and subject to Rule 1.17 of the Commodity Futures Trading Commission (“CFTC”).

JPMorgan Securities and JPMorgan Clearing have elected to compute their minimum net capital requirements in accordance with the “Alternative Net Capital Requirements” of the Net Capital Rule. At December 31, 2013, JPMorgan Securities’ net capital, as defined by the Net Capital Rule, was \$12.9 billion, exceeding the minimum requirement by \$10.8 billion, and JPMorgan Clearing’s net capital was \$7.1 billion, exceeding the minimum requirement by \$5.3 billion.

In addition to its minimum net capital requirement, JPMorgan Securities is required to hold tentative net capital in excess of \$1.0 billion and is also required to notify the Securities and Exchange Commission (“SEC”) in the event that tentative net capital is less than \$5.0 billion, in accordance with the market and credit risk standards of Appendix E of the Net Capital Rule. As of December 31, 2013, JPMorgan Securities had tentative net capital in excess of the minimum and notification requirements.

J.P. Morgan Securities plc (formerly J.P. Morgan Securities Ltd.) is a wholly owned subsidiary of JPMorgan Chase Bank, N.A. and is the Firm’s principal operating subsidiary in the U.K. It has authority to engage in banking, investment banking and broker-dealer activities.

J.P. Morgan Securities plc is jointly regulated by the U.K. Prudential Regulation Authority (“PRA”) and Financial Conduct Authority (“FCA”) (together, formerly the U.K. Financial Services Authority). During the fourth quarter of 2013, J.P. Morgan Securities plc received a capital contribution of \$3.3 billion from JPMorgan Chase Bank, N.A., which was made to cover the anticipated capital requirements related to the introduction of Basel III rules, to which J.P. Morgan Securities plc is subject beginning January 1, 2014. Following this capital contribution, at December 31, 2013, J.P. Morgan Securities plc had total capital of \$26.5 billion, or a Pillar 1 Total capital ratio of 18.1%, which exceeded the 8% well-capitalized standard applicable to it under Basel 2.5.

LIQUIDITY RISK MANAGEMENT

Liquidity risk management is intended to ensure that the Firm has the appropriate amount, composition and tenor of funding and liquidity in support of its assets. The primary objectives of effective liquidity management are to ensure that the Firm's core businesses are able to operate in support of client needs and meet contractual and contingent obligations through normal economic cycles, as well as during market stress events, and to maintain debt ratings that enable the Firm to optimize its funding mix and liquidity sources while minimizing costs.

The Firm manages liquidity and funding using a centralized, global approach in order to optimize liquidity sources and uses for the Firm as a whole, monitor exposures, identify constraints on the transfer of liquidity among legal entities within the Firm, and maintain the appropriate amount of surplus liquidity as part of the Firm's overall balance sheet management strategy.

In the context of the Firm's liquidity management, Treasury is responsible for:

- Measuring, managing, monitoring and reporting the Firm's current and projected liquidity sources and uses;
- Understanding the liquidity characteristics of the Firm's assets and liabilities;
- Defining and monitoring firmwide and legal entity liquidity strategies, policies, guidelines, and contingency funding plans;
- Liquidity stress testing under a variety of adverse scenarios
- Managing funding mix and deployment of excess short-term cash;
- Defining and implementing funds transfer pricing ("FTP") across all lines of business and regions; and
- Defining and addressing the impact of regulatory changes on funding and liquidity.

The Firm has a liquidity risk governance framework to review, approve and monitor the implementation of liquidity risk policies at the firmwide, regional and line of business levels.

Specific risk committees responsible for liquidity risk governance include ALCO as well as lines of business and regional asset and liability management committees, and the CTC Risk Committee. For further discussion of the risk committees, see Enterprise-wide Risk Management on pages 113–173 of this Annual Report. In addition, during 2013, the Firm established an independent liquidity risk oversight function reporting into the CIO, Treasury and Corporate ("CTC") CRO, which provides independent assessments and monitoring of liquidity risk across the Firm.

Management considers the Firm's liquidity position to be strong as of December 31, 2013, and believes that the Firm's unsecured and secured funding capacity is sufficient to meet its on- and off-balance sheet obligations.

LCR and NSFR

In December 2010, the Basel Committee introduced two new measures of liquidity risk: the liquidity coverage ratio ("LCR"), which is intended to measure the amount of "high-quality liquid assets" ("HQLA") held by the Firm in relation to estimated net cash outflows within a 30-day period during an acute stress event; and the net stable funding ratio ("NSFR") which is intended to measure the "available" amount of stable funding relative to the "required" amount of stable funding over a one-year horizon. The standards require that the LCR be no lower than 100% and the NSFR be greater than 100%.

In January 2013, the Basel Committee introduced certain amendments to the formulation of the LCR, and a revised timetable to phase in the standard. The LCR will continue to become effective on January 1, 2015, but the minimum requirement will begin at 60%, increasing in equal annual increments to reach 100% on January 1, 2019. At December 31, 2013, the Firm was compliant with the Basel III LCR. The LCR may fluctuate from period-to-period due to normal flows from client activity.

On October 24, 2013, the U.S. banking regulators released a proposal to implement a U.S. quantitative liquidity requirement consistent with, but more conservative than, Basel III LCR for large banks and bank holding companies ("U.S. LCR"). The proposal also provides for an accelerated transition period compared to that which is currently required under the Basel III LCR rules. At December 31, 2013, the Firm was also compliant with the U.S. LCR based on its current understanding of the proposed rules.

On January 12, 2014, the Basel Committee released proposed revisions to the NSFR. Based on its current understanding of the proposed revisions, the Firm was compliant with the NSFR as of December 31, 2013.

Funding

Sources of funds

The Firm funds its global balance sheet through diverse sources of funding including a stable deposit franchise as well as secured and unsecured funding in the capital markets. The Firm's loan portfolio, aggregating approximately \$722.2 billion, net of allowance, at December 31, 2013, is funded with a portion of the Firm's deposits (aggregating approximately \$1,287.8 billion at December 31, 2013), and through securitizations and, with respect to a portion of the Firm's real estate-related loans, with secured borrowings from the Federal Home Loan Banks. Deposits in excess of the amount utilized to fund loans are primarily invested in the Firm's investment securities portfolio or deployed in cash or other short-term liquid investments based on their interest rate and liquidity

risk characteristics. Capital markets secured financing assets and trading assets are primarily funded by the Firm's capital market secured financing liabilities, trading liabilities and a portion of the Firm's long-term debt and equity.

In addition to funding capital markets assets, proceeds from the Firm's debt and equity issuances are used to fund certain loans, and other financial and non-financial assets, or may be invested in the Firm's investment securities portfolio. See the discussion below for additional disclosures relating to Deposits, Short-term funding, and Long-term funding and issuance.

Deposits

A key strength of the Firm is its diversified deposit franchise, through each of its lines of business, which provides a stable source of funding and limits reliance on the wholesale funding markets. As of December 31, 2013, the Firm's loans-to-deposits ratio was 57%, compared with 61% at December 31, 2012.

As of December 31, 2013, total deposits for the Firm were \$1,287.8 billion, compared with \$1,193.6 billion at December 31, 2012 (58% and 55% of total liabilities at December 31, 2013 and 2012, respectively). The increase was due to growth in both wholesale and consumer deposits. For further information, see Balance Sheet Analysis on pages 75-76 of this Annual Report.

The Firm typically experiences higher customer deposit inflows at period-ends. Therefore, the Firm believes average deposit balances are more representative of deposit trends. The table below summarizes, by line of business, the period-end and average deposit balances as of and for the years ended December 31, 2013 and 2012.

Deposits

As of or for the period ended December 31,
(in millions)

	2013	2012	Year ended December 31, Average	
			2013	2012
Consumer & Community Banking	\$ 464,412	\$ 438,517	\$ 453,304	\$ 413,948
Corporate & Investment Bank	446,237	385,560	384,289	353,048
Commercial Banking	206,127	198,383	184,409	181,805
Asset Management	146,183	144,579	139,707	129,208
Corporate/Private Equity	24,806	26,554	27,433	27,874
Total Firm	\$ 1,287,765	\$ 1,193,593	\$ 1,189,142	\$ 1,105,883

A significant portion of the Firm's deposits are consumer deposits (36% and 37% at December 31, 2013 and 2012, respectively), which are considered particularly stable as they are less sensitive to interest rate changes or market volatility. Additionally, the majority of the Firm's institutional deposits are also considered to be stable sources of funding since they are generated from customers that maintain operating service relationships with the Firm. For further discussions of deposit and liability balance trends, see the discussion of the results for the Firm's business segments and the Balance Sheet Analysis on pages 86-111 and 75-76, respectively, of this Annual Report.

Management's discussion and analysis

The following table summarizes short-term and long-term funding, excluding deposits, as of December 31, 2013 and 2012, and average balances for the years ended December 31, 2013 and 2012. For additional information, see the Balance Sheet Analysis on pages 75-76 and Note 21 on pages 306-308 of this Annual Report.

Sources of funds (excluding deposits)

As of or for the year ended December 31,
(in millions)

	2013	2012	Average	
			2013	2012
Commercial paper:				
Wholesale funding	\$ 17,249	\$ 15,589	\$ 17,785	\$ 14,302
Client cash management	40,599	39,778	35,932	36,478
Total commercial paper	\$ 57,848	\$ 55,367	\$ 53,717	\$ 50,780
Other borrowed funds	\$ 27,994	\$ 26,636	\$ 30,449	\$ 24,174
Securities loaned or sold under agreements to repurchase:				
Securities sold under agreements to repurchase	\$ 155,808	\$ 212,278	\$ 207,106	\$ 219,625
Securities loaned	19,509	23,125	26,068	20,763
Total securities loaned or sold under agreements to repurchase^{(a)(b)(c)}	\$ 175,317	\$ 235,403	\$ 233,174	\$ 240,388
Total senior notes	\$ 135,754	\$ 130,297	\$ 137,662	\$ 141,936
Trust preferred securities	5,445	10,399	7,178	15,814
Subordinated debt	29,578	29,731	27,955	29,410
Structured notes	28,603	30,194	29,517	31,330
Total long-term unsecured funding	\$ 199,380	\$ 200,621	\$ 202,312	\$ 218,490
Credit card securitization	\$ 26,580	\$ 30,123	\$ 27,834	\$ 29,249
Other securitizations ^(d)	3,253	3,680	3,501	3,974
FHLB advances	61,876	42,045	55,487	20,415
Other long-term secured funding ^(e)	6,633	6,358	6,284	6,757
Total long-term secured funding	\$ 98,342	\$ 82,206	\$ 93,106	\$ 60,395
Preferred stock^(f)	\$ 11,158	\$ 9,058	\$ 10,960	\$ 8,236
Common stockholders' equity^(f)	\$ 200,020	\$ 195,011	\$ 196,409	\$ 184,352

(a) Excludes federal funds purchased.

(b) Excluded long-term structured repurchase agreements of \$4.6 billion and \$3.3 billion as of December 31, 2013 and 2012, respectively, and average balance of \$4.2 billion and \$7.0 billion for the years ended December 31, 2013 and 2012, respectively.

(c) Excluded long-term securities loaned of \$483 million and \$457 million as of December 31, 2013 and 2012, respectively, and average balance of \$414 million and \$113 million for the years ended December 31, 2013 and 2012, respectively.

(d) Other securitizations includes securitizations of residential mortgages and student loans. The Firm's wholesale businesses also securitize loans for client-driven transactions; those client-driven loan securitizations are not considered to be a source of funding for the Firm and are not included in the table.

(e) Includes long-term structured notes which are secured.

(f) For additional information on preferred stock and common stockholders' equity see Capital Management on pages 160-167, Consolidated Statements of Changes in Stockholders' Equity on page 187, Note 22 on page 309 and Note 23 on page 310 of this Annual Report.

Short-term funding

A significant portion of the Firm's total commercial paper liabilities, approximately 70% as of December 31, 2013, are not sourced from wholesale funding markets, but were originated from deposits that customers choose to sweep into commercial paper liabilities as a cash management program offered to customers of the Firm.

The Firm's sources of short-term secured funding primarily consist of securities loaned or sold under agreements to repurchase. Securities loaned or sold under agreements to repurchase are secured predominantly by high-quality securities collateral, including government-issued debt, agency debt and agency MBS, and constitute a significant

portion of the federal funds purchased and securities loaned or sold under purchase agreements. The amounts of securities loaned or sold under agreements to repurchase at December 31, 2013, decreased predominantly due to a change in the mix of the Firm's funding sources. The balances associated with securities loaned or sold under agreements to repurchase fluctuate over time due to customers' investment and financing activities; the Firm's demand for financing; the ongoing management of the mix of the Firm's liabilities, including its secured and unsecured financing (for both the investment and market-making portfolios); and other market and portfolio factors.

Long-term funding and issuance

Long-term funding provides additional sources of stable funding and liquidity for the Firm. The Firm's long-term funding plan is driven by expected client activity and the liquidity required to support this activity. Long-term funding objectives include maintaining diversification, maximizing market access and optimizing funding cost, as well as maintaining a certain level of pre-funding at the parent holding company. The Firm evaluates various funding markets, tenors and currencies in creating its optimal long-term funding plan.

The majority of the Firm's long-term unsecured funding is issued by the parent holding company to provide maximum flexibility in support of both bank and nonbank subsidiary funding. The following table summarizes long-term unsecured issuance and maturities or redemption for the years ended December 31, 2013 and 2012. For additional information, see Note 21 on pages 306-308 of this Annual Report.

Long-term unsecured funding

Year ended December 31, (in millions)	2013	2012
Issuance		
Senior notes issued in the U.S. market	\$ 19,835	\$ 15,566
Senior notes issued in non-U.S. markets	8,843	8,341
Total senior notes	28,678	23,907
Trust preferred securities	—	—
Subordinated debt	3,232	—
Structured notes	16,979	15,120
Total long-term unsecured funding - issuance	\$ 48,889	\$ 39,027
Maturities/redemptions		
Total senior notes	\$ 18,418	\$ 40,244
Trust preferred securities ^(a)	5,052	9,482
Subordinated debt	2,418	1,045
Structured notes	17,785	18,638
Total long-term unsecured funding - maturities/redemptions	\$ 43,673	\$ 69,409

(a) On May 8, 2013, the Firm redeemed approximately \$5.0 billion, or 100% of the liquidation amount, of trust preferred securities pursuant to the optional redemption provisions set forth in the documents governing those trust preferred securities.

In addition, from January 1, 2014, through February 19, 2014, the Firm issued \$12.7 billion of senior notes.

The Firm raises secured long-term funding through securitization of consumer credit card loans and advances from the FHLBs. It may also in the future raise long-term funding through securitization of residential mortgages, auto loans and student loans, which will increase funding and investor diversity.

The following table summarizes the securitization issuance and FHLB advances and their respective maturities or redemption for the years ended December 31, 2013 and 2012.

Long-term secured funding

Year ended December 31, (in millions)	Issuance		Maturities/Redemptions	
	2013	2012	2013	2012
Credit card securitization	\$ 8,434	\$ 10,800	\$ 11,853	\$ 13,187
Other securitizations ^(a)	—	—	427	487
FHLB advances	23,650	35,350	3,815	11,124
Other long-term secured funding	\$ 751	\$ 534	\$ 159	\$ 1,785
Total long-term secured funding	\$ 32,835	\$ 46,684	\$ 16,254	\$ 26,583

(a) Other securitizations includes securitizations of residential mortgages and student loans.

On January 27, 2014, the Firm securitized \$1.8 billion of consumer credit card loans.

The Firm's wholesale businesses also securitize loans for client-driven transactions; those client-driven loan securitizations are not considered to be a source of funding for the Firm and are not included in the table above. For further description of the client-driven loan securitizations, see Note 16 on pages 288-299 of this Annual Report.

Parent holding company and subsidiary funding

The parent holding company acts as an important source of funding to its subsidiaries. The Firm's liquidity management is intended to ensure that liquidity at the parent holding company is maintained at levels sufficient to fund the operations of the parent holding company and its subsidiaries for an extended period of time in a stress environment where access to normal funding sources is disrupted.

To effectively monitor the adequacy of liquidity and funding at the parent holding company, the Firm uses three primary measures:

- **Number of months of pre-funding:** The Firm targets pre-funding of the parent holding company to ensure that both contractual and non-contractual obligations can be met for at least 18 months assuming no access to wholesale funding markets. However, due to conservative liquidity management actions taken by the Firm, the current pre-funding of such obligations is greater than target.
- **Excess cash:** Excess cash is managed to ensure that daily cash requirements can be met in both normal and stressed environments. Excess cash generated by parent holding company issuance activity is placed on deposit with or is advanced to both bank and nonbank subsidiaries or held as liquid collateral purchased through reverse repurchase agreements.
- **Stress testing:** The Firm conducts regular stress testing for the parent holding company and major subsidiaries to

Management's discussion and analysis

ensure sufficient liquidity for the Firm in a stressed environment. The Firm's liquidity management takes into consideration its subsidiaries' ability to generate replacement funding in the event the parent holding company requires repayment of the aforementioned deposits and advances. For further information, see the Stress testing discussion below.

HQLA

HQLA is the estimated amount of assets the Firm believes will qualify for inclusion in the Basel III LCR. HQLA primarily consists of cash and certain unencumbered high quality, liquid assets as defined in the rule.

As of December 31, 2013, HQLA was estimated to be approximately \$522 billion, compared with \$341 billion as of December 31, 2012. The increase in HQLA was due to higher cash balances primarily driven by increased deposits and long-term debt issuance, as well as by a reduction in trading assets. HQLA may fluctuate from period-to-period due to normal flows from client activity.

The following table presents the estimated Basel III LCR HQLA broken out by HQLA-eligible cash and HQLA-eligible securities as of December 31, 2013.

(in billions)	December 31, 2013	
HQLA^(a)		
Eligible cash	\$	294
Eligible securities		228
Total HQLA	\$	522

(a) Table represents Basel III LCR HQLA. HQLA under proposed U.S. LCR is estimated to be lower primarily due to exclusions of certain security types based on the Firm's understanding of the proposed rule.

In addition to HQLA, as of December 31, 2013, the Firm has approximately \$282 billion of unencumbered marketable securities, such as equity securities and fixed income debt securities, available to raise liquidity, if required.

Furthermore, the Firm maintains borrowing capacity at various FHLBs, the Federal Reserve Bank discount window and various other central banks as a result of collateral pledged by the Firm to such banks. Although available, the Firm does not view the borrowing capacity at the Federal Reserve Bank discount window and the various other central banks as a primary source of liquidity. As of December 31, 2013, the Firm's remaining borrowing capacity at various FHLBs and the Federal Reserve Bank discount window was approximately \$109 billion. This borrowing capacity excludes the benefit of securities included above in HQLA or other unencumbered securities held at the Federal Reserve Bank discount window for which the Firm has not drawn liquidity.

Stress testing

Liquidity stress tests are intended to ensure sufficient liquidity for the Firm under a variety of adverse scenarios. Results of stress tests are therefore considered in the formulation of the Firm's funding plan and assessment of its liquidity position. Liquidity outflow assumptions are modeled across a range of time horizons and varying degrees of market and idiosyncratic stress. Standard stress tests are performed on a regular basis and ad hoc stress tests are performed in response to specific market events or concerns. Stress scenarios are produced for the parent holding company and the Firm's major subsidiaries. In addition, separate regional liquidity stress testing is performed.

Liquidity stress tests assume all of the Firm's contractual obligations are met and then take into consideration varying levels of access to unsecured and secured funding markets. Additionally, assumptions with respect to potential non-contractual and contingent outflows include, but are not limited to, the following:

- Deposits
 - For bank deposits that have no contractual maturity, the range of potential outflows reflects the type and size of deposit account, and the nature and extent of the Firm's relationship with the depositor.
- Secured funding
 - Range of haircuts on collateral based on security type and counterparty.
- Derivatives
 - Margin calls by exchanges or clearing houses;
 - Collateral calls associated with ratings downgrade triggers and variation margin;
 - Outflows of excess client collateral;
 - Novation of derivative trades.
- Unfunded commitments
 - Potential facility drawdowns reflecting the type of commitment and counterparty.

Contingency funding plan

The Firm's contingency funding plan ("CFP"), which is reviewed and approved by ALCO, provides a documented framework for managing both temporary and longer-term unexpected adverse liquidity stress. The CFP incorporates the limits and indicators set by the Liquidity Risk Oversight group. These limits and indicators are reviewed regularly to identify emerging risks or increased vulnerabilities in the Firm's liquidity position. The CFP is also regularly updated to identify alternative contingent liquidity resources that can be accessed under adverse liquidity circumstances.

Credit ratings

The cost and availability of financing are influenced by credit ratings. Reductions in these ratings could have an adverse effect on the Firm's access to liquidity sources, increase the cost of funds, trigger additional collateral or funding requirements and decrease the number of investors and counterparties willing to lend to the Firm. Additionally, the Firm's funding requirements for VIEs and other third

party commitments may be adversely affected by a decline in credit ratings. For additional information on the impact of a credit ratings downgrade on the funding requirements for VIEs, and on derivatives and collateral agreements, see Special-purpose entities on page 77, and Credit risk, liquidity risk and credit-related contingent features in Note 6 on pages 220–233, of this Annual Report.

The credit ratings of the parent holding company and certain of the Firm's significant operating subsidiaries as of December 31, 2013, were as follows.

December 31, 2013	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A. Chase Bank USA, N.A.			J.P. Morgan Securities LLC		
	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook
Moody's Investor Services	A3	P-2	Stable	Aa3	P-1	Stable	Aa3	P-1	Stable
Standard & Poor's	A	A-1	Negative	A+	A-1	Stable	A+	A-1	Stable
Fitch Ratings	A+	F1	Stable	A+	F1	Stable	A+	F1	Stable

On June 11, 2013, S&P announced a reassessment of the government support assumptions reflected in its holding company ratings of eight systemically important financial institutions, including the Firm. As a result of this reassessment, the outlook for the parent company was revised to negative from stable; the outlook for the Firm's operating subsidiaries remained unchanged at stable.

On November 14, 2013, Moody's downgraded the Firm and several other bank holding companies based on Moody's reassessment of its assumptions relating to implicit government support for such companies. Specifically, Moody's downgraded the senior and subordinated debt ratings of JPMorgan Chase and Co., and the subordinated debt rating of JPMorgan Chase Bank, N.A. and upgraded the long-term issuer rating of JPMorgan Securities. The parent company downgrade also resulted in Moody's downgrade of the parent company's short-term rating. The rating actions did not have a material adverse impact on the Firm's cost of funds or its ability to fund itself.

Additional downgrades of the Firm's long-term ratings by one notch or two notches could result in a further downgrade of the Firm's short-term ratings. If this were to occur, the Firm believes its cost of funds could increase and access to certain funding markets could be reduced. The nature and magnitude of the impact of further ratings downgrades depends on numerous contractual and

behavioral factors (which the Firm believes are incorporated in its liquidity risk and stress testing metrics). The Firm believes it maintains sufficient liquidity to withstand a potential decrease in funding capacity due to further ratings downgrades.

JPMorgan Chase's unsecured debt does not contain requirements that would call for an acceleration of payments, maturities or changes in the structure of the existing debt, provide any limitations on future borrowings or require additional collateral, based on unfavorable changes in the Firm's credit ratings, financial ratios, earnings, or stock price.

Critical factors in maintaining high credit ratings include a stable and diverse earnings stream, strong capital ratios, strong credit quality and risk management controls, diverse funding sources, and disciplined liquidity monitoring procedures. Rating agencies continue to evaluate economic and geopolitical trends, regulatory developments, rating uplift assumptions surrounding government support, future profitability, risk management practices, and legal expenses, all of which could lead to adverse ratings actions. Although the Firm closely monitors and endeavors to manage factors influencing its credit ratings, there is no assurance that its credit ratings will not be further changed in the future.

CRITICAL ACCOUNTING ESTIMATES USED BY THE FIRM

JPMorgan Chase's accounting policies and use of estimates are integral to understanding its reported results. The Firm's most complex accounting estimates require management's judgment to ascertain the value of assets and liabilities. The Firm has established detailed policies and control procedures intended to ensure that valuation methods, including any judgments made as part of such methods, are well-controlled, independently reviewed and applied consistently from period to period. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. The Firm believes its estimates for determining the value of its assets and liabilities are appropriate. The following is a brief description of the Firm's critical accounting estimates involving significant valuation judgments.

Allowance for credit losses

JPMorgan Chase's allowance for credit losses covers the retained consumer and wholesale loan portfolios, as well as the Firm's consumer and wholesale lending-related commitments. The allowance for loan losses is intended to adjust the carrying value of the Firm's loan assets to reflect probable credit losses inherent in the loan portfolio as of the balance sheet date. Similarly, the allowance for lending-related commitments is established to cover probable credit losses inherent in the lending-related commitments portfolio as of the balance sheet date.

The allowance for loan losses includes an asset-specific component, a formula-based component, and a component related to PCI loans. The determination of each of these components involves significant judgment on a number of matters, as discussed below. For further discussion of the methodologies used in establishing the Firm's allowance for credit losses, see Note 15 on pages 284–287 of this Annual Report.

Asset-specific component

The asset-specific allowance for loan losses for each of the Firm's portfolio segments is generally measured as the difference between the recorded investment in the impaired loan and the present value of the cash flows expected to be collected, discounted at the loan's original effective interest rate. Estimating the timing and amounts of future cash flows is highly judgmental as these cash flow projections further rely upon estimates such as redefault rates, loss severities, the amounts and timing of prepayments and other factors that are reflective of current and expected future market conditions. These estimates are, in turn, dependent on factors such as the level of future home prices, the duration of current overall economic conditions, and other macroeconomic and portfolio-specific factors. All of these estimates and assumptions require significant management judgment and certain assumptions are highly subjective.

Formula-based component - Consumer loans and lending-related commitments, excluding PCI loans

The formula-based allowance for credit losses for the consumer portfolio, including credit card, is calculated by applying statistical credit loss factors to outstanding principal balances over an estimated loss emergence period to arrive at an estimate of incurred credit losses in the portfolio. The loss emergence period represents the time period between the date at which the loss is estimated to have been incurred and the ultimate realization of that loss (through a charge-off). Estimated loss emergence periods may vary by product and may change over time; management applies judgment in estimating loss emergence periods, using available credit information and trends. In addition, management applies judgment to the statistical loss estimates for each loan portfolio category, using delinquency trends and other risk characteristics to estimate the total incurred credit losses in the portfolio. Management uses additional statistical methods and considers portfolio and collateral valuation trends to review the appropriateness of the primary statistical loss estimate.

The statistical calculation is then adjusted to take into consideration model imprecision, external factors and current economic events that have occurred but that are not yet reflected in the factors used to derive the statistical calculation; these adjustments are accomplished in part by analyzing the historical loss experience for each major product segment. However, it is difficult to predict whether historical loss experience is indicative of future loss levels. Management applies judgment in making this adjustment, taking into account uncertainties associated with current macroeconomic and political conditions, quality of underwriting standards, borrower behavior, the potential impact of payment recasts within the HELOC portfolio, and other relevant internal and external factors affecting the credit quality of the portfolio. In certain instances, the interrelationships between these factors create further uncertainties. For example, the performance of a HELOC that experiences a payment recast may be affected by both the quality of underwriting standards applied in originating the loan and the general economic conditions in effect at the time of the payment recast. For junior lien products, management considers the delinquency and/or modification status of any senior liens in determining the adjustment. The application of different inputs into the statistical calculation, and the assumptions used by management to adjust the statistical calculation, are subject to management judgment, and emphasizing one input or assumption over another, or considering other inputs or assumptions, could affect the estimate of the allowance for loan losses for the consumer credit portfolio.

Overall, the allowance for credit losses for the consumer portfolio, including credit card, is sensitive to changes in the economic environment (e.g., unemployment rates), delinquency rates, the realizable value of collateral (e.g.,

housing prices), FICO scores, borrower behavior and other risk factors. While all of these factors are important determinants of overall allowance levels, changes in the various factors may not occur at the same time or at the same rate, or changes may be directionally inconsistent such that improvement in one factor may offset deterioration in the other. In addition, changes in these factors would not necessarily be consistent across all geographies or product types. Finally, it is difficult to predict the extent to which changes in these factors would ultimately affect the frequency of losses, the severity of losses or both.

PCI loans

In connection with the Washington Mutual transaction, JPMorgan Chase acquired certain PCI loans, which are accounted for as described in Note 14 on pages 258-283 of this Annual Report. The allowance for loan losses for the PCI portfolio is based on quarterly estimates of the amount of principal and interest cash flows expected to be collected over the estimated remaining lives of the loans.

These cash flow projections are based on estimates regarding default rates, loss severities, the amounts and timing of prepayments and other factors that are reflective of current and expected future market conditions. These estimates are dependent on assumptions regarding the level of future home price declines, and the duration of current overall economic conditions, among other factors. These estimates and assumptions require significant management judgment and certain assumptions are highly subjective.

Formula-based component - Wholesale loans and lending-related commitments

The Firm's methodology for determining the allowance for loan losses and the allowance for lending-related commitments requires the early identification of credits that are deteriorating. The Firm uses a risk-rating system to determine the credit quality of its wholesale loans. Wholesale loans are reviewed for information affecting the obligor's ability to fulfill its obligations. In assessing the risk rating of a particular loan, among the factors considered are the obligor's debt capacity and financial flexibility, the level of the obligor's earnings, the amount and sources for repayment, the level and nature of contingencies, management strength, and the industry and geography in which the obligor operates. These factors are based on an evaluation of historical and current information and involve subjective assessment and interpretation. Emphasizing one factor over another or considering additional factors could affect the risk rating assigned by the Firm to that loan.

The Firm applies its judgment to establish loss factors used in calculating the allowances. Wherever possible, the Firm uses independent, verifiable data or the Firm's own historical loss experience in its models for estimating the allowances. Many factors can affect estimates of loss, including volatility of loss given default, probability of default and rating migrations. Consideration is given to the particular source of external data used as well as the time period to which loss data relates (for example, point-in-time loss estimates and estimates that reflect longer views of the credit cycle). Finally, differences in loan characteristics between the Firm's specific loan portfolio and those reflected in the external data could also affect loss estimates. The application of different inputs would change the amount of the allowance for credit losses determined appropriate by the Firm.

Management also applies its judgment to adjust the modeled loss estimates, taking into consideration model imprecision, external factors and economic events that have occurred but are not yet reflected in the loss factors. Historical experience of both loss given default and probability of default are considered when estimating these adjustments. Factors related to concentrated and deteriorating industries also are incorporated where relevant. These estimates are based on management's view of uncertainties that relate to current macroeconomic and political conditions, quality of underwriting standards and other relevant internal and external factors affecting the credit quality of the current portfolio.

Allowance for credit losses sensitivity

As noted above, the Firm's allowance for credit losses is sensitive to numerous factors, depending on the portfolio. Changes in economic conditions or in the Firm's assumptions could affect its estimate of probable credit losses inherent in the portfolio at the balance sheet date. For example, deterioration in the following inputs would have the following effects on the Firm's modeled loss estimates as of December 31, 2013, without consideration of any offsetting or correlated effects of other inputs in the Firm's allowance for loan losses:

- For PCI loans, a combined 5% decline in housing prices and a 1% increase in unemployment from current levels could imply an increase to modeled credit loss estimates of approximately \$1.4 billion.
- For the residential real estate portfolio, excluding PCI loans, a combined 5% decline in housing prices and a 1% increase in unemployment from current levels could imply an increase to modeled annual loss estimates of approximately \$300 million.
- A 50 basis point deterioration in forecasted credit card loss rates could imply an increase to modeled annualized credit card loan loss estimates of approximately \$600 million.
- A one-notch downgrade in the Firm's internal risk ratings for its entire wholesale loan portfolio could imply an increase in the Firm's modeled loss estimates of approximately \$2.1 billion.

Management's discussion and analysis

The purpose of these sensitivity analyses is to provide an indication of the isolated impacts of hypothetical alternative assumptions on modeled loss estimates. The changes in the inputs presented above are not intended to imply management's expectation of future deterioration of those risk factors.

These analyses are not intended to estimate changes in the overall allowance for loan losses, which would also be influenced by the judgment management applies to the modeled loss estimates to reflect the uncertainty and imprecision of these modeled loss estimates based on then current circumstances and conditions.

It is difficult to estimate how potential changes in specific factors might affect the allowance for credit losses because management considers a variety of factors and inputs in estimating the allowance for credit losses. Changes in these factors and inputs may not occur at the same rate and may not be consistent across all geographies or product types, and changes in factors may be directionally inconsistent, such that improvement in one factor may offset deterioration in other factors. In addition, it is difficult to predict how changes in specific economic conditions or assumptions could affect borrower behavior or other factors considered by management in estimating the allowance for credit losses. Given the process the Firm follows in evaluating the risk factors related to its loans, including risk ratings, home price assumptions, and credit card loss estimates, management believes that its current estimate of the allowance for credit loss is appropriate.

Fair value of financial instruments, MSRs and commodities inventory

JPMorgan Chase carries a portion of its assets and liabilities at fair value. The majority of such assets and liabilities are measured at fair value on a recurring basis. Certain assets and liabilities are measured at fair value on a nonrecurring basis, including certain mortgage, home equity and other loans, where the carrying value is based on the fair value of the underlying collateral.

Assets measured at fair value

The following table includes the Firm's assets measured at fair value and the portion of such assets that are classified within level 3 of the valuation hierarchy. For further information, see Note 3 on pages 195-215 of this Annual Report.

December 31, 2013 (in billions, except ratio data)	Total assets at fair value	Total level 3 assets
Trading debt and equity instruments	\$ 308.9	\$ 27.2
Derivative receivables	65.8	18.6
Trading assets	374.7	45.8
AFS securities	330.0	2.3 ^(a)
Loans	2.0	1.9
MSRs	9.6	9.6
Private equity investments	7.5	6.5
Other	36.5	3.2
Total assets measured at fair value on a recurring basis	760.3	69.3
Total assets measured at fair value on a nonrecurring basis	6.2	5.8
Total assets measured at fair value	\$ 766.5	\$ 75.1
Total Firm assets	\$ 2,415.7	
Level 3 assets as a percentage of total Firm assets		3.1% ^(a)
Level 3 assets as a percentage of total Firm assets at fair value		9.8% ^(a)

(a) Reflects \$27.4 billion of collateralized loan obligations ("CLOs") transferred from level 3 to level 2 during the year ended December 31, 2013. For further discussion of the transfers, see Note 3 on pages 195-215 of this Annual Report.

Valuation

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Firm has established well-documented processes for determining fair value; for further details see Note 3 on pages 195-215 of this Annual Report. Fair value is based on quoted market prices, where available. If listed prices or quotes are not available for an instrument or a similar instrument, fair value is generally based on models that consider relevant transaction characteristics (such as maturity) and use as inputs market-based or independently sourced parameters.

Estimating fair value requires the application of judgment. The type and level of judgment required is largely dependent on the amount of observable market information available to the Firm. For instruments valued using internally developed models that use significant unobservable inputs and are therefore classified within level 3 of the valuation hierarchy, judgments used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, the lack of observability of certain significant inputs requires management to assess all relevant empirical data in deriving valuation inputs – including, for example, transaction details, yield curves, interest rates, prepayment rates, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves. For further discussion of the valuation of level 3 instruments, including unobservable inputs used, see Note 3 on pages 195–215 of this Annual Report.

For instruments classified in levels 2 and 3, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality, the Firm's credit-worthiness, liquidity considerations, unobservable parameters, and for certain portfolios that meet specified criteria, the size of the net open risk position. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole.

During the fourth quarter of 2013 the Firm implemented the FVA framework to incorporate the impact of funding into its valuation estimates for OTC derivatives and structured notes, reflecting an industry migration towards incorporating the market cost of unsecured funding in the valuation of such instruments. Implementation of the FVA framework required a number of important management judgments including: (i) determining when the accumulation of market evidence was sufficiently compelling to implement the FVA framework; (ii) estimating the market clearing price for funding in the relevant market; and (iii) determining the interaction between DVA and FVA, given that DVA already reflects credit spreads, which are a significant component of funding spreads that drive FVA. For further discussion of valuation adjustments applied by the Firm, including FVA, see Note 3 on pages 195–215 of this Annual Report.

Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Firm believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgment and may vary across the Firm's businesses and portfolios.

The Firm uses various methodologies and assumptions in the determination of fair value. The use of methodologies or assumptions different than those used by the Firm could result in a different estimate of fair value at the reporting date. For a detailed discussion of the Firm's valuation process and hierarchy, and its determination of fair value for individual financial instruments, see Note 3 on pages 195–215 of this Annual Report.

Goodwill impairment

Under U.S. GAAP, goodwill must be allocated to reporting units and tested for impairment at least annually. The Firm's process and methodology used to conduct goodwill impairment testing is described in Note 17 on pages 299–304 of this Annual Report.

Management applies significant judgment when estimating the fair value of its reporting units. Estimates of fair value are dependent upon estimates of (a) the future earnings potential of the Firm's reporting units, including the estimated effects of regulatory and legislative changes, such as the Dodd-Frank Act, (b) long-term growth rates and (c) the relevant cost of equity. Imprecision in estimating these factors can affect the estimated fair value of the reporting units.

Based upon the updated valuations for all of its reporting units, the Firm concluded that goodwill allocated to its reporting units was not impaired at December 31, 2013, nor was any goodwill written off during 2013. The fair values of almost all of the Firm's reporting units exceeded their carrying values and did not indicate a significant risk of goodwill impairment based on current projections and valuations. For those reporting units where fair value exceeded carrying value, the excess fair value as a percent of carrying value ranged from approximately 15% to 180%.

As of December 31, 2013, the estimated fair value of the Firm's mortgage lending business within CCB did not exceed its carrying value. While the implied fair value of the goodwill allocated to the mortgage lending business exceeded its carrying value as of December 31, 2013, the associated goodwill remains at an elevated risk for goodwill impairment due to its exposure to U.S. consumer credit risk and the effects of economic, regulatory and legislative changes. The assumptions used in the valuation of this business include: (a) estimates of future cash flows for the business (which are dependent on outstanding loan balances, net interest margin, operating expense, credit losses and the amount of capital necessary to meet regulatory capital requirements), and (b) the cost of equity used to discount those cash flows to a present value. Each of these factors requires significant judgment and the assumptions used are based on management's current best estimate and most current projections, including the anticipated effects of regulatory and legislative changes, derived from the Firm's business forecasting process as reviewed with senior management.

The projections for all of the Firm's reporting units are consistent with the short-term assumptions discussed in the Business Outlook on pages 68–69 of this Annual Report, and, in the longer term, incorporate a set of macroeconomic assumptions and the Firm's best estimates of long-term growth and returns of its businesses. Where possible, the Firm uses third-party and peer data to benchmark its assumptions and estimates.

Management's discussion and analysis

Deterioration in economic market conditions, increased estimates of the effects of recent regulatory or legislative changes, or additional regulatory or legislative changes may result in declines in projected business performance beyond management's current expectations. For example, in the Firm's mortgage lending business, such declines could result from increases in primary mortgage interest rates, lower mortgage origination volume, higher costs to resolve foreclosure-related matters or from deterioration in economic conditions that result in increased credit losses, including decreases in home prices beyond management's current expectations. Declines in business performance, increases in equity capital requirements, or increases in the estimated cost of equity, could cause the estimated fair values of the Firm's reporting units or their associated goodwill to decline, which could result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

For additional information on goodwill, see Note 17 on pages 299-304 of this Annual Report.

Income taxes

JPMorgan Chase is subject to the income tax laws of the various jurisdictions in which it operates, including U.S. federal, state and local and non-U.S. jurisdictions. These laws are often complex and may be subject to different interpretations. To determine the financial statement impact of accounting for income taxes, including the provision for income tax expense and unrecognized tax benefits, JPMorgan Chase must make assumptions and judgments about how to interpret and apply these complex tax laws to numerous transactions and business events, as well as make judgments regarding the timing of when certain items may affect taxable income in the U.S. and non-U.S. tax jurisdictions.

JPMorgan Chase's interpretations of tax laws around the world are subject to review and examination by the various taxing authorities in the jurisdictions where the Firm operates, and disputes may occur regarding its view on a tax position. These disputes over interpretations with the various taxing authorities may be settled by audit, administrative appeals or adjudication in the court systems of the tax jurisdictions in which the Firm operates.

JPMorgan Chase regularly reviews whether it may be assessed additional income taxes as a result of the resolution of these matters, and the Firm records additional reserves as appropriate. In addition, the Firm may revise its estimate of income taxes due to changes in income tax laws, legal interpretations and tax planning strategies. It is possible that revisions in the Firm's estimate of income taxes may materially affect the Firm's results of operations in any reporting period.

The Firm's provision for income taxes is composed of current and deferred taxes. Deferred taxes arise from differences between assets and liabilities measured for financial reporting versus income tax return purposes. Deferred tax assets are recognized if, in management's judgment, their realizability is determined to be more likely than not. The Firm has also recognized deferred tax assets in connection with certain net operating losses. The Firm performs regular reviews to ascertain whether deferred tax assets are realizable. These reviews include management's estimates and assumptions regarding future taxable income, which also incorporates various tax planning strategies, including strategies that may be available to utilize net operating losses before they expire. In connection with these reviews, if it is determined that a deferred tax asset is not realizable, a valuation allowance is established. The valuation allowance may be reversed in a subsequent reporting period if the Firm determines that, based on revised estimates of future taxable income or changes in tax planning strategies, it is more likely than not that all or part of the deferred tax asset will become realizable. As of December 31, 2013, management has determined it is more likely than not that the Firm will realize its deferred tax assets, net of the existing valuation allowance.

JPMorgan Chase does not provide U.S. federal income taxes on the undistributed earnings of certain non-U.S. subsidiaries, to the extent that such earnings have been reinvested abroad for an indefinite period of time. Changes to the income tax rates applicable to these non-U.S. subsidiaries may have a material impact on the effective tax rate in a future period if such changes were to occur.

The Firm adjusts its unrecognized tax benefits as necessary when additional information becomes available. Uncertain tax positions that meet the more-likely-than-not recognition threshold are measured to determine the amount of benefit to recognize. An uncertain tax position is measured at the largest amount of benefit that management believes is more likely than not to be realized upon settlement. It is possible that the reassessment of JPMorgan Chase's unrecognized tax benefits may have a material impact on its effective tax rate in the period in which the reassessment occurs.

For additional information on income taxes, see Note 26 on pages 313-315 of this Annual Report.

Litigation reserves

For a description of the significant estimates and judgments associated with establishing litigation reserves, see Note 31 on pages 326-332 of this Annual Report.

ACCOUNTING AND REPORTING DEVELOPMENTS

Presentation of other comprehensive income

In June 2011, the FASB issued guidance that modifies the presentation of other comprehensive income in the Consolidated Financial Statements. The guidance requires that items of net income, items of other comprehensive income, and total comprehensive income be presented in one continuous statement or in two separate but consecutive statements. The guidance was effective in the first quarter of 2012, and the Firm adopted the new guidance by electing the two-statement approach, effective January 1, 2012. The application of this guidance only affected the presentation of the Consolidated Financial Statements and had no impact on the Firm's Consolidated Balance Sheets or results of operations.

In February 2013, the FASB issued guidance that requires enhanced disclosures of any reclassifications out of accumulated other comprehensive income. The guidance was effective in the first quarter of 2013. The application of this guidance had no impact on the Firm's Consolidated Balance Sheets or results of operations. For further information, see Note 25 on page 312 of this Annual Report.

Balance sheet netting

In December 2011, the FASB issued guidance that requires enhanced disclosures about certain financial assets and liabilities that are subject to enforceable master netting agreements or similar agreements, or that have otherwise been offset on the balance sheet under certain specific conditions that permit net presentation. In January 2013, the FASB clarified that the scope of this guidance is limited to derivatives, repurchase and reverse repurchase agreements, and securities borrowing and lending transactions. The Firm adopted the new guidance effective the first quarter of 2013. The application of this guidance had no impact on the Firm's Consolidated Balance Sheets or results of operations. For further information, see Notes 1, 6, and 13 on pages 189-191, 220-233, and 255-257, respectively, of this Annual Report.

Investment companies

In June 2013, the FASB issued guidance that clarifies the characteristics of an investment company and requires new disclosures for investment companies. Under the guidance, a company regulated under the Investment Company Act of

1940 is considered an investment company for accounting purposes. All other companies must meet all of the fundamental characteristics described in the guidance and consider other typical characteristics to qualify as an investment company. An investment company will be required to provide additional disclosures, including the fact that the company is an investment company, information about changes, if any, in a company's status as an investment company, and information about financial support provided or contractually required to be provided by an investment company to any of its investees. The guidance will become effective in the first quarter of 2014. The adoption of the guidance is not expected to have a material impact on the Firm's Consolidated Balance Sheets or results of operations.

Inclusion of the Fed funds effective swap rate

In July 2013, the FASB issued guidance that amends the acceptable U.S. benchmark interest rates for hedge accounting involving interest rate risk. In addition to interest rates on direct U.S. Treasury obligations and the LIBOR swap rate, the guidance also permits the overnight indexed swap rate ("OIS") to be designated as a benchmark interest rate for hedge accounting purposes. The amendments are effective prospectively for qualifying new or redesignated hedging relationships entered into on or after July 17, 2013. For further information on the Firm's benchmark interest rate hedges, see Note 6 on pages 220-233 of this Annual Report.

Investments in qualified affordable housing projects

In January 2014, the FASB issued guidance regarding the accounting for investments in affordable housing projects that qualify for the low-income housing tax credit. The guidance replaces the effective yield method and allows companies to make an accounting policy election to amortize the cost of its investments in proportion to the tax benefits received if certain criteria are met, and present the amortization as a component of income tax expense. The guidance will become effective in the first quarter of 2015, with early adoption permitted in the first quarter of 2014. The Firm is currently evaluating this guidance to determine any potential impact on the Firm's Consolidated Financial Statements.

NONEXCHANGE TRADED COMMODITY DERIVATIVE CONTRACTS AT FAIR VALUE

In the normal course of business, JPMorgan Chase trades nonexchange-traded commodity derivative contracts. To determine the fair value of these contracts, the Firm uses various fair value estimation techniques, primarily based on internal models with significant observable market parameters. The Firm's nonexchange-traded commodity derivative contracts are primarily energy-related.

The following table summarizes the changes in fair value for nonexchange-traded commodity derivative contracts for the year ended December 31, 2013.

Year ended December 31, 2013 (in millions)	Asset position	Liability position
Net fair value of contracts outstanding at January 1, 2013 ^(a)	\$ 7,934	\$ 10,745
Effect of legally enforceable master netting agreements ^(a)	20,729	22,392
Gross fair value of contracts outstanding at January 1, 2013	28,663	33,137
Contracts realized or otherwise settled	(21,406)	(23,246)
Fair value of new contracts	11,955	12,709
Changes in fair values attributable to changes in valuation techniques and assumptions	—	—
Other changes in fair value	3,998	2,647
Gross fair value of contracts outstanding at December 31, 2013	23,210	25,247
Effect of legally enforceable master netting agreements	(15,082)	(15,318)
Net fair value of contracts outstanding at December 31, 2013	\$ 8,128	\$ 9,929

(a) The prior period has been revised.

The following table indicates the maturities of nonexchange-traded commodity derivative contracts at December 31, 2013.

December 31, 2013 (in millions)	Asset position	Liability position
Maturity less than 1 year	\$ 13,750	\$ 14,766
Maturity 1-3 years	7,155	6,733
Maturity 4-5 years	1,214	1,048
Maturity in excess of 5 years	1,091	2,700
Gross fair value of contracts outstanding at December 31, 2013	23,210	25,247
Effect of legally enforceable master netting agreements	(15,082)	(15,318)
Net fair value of contracts outstanding at December 31, 2013	\$ 8,128	\$ 9,929

FORWARD-LOOKING STATEMENTS

From time to time, the Firm has made and will make forward-looking statements. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as “anticipate,” “target,” “expect,” “estimate,” “intend,” “plan,” “goal,” “believe,” or other words of similar meaning. Forward-looking statements provide JPMorgan Chase’s current expectations or forecasts of future events, circumstances, results or aspirations. JPMorgan Chase’s disclosures in this Annual Report contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The Firm also may make forward-looking statements in its other documents filed or furnished with the Securities and Exchange Commission. In addition, the Firm’s senior management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond the Firm’s control. JPMorgan Chase’s actual future results may differ materially from those set forth in its forward-looking statements. While there is no assurance that any list of risks and uncertainties or risk factors is complete, below are certain factors which could cause actual results to differ from those in the forward-looking statements:

- Local, regional and international business, economic and political conditions and geopolitical events;
- Changes in laws and regulatory requirements, including as a result of recent financial services legislation;
- Changes in trade, monetary and fiscal policies and laws;
- Securities and capital markets behavior, including changes in market liquidity and volatility;
- Changes in investor sentiment or consumer spending or savings behavior;
- Ability of the Firm to manage effectively its capital and liquidity, including approval of its capital plans by banking regulators;
- Changes in credit ratings assigned to the Firm or its subsidiaries;
- Damage to the Firm’s reputation;
- Ability of the Firm to deal effectively with an economic slowdown or other economic or market disruption;
- Technology changes instituted by the Firm, its counterparties or competitors;
- Mergers and acquisitions, including the Firm’s ability to integrate acquisitions;
- Ability of the Firm to develop new products and services, and the extent to which products or services previously sold by the Firm (including but not limited to mortgages and asset-backed securities) require the Firm to incur liabilities or absorb losses not contemplated at their initiation or origination;
- Ability of the Firm to address enhanced regulatory requirements affecting its mortgage business;
- Acceptance of the Firm’s new and existing products and services by the marketplace and the ability of the Firm to increase market share;
- Ability of the Firm to attract and retain employees;
- Ability of the Firm to control expense;
- Competitive pressures;
- Changes in the credit quality of the Firm’s customers and counterparties;
- Adequacy of the Firm’s risk management framework, disclosure controls and procedures and internal control over financial reporting;
- Adverse judicial or regulatory proceedings;
- Changes in applicable accounting policies;
- Ability of the Firm to determine accurate values of certain assets and liabilities;
- Occurrence of natural or man-made disasters or calamities or conflicts, including any effect of any such disasters, calamities or conflicts on the Firm’s power generation facilities and the Firm’s other physical commodity-related activities;
- Ability of the Firm to maintain the security of its financial, accounting, technology, data processing and other operating systems and facilities;
- The other risks and uncertainties detailed in Part I, Item 1A: Risk Factors in the Firm’s Annual Report on Form 10-K for the year ended December 31, 2013.

Any forward-looking statements made by or on behalf of the Firm speak only as of the date they are made, and JPMorgan Chase does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the date the forward-looking statements were made. The reader should, however, consult any further disclosures of a forward-looking nature the Firm may make in any subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, or Current Reports on Form 8-K.

Management's report on internal control over financial reporting

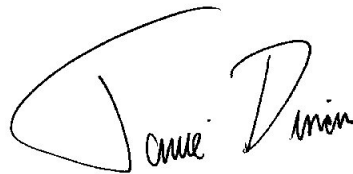
Management of JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the Firm's principal executive and principal financial officers, or persons performing similar functions, and effected by JPMorgan Chase's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

JPMorgan Chase's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records, that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Firm's assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Firm are being made only in accordance with authorizations of JPMorgan Chase's management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Firm's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Management has completed an assessment of the effectiveness of the Firm's internal control over financial reporting as of December 31, 2013. In making the assessment, management used the framework in "Internal Control - Integrated Framework (1992)" promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.

Based upon the assessment performed, management concluded that as of December 31, 2013, JPMorgan Chase's internal control over financial reporting was effective based upon the COSO 1992 criteria. Additionally, based upon management's assessment, the Firm determined that there were no material weaknesses in its internal control over financial reporting as of December 31, 2013.

The effectiveness of the Firm's internal control over financial reporting as of December 31, 2013, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.



James Dimon
Chairman and Chief Executive Officer



Marianne Lake
Executive Vice President and Chief Financial Officer

February 19, 2014



To the Board of Directors and Stockholders of JPMorgan Chase & Co.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows present fairly, in all material respects, the financial position of JPMorgan Chase & Co. and its subsidiaries (the "Firm") at December 31, 2013 and 2012 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Firm maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013 based on criteria established in *Internal Control - Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Firm's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's report on internal control over financial reporting". Our responsibility is to express opinions on these financial statements and on the Firm's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a

material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP".

February 19, 2014

Consolidated statements of income

Year ended December 31, (in millions, except per share data)	2013	2012	2011
Revenue			
Investment banking fees	\$ 6,354	\$ 5,808	\$ 5,911
Principal transactions	10,141	5,536	10,005
Lending- and deposit-related fees	5,945	6,196	6,458
Asset management, administration and commissions	15,106	13,868	14,094
Securities gains ^(a)	667	2,110	1,593
Mortgage fees and related income	5,205	8,687	2,721
Card income	6,022	5,658	6,158
Other income	3,847	4,258	2,605
Noninterest revenue	53,287	52,121	49,545
Interest income	52,996	56,063	61,293
Interest expense	9,677	11,153	13,604
Net interest income	43,319	44,910	47,689
Total net revenue	96,606	97,031	97,234
Provision for credit losses	225	3,385	7,574
Noninterest expense			
Compensation expense	30,810	30,585	29,037
Occupancy expense	3,693	3,925	3,895
Technology, communications and equipment expense	5,425	5,224	4,947
Professional and outside services	7,641	7,429	7,482
Marketing	2,500	2,577	3,143
Other expense	19,761	14,032	13,559
Amortization of intangibles	637	957	848
Total noninterest expense	70,467	64,729	62,911
Income before income tax expense	25,914	28,917	26,749
Income tax expense	7,991	7,633	7,773
Net income	\$ 17,923	\$ 21,284	\$ 18,976
Net income applicable to common stockholders	\$ 16,593	\$ 19,877	\$ 17,568
Net income per common share data			
Basic earnings per share	\$ 4.39	\$ 5.22	\$ 4.50
Diluted earnings per share	4.35	5.20	4.48
Weighted-average basic shares	3,782.4	3,809.4	3,900.4
Weighted-average diluted shares	3,814.9	3,822.2	3,920.3
Cash dividends declared per common share	\$ 1.44	\$ 1.20	\$ 1.00

(a) The following other-than-temporary impairment losses are included in securities gains for the periods presented.

Year ended December 31, (in millions)	2013	2012	2011
Debt securities the Firm does not intend to sell that have credit losses			
Total other-than-temporary impairment losses	\$ (1)	\$ (113)	\$ (27)
Losses recorded in/(reclassified from) other comprehensive income	—	85	(49)
Total credit losses recognized in income	(1)	(28)	(76)
Securities the Firm intends to sell	(20)	(15)	—
Total other-than-temporary impairment losses recognized in income	\$ (21)	\$ (43)	\$ (76)

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated statements of comprehensive income

Year ended December 31, (in millions)	2013		2012		2011	
Net income	\$	17,923	\$	21,284	\$	18,976
Other comprehensive income/(loss), after-tax						
Unrealized gains/(losses) on AFS securities		(4,070)		3,303		1,067
Translation adjustments, net of hedges		(41)		(69)		(279)
Cash flow hedges		(259)		69		(155)
Defined benefit pension and OPEB plans		1,467		(145)		(690)
Total other comprehensive income/(loss), after-tax		(2,903)		3,158		(57)
Comprehensive income	\$	15,020	\$	24,442	\$	18,919

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated balance sheets

December 31, (in millions, except share data)	2013	2012
Assets		
Cash and due from banks	\$ 39,771	\$ 53,723
Deposits with banks	316,051	121,814
Federal funds sold and securities purchased under resale agreements (included \$25,135 and \$24,258 at fair value)	248,116	296,296
Securities borrowed (included \$3,739 and \$10,177 at fair value)	111,465	119,017
Trading assets (included assets pledged of \$106,299 and \$108,784)	374,664	450,028
Securities (included \$329,977 and \$371,145 at fair value and assets pledged of \$23,446 and \$52,063)	354,003	371,152
Loans (included \$2,011 and \$2,555 at fair value)	738,418	733,796
Allowance for loan losses	(16,264)	(21,936)
Loans, net of allowance for loan losses	722,154	711,860
Accrued interest and accounts receivable	65,160	60,933
Premises and equipment	14,891	14,519
Goodwill	48,081	48,175
Mortgage servicing rights	9,614	7,614
Other intangible assets	1,618	2,235
Other assets (included \$15,187 and \$16,458 at fair value and assets pledged of \$2,066 and \$1,127)	110,101	101,775
Total assets^(a)	\$ 2,415,689	\$ 2,359,141
Liabilities		
Deposits (included \$6,624 and \$5,733 at fair value)	\$ 1,287,765	\$ 1,193,593
Federal funds purchased and securities loaned or sold under repurchase agreements (included \$5,426 and \$4,388 at fair value)	181,163	240,103
Commercial paper	57,848	55,367
Other borrowed funds (included \$13,306 and \$11,591 at fair value)	27,994	26,636
Trading liabilities	137,744	131,918
Accounts payable and other liabilities (included \$25 and \$36 at fair value)	194,491	195,240
Beneficial interests issued by consolidated variable interest entities (included \$1,996 and \$1,170 at fair value)	49,617	63,191
Long-term debt (included \$28,878 and \$30,788 at fair value)	267,889	249,024
Total liabilities^(a)	2,204,511	2,155,072
Commitments and contingencies (see Notes 29, 30 and 31 of this Annual Report)		
Stockholders' equity		
Preferred stock (\$1 par value; authorized 200,000,000 shares; issued 1,115,750 and 905,750 shares)	11,158	9,058
Common stock (\$1 par value; authorized 9,000,000,000 shares; issued 4,104,933,895 shares)	4,105	4,105
Capital surplus	93,828	94,604
Retained earnings	115,756	104,223
Accumulated other comprehensive income	1,199	4,102
Shares held in RSU Trust, at cost (476,642 and 479,126 shares)	(21)	(21)
Treasury stock, at cost (348,825,583 and 300,981,690 shares)	(14,847)	(12,002)
Total stockholders' equity	211,178	204,069
Total liabilities and stockholders' equity	\$ 2,415,689	\$ 2,359,141

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Firm at December 31, 2013 and 2012. The difference between total VIE assets and liabilities represents the Firm's interests in those entities, which were eliminated in consolidation.

December 31, (in millions)	2013	2012
Assets		
Trading assets	\$ 6,366	\$ 11,966
Loans	70,072	82,723
All other assets	2,168	2,090
Total assets	\$ 78,606	\$ 96,779
Liabilities		
Beneficial interests issued by consolidated variable interest entities	\$ 49,617	\$ 63,191
All other liabilities	1,061	1,244
Total liabilities	\$ 50,678	\$ 64,435

The assets of the consolidated VIEs are used to settle the liabilities of those entities. The holders of the beneficial interests do not have recourse to the general credit of JPMorgan Chase. At December 31, 2013 and 2012, the Firm provided limited program-wide credit enhancement of \$2.6 billion and \$3.1 billion, respectively, related to its Firm-administered multi-seller conduits, which are eliminated in consolidation. For further discussion, see Note 16 on pages 288-299 of this Annual Report.

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated statements of changes in stockholders' equity

Year ended December 31, (in millions, except per share data)	2013	2012	2011
Preferred stock			
Balance at January 1	\$ 9,058	\$ 7,800	\$ 7,800
Issuance of preferred stock	3,900	1,258	—
Redemption of preferred stock	(1,800)	—	—
Balance at December 31	11,158	9,058	7,800
Common stock			
Balance at January 1 and December 31	4,105	4,105	4,105
Capital surplus			
Balance at January 1	94,604	95,602	97,415
Shares issued and commitments to issue common stock for employee stock-based compensation awards, and related tax effects	(752)	(736)	(1,688)
Other	(24)	(262)	(125)
Balance at December 31	93,828	94,604	95,602
Retained earnings			
Balance at January 1	104,223	88,315	73,998
Net income	17,923	21,284	18,976
Dividends declared:			
Preferred stock	(805)	(647)	(629)
Common stock (\$1.44, \$1.20 and \$1.00 per share for 2013, 2012 and 2011, respectively)	(5,585)	(4,729)	(4,030)
Balance at December 31	115,756	104,223	88,315
Accumulated other comprehensive income/(loss)			
Balance at January 1	4,102	944	1,001
Other comprehensive income/(loss)	(2,903)	3,158	(57)
Balance at December 31	1,199	4,102	944
Shares held in RSU Trust, at cost			
Balance at January 1	(21)	(38)	(53)
Reissuance from RSU Trust	—	17	15
Balance at December 31	(21)	(21)	(38)
Treasury stock, at cost			
Balance at January 1	(12,002)	(13,155)	(8,160)
Purchase of treasury stock	(4,789)	(1,415)	(8,741)
Reissuance from treasury stock	1,944	2,574	3,750
Share repurchases related to employee stock-based compensation awards	—	(6)	(4)
Balance at December 31	(14,847)	(12,002)	(13,155)
Total stockholders' equity	\$ 211,178	\$ 204,069	\$ 183,573

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated statements of cash flows

Year ended December 31, (in millions)	2013	2012	2011
Operating activities			
Net income	\$ 17,923	\$ 21,284	\$ 18,976
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:			
Provision for credit losses	225	3,385	7,574
Depreciation and amortization	4,669	4,190	4,257
Amortization of intangibles	637	957	848
Deferred tax expense	8,003	1,130	1,693
Investment securities gains	(667)	(2,110)	(1,593)
Stock-based compensation	2,219	2,545	2,675
Originations and purchases of loans held-for-sale	(75,928)	(34,026)	(52,561)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	73,566	33,202	54,092
Net change in:			
Trading assets	89,110	(5,379)	36,443
Securities borrowed	7,562	23,455	(18,936)
Accrued interest and accounts receivable	(2,340)	1,732	8,655
Other assets	526	(4,683)	(15,456)
Trading liabilities	(9,772)	(3,921)	7,905
Accounts payable and other liabilities	(5,743)	(13,069)	35,203
Other operating adjustments	(2,037)	(3,613)	6,157
Net cash provided by operating activities	107,953	25,079	95,932
Investing activities			
Net change in:			
Deposits with banks	(194,363)	(36,595)	(63,592)
Federal funds sold and securities purchased under resale agreements	47,726	(60,821)	(12,490)
Held-to-maturity securities:			
Proceeds from paydowns and maturities	189	4	6
Purchases	(24,214)	—	—
Available-for-sale securities:			
Proceeds from paydowns and maturities	89,631	112,633	86,850
Proceeds from sales	73,312	81,957	68,631
Purchases	(130,266)	(189,630)	(202,309)
Proceeds from sales and securitizations of loans held-for-investment	12,033	6,430	10,478
Other changes in loans, net	(23,721)	(30,491)	(58,365)
Net cash (used in)/received from business acquisitions or dispositions	(149)	88	102
All other investing activities, net	(679)	(3,400)	(63)
Net cash used in investing activities	(150,501)	(119,825)	(170,752)
Financing activities			
Net change in:			
Deposits	81,476	67,250	203,420
Federal funds purchased and securities loaned or sold under repurchase agreements	(58,867)	26,546	(63,116)
Commercial paper and other borrowed funds	2,784	9,315	7,230
Beneficial interests issued by consolidated variable interest entities	(10,433)	345	1,165
Proceeds from long-term borrowings and trust preferred securities	83,546	86,271	54,844
Payments of long-term borrowings and trust preferred securities	(60,497)	(96,473)	(82,078)
Excess tax benefits related to stock-based compensation	137	255	867
Proceeds from issuance of preferred stock	3,873	1,234	—
Redemption of preferred stock	(1,800)	—	—
Treasury stock and warrants repurchased	(4,789)	(1,653)	(8,863)
Dividends paid	(6,056)	(5,194)	(3,895)
All other financing activities, net	(1,050)	(189)	(1,868)
Net cash provided by financing activities	28,324	87,707	107,706
Effect of exchange rate changes on cash and due from banks	272	1,160	(851)
Net (decrease)/increase in cash and due from banks	(13,952)	(5,879)	32,035
Cash and due from banks at the beginning of the period	53,723	59,602	27,567
Cash and due from banks at the end of the period	\$ 39,771	\$ 53,723	\$ 59,602
Cash interest paid	\$ 9,573	\$ 11,161	\$ 13,725
Cash income taxes paid, net	3,502	2,050	8,153

The Notes to Consolidated Financial Statements are an integral part of these statements.

Note 1 – Basis of presentation

JPMorgan Chase & Co. (“JPMorgan Chase” or the “Firm”), a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America (“U.S.”), with operations worldwide. The Firm is a leader in investment banking, financial services for consumers and small business, commercial banking, financial transaction processing, asset management and private equity. For a discussion of the Firm’s business segments, see Note 33 on pages 334–337 of this Annual Report.

The accounting and financial reporting policies of JPMorgan Chase and its subsidiaries conform to accounting principles generally accepted in the U.S. (“U.S. GAAP”). Additionally, where applicable, the policies conform to the accounting and reporting guidelines prescribed by regulatory authorities.

Certain amounts reported in prior periods have been reclassified to conform with the current presentation.

Consolidation

The Consolidated Financial Statements include the accounts of JPMorgan Chase and other entities in which the Firm has a controlling financial interest. All material intercompany balances and transactions have been eliminated. The Firm determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity (“VIE”).

Voting Interest Entities

Voting interest entities are entities that have sufficient equity and provide the equity investors voting rights that enable them to make significant decisions relating to the entity’s operations. For these types of entities, the Firm’s determination of whether it has a controlling interest is primarily based on the amount of voting equity interests held. Entities in which the Firm has a controlling financial interest, through ownership of the majority of the entities’ voting equity interests, or through other contractual rights that give the Firm control, are consolidated by the Firm.

Investments in companies in which the Firm has significant influence over operating and financing decisions (but does not own a majority of the voting equity interests) are accounted for (i) in accordance with the equity method of accounting (which requires the Firm to recognize its proportionate share of the entity’s net earnings), or (ii) at fair value if the fair value option was elected. These investments are generally included in other assets, with income or loss included in other income.

Certain Firm-sponsored asset management funds are structured as limited partnerships or limited liability companies. For many of these entities, the Firm is the general partner or managing member, but the non-affiliated partners or members have the ability to remove the Firm as the general partner or managing member without cause

(i.e., kick-out rights), based on a simple majority vote, or the non-affiliated partners or members have rights to participate in important decisions. Accordingly, the Firm does not consolidate these funds. In the limited cases where the nonaffiliated partners or members do not have substantive kick-out or participating rights, the Firm consolidates the funds.

The Firm’s investment companies make investments in both publicly-held and privately-held entities, including investments in buyouts, growth equity and venture opportunities. These investments are accounted for under investment company guidelines and accordingly, irrespective of the percentage of equity ownership interests held, are carried on the Consolidated Balance Sheets at fair value, and are recorded in other assets.

Variable Interest Entities

VIEs are entities that, by design, either (1) lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, or (2) have equity investors that do not have the ability to make significant decisions relating to the entity’s operations through voting rights, or do not have the obligation to absorb the expected losses, or do not have the right to receive the residual returns of the entity.

The most common type of VIE is a special purpose entity (“SPE”). SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. The basic SPE structure involves a company selling assets to the SPE; the SPE funds the purchase of those assets by issuing securities to investors. The legal documents that govern the transaction specify how the cash earned on the assets must be allocated to the SPE’s investors and other parties that have rights to those cash flows. SPEs are generally structured to insulate investors from claims on the SPE’s assets by creditors of other entities, including the creditors of the seller of the assets.

The primary beneficiary of a VIE (i.e., the party that has a controlling financial interest) is required to consolidate the assets and liabilities of the VIE. The primary beneficiary is the party that has both (1) the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance; and (2) through its interests in the VIE, the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE.

To assess whether the Firm has the power to direct the activities of a VIE that most significantly impact the VIE’s economic performance, the Firm considers all the facts and circumstances, including its role in establishing the VIE and its ongoing rights and responsibilities. This assessment includes, first, identifying the activities that most significantly impact the VIE’s economic performance; and second, identifying which party, if any, has power over those activities. In general, the parties that make the most significant decisions affecting the VIE (such as asset

Notes to consolidated financial statements

managers, collateral managers, servicers, or owners of call options or liquidation rights over the VIE's assets) or have the right to unilaterally remove those decision-makers are deemed to have the power to direct the activities of a VIE.

To assess whether the Firm has the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE, the Firm considers all of its economic interests, including debt and equity investments, servicing fees, and derivative or other arrangements deemed to be variable interests in the VIE. This assessment requires that the Firm apply judgment in determining whether these interests, in the aggregate, are considered potentially significant to the VIE. Factors considered in assessing significance include: the design of the VIE, including its capitalization structure; subordination of interests; payment priority; relative share of interests held across various classes within the VIE's capital structure; and the reasons why the interests are held by the Firm.

The Firm performs on-going reassessments of: (1) whether entities previously evaluated under the majority voting-interest framework have become VIEs, based on certain events, and therefore subject to the VIE consolidation framework; and (2) whether changes in the facts and circumstances regarding the Firm's involvement with a VIE cause the Firm's consolidation conclusion to change.

In January 2010, the Financial Accounting Standards Board ("FASB") issued an amendment which deferred the requirements of the accounting guidance for VIEs for certain investment funds, including mutual funds, private equity funds and hedge funds. For the funds to which the deferral applies, the Firm continues to apply other existing authoritative accounting guidance to determine whether such funds should be consolidated.

Assets held for clients in an agency or fiduciary capacity by the Firm are not assets of JPMorgan Chase and are not included on the Consolidated Balance Sheets.

Use of estimates in the preparation of consolidated financial statements

The preparation of the Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenue and expense, and disclosures of contingent assets and liabilities. Actual results could be different from these estimates.

Foreign currency translation

JPMorgan Chase revalues assets, liabilities, revenue and expense denominated in non-U.S. currencies into U.S. dollars using applicable exchange rates.

Gains and losses relating to translating functional currency financial statements for U.S. reporting are included in other comprehensive income/(loss) ("OCI") within stockholders' equity. Gains and losses relating to nonfunctional currency transactions, including non-U.S. operations where the functional currency is the U.S. dollar, are reported in the Consolidated Statements of Income.

Offsetting assets and liabilities

U.S. GAAP permits entities to present derivative receivables and derivative payables with the same counterparty and the related cash collateral receivables and payables on a net basis on the balance sheet when a legally enforceable master netting agreement exists. U.S. GAAP also permits securities sold and purchased under repurchase agreements to be presented net when specified conditions are met, including the existence of a legally enforceable master netting agreement. The Firm has elected to net such balances when the specified conditions are met.

The Firm uses master netting agreements to mitigate counterparty credit risk in certain transactions, including derivatives transactions, repurchase and reverse repurchase agreements, and securities borrowed and loaned agreements. A master netting agreement is a single contract with a counterparty that permits multiple transactions governed by that contract to be terminated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due after expiration of any grace period). Upon the exercise of termination rights by the non-defaulting party, (i) all transactions are terminated, (ii) all transactions are valued and the positive value or "in the money" transactions are netted against the negative value or "out of the money" transactions and (iii) the only remaining payment obligation is of one of the parties to pay the netted termination amount. Upon exercise of repurchase agreement and securities loaned default rights (i) all securities loan transactions are terminated and accelerated, (ii) all values of securities or cash held or to be delivered are calculated, and all such sums are netted against each other and (iii) the only remaining payment obligation is of one of the parties to pay the netted termination amount.

Typical master netting agreements for these types of transactions also often contain a collateral/margin agreement that provides for a security interest in or title transfer of securities or cash collateral/margin to the party that has the right to demand margin (the “demanding party”). The collateral/margin agreement typically requires a party to transfer collateral/margin to the demanding party with a value equal to the amount of the margin deficit on a net basis across all transactions governed by the master netting agreement, less any threshold. The collateral/margin agreement grants to the demanding party, upon default by the counterparty, the right to set-off any amounts payable by the counterparty against any posted collateral or the cash equivalent of any posted collateral/margin. It also grants to the demanding party the right to liquidate collateral/margin and to apply the proceeds to an amount payable by the counterparty.

For further discussion of the Firm’s derivative instruments, see Note 6 on pages 220–233 of this Annual Report. For further discussion of the Firm’s repurchase and reverse repurchase agreements, and securities borrowing and lending agreements, see Note 13 on pages 255–257 of this Annual Report.

Statements of cash flows

For JPMorgan Chase’s Consolidated Statements of Cash Flows, cash is defined as those amounts included in cash and due from banks.

Significant accounting policies

The following table identifies JPMorgan Chase’s other significant accounting policies and the Note and page where a detailed description of each policy can be found.

Business changes and developments	Note 2	Page 192
Fair value measurement	Note 3	Page 195
Fair value option	Note 4	Page 215
Derivative instruments	Note 6	Page 220
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Off-balance sheet lending-related financial instruments, guarantees and other commitments	Note 29	Page 318
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Note 2 – Business changes and developments

Student loan business

In September 2013, the Firm announced it ceased student loan originations.

Physical commodities businesses

On July 26, 2013 the Firm announced that it is pursuing strategic alternatives for its physical commodities businesses. Pursuant to that announcement, the Firm is exploring the sale of certain physical commodities operations, including physical oil, gas, power, warehousing facilities and transportation operations. During this process, the Firm will continue to run its physical commodities business as a going concern. The Firm remains fully committed to its traditional banking activities in the commodities markets, including financial derivatives and the trading of precious metals, which are not part of these strategic alternatives.

One Equity Partners

As announced on June 14, 2013, One Equity Partners (“OEP”) is expected to raise its next fund from an external group of limited partners and then become independent from JPMorgan Chase. Until it becomes independent from the Firm, OEP will continue to make direct investments for JPMorgan Chase, and thereafter is expected to continue managing the then-existing group of portfolio companies for JPMorgan Chase in order to maximize value for the Firm.

Other business events

Visa B Shares

In December 2013, JP Morgan Chase sold 20 million Visa Class B shares, resulting in a net pre-tax gain of approximately \$1.3 billion recorded in other income. In conjunction with the sale, the Firm entered into a derivative instrument with the purchaser under which the Firm will (a) make periodic fixed payments, calculated by reference to the market price of Visa Class A common shares and (b) make or receive payments based on subsequent changes in the conversion rate of Visa Class B shares into Visa Class A shares. The payments under the derivative continue as long as Class B shares remain “restricted”. The derivative is accounted for as a trading liability. The fair value of the derivative is estimated using a discounted cash flow methodology and is dependent upon the final resolution of certain Visa litigation matters; changes in fair value will be recognized in other income.

After the sale, the Firm continues to own approximately 40 million Visa Class B shares. These shares will be converted into Visa Class A shares upon final resolution of certain Visa litigation matters; the conversion rate of Visa Class B shares to Visa Class A shares is 0.4206 as of December 31, 2013 and will be adjusted by Visa depending on developments related to certain Visa litigation matters.

One Chase Manhattan Plaza

On December 17, 2013, the Firm sold One Chase Manhattan Plaza, an office building located in New York City, and recognized a pretax gain of \$493 million in Other Income.

Settlement with the President’s Task Force on Residential Mortgage-Backed Securities (“RMBS”)

On November 19, 2013, the Firm announced a resolution of actual and potential civil claims by a number of federal and state government agencies, including the U.S. Department of Justice and, several State Attorneys General, as well as litigation by the Federal Deposit Insurance Corporation, the National Credit Union Administration and the Federal Housing Finance Agency relating to residential mortgage-backed securities activities by JPMorgan Chase, Bear Stearns and Washington Mutual (the “RMBS settlement”). Under the settlement, the Firm paid a total of \$9 billion in cash, and committed to provide \$4 billion in borrower relief. The cash portion consists of a \$2 billion civil monetary penalty and \$7 billion in compensatory payments, including \$4 billion to resolve the Federal Housing Finance Agency litigation (see “Mortgage-backed securities settlements with the Federal Housing Finance Agency, Freddie Mac, and Fannie Mae” below). The \$4 billion of borrower relief will be in the form of principal reduction, forbearance and other direct benefits from various relief programs. The Firm has committed to complete the delivery of the relief to borrowers before the end of 2017.

The Firm’s 2013 results of operations reflected the estimated costs of the settlement (i.e., the cash payments as well as the borrower relief). The estimated impact of the cash settlement has been considered in the Firm’s legal reserve, whereas the impact of the borrower relief portion of the settlement has been considered in the allowance for loan losses.

RMBS Trust Settlement

On November 15, 2013, the Firm announced it had reached a \$4.5 billion agreement with 21 major institutional investors to make a binding offer to the trustees of 330 residential mortgage-backed securities trusts issued by J.P. Morgan, Chase, and Bear Stearns ("RMBS Trust Settlement") to resolve all representation and warranty claims, as well as all servicing claims, on all trusts issued by J.P. Morgan, Chase, and Bear Stearns between 2005 and 2008. The RMBS Trust Settlement is under consideration by the trustees and may be subject to court approval. This agreement does not resolve claims on trusts issued by Washington Mutual. For further information about the RMBS Trust Settlement, see Note 31 on pages 326-332 of this Annual Report.

Mortgage-backed securities settlements with the Federal Housing Finance Agency, Freddie Mac and Fannie Mae

On October 25, 2013, the Firm announced that it had reached a \$4.0 billion agreement to resolve all of its mortgage-backed securities ("MBS") litigation with the Federal Housing Finance Agency ("FHFA") as conservator for Freddie Mac and Fannie Mae. The Firm also simultaneously agreed to resolve, for \$1.1 billion, other than certain limited types of exposures, outstanding and future mortgage repurchase demands associated with loans sold to the GSEs from 2000 to 2008 ("FHFA Settlement Agreement").

Mortgage foreclosure settlement agreement with the Office of the Comptroller of the Currency and the Board of Governors of the Federal Reserve System

On January 7, 2013, the Firm announced that it and a number of other financial institutions entered into a settlement agreement with the Office of the Comptroller of the Currency ("OCC") and the Board of Governors of the Federal Reserve System ("Federal Reserve") providing for the termination of the independent foreclosure review programs (the "Independent Foreclosure Review"). Under this settlement, the Firm made a cash payment of approximately \$760 million into a settlement fund for distribution to qualified borrowers. The Firm has also committed \$1.2 billion to foreclosure prevention actions, which will be fulfilled through credits given to the Firm for modifications, short sales and other specified types of borrower relief. Foreclosure prevention actions that earn credit under the Independent Foreclosure Review settlement are in addition to actions taken by the Firm to

earn credit under the global settlement entered into by the Firm with state and federal agencies (see "Global settlement on servicing and origination of mortgages" below). The estimated impact of the foreclosure prevention actions required under the Independent Foreclosure Review settlement have been considered in the Firm's allowance for loan losses. The Firm recognized a pretax charge of approximately \$700 million in the fourth quarter of 2012 related to the Independent Foreclosure Review settlement.

Washington Mutual, Inc. bankruptcy plan confirmation

On March 19, 2012, a bankruptcy court approved the joint plan containing the global settlement agreement resolving numerous disputes among Washington Mutual, Inc. ("WMI"), JPMorgan Chase and the Federal Deposit Insurance Corporation ("FDIC") as well as significant creditor groups (the "WaMu Global Settlement"). The Firm recognized additional assets, including certain pension-related assets, as well as tax refunds, resulting in a pretax gain of \$1.1 billion in 2012.

Global settlement on servicing and origination of mortgages

On February 9, 2012, the Firm announced that it had agreed to a settlement in principle (the "global settlement") with a number of federal and state government agencies, including the U.S. Department of Justice ("DOJ"), the U.S. Department of Housing and Urban Development, the Consumer Financial Protection Bureau and the State Attorneys General, relating to the servicing and origination of mortgages.

The global settlement releases the Firm from certain further claims by the participating government entities related to servicing activities, including foreclosures and loss mitigation activities; certain origination activities; and certain bankruptcy-related activities. Not included in the global settlement are any claims arising out of securitization activities, including representations made to investors with respect to mortgage-backed securities; criminal claims; and repurchase demands from U.S. government-sponsored entities ("GSEs"), among other items.

Also on February 9, 2012, the Firm entered into agreements with the Federal Reserve and the OCC for the payment of civil money penalties related to conduct that was the subject of consent orders entered into with the banking regulators in April 2011.

Subsequent events

Settlement agreement with The U.S. Departments Of Justice, Housing and Urban Development, and Veterans Affairs, and The Federal Housing Administration

On February 4, 2014, the Firm announced that it had reached a settlement with the U.S. Attorney's Office for the Southern District of New York, Federal Housing Administration ("FHA"), the U.S. Department of Housing and Urban Development ("HUD"), and the U.S. Department of Veterans Affairs ("VA") resolving claims relating to the Firm's participation in federal mortgage insurance programs overseen by FHA, HUD and VA ("FHA Settlement"). Under the FHA Settlement, which relates to FHA and VA insurance claims that have been paid to the Firm from 2002 through the date of the settlement, the Firm will pay \$614 million in cash, and agree to enhance its quality control program for loans that are submitted in the future to FHA's Direct Endorsement Lender Program. The Firm is fully reserved for the settlement, and any financial impact related to exposure on future claims is not expected to be significant.

Madoff Litigation and Investigations

On January 7, 2014, the Firm announced that certain of its bank subsidiaries had entered into settlements with various governmental agencies in resolution of investigations relating to Bernard L. Madoff Investment Securities LLC ("BLMIS"). The Firm and certain of its subsidiaries also entered into settlements with several private parties in resolution of civil litigation relating to BLMIS. At the same time, certain bank subsidiaries of the Firm consented to the assessment of a civil money penalty by the OCC in connection with various Bank Secrecy Act/Anti-Money Laundering deficiencies, including with relation to the BLMIS fraud, and JPMorgan Chase Bank, N.A. additionally agreed to the assessment of a civil money penalty by the Financial Crimes Enforcement Network for failure to detect and adequately report suspicious transactions relating to BLMIS. For further information on these settlements, see Note 31 on pages 326-332 of this Annual Report.

Note 3 – Fair value measurement

JPMorgan Chase carries a portion of its assets and liabilities at fair value. These assets and liabilities are predominantly carried at fair value on a recurring basis (i.e., assets and liabilities that are measured and reported at fair value on the Firm's Consolidated Balance Sheets). Certain assets (e.g., certain mortgage, home equity and other loans, where the carrying value is based on the fair value of the underlying collateral), liabilities and unfunded lending-related commitments are measured at fair value on a nonrecurring basis; that is, they are not measured at fair value on an ongoing basis but are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment).

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices, where available. If listed prices or quotes are not available, fair value is based on models that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters, including but not limited to yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value, as described below.

Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Firm believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgment and may vary across the Firm's businesses and portfolios.

The Firm uses various methodologies and assumptions in the determination of fair value. The use of different methodologies or assumptions to those used by the Firm could result in a different estimate of fair value at the reporting date.

Valuation process

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the Consolidated Balance Sheets at fair value. The Firm's valuation control function, which is part of the Firm's Finance function and independent of the risk-taking functions, is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Firm's positions are recorded at fair value. In addition, the Firm has a firmwide Valuation Governance Forum ("VGF") comprising senior finance and risk executives to oversee the management of risks arising from valuation activities conducted across the Firm. The VGF is chaired by the firm-wide head of the valuation control function, and also includes sub-forums for the Corporate & Investment Bank ("CIB"), Mortgage Banking, (part of Consumer & Community Banking) and certain corporate functions including Treasury and Chief Investment Office ("CIO").

The valuation control function verifies fair value estimates leveraging independently derived prices, valuation inputs and other market data, where available. Where independent prices or inputs are not available, additional review is performed by the valuation control function to ensure the reasonableness of estimates that cannot be verified to external independent data, and may include: evaluating the limited market activity including client unwinds; benchmarking of valuation inputs to those for similar instruments; decomposing the valuation of structured instruments into individual components; comparing expected to actual cash flows; reviewing profit and loss trends; and reviewing trends in collateral valuation. In addition there are additional levels of management review for more significant or complex positions.

The valuation control function determines any valuation adjustments that may be required to the estimates provided by the risk-taking functions. No adjustments are applied to the quoted market price for instruments classified within level 1 of the fair value hierarchy (see below for further information on the fair value hierarchy). For other positions, judgment is required to assess the need for valuation adjustments to appropriately reflect liquidity considerations, unobservable parameters, and, for certain portfolios that meet specified criteria, the size of the net open risk position. The determination of such adjustments follows a consistent framework across the Firm:

- Liquidity valuation adjustments are considered when the Firm may not be able to observe a recent market price for a financial instrument that trades in an inactive (or less active) market. The Firm estimates the amount of uncertainty in the initial fair value estimate based on the degree of liquidity in the market. Factors that may be considered in determining the liquidity adjustment include: (1) the amount of time since the last relevant pricing point; (2) whether there was an actual trade or relevant external quotes or alternatively pricing points for similar instruments in active markets; and (3) the volatility of the principal risk component of the financial instrument.

The Firm manages certain portfolios of financial instruments on the basis of net open risk exposure and, as permitted by US GAAP, has elected to estimate the fair value of such portfolios on the basis of a transfer of the entire net open risk position in an orderly transaction. Where this is the case, valuation adjustments may be necessary to reflect the cost of exiting a larger-than-normal market-size net open risk position. Where applied, such adjustments are based on factors that a relevant market participant would consider in the transfer of the net open risk position including the size of the adverse market move that is likely to occur during the period required to reduce the net open risk position to a normal market-size.

- Unobservable parameter valuation adjustments may be made when positions are valued using internally developed models that incorporate unobservable parameters – that is, parameters that must be estimated and are, therefore, subject to management judgment. Unobservable parameter valuation adjustments are applied to reflect the uncertainty inherent in the valuation estimate provided by the model.

Where appropriate, the Firm also applies adjustments to its estimates of fair value in order to appropriately reflect counterparty credit quality and the Firm's own creditworthiness, applying a consistent framework across the Firm. For more information on such adjustments see Credit adjustments on page 212 of this Note

Impact of funding on valuation estimates

The Firm incorporates the impact of funding in its valuation estimates where there is evidence that a market participant in the principal market would incorporate it in a transfer of the instrument. As a result, the fair value of collateralized derivatives is estimated by discounting expected future cash flows at the relevant overnight indexed swap ("OIS") rate given the underlying collateral agreement with the counterparty. Prior to the fourth quarter of 2013, the Firm did not incorporate the impact of funding in its valuation of uncollateralized (including partially collateralized) derivatives and structured notes. However, during the fourth quarter of 2013, the Firm implemented a funding valuation adjustment ("FVA") framework to incorporate its best estimate of the funding cost or benefit that a relevant market participant would consider in the transfer of an OTC derivative or structured note. As a result, the Firm recorded a one time \$1.5 billion loss in principal transactions revenue in the fourth quarter, which was recorded in the CIB.

The FVA framework applies to both assets and liabilities, but the adjustment in the fourth quarter largely relates to uncollateralized derivative receivables given that the impact of the Firm's own credit risk, which is a significant component of funding costs, is already incorporated in the valuation of liabilities through the application of DVA.

Valuation model review and approval

If prices or quotes are not available for an instrument or a similar instrument, fair value is generally determined using valuation models that consider relevant transaction data such as maturity and use as inputs market-based or independently sourced parameters. Where this is the case the price verification process described above is applied to the inputs to those models.

The Firm's Model Risk function within the Firm's Model Risk and Development Group, which in turn reports to the Chief Risk Officer, reviews and approves valuation models used by the Firm. Model reviews consider a number of factors about the model's suitability for valuation of a particular product including whether it accurately reflects the characteristics and significant risks of a particular instrument; the selection and reliability of model inputs; consistency with models for similar products; the appropriateness of any model-related adjustments; and sensitivity to input parameters and assumptions that cannot be observed from the market. When reviewing a model, the Model Risk function analyzes and challenges the model methodology and the reasonableness of model assumptions and may perform or require additional testing, including back-testing of model outcomes.

New significant valuation models, as well as material changes to existing models, are reviewed and approved prior to implementation except where specified conditions are met. The Model Risk function performs an annual firmwide model risk assessment where developments in the product or market are considered in determining whether valuation models which have already been reviewed need to be reviewed and approved again.

Valuation hierarchy

A three-level valuation hierarchy has been established under U.S. GAAP for disclosure of fair value measurements. The valuation hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows.

- Level 1 – inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 – inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3 – one or more inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorization within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Notes to consolidated financial statements

The following table describes the valuation methodologies used by the Firm to measure its more significant products/instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/instrument	Valuation methodology	Classifications in the valuation hierarchy
Securities financing agreements	Valuations are based on discounted cash flows, which consider: • Derivative features. For further information refer to the discussion of derivatives below. • Market rates for the respective maturity • Collateral	Level 2
Loans and lending-related commitments - wholesale		
Trading portfolio	Where observable market data is available, valuations are based on: • Observed market prices (circumstances are limited) • Relevant broker quotes • Observed market prices for similar instruments Where observable market data is unavailable or limited, valuations are based on discounted cash flows, which consider the following: • Yield • Lifetime credit losses • Loss severity • Prepayment speed • Servicing costs	Level 2 or 3
Loans held for investment and associated lending related commitments	Valuations are based on discounted cash flows, which consider: • Credit spreads, derived from the cost of CDS; or benchmark credit curves developed by the Firm, by industry and credit rating, and which take into account the difference in loss severity rates between bonds and loans • Prepayment speed Lending related commitments are valued similar to loans and reflect the portion of an unused commitment expected, based on the Firm's average portfolio historical experience, to become funded prior to an obligor default For information regarding the valuation of loans measured at collateral value, see Note 14 on pages 258-283 of this Annual Report.	Predominantly level 3
Loans - consumer		
Held for investment consumer loans, excluding credit card	Valuations are based on discounted cash flows, which consider: • Discount rates (derived from primary origination rates and market activity) • Expected lifetime credit losses (considering expected and current default rates for existing portfolios, collateral prices, and economic environment expectations (i.e., unemployment rates)) • Estimated prepayments • Servicing costs • Market liquidity For information regarding the valuation of loans measured at collateral value, see Note 14 on pages 258-283 of this Annual Report.	Predominantly level 3
Held for investment credit card receivables	Valuations are based on discounted cash flows, which consider: • Projected interest income and late fee revenue, funding, servicing and credit costs, and loan repayment rates • Estimated life of receivables (based on projected loan payment rates) • Discount rate - based on expected return on receivables • Credit costs - allowance for loan losses is considered a reasonable proxy for the credit cost based on the short-term nature of credit card receivables	Level 3
Trading loans - Conforming residential mortgage loans expected to be sold	Fair value is based upon observable prices for mortgage-backed securities with similar collateral and incorporates adjustments to these prices to account for differences between the securities and the value of the underlying loans, which include credit characteristics, portfolio composition, and liquidity.	Predominantly level 2

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Securities	Quoted market prices are used where available.	Level 1
	In the absence of quoted market prices, securities are valued based on: • Observable market prices for similar securities • Relevant broker quotes • Discounted cash flows In addition, the following inputs to discounted cash flows are used for the following products: <i>Mortgage- and asset-backed securities specific inputs:</i> • Collateral characteristics • Deal-specific payment and loss allocations • Current market assumptions related to yield, prepayment speed, conditional default rates and loss severity <i>Collateralized loan obligations ("CLOs"), specific inputs:</i> • Collateral characteristics • Deal-specific payment and loss allocations • Expected prepayment speed, conditional default rates, loss severity • Credit spreads • Credit rating data	Level 2 or 3
Physical commodities	Valued using observable market prices or data	Predominantly Level 1 and 2
Derivatives	Exchange-traded derivatives that are actively traded and valued using the exchange price, and over-the-counter contracts where quoted prices are available in an active market.	Level 1
	Derivatives that are valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models, that use observable or unobservable valuation inputs (e.g. plain vanilla options and interest rate and credit default swaps). Inputs include: • Contractual terms including the period to maturity • Readily observable parameters including interest rates and volatility • Credit quality of the counterparty and of the Firm • Market funding levels • Correlation levels In addition, the following specific inputs are used for the following derivatives that are valued based on models with significant unobservable inputs: <i>Structured credit derivatives specific inputs include:</i> • CDS spreads and recovery rates • Credit correlation between the underlying debt instruments (levels are modeled on a transaction basis and calibrated to liquid benchmark tranche indices) • Actual transactions, where available, are used to regularly recalibrate unobservable parameters <i>Certain long-dated equity option specific inputs include:</i> • Long-dated equity volatilities <i>Certain interest rate and FX exotic options specific inputs include:</i> • Interest rate correlation • Interest rate spread volatility • Foreign exchange correlation • Correlation between interest rates and foreign exchange rates • Parameters describing the evolution of underlying interest rates <i>Certain commodity derivatives specific inputs include:</i> • Commodity volatility • Forward commodity price Adjustments to reflect counterparty credit quality (credit valuation adjustments or "CVA"), the Firm's own creditworthiness (debit valuation adjustments or "DVA"), and FVA to incorporate the impact of funding see page 212 of this Note.	Level 2 or 3

Notes to consolidated financial statements

Product/instrument	Valuation methodology, inputs and assumptions	Classification in the valuation hierarchy
Mortgage servicing rights (“MSRs”)	See Mortgage servicing rights in Note 17 on pages 299-304 of this Annual Report.	Level 3
Private equity direct investments	<i>Private equity direct investments</i> Fair value is estimated using all available information and considering the range of potential inputs, including: • Transaction prices • Trading multiples of comparable public companies • Operating performance of the underlying portfolio company • Additional available inputs relevant to the investment • Adjustments as required, since comparable public companies are not identical to the company being valued, and for company-specific issues and lack of liquidity <i>Public investments held in the Private Equity portfolio</i> • Valued using observable market prices less adjustments for relevant restrictions, where applicable	Level 3 Level 1 or 2
Fund investments (i.e., mutual/collective investment funds, private equity funds, hedge funds, and real estate funds)	Net asset value (“NAV”) • NAV is validated by sufficient level of observable activity (i.e., purchases and sales) • Adjustments to the NAV as required, for restrictions on redemption (e.g., lock up periods or withdrawal limitations) or where observable activity is limited	Level 1 Level 2 or 3
Beneficial interests issued by consolidated VIE	Valued using observable market information, where available In the absence of observable market information, valuations are based on the fair value of the underlying assets held by the VIE	Level 2 or 3
Long-term debt, not carried at fair value	Valuations are based on discounted cash flows, which consider: • Market rates for respective maturity • The Firm’s own creditworthiness (DVA), see page 212 of this Note.	Predominantly level 2
Structured notes (included in deposits, other borrowed funds and long-term debt)	• Valuations are based on discounted cash flow analyses that consider the embedded derivative and the terms and payment structure of the note. • The embedded derivative features are considered using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that use observable or unobservable valuation inputs, depending on the embedded derivative. The specific inputs used vary according to the nature of the embedded derivative features, as described in the discussion above regarding derivative valuation. Adjustments are then made to this base valuation to reflect the Firm’s own credit risk (DVA) and to incorporate the impact of funding (FVA). See page 212 of this Note.	Level 2 or 3

The following table presents the asset and liabilities measured at fair value as of December 31, 2013 and 2012 by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

December 31, 2013 (in millions)	Fair value hierarchy			Netting adjustments	Total fair value
	Level 1	Level 2	Level 3		
Federal funds sold and securities purchased under resale agreements	\$ —	\$ 25,135	\$ —	\$ —	\$ 25,135
Securities borrowed	—	3,739	—	—	3,739
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies ^(a)	4	25,582	1,005	—	26,591
Residential - nonagency	—	1,749	726	—	2,475
Commercial - nonagency	—	871	432	—	1,303
Total mortgage-backed securities	4	28,202	2,163	—	30,369
U.S. Treasury and government agencies ^(a)	14,933	10,547	—	—	25,480
Obligations of U.S. states and municipalities	—	6,538	1,382	—	7,920
Certificates of deposit, bankers' acceptances and commercial paper	—	3,071	—	—	3,071
Non-U.S. government debt securities	25,762	22,379	143	—	48,284
Corporate debt securities	—	24,802	5,920	—	30,722
Loans ^(b)	—	17,331	13,455	—	30,786
Asset-backed securities	—	3,647	1,272	—	4,919
Total debt instruments	40,699	116,517	24,335	—	181,551
Equity securities	107,667	954	885	—	109,506
Physical commodities ^(c)	4,968	5,217	4	—	10,189
Other	—	5,659	2,000	—	7,659
Total debt and equity instruments^(d)	153,334	128,347	27,224	—	308,905
Derivative receivables:					
Interest rate	419	848,862	5,398	(828,897)	25,782
Credit	—	79,754	3,766	(82,004)	1,516
Foreign exchange	434	151,521	1,644	(136,809)	16,790
Equity	—	45,892	7,039	(40,704)	12,227
Commodity	320	34,696	722	(26,294)	9,444
Total derivative receivables^(e)	1,173	1,160,725	18,569	(1,114,708)	65,759
Total trading assets	154,507	1,289,072	45,793	(1,114,708)	374,664
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies ^(a)	—	77,815	—	—	77,815
Residential - nonagency	—	61,760	709	—	62,469
Commercial - nonagency	—	15,900	525	—	16,425
Total mortgage-backed securities	—	155,475	1,234	—	156,709
U.S. Treasury and government agencies ^(a)	21,091	298	—	—	21,389
Obligations of U.S. states and municipalities	—	29,461	—	—	29,461
Certificates of deposit	—	1,041	—	—	1,041
Non-U.S. government debt securities	25,648	30,600	—	—	56,248
Corporate debt securities	—	21,512	—	—	21,512
Asset-backed securities:					
Collateralized loan obligations	—	27,409	821	—	28,230
Other	—	11,978	267	—	12,245
Equity securities	3,142	—	—	—	3,142
Total available-for-sale securities	49,881	277,774	2,322	—	329,977
Loans	—	80	1,931	—	2,011
Mortgage servicing rights	—	—	9,614	—	9,614
Other assets:					
Private equity investments ^(f)	606	429	6,474	—	7,509
All other	4,213	289	3,176	—	7,678
Total other assets	4,819	718	9,650	—	15,187
Total assets measured at fair value on a recurring basis	\$ 209,207	\$ 1,596,518^(g)	\$ 69,310^(g)	\$ (1,114,708)	\$ 760,327
Deposits	\$ —	\$ 4,369	\$ 2,255	\$ —	\$ 6,624
Federal funds purchased and securities loaned or sold under repurchase agreements	—	5,426	—	—	5,426
Other borrowed funds	—	11,232	2,074	—	13,306
Trading liabilities:					
Debt and equity instruments ^(d)	61,262	19,055	113	—	80,430
Derivative payables:					
Interest rate	321	822,014	3,019	(812,071)	13,283
Credit	—	78,731	3,671	(80,121)	2,281
Foreign exchange	443	156,838	2,844	(144,178)	15,947
Equity	—	46,552	8,102	(39,935)	14,719
Commodity	398	36,609	607	(26,530)	11,084
Total derivative payables^(e)	1,162	1,140,744	18,243	(1,102,835)	57,314
Total trading liabilities	62,424	1,159,799	18,356	(1,102,835)	137,744
Accounts payable and other liabilities	—	—	25	—	25
Beneficial interests issued by consolidated VIEs	—	756	1,240	—	1,996
Long-term debt	—	18,870	10,008	—	28,878
Total liabilities measured at fair value on a recurring basis	\$ 62,424	\$ 1,200,452	\$ 33,958	\$ (1,102,835)	\$ 193,999

Notes to consolidated financial statements

December 31, 2012 (in millions)	Fair value hierarchy			Netting adjustments	Total fair value
	Level 1	Level 2	Level 3		
Federal funds sold and securities purchased under resale agreements	\$ —	\$ 24,258	\$ —	\$ —	\$ 24,258
Securities borrowed	—	10,177	—	—	10,177
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies ^(a)	—	36,240	498	—	36,738
Residential - nonagency	—	1,509	663	—	2,172
Commercial - nonagency	—	1,565	1,207	—	2,772
Total mortgage-backed securities	—	39,314	2,368	—	41,682
U.S. Treasury and government agencies ^{(a)(h)}	15,170	7,255	—	—	22,425
Obligations of U.S. states and municipalities	—	16,726	1,436	—	18,162
Certificates of deposit, bankers' acceptances and commercial paper	—	4,759	—	—	4,759
Non-U.S. government debt securities ^(h)	26,095	44,028	67	—	70,190
Corporate debt securities ^(h)	—	31,882	5,308	—	37,190
Loans ^(b)	—	30,754	10,787	—	41,541
Asset-backed securities	—	4,182	3,696	—	7,878
Total debt instruments	41,265	178,900	23,662	—	243,827
Equity securities	106,898	2,687	1,114	—	110,699
Physical commodities ^(c)	10,107	6,066	—	—	16,173
Other	—	3,483	863	—	4,346
Total debt and equity instruments^(d)	158,270	191,136	25,639	—	375,045
Derivative receivables:					
Interest rate ^(h)	476	1,295,239	6,617	(1,263,127)	39,205
Credit	—	93,821	6,489	(98,575)	1,735
Foreign exchange ^(h)	450	143,752	3,051	(133,111)	14,142
Equity ^(h)	—	37,758	4,921	(33,413)	9,266
Commodity ^(h)	316	42,300	1,155	(33,136)	10,635
Total derivative receivables^(e)	1,242	1,612,870	22,233	(1,561,362)	74,983
Total trading assets	159,512	1,804,006	47,872	(1,561,362)	450,028
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies ^(a)	—	98,388	—	—	98,388
Residential - nonagency	—	74,189	450	—	74,639
Commercial - nonagency	—	12,948	255	—	13,203
Total mortgage-backed securities	—	185,525	705	—	186,230
U.S. Treasury and government agencies ^{(a)(h)}	11,089	1,041	—	—	12,130
Obligations of U.S. states and municipalities	35	21,489	187	—	21,711
Certificates of deposit	—	2,783	—	—	2,783
Non-U.S. government debt securities ^(h)	29,556	36,488	—	—	66,044
Corporate debt securities	—	38,609	—	—	38,609
Asset-backed securities:					
Collateralized loan obligations	—	—	27,896	—	27,896
Other	—	12,843	128	—	12,971
Equity securities	2,733	38	—	—	2,771
Total available-for-sale securities	43,413	298,816	28,916	—	371,145
Loans	—	273	2,282	—	2,555
Mortgage servicing rights	—	—	7,614	—	7,614
Other assets:					
Private equity investments ^(f)	578	—	7,181	—	7,759
All other	4,188	253	4,258	—	8,699
Total other assets	4,766	253	11,439	—	16,458
Total assets measured at fair value on a recurring basis	\$ 207,691	\$ 2,137,783 ^(g)	\$ 98,123 ^(g)	\$ (1,561,362)	\$ 882,235
Deposits	\$ —	\$ 3,750	\$ 1,983	\$ —	\$ 5,733
Federal funds purchased and securities loaned or sold under repurchase agreements	—	4,388	—	—	4,388
Other borrowed funds	—	9,972	1,619	—	11,591
Trading liabilities:					
Debt and equity instruments ^{(d)(h)}	47,469	13,588	205	—	61,262
Derivative payables:					
Interest rate ^(h)	490	1,256,989	3,295	(1,235,868)	24,906
Credit	—	95,411	4,616	(97,523)	2,504
Foreign exchange ^(h)	428	155,323	4,801	(141,951)	18,601
Equity ^(h)	—	37,808	6,727	(32,716)	11,819
Commodity ^(h)	176	46,548	901	(34,799)	12,826
Total derivative payables^(e)	1,094	1,592,079	20,340	(1,542,857)	70,656
Total trading liabilities	48,563	1,605,667	20,545	(1,542,857)	131,918
Accounts payable and other liabilities	—	—	36	—	36
Beneficial interests issued by consolidated VIEs	—	245	925	—	1,170
Long-term debt	—	22,312	8,476	—	30,788
Total liabilities measured at fair value on a recurring basis	\$ 48,563	\$ 1,646,334	\$ 33,584	\$ (1,542,857)	\$ 185,624

- (a) At December 31, 2013 and 2012, included total U.S. government-sponsored enterprise obligations of \$91.5 billion and \$119.4 billion, respectively, which were predominantly mortgage-related.
- (b) At December 31, 2013 and 2012, included within trading loans were \$14.8 billion and \$26.4 billion, respectively, of residential first-lien mortgages, and \$2.1 billion and \$2.2 billion, respectively, of commercial first-lien mortgages. Residential mortgage loans include conforming mortgage loans originated with the intent to sell to U.S. government agencies of \$6.0 billion and \$17.4 billion, respectively, and reverse mortgages of \$3.6 billion and \$4.0 billion, respectively.

- (c) Physical commodities inventories are generally accounted for at the lower of cost or market. "Market" is a term defined in U.S. GAAP as not exceeding fair value less costs to sell ("transaction costs"). Transaction costs for the Firm's physical commodities inventories are either not applicable or immaterial to the value of the inventory. Therefore, market approximates fair value for the Firm's physical commodities inventories. When fair value hedging has been applied (or when market is below cost), the carrying value of physical commodities approximates fair value, because under fair value hedge accounting, the cost basis is adjusted for changes in fair value. For a further discussion of the Firm's hedge accounting relationships, see Note 6 on pages 220-233 of this Annual Report. To provide consistent fair value disclosure information, all physical commodities inventories have been included in each period presented.
- (d) Balances reflect the reduction of securities owned (long positions) by the amount of securities sold but not yet purchased (short positions) when the long and short positions have identical Committee on Uniform Security Identification Procedures numbers ("CUSIPs").
- (e) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists. For purposes of the tables above, the Firm does not reduce derivative receivables and derivative payables balances for this netting adjustment, either within or across the levels of the fair value hierarchy, as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset or liability. Therefore, the balances reported in the fair value hierarchy table are gross of any counterparty netting adjustments. However, if the Firm were to net such balances within level 3, the reduction in the level 3 derivative receivables and payables balances would be \$7.6 billion and \$7.4 billion at December 31, 2013 and 2012, respectively; this is exclusive of the netting benefit associated with cash collateral, which would further reduce the level 3 balances.
- (f) Private equity instruments represent investments within the Corporate/Private Equity line of business. The cost basis of the private equity investment portfolio totaled \$8.0 billion and \$8.4 billion at December 31, 2013 and 2012, respectively.
- (g) Includes investments in hedge funds, private equity funds, real estate and other funds that do not have readily determinable fair values. The Firm uses net asset value per share when measuring the fair value of these investments. At December 31, 2013 and 2012, the fair values of these investments were \$3.2 billion and \$4.9 billion, respectively, of which \$899 million and \$1.1 billion, respectively were classified in level 2, and \$2.3 billion and \$3.8 billion, respectively, in level 3.
- (h) The prior period amounts have been revised. This revision had no impact on the Firm's Consolidated Balance Sheets or its results of operations.

Transfers between levels for instruments carried at fair value on a recurring basis

For the year ended December 31, 2013 and 2011, there were no significant transfers between levels 1 and 2.

During the year ended December 31, 2013, transfers from level 3 to level 2 included certain highly rated CLOs, including \$27.4 billion held in the Firm's available-for-sale ("AFS") securities portfolio and \$1.4 billion held in the trading portfolio, based on increased liquidity and price transparency; and \$1.3 billion of long-term debt, largely driven by an increase in observability of certain equity structured notes. Transfers from level 2 to level 3 included \$1.4 billion of corporate debt securities in the trading portfolio largely driven by a decrease in observability for certain credit instruments.

For the year ended December 31, 2012, \$113.9 billion of settled U.S. government agency mortgage-backed securities were transferred from level 1 to level 2. While the U.S. government agency mortgage-backed securities market remained highly liquid and transparent, the transfer reflected greater market price differentiation between settled securities based on certain underlying loan specific factors. There were no significant transfers from level 2 to level 1 for the year ended December 31, 2012.

For the years ended December 31, 2012 and 2011, there were no significant transfers from level 2 into level 3. For the year ended December 31, 2012, transfers from level 3 into level 2 included \$1.2 billion of derivative payables based on increased observability of certain structured equity derivatives; and \$1.8 billion of long-term debt due to increased observability of certain equity structured notes. For the year ended December 31, 2011, transfers from level 3 into level 2 included \$2.6 billion of long-term debt due to a decrease in valuation uncertainty of certain structured notes.

All transfers are assumed to occur at the beginning of the quarterly reporting period in which they occur.

During 2012 the liquidity for certain collateralized loan obligations increased and price transparency improved. Accordingly, the Firm incorporated a revised valuation model into its valuation process for CLOs to better calibrate to market data where available. The Firm began to verify fair value estimates from this model to independent sources during the fourth quarter of 2012. Although market liquidity and price transparency have improved, CLO market prices were not yet considered materially observable and therefore CLOs remained in level 3 as of December 31, 2012. The change in the valuation process did not have a significant impact on the fair value of the Firm's CLO positions. As previously described, a portion of the CLOs that were subject to the revised valuation model (namely certain highly rated CLOs) were transferred from level 3 to level 2 of the fair value hierarchy during the year ended December 31, 2013.

Level 3 valuations

The Firm has established well-documented processes for determining fair value, including for instruments where fair value is estimated using significant unobservable inputs (level 3). For further information on the Firm's valuation process and a detailed discussion of the determination of fair value for individual financial instruments, see pages 196–200 of this Note.

Estimating fair value requires the application of judgment. The type and level of judgment required is largely dependent on the amount of observable market information available to the Firm. For instruments valued using internally developed models that use significant unobservable inputs and are therefore classified within level 3 of the fair value hierarchy, judgments used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, due to the lack of observability of significant inputs, management must assess all relevant empirical data in deriving valuation inputs – including, but not limited to, transaction details, yield curves, interest rates, prepayment speed, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves.

Finally, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality, the Firm's creditworthiness, the impact of funding, constraints on liquidity and unobservable parameters, where relevant. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole.

The following table presents the Firm's primary level 3 financial instruments, the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs, the range of values for those inputs and, for certain instruments, the weighted averages of such inputs. While the determination to classify an instrument within level 3 is based on the significance of the unobservable inputs to the overall fair value measurement, level 3 financial instruments typically include observable components (that is, components that are actively quoted and can be validated to external sources) in

addition to the unobservable components. The level 1 and/or level 2 inputs are not included in the table. In addition, the Firm manages the risk of the observable components of level 3 financial instruments using securities and derivative positions that are classified within levels 1 or 2 of the fair value hierarchy.

The range of values presented in the table is representative of the highest and lowest level input used to value the significant groups of instruments within a product/instrument classification. The input range does not reflect the level of input uncertainty; rather, it is driven by the different underlying characteristics of the various instruments within the classification. For example, two option contracts may have similar levels of market risk exposure and valuation uncertainty, but may have significantly different implied volatility levels because the option contracts have different underlyings, tenors, or strike prices.

Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value. In the Firm's view, the input range and the weighted average value do not reflect the degree of input uncertainty or an assessment of the reasonableness of the Firm's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Firm and the relative distribution of instruments within the range of characteristics. The input range and weighted average values will therefore vary from period-to-period and parameter to parameter based on the characteristics of the instruments held by the Firm at each balance sheet date.

For the Firm's derivatives and structured notes positions classified within level 3, the equity and interest rate correlation inputs used in estimating fair value were concentrated at the upper end of the range presented, while the credit correlation inputs were distributed across the range presented and the foreign exchange correlation inputs were concentrated at the lower end of the range presented. In addition, the interest rate volatility inputs used in estimating fair value were concentrated at the upper end of the range presented, while equity volatilities were concentrated at the lower end of the range. The forward commodity prices used in estimating the fair value of commodity derivatives were concentrated within the lower end of the range presented.

Level 3 inputs^(a)

December 31, 2013 (in millions, except for ratios and basis points)

Product/Instrument	Fair value	Principal valuation technique	Unobservable inputs	Range of input values	Weighted average
Residential mortgage-backed securities and loans	\$ 11,089	Discounted cash flows	Yield	3 % - 18%	7%
			Prepayment speed	0 % - 15%	7%
			Conditional default rate	0 % - 100%	26%
			Loss severity	0 % - 100%	21%
Commercial mortgage-backed securities and loans ^(b)	1,204	Discounted cash flows	Yield	6 % - 29%	11%
			Conditional default rate	0 % - 100%	10%
			Loss severity	0 % - 40%	33%
Corporate debt securities, obligations of U.S. states and municipalities, and other ^(c)	15,209	Discounted cash flows	Credit spread	88 bps - 255 bps	154 bps
	5,843	Market comparables	Yield	1 % - 40%	10%
Net interest rate derivatives	2,379	Option pricing	Price	3 - 122	95
			Interest rate correlation	(75)% - 95%	
Net credit derivatives ^{(b)(c)}	95	Discounted cash flows	Interest rate spread volatility	0 % - 60%	
			Credit correlation	34 % - 82%	
Net foreign exchange derivatives	(1,200)	Option pricing	Foreign exchange correlation	45 % - 75%	
Net equity derivatives	(1,063)	Option pricing	Equity volatility	20 % - 55%	
Net commodity derivatives	115	Discounted cash flows	Forward commodity price	\$20 - \$160 per megawatt hour	
Collateralized loan obligations	821	Discounted cash flows	Credit spread	214 bps - 575 bps	234 bps
			Prepayment speed	20%	20%
			Conditional default rate	2%	2%
			Loss severity	40%	40%
			Price	0 - 114	88
Mortgage servicing rights ("MSRs")	9,614	Market comparables	Refer to Note 17 on pages 299-304 of this Annual Report.		
Private equity direct investments	4,872	Discounted cash flows	EBITDA multiple	4.0x - 14.7x	8.1x
			Liquidity adjustment	0 % - 37%	11%
Private equity fund investments ^(d)	1,602	Net asset value	Net asset value ^(f)		
Long-term debt, other borrowed funds, and deposits ^(e)	13,282	Option pricing	Interest rate correlation	(75)% - 95%	
			Foreign exchange correlation	0 % - 75%	
			Equity correlation	(50)% - 85%	
			Credit correlation	34 % - 82%	

- (a) The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the Consolidated Balance Sheets.
- (b) The unobservable inputs and associated input ranges for approximately \$735 million of credit derivative receivables and \$644 million of credit derivative payables with underlying mortgage risk have been included in the inputs and ranges provided for commercial mortgage-backed securities and loans.
- (c) The unobservable inputs and associated input ranges for approximately \$1.0 billion of credit derivative receivables and \$890 million of credit derivative payables with underlying asset-backed securities risk have been included in the inputs and ranges provided for corporate debt securities, obligations of U.S. states and municipalities and other.
- (d) As of December 31, 2013, \$757 million of private equity fund exposure was carried at a discount to net asset value per share.
- (e) Long-term debt, other borrowed funds and deposits include structured notes issued by the Firm that are predominantly financial instruments containing embedded derivatives. The estimation of the fair value of structured notes is predominantly based on the derivative features embedded within the instruments. The significant unobservable inputs are broadly consistent with those presented for derivative receivables.
- (f) The range has not been disclosed due to the wide range of possible values given the diverse nature of the underlying investments.

Changes in and ranges of unobservable inputs

The following discussion provides a description of the impact on a fair value measurement of a change in each unobservable input in isolation, and the interrelationship between unobservable inputs, where relevant and significant. The impact of changes in inputs may not be independent as a change in one unobservable input may give rise to a change in another unobservable input, and where relationships exist between two unobservable inputs, those relationships are discussed below. Relationships may also exist between observable and unobservable inputs (for example, as observable interest rates rise, unobservable prepayment rates decline). Such relationships have not been included in the discussion below. In addition, for each of the individual relationships described below, the inverse relationship would also generally apply.

In addition, the following discussion provides a description of attributes of the underlying instruments and external market factors that affect the range of inputs used in the valuation of the Firm's positions.

Yield – The yield of an asset is the interest rate used to discount future cash flows in a discounted cash flow calculation. An increase in the yield, in isolation, would result in a decrease in a fair value measurement.

Credit spread – The credit spread is the amount of additional annualized return over the market interest rate that a market participant would demand for taking exposure to the credit risk of an instrument. The credit spread for an instrument forms part of the discount rate used in a discounted cash flow calculation. Generally, an increase in the credit spread would result in a decrease in a fair value measurement.

The yield and the credit spread of a particular mortgage-backed security primarily reflect the risk inherent in the instrument. The yield is also impacted by the absolute level of the coupon paid by the instrument (which may not correspond directly to the level of inherent risk). Therefore, the range of yield and credit spreads reflects the range of risk inherent in various instruments owned by the Firm. The risk inherent in mortgage-backed securities is driven by the subordination of the security being valued and the characteristics of the underlying mortgages within the collateralized pool, including borrower FICO scores, loan-to-value ratios for residential mortgages and the nature of the property and/or any tenants for commercial mortgages. For corporate debt securities, obligations of U.S. states and municipalities and other similar instruments, credit spreads reflect the credit quality of the obligor and the tenor of the obligation.

Prepayment speed – The prepayment speed is a measure of the voluntary unscheduled principal repayments of a prepayable obligation in a collateralized pool. Prepayment speeds generally decline as borrower delinquencies rise. An increase in prepayment speeds, in isolation, would result in a decrease in a fair value measurement of assets valued at a premium to par and an increase in a fair value measurement of assets valued at a discount to par.

Prepayment speeds may vary from collateral pool to collateral pool, and are driven by the type and location of the underlying borrower, the remaining tenor of the obligation as well as the level and type (e.g., fixed or floating) of interest rate being paid by the borrower. Typically collateral pools with higher borrower credit quality have a higher prepayment rate than those with lower borrower credit quality, all other factors being equal.

Conditional default rate – The conditional default rate is a measure of the reduction in the outstanding collateral balance underlying a collateralized obligation as a result of defaults. While there is typically no direct relationship between conditional default rates and prepayment speeds, collateralized obligations for which the underlying collateral have high prepayment speeds will tend to have lower conditional default rates. An increase in conditional default rates would generally be accompanied by an increase in loss severity and an increase in credit spreads. An increase in the conditional default rate, in isolation, would result in a decrease in a fair value measurement. Conditional default rates reflect the quality of the collateral underlying a securitization and the structure of the securitization itself. Based on the types of securities owned in the Firm's market-making portfolios, conditional default rates are most typically at the lower end of the range presented.

Loss severity – The loss severity (the inverse concept is the recovery rate) is the expected amount of future realized losses resulting from the ultimate liquidation of a particular loan, expressed as the net amount of loss relative to the outstanding loan balance. An increase in loss severity is generally accompanied by an increase in conditional default rates. An increase in the loss severity, in isolation, would result in a decrease in a fair value measurement.

The loss severity applied in valuing a mortgage-backed security investment depends on a host of factors relating to the underlying mortgages. This includes the loan-to-value ratio, the nature of the lender's charge over the property and various other instrument-specific factors.

Correlation – Correlation is a measure of the relationship between the movements of two variables (e.g., how the change in one variable influences the change in the other). Correlation is a pricing input for a derivative product where the payoff is driven by one or more underlying risks. Correlation inputs are related to the type of derivative (e.g., interest rate, credit, equity and foreign exchange) due to the nature of the underlying risks. When parameters are positively correlated, an increase in one parameter will result in an increase in the other parameter. When parameters are negatively correlated, an increase in one parameter will result in a decrease in the other parameter. An increase in correlation can result in an increase or a decrease in a fair value measurement. Given a short correlation position, an increase in correlation, in isolation, would generally result in a decrease in a fair value measurement. Correlation inputs between risks within the same asset class are generally narrower than those between underlying risks across asset classes. In addition, the ranges of credit correlation inputs tend to be narrower than those affecting other asset classes.

The level of correlation used in the valuation of derivatives with multiple underlying risks depends on a number of factors including the nature of those risks. For example, the correlation between two credit risk exposures would be different than that between two interest rate risk exposures. Similarly, the tenor of the transaction may also impact the correlation input as the relationship between the underlying risks may be different over different time periods. Furthermore, correlation levels are very much dependent on market conditions and could have a relatively wide range of levels within or across asset classes over time, particularly in volatile market conditions.

Volatility – Volatility is a measure of the variability in possible returns for an instrument, parameter or market index given how much the particular instrument, parameter or index changes in value over time. Volatility is a pricing input for options, including equity options, commodity options, and interest rate options. Generally, the higher the volatility of the underlying, the riskier the instrument. Given a long position in an option, an increase in volatility, in isolation, would generally result in an increase in a fair value measurement.

The level of volatility used in the valuation of a particular option-based derivative depends on a number of factors, including the nature of the risk underlying the option (e.g., the volatility of a particular equity security may be significantly different from that of a particular commodity index), the tenor of the derivative as well as the strike price of the option.

EBITDA multiple – EBITDA multiples refer to the input (often derived from the value of a comparable company) that is multiplied by the historic and/or expected earnings before interest, taxes, depreciation and amortization (“EBITDA”) of a company in order to estimate the company’s value. An increase in the EBITDA multiple, in isolation, net of adjustments, would result in an increase in a fair value measurement.

Net asset value – Net asset value is the total value of a fund’s assets less liabilities. An increase in net asset value would result in an increase in a fair value measurement.

Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the Consolidated Balance Sheet amounts (including changes in fair value) for financial instruments classified by the Firm within level 3 of the fair value hierarchy for the years ended December 31, 2013, 2012 and 2011. When a determination is made to classify a financial instrument within level 3, the determination is based on the significance of the unobservable parameters to the overall fair value measurement. However, level 3 financial instruments typically include, in addition to the unobservable or level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, the Firm risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains and losses in the following tables do not reflect the effect of the Firm’s risk management activities related to such level 3 instruments.

Notes to consolidated financial statements

Fair value measurements using significant unobservable inputs

Year ended December 31, 2013 (in millions)	Fair value at January 1, 2013	Total realized/ unrealized gains/ (losses)	Purchases ^(g)	Sales	Settlements	Transfers into and/or out of level 3 ^(h)	Fair value at Dec. 31, 2013	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2013
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	\$ 498	\$ 169	\$ 819	\$ (381)	\$ (100)	\$ —	\$ 1,005	\$ 200
Residential - nonagency	663	407	780	(1,028)	(91)	(5)	726	205
Commercial - nonagency	1,207	114	841	(1,522)	(208)	—	432	(4)
Total mortgage-backed securities	2,368	690	2,440	(2,931)	(399)	(5)	2,163	401
Obligations of U.S. states and municipalities	1,436	71	472	(251)	(346)	—	1,382	18
Non-U.S. government debt securities	67	4	1,449	(1,479)	(8)	110	143	(1)
Corporate debt securities	5,308	103	7,602	(5,975)	(1,882)	764	5,920	466
Loans	10,787	665	10,411	(7,431)	(685)	(292)	13,455	315
Asset-backed securities	3,696	191	1,912	(2,379)	(292)	(1,856)	1,272	105
Total debt instruments	23,662	1,724	24,286	(20,446)	(3,612)	(1,279)	24,335	1,304
Equity securities	1,114	(41)	328	(266)	(135)	(115)	885	46
Physical commodities	—	(4)	—	(8)	—	16	4	(4)
Other	863	558	659	(95)	(120)	135	2,000	1,074
Total trading assets - debt and equity instruments	25,639	2,237 ^(c)	25,273	(20,815)	(3,867)	(1,243)	27,224	2,420 ^(c)
Net derivative receivables: ^(a)								
Interest rate	3,322	1,358	344	(220)	(2,391)	(34)	2,379	107
Credit	1,873	(1,697)	115	(12)	(357)	173	95	(1,449)
Foreign exchange	(1,750)	(101)	3	(4)	683	(31)	(1,200)	(110)
Equity	(1,806)	2,587	2,918	(3,783)	(1,353)	374	(1,063)	872
Commodity	254	816	105	(3)	(1,107)	50	115	410
Total net derivative receivables	1,893	2,963 ^(c)	3,485	(4,022)	(4,525)	532	326	(170) ^(c)
Available-for-sale securities:								
Asset-backed securities	28,024	4	579	(57)	(57)	(27,405)	1,088	4
Other	892	26	508	(216)	(6)	30	1,234	25
Total available-for-sale securities	28,916	30 ^(d)	1,087	(273)	(63)	(27,375)	2,322	29 ^(d)
Loans	2,282	81	1,065	(191)	(1,306)	—	1,931	(21)
Mortgage servicing rights	7,614	1,612	2,215	(725)	(1,102)	—	9,614	1,612
Other assets:								
Private equity investments	7,181	645	673	(1,137)	(687)	(201)	6,474	262
All other	4,258	98	272	(730)	(722)	—	3,176	53

Fair value measurements using significant unobservable inputs

Year ended December 31, 2013 (in millions)	Fair value at January 1, 2013	Total realized/ unrealized (gains)/ losses	Purchases ^(g)	Sales	Issuances	Settlements	Transfers into and/or out of level 3 ^(h)	Fair value at Dec. 31, 2013	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2013
Liabilities:^(b)									
Deposits	\$ 1,983	\$ (82)	\$ —	\$ —	\$ 1,248	\$ (222)	\$ (672)	\$ 2,255	\$ (88)
Other borrowed funds	1,619	(177)	—	—	7,108	(6,845)	369	2,074	291
Trading liabilities - debt and equity instruments	205	(83)	(2,418)	2,594	—	(54)	(131)	113	(100)
Accounts payable and other liabilities	36	(2)	—	—	—	(9)	—	25	(2)
Beneficial interests issued by consolidated VIEs	925	174	—	—	353	(212)	—	1,240	167
Long-term debt	8,476	(435)	—	—	6,830	(4,362)	(501)	10,008	(85)

Fair value measurements using significant unobservable inputs

Year ended December 31, 2012 (in millions)	Fair value at January 1, 2012	Total realized/ unrealized gains/ (losses)	Purchases ^(g)	Sales	Settlements	Transfers into and/or out of level 3 ^(h)	Fair value at Dec. 31, 2012	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2012
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	\$ 86	\$ (44)	\$ 575	\$ (103)	\$ (16)	\$ —	\$ 498	\$ (21)
Residential - nonagency	796	151	417	(533)	(145)	(23)	663	74
Commercial - nonagency	1,758	(159)	287	(475)	(104)	(100)	1,207	(145)
Total mortgage-backed securities	2,640	(52)	1,279	(1,111)	(265)	(123)	2,368	(92)
Obligations of U.S. states and municipalities	1,619	37	336	(552)	(4)	—	1,436	(15)
Non-U.S. government debt securities	104	(6)	661	(668)	(24)	—	67	(5)
Corporate debt securities	6,373	187	8,391	(6,186)	(3,045)	(412)	5,308	689
Loans	12,209	836	5,342	(3,269)	(3,801)	(530)	10,787	411
Asset-backed securities	7,965	272	2,550	(6,468)	(614)	(9)	3,696	184
Total debt instruments	30,910	1,274	18,559	(18,254)	(7,753)	(1,074)	23,662	1,172
Equity securities	1,177	(209)	460	(379)	(12)	77	1,114	(112)
Other	880	186	68	(108)	(163)	—	863	180
Total trading assets - debt and equity instruments	32,967	1,251^(c)	19,087	(18,741)	(7,928)	(997)	25,639	1,240^(c)
Net derivative receivables: ^(a)								
Interest rate	3,561	6,930	406	(194)	(7,071)	(310)	3,322	905
Credit	7,732	(4,487)	124	(84)	(1,416)	4	1,873	(3,271)
Foreign exchange	(1,263)	(800)	112	(184)	436	(51)	(1,750)	(957)
Equity	(3,105)	168	1,676	(2,579)	899	1,135	(1,806)	580
Commodity	(687)	(673)	74	64	1,278	198	254	(160)
Total net derivative receivables	6,238	1,138^(c)	2,392	(2,977)	(5,874)	976	1,893	(2,903)^(c)
Available-for-sale securities:								
Asset-backed securities	24,958	135	9,280	(3,361)	(3,104)	116	28,024	118
Other	528	55	667	(113)	(245)	—	892	59
Total available-for-sale securities	25,486	190^(d)	9,947	(3,474)	(3,349)	116	28,916	177^(d)
Loans	1,647	695 ^(c)	1,536	(22)	(1,718)	144	2,282	12 ^(c)
Mortgage servicing rights	7,223	(635) ^(e)	2,833	(579)	(1,228)	—	7,614	(635) ^(e)
Other assets:								
Private equity investments	6,751	420 ^(c)	1,545	(512)	(977)	(46)	7,181	333 ^(c)
All other	4,374	(195) ^(f)	818	(238)	(501)	—	4,258	(200) ^(f)

Fair value measurements using significant unobservable inputs

Year ended December 31, 2012 (in millions)	Fair value at January 1, 2012	Total realized/ unrealized (gains)/ losses	Purchases ^(g)	Sales	Issuances	Settlements	Transfers into and/or out of level 3 ^(h)	Fair value at Dec. 31, 2012	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2012
Liabilities:^(b)									
Deposits	\$ 1,418	\$ 212 ^(c)	\$ —	\$ —	\$ 1,236	\$ (380)	\$ (503)	\$ 1,983	\$ 185 ^(c)
Other borrowed funds	1,507	148 ^(c)	—	—	1,646	(1,774)	92	1,619	72 ^(c)
Trading liabilities - debt and equity instruments	211	(16) ^(c)	(2,875)	2,940	—	(50)	(5)	205	(12) ^(c)
Accounts payable and other liabilities	51	1 ^(f)	—	—	—	(16)	—	36	1 ^(f)
Beneficial interests issued by consolidated VIEs	791	181 ^(c)	—	—	221	(268)	—	925	143 ^(c)
Long-term debt	10,310	328 ^(c)	—	—	3,662	(4,511)	(1,313)	8,476	(101) ^(c)

Notes to consolidated financial statements

Fair value measurements using significant unobservable inputs

Year ended December 31, 2011 (in millions)	Fair value at January 1, 2011	Total realized/ unrealized gains/ (losses)	Purchases ^(a)	Sales	Settlements	Transfers into and/or out of level 3 ^(b)	Fair value at Dec. 31, 2011	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2011
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	\$ 174	\$ 24	\$ 28	\$ (39)	\$ (43)	\$ (58)	\$ 86	\$ (51)
Residential - nonagency	687	109	708	(432)	(221)	(55)	796	(9)
Commercial - nonagency	2,069	37	796	(973)	(171)	—	1,758	33
Total mortgage-backed securities	2,930	170	1,532	(1,444)	(435)	(113)	2,640	(27)
Obligations of U.S. states and municipalities	2,257	9	807	(1,465)	(1)	12	1,619	(11)
Non-U.S. government debt securities	202	35	552	(531)	(80)	(74)	104	38
Corporate debt securities	4,946	32	8,080	(5,939)	(1,005)	259	6,373	26
Loans	13,144	329	5,532	(3,873)	(2,691)	(232)	12,209	142
Asset-backed securities	8,460	90	4,185	(4,368)	(424)	22	7,965	(217)
Total debt instruments	31,939	665	20,688	(17,620)	(4,636)	(126)	30,910	(49)
Equity securities	1,685	267	180	(541)	(352)	(62)	1,177	278
Other	930	48	36	(39)	(95)	—	880	79
Total trading assets - debt and equity instruments	34,554	980 ^(c)	20,904	(18,200)	(5,083)	(188)	32,967	308 ^(c)
Net derivative receivables: ^(a)								
Interest rate	2,836	5,205	511	(219)	(4,534)	(238)	3,561	1,497
Credit	5,386	2,240	22	(13)	116	(19)	7,732	2,744
Foreign exchange	(614)	(1,913)	191	(20)	886	207	(1,263)	(1,878)
Equity	(2,446)	(60)	715	(1,449)	37	98	(3,105)	(132)
Commodity	(805)	596	328	(350)	(294)	(162)	(687)	208
Total net derivative receivables	4,357	6,068 ^(c)	1,767	(2,051)	(3,789)	(114)	6,238	2,439 ^(c)
Available-for-sale securities:								
Asset-backed securities	13,775	(95)	15,268	(1,461)	(2,529)	—	24,958	(106)
Other	512	—	57	(15)	(26)	—	528	8
Total available-for-sale securities	14,287	(95) ^(d)	15,325	(1,476)	(2,555)	—	25,486	(98) ^(d)
Loans	1,466	504 ^(c)	326	(9)	(639)	(1)	1,647	484 ^(c)
Mortgage servicing rights	13,649	(7,119) ^(e)	2,603	—	(1,910)	—	7,223	(7,119) ^(e)
Other assets:								
Private equity investments	7,862	943 ^(c)	1,452	(2,746)	(594)	(166)	6,751	(242) ^(c)
All other	4,179	(54) ^(f)	938	(139)	(521)	(29)	4,374	(83) ^(f)

Fair value measurements using significant unobservable inputs

Year ended December 31, 2011 (in millions)	Fair value at January 1, 2011	Total realized/ unrealized (gains)/ losses	Purchases ^(a)	Sales	Issuances	Settlements	Transfers into and/or out of level 3 ^(b)	Fair value at Dec. 31, 2011	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2011
Liabilities:^(b)									
Deposits	\$ 773	\$ 15 ^(c)	\$ —	\$ —	\$ 433	\$ (386)	\$ 583	\$ 1,418	\$ 4 ^(c)
Other borrowed funds	1,384	(244) ^(c)	—	—	1,597	(834)	(396)	1,507	(85) ^(c)
Trading liabilities - debt and equity instruments	54	17 ^(c)	(533)	778	—	(109)	4	211	(7) ^(c)
Accounts payable and other liabilities	236	(61) ^(f)	—	—	—	(124)	—	51	5 ^(f)
Beneficial interests issued by consolidated VIEs	873	17 ^(c)	—	—	580	(679)	—	791	(15) ^(c)
Long-term debt	13,044	60 ^(c)	—	—	2,564	(3,218)	(2,140)	10,310	288 ^(c)

(a) All level 3 derivatives are presented on a net basis, irrespective of underlying counterparty.

(b) Level 3 liabilities as a percentage of total Firm liabilities accounted for at fair value (including liabilities measured at fair value on a nonrecurring basis) were 18%, 18% and 22% at December 31, 2013, 2012 and 2011, respectively.

(c) Predominantly reported in principal transactions revenue, except for changes in fair value for Consumer & Community Banking ("CCB") mortgage loans, lending-related commitments originated with the intent to sell, and mortgage loan purchase commitments, which are reported in mortgage fees and related income.

- (d) Realized gains/(losses) on AFS securities, as well as other-than-temporary impairment losses that are recorded in earnings, are reported in securities gains. Unrealized gains/(losses) are reported in OCI. Realized gains/(losses) and foreign exchange remeasurement adjustments recorded in income on AFS securities were \$17 million, \$145 million, and \$(240) million for the years ended December 31, 2013, 2012 and 2011, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were \$13 million, \$45 million and \$145 million for the years ended December 31, 2013, 2012 and 2011, respectively.
- (e) Changes in fair value for CCB mortgage servicing rights are reported in mortgage fees and related income.
- (f) Largely reported in other income.
- (g) Loan originations are included in purchases.
- (h) All transfers into and/or out of level 3 are assumed to occur at the beginning of the quarterly reporting period in which they occur.

Level 3 analysis

Consolidated Balance Sheets changes

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were 3.1% of total Firm assets at December 31, 2013. The following describes significant changes to level 3 assets since December 31, 2012, for those items measured at fair value on a recurring basis. For further information on changes impacting items measured at fair value on a nonrecurring basis, see Assets and liabilities measured at fair value on a nonrecurring basis on page 213 of this Annual Report.

For the year ended December 31, 2013

Level 3 assets were \$69.3 billion at December 31, 2013, reflecting a decrease of \$28.8 billion from December 31, 2012, due to the following:

- \$27.0 billion decrease in asset-backed AFS securities, predominantly driven by transfers of highly rated CLOs from level 3 to into level 2 during the year ended 2013, based on increased liquidity and price transparency;
 - \$3.7 billion decrease in gross derivative receivables, predominantly driven by a \$2.7 billion decrease from the impact of tightening reference entity credit spreads and risk reductions of credit derivatives, \$1.4 billion decrease in foreign exchange derivatives due to market movements, and \$1.2 billion decrease in interest rate derivatives due to the increase in interest rates, partially offset by \$2.1 billion increase in equity derivatives due to client-driven market-making activity;
 - \$1.1 billion decrease in all other assets, predominantly driven by sales of tax-oriented and hedge fund investments, and redemptions from investment funds.
- The decreases above are partially offset by:
- \$2.0 billion increase in MSRs. For further discussion of the change, refer to Note 17 on pages 299-304 of this Annual Report;
 - \$1.6 billion increase in trading assets - debt and equity instruments, largely driven by net purchases of trading loans, new client-driven financing transactions, and partially offset by transfers of highly rated CLOs from level 3 to into level 2 during the year ended 2013, based on increased liquidity and price transparency.

Gains and Losses

The following describes significant components of total realized/unrealized gains/(losses) for instruments measured at fair value on a recurring basis for the years ended 2013, 2012 and 2011. For further information on these instruments, see Changes in level 3 recurring fair value measurements rollforward tables on pages 207-210 of this Annual Report.

2013

- \$3.0 billion of net gains on derivatives, largely driven by \$2.6 billion of gains on equity derivatives, primarily related to client-driven market-making activity and a rise in equity markets; and \$1.4 billion of gains, predominantly on interest rate lock and mortgage loan purchase commitments; partially offset by \$1.7 billion of losses on credit derivatives from the impact of tightening reference entity credit spreads;
- \$2.2 billion of net gains on trading assets - debt and equity instruments, largely driven by market making and credit spread tightening in nonagency mortgage-backed securities and trading loans, and the impact of market movements on client-driven financing transactions;
- \$1.6 billion of net gains on MSRs. For further discussion of the change, refer to Note 17 on pages 299-304 of this Annual Report.

2012

- \$1.3 billion of net gains on trading assets - debt and equity instruments, largely driven by tightening of credit spreads and fluctuation in foreign exchange rates;
- \$1.1 billion of net gains on derivatives, driven by \$6.9 billion of net gains predominantly on interest rate lock commitments due to increased volumes and lower interest rates, partially offset by \$4.5 billion of net losses on credit derivatives largely as a result of tightening of reference entity credit spreads.

2011

- \$7.1 billion of losses on MSRs. For further discussion of the change, refer to Note 17 on pages 299-304 of this Annual Report;
- \$6.1 billion of net gains on derivatives, related to declining interest rates and widening of reference entity credit spreads, partially offset by losses due to fluctuation in foreign exchange rates.

Notes to consolidated financial statements

Credit and funding adjustments

When determining the fair value of an instrument, it may be necessary to record adjustments to the Firm's estimates of fair value in order to reflect the counterparty credit quality and the Firm's own creditworthiness:

- Credit valuation adjustments ("CVA") are taken to reflect the credit quality of a counterparty in the valuation of derivatives. CVA adjustments are necessary when the market price (or parameter) is not indicative of the credit quality of the counterparty. As few classes of derivative contracts are listed on an exchange, derivative positions are predominantly valued using models that use as their basis observable market parameters. An adjustment therefore may be necessary to reflect the credit quality of each derivative counterparty to arrive at fair value.

The Firm estimates derivatives CVA using a scenario analysis to estimate the expected credit exposure across all of the Firm's positions with each counterparty, and then estimates losses as a result of a counterparty credit event. The key inputs to this methodology are (i) the expected positive exposure to each counterparty based on a simulation that assumes the current population of existing derivatives with each counterparty remains unchanged and considers contractual factors designed to mitigate the Firm's credit exposure, such as collateral and legal rights of offset; (ii) the probability of a default event occurring for each counterparty, as derived from observed or estimated credit default swap ("CDS") spreads; and (iii) estimated recovery rates implied by CDS, adjusted to consider the differences in recovery rates as a derivative creditor relative to those reflected in CDS spreads, which generally reflect senior unsecured creditor risk.

- Debit valuation adjustments ("DVA") are taken to reflect the credit quality of the Firm in the valuation of liabilities measured at fair value. The DVA calculation methodology is generally consistent with the CVA methodology described above and incorporates JPMorgan Chase's credit spread as observed through the CDS market to estimate the probability of default and loss given default as a result of a systemic event affecting the Firm. Structured notes DVA is estimated using the current fair value of the structured note as the exposure amount, and is otherwise consistent with the derivative DVA methodology.

During the fourth quarter of 2013 the Firm implemented the FVA framework to incorporate the impact of funding into its valuation estimates for OTC derivatives and structured notes. The Firm's FVA framework leverages its existing CVA and DVA calculation methodologies, and the key inputs are: (i) the expected funding requirements arising from the Firm's positions with each counterparty and collateral arrangements; (ii) for assets, the estimated market funding cost in the principal market; and (iii) for liabilities, the hypothetical market funding cost for a

transfer to a market participant with similar credit standing as the Firm.

The following table provides the credit and funding adjustments, excluding the effect of any hedging activity, reflected within the Consolidated Balance Sheets as of the dates indicated.

December 31, (in millions)	2013	2012
Derivative receivables balance ^(a)	\$ 65,759	\$ 74,983
Derivative payables balance ^(a)	57,314	70,656
Derivatives CVA ^{(b)(c)}	(2,352)	(4,238)
Derivatives DVA and FVA ^{(b)(d)}	(322)	830
Structured notes balance (net of structured notes DVA and FVA) ^{(b)(e)}	48,808	48,112
Structured notes DVA and FVA ^{(b)(f)}	952	1,712

- (a) Balances are presented net of applicable credit and funding adjustments.
- (b) Positive credit and funding adjustments represent amounts that increased receivable balances or decreased payable balances; negative credit and funding adjustments represent amounts that decreased receivable balances or increased payable balances.
- (c) Derivatives CVA, gross of hedges, includes results managed by the Credit Portfolio and other lines of business within the CIB.
- (d) At December 31, 2013 and 2012 included derivatives DVA of \$715 million and \$830 million, respectively.
- (e) Structured notes are predominantly financial instruments containing embedded derivatives. At December 31, 2013 and 2012, included \$1.1 billion and \$1.1 billion, respectively, of financial instruments with no embedded derivative for which the fair value option has been elected.
- (f) At December 31, 2013 and 2012 included structured notes DVA of \$1.4 billion and \$1.7 billion, respectively.

The following table provides the impact of credit and funding adjustments on earnings in the respective periods, excluding the effect of any hedging activity.

Year ended December 31, (in millions)	2013	2012	2011
Derivative CVA ^(a)	\$ 1,886	\$ 2,698	\$ (2,574)
Derivative DVA and FVA ^(b)	(1,152)	(590)	538
Structured notes DVA and FVA ^{(c)(d)}	(760)	(340)	899

- (a) Derivatives CVA, gross of hedges, includes results managed by the Credit Portfolio and other lines of business within the CIB.
- (b) At December 31, 2013, 2012 and 2011 included derivatives DVA of \$(115) million, \$(590) million and \$538 million, respectively.
- (c) Structured notes are measured at fair value based on the Firm's election under the fair value option. For further information on these elections, see Note 4 on pages 215-218 of this Annual Report.
- (d) At December 31, 2013, 2012 and 2011 included structured notes DVA of \$(337) million, \$(340) million and \$899 million, respectively.

Assets and liabilities measured at fair value on a nonrecurring basis

At December 31, 2013 and 2012, assets measured at fair value on a nonrecurring basis were \$6.2 billion and \$5.1 billion, respectively, comprised predominantly of loans. At December 31, 2013, \$339 million and \$5.8 billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. At December 31, 2012, \$667 million and \$4.4 billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. Liabilities measured at fair value on a nonrecurring basis were not significant at December 31, 2013 and 2012. For the years ended December 31, 2013, 2012 and 2011, there were no significant transfers between levels 1, 2, and 3.

Of the \$6.2 billion of assets measured at fair value on a nonrecurring basis, \$3.6 billion related to trade finance loans that were reclassified to held-for-sale during the fourth quarter of 2013 and subject to a lower of cost or fair value adjustment. These loans were classified as level 3, as they are valued based on the indicative pricing received from external investors, which ranged from a spread of 30 bps to 78 bps, with a weighted average of 60 bps.

At December 31, 2013, the assets measured at fair value on a nonrecurring basis also included \$1.7 billion related to residential real estate loans at the net realizable value of the underlying collateral (i.e., collateral-dependent loans and other loans charged off in accordance with regulatory guidance). These amounts are classified as level 3, as they are valued using a broker's price opinion and discounted based upon the Firm's experience with actual liquidation values. These discounts to the broker price opinions ranged from 17% to 62%, with a weighted average of 29%.

The total change in the value of assets and liabilities for which a fair value adjustment has been included in the Consolidated Statements of Income for the years ended December 31, 2013, 2012 and 2011, related to financial instruments held at those dates were losses of \$789 million, \$1.6 billion and \$2.2 billion, respectively; these losses were predominantly associated with loans. The changes reported for the year ended December 31, 2012, included the impact of charge-offs recognized on residential real estate loans discharged under Chapter 7 bankruptcy, as described in Note 14 on page 267 of this Annual Report.

For further information about the measurement of impaired collateral-dependent loans, and other loans where the carrying value is based on the fair value of the underlying collateral (e.g., residential mortgage loans charged off in accordance with regulatory guidance), see Note 14 on pages 258-283 of this Annual Report.

Additional disclosures about the fair value of financial instruments that are not carried on the Consolidated Balance Sheets at fair value

U.S. GAAP requires disclosure of the estimated fair value of certain financial instruments, and the methods and significant assumptions used to estimate their fair value. Financial instruments within the scope of these disclosure requirements are included in the following table. However, certain financial instruments and all nonfinancial instruments are excluded from the scope of these disclosure requirements. Accordingly, the fair value disclosures provided in the following table include only a partial estimate of the fair value of JPMorgan Chase's assets and liabilities. For example, the Firm has developed long-term relationships with its customers through its deposit base and credit card accounts, commonly referred to as core deposit intangibles and credit card relationships. In the opinion of management, these items, in the aggregate, add significant value to JPMorgan Chase, but their fair value is not disclosed in this Note.

Financial instruments for which carrying value approximates fair value

Certain financial instruments that are not carried at fair value on the Consolidated Balance Sheets are carried at amounts that approximate fair value, due to their short-term nature and generally negligible credit risk. These instruments include cash and due from banks; deposits with banks; federal funds sold; securities purchased under resale agreements and securities borrowed with short-dated maturities; short-term receivables and accrued interest receivable; commercial paper; federal funds purchased; securities loaned and sold under repurchase agreements with short-dated maturities; other borrowed funds; accounts payable; and accrued liabilities. In addition, U.S. GAAP requires that the fair value of deposit liabilities with no stated maturity (i.e., demand, savings and certain money market deposits) be equal to their carrying value; recognition of the inherent funding value of these instruments is not permitted.

Notes to consolidated financial statements

The following table presents the carrying values and estimated fair values at December 31, 2013 and 2012, of financial assets and liabilities, excluding financial instruments which are carried at fair value on a recurring basis, and information is provided on their classification within the fair value hierarchy. For additional information regarding the financial instruments within the scope of this disclosure, and the methods and significant assumptions used to estimate their fair value, see pages 196-200 of this Note.

	December 31, 2013					December 31, 2012				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value
Financial assets										
Cash and due from banks	\$ 39.8	\$ 39.8	\$ —	\$ —	\$ 39.8	\$ 53.7	\$ 53.7	\$ —	\$ —	\$ 53.7
Deposits with banks	316.1	309.7	6.4	—	316.1	121.8	114.1	7.7	—	121.8
Accrued interest and accounts receivable	65.2	—	64.9	0.3	65.2	60.9	—	60.3	0.6	60.9
Federal funds sold and securities purchased under resale agreements	223.0	—	223.0	—	223.0	272.0	—	272.0	—	272.0
Securities borrowed	107.7	—	107.7	—	107.7	108.8	—	108.8	—	108.8
Securities, held-to-maturity ^(a)	24.0	—	23.7	—	23.7	—	—	—	—	—
Loans, net of allowance for loan losses ^(b)	720.1	—	23.0	697.2	720.2	709.3	—	26.4	685.4	711.8
Other	58.1	—	54.5	4.3	58.8	49.7	—	42.7	7.4	50.1
Financial liabilities										
Deposits	\$ 1,281.1	\$ —	\$ 1,280.3	\$ 1.2	\$ 1,281.5	\$ 1,187.9	\$ —	\$ 1,187.2	\$ 1.2	\$ 1,188.4
Federal funds purchased and securities loaned or sold under repurchase agreements	175.7	—	175.7	—	175.7	235.7	—	235.7	—	235.7
Commercial paper	57.8	—	57.8	—	57.8	55.4	—	55.4	—	55.4
Other borrowed funds	14.7	—	14.7	—	14.7	15.0	—	15.0	—	15.0
Accounts payable and other liabilities	160.2	—	158.2	1.8	160.0	156.5	—	153.8	2.5	156.3
Beneficial interests issued by consolidated VIEs	47.6	—	44.3	3.2	47.5	62.0	—	57.7	4.4	62.1
Long-term debt and junior subordinated deferrable interest debentures ^(c)	239.0	—	240.8	6.0	246.8	218.2	—	220.0	5.4	225.4

(a) Carrying value includes unamortized discount or premium.

(b) Fair value is typically estimated using a discounted cash flow model that incorporates the characteristics of the underlying loans (including principal, contractual interest rate and contractual fees) and other key inputs, including expected lifetime credit losses, interest rates, prepayment rates, and primary origination or secondary market spreads. For certain loans, the fair value is measured based on the value of the underlying collateral. The difference between the estimated fair value and carrying value of a financial asset or liability is the result of the different methodologies used to determine fair value as compared with carrying value. For example, credit losses are estimated for a financial asset's remaining life in a fair value calculation but are estimated for a loss emergence period in the allowance for loan loss calculation; future loan income (interest and fees) is incorporated in a fair value calculation but is generally not considered in the allowance for loan losses. For a further discussion of the Firm's methodologies for estimating the fair value of loans and lending-related commitments, see Valuation hierarchy on pages 196-200 of this Annual Report.

(c) Carrying value includes unamortized original issue discount and other valuation adjustments.

The majority of the Firm's lending-related commitments are not carried at fair value on a recurring basis on the Consolidated Balance Sheets, nor are they actively traded. The carrying value and estimated fair value of the Firm's wholesale lending-related commitments were as follows for the periods indicated.

(in billions)	December 31, 2013					December 31, 2012				
	Carrying value ^(a)	Estimated fair value hierarchy			Total estimated fair value	Carrying value ^(a)	Estimated fair value hierarchy			Total estimated fair value
		Level 1	Level 2	Level 3			Level 1	Level 2	Level 3	
Wholesale lending-related commitments	\$ 0.7	\$ —	\$ —	\$ 1.0	\$ 1.0	\$ 0.7	\$ —	\$ —	\$ 1.9	\$ 1.9

(a) Represents the allowance for wholesale lending-related commitments. Excludes the current carrying values of the guarantee liability and the offsetting asset, each of which are recognized at fair value at the inception of guarantees.

The Firm does not estimate the fair value of consumer lending-related commitments. In many cases, the Firm can reduce or cancel these commitments by providing the borrower notice or, in some cases, without notice as permitted by law. For a further discussion of the valuation of lending-related commitments, see page 198 of this Note.

Trading assets and liabilities

Trading assets include debt and equity instruments owned by JPMorgan Chase (“long” positions) that are held for client market-making and client-driven activities, as well as for certain risk management activities, certain loans managed on a fair value basis and for which the Firm has elected the fair value option, and physical commodities

inventories that are generally accounted for at the lower of cost or market (market approximates fair value). Trading liabilities include debt and equity instruments that the Firm has sold to other parties but does not own (“short” positions). The Firm is obligated to purchase instruments at a future date to cover the short positions. Included in trading assets and trading liabilities are the reported receivables (unrealized gains) and payables (unrealized losses) related to derivatives. Trading assets and liabilities are carried at fair value on the Consolidated Balance Sheets. Balances reflect the reduction of securities owned (long positions) by the amount of identical securities sold but not yet purchased (short positions).

Trading assets and liabilities – average balances

Average trading assets and liabilities were as follows for the periods indicated.

Year ended December 31, (in millions)	2013	2012	2011
Trading assets – debt and equity instruments	\$ 340,449	\$ 349,337	\$ 393,890
Trading assets – derivative receivables	72,629	85,744	90,003
Trading liabilities – debt and equity instruments ^(a)	77,706	69,001	81,916
Trading liabilities – derivative payables	64,553	76,162	71,539

(a) Primarily represent securities sold, not yet purchased.

Note 4 – Fair value option

The fair value option provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments, and written loan commitments not previously carried at fair value.

Elections

Elections were made by the Firm to:

- Mitigate income statement volatility caused by the differences in the measurement basis of elected instruments (for example, certain instruments elected were previously accounted for on an accrual basis) while the associated risk management arrangements are accounted for on a fair value basis;
- Eliminate the complexities of applying certain accounting models (e.g., hedge accounting or bifurcation accounting for hybrid instruments); and/or
- Better reflect those instruments that are managed on a fair value basis.

Elections include the following:

- Loans purchased or originated as part of securitization warehousing activity, subject to bifurcation accounting, or managed on a fair value basis.
- Securities financing arrangements with an embedded derivative and/or a maturity of greater than one year.
- Owned beneficial interests in securitized financial assets that contain embedded credit derivatives, which would otherwise be required to be separately accounted for as a derivative instrument.
- Certain investments that receive tax credits and other equity investments acquired as part of the Washington Mutual transaction.
- Structured notes issued as part of CIB’s client-driven activities. (Structured notes are predominantly financial instruments that contain embedded derivatives.)
- Long-term beneficial interests issued by CIB’s consolidated securitization trusts where the underlying assets are carried at fair value.

Notes to consolidated financial statements

Changes in fair value under the fair value option election

The following table presents the changes in fair value included in the Consolidated Statements of Income for the years ended December 31, 2013, 2012 and 2011, for items for which the fair value option was elected. The profit and loss information presented below only includes the financial instruments that were elected to be measured at fair value; related risk management instruments, which are required to be measured at fair value, are not included in the table.

December 31, (in millions)	2013			2012			2011		
	Principal transactions	Other income	Total changes in fair value recorded	Principal transactions	Other income	Total changes in fair value recorded	Principal transactions	Other income	Total changes in fair value recorded
Federal funds sold and securities purchased under resale agreements	\$ (454)	\$ —	\$ (454)	\$ 161	\$ —	\$ 161	\$ 270	\$ —	\$ 270
Securities borrowed	10	—	10	10	—	10	(61)	—	(61)
Trading assets:									
Debt and equity instruments, excluding loans	582	7 ^(c)	589	513	7 ^(c)	520	53	(6) ^(c)	47
Loans reported as trading assets:									
Changes in instrument-specific credit risk	1,161	23 ^(c)	1,184	1,489	81 ^(c)	1,570	934	(174) ^(c)	760
Other changes in fair value	(133)	1,833 ^(c)	1,700	(183)	7,670 ^(c)	7,487	127	5,263 ^(c)	5,390
Loans:									
Changes in instrument-specific credit risk	36	—	36	(14)	—	(14)	2	—	2
Other changes in fair value	17	—	17	676	—	676	535	—	535
Other assets	32	(29) ^(d)	3	—	(339) ^(d)	(339)	(49)	(19) ^(d)	(68)
Deposits ^(a)	260	—	260	(188)	—	(188)	(237)	—	(237)
Federal funds purchased and securities loaned or sold under repurchase agreements	73	—	73	(25)	—	(25)	(4)	—	(4)
Other borrowed funds ^(a)	(399)	—	(399)	494	—	494	2,986	—	2,986
Trading liabilities	(46)	—	(46)	(41)	—	(41)	(57)	—	(57)
Beneficial interests issued by consolidated VIEs	(278)	—	(278)	(166)	—	(166)	(83)	—	(83)
Other liabilities	—	2 ^(d)	2	—	—	—	(3)	(5) ^(d)	(8)
Long-term debt:									
Changes in instrument-specific credit risk ^(a)	(271)	—	(271)	(835)	—	(835)	927	—	927
Other changes in fair value ^(b)	1,280	—	1,280	(1,025)	—	(1,025)	322	—	322

(a) Total changes in instrument-specific credit risk related to structured notes were \$(337) million, \$(340) million, and \$899 million for the years ended December 31, 2013, 2012 and 2011, respectively. These totals include adjustments for structured notes classified within deposits and other borrowed funds, as well as long-term debt.

(b) Structured notes are predominantly financial instruments containing embedded derivatives. Where present, the embedded derivative is the primary driver of risk. Although the risk associated with the structured notes is actively managed, the gains/(losses) reported in this table do not include the income statement impact of the risk management instruments used to manage such risk.

(c) Reported in mortgage fees and related income.

(d) Reported in other income.

Determination of instrument-specific credit risk for items for which a fair value election was made

The following describes how the gains and losses included in earnings during December 31, 2013, 2012 and 2011, which were attributable to changes in instrument-specific credit risk, were determined.

- Loans and lending-related commitments: For floating-rate instruments, all changes in value are attributed to instrument-specific credit risk. For fixed-rate instruments, an allocation of the changes in value for the period is made between those changes in value that are interest rate-related and changes in value that are credit-related. Allocations are generally based on an analysis of borrower-specific credit spread and recovery

information, where available, or benchmarking to similar entities or industries.

- Long-term debt: Changes in value attributable to instrument-specific credit risk were derived principally from observable changes in the Firm's credit spread.
- Resale and repurchase agreements, securities borrowed agreements and securities lending agreements: Generally, for these types of agreements, there is a requirement that collateral be maintained with a market value equal to or in excess of the principal amount loaned; as a result, there would be no adjustment or an immaterial adjustment for instrument-specific credit risk related to these agreements.

Difference between aggregate fair value and aggregate remaining contractual principal balance outstanding

The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of December 31, 2013 and 2012, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

	2013			2012		
	Contractual principal outstanding	Fair value	Fair value over/ (under) contractual principal outstanding	Contractual principal outstanding	Fair value	Fair value over/ (under) contractual principal outstanding
December 31, (in millions)						
Loans^(a)						
Nonaccrual loans						
Loans reported as trading assets	\$ 5,156	\$ 1,491	\$ (3,665)	\$ 4,217	\$ 960	\$ (3,257)
Loans ^(d)	209	154	(55)	293	236	(57)
Subtotal	5,365	1,645	(3,720)	4,510	1,196	(3,314)
All other performing loans						
Loans reported as trading assets	33,069	29,295	(3,774)	44,084	40,581	(3,503)
Loans ^(d)	1,618	1,563	(55)	2,034	1,927	(107)
Total loans	\$ 40,052	\$ 32,503	\$ (7,549)	\$ 50,628	\$ 43,704	\$ (6,924)
Long-term debt						
Principal-protected debt	\$ 15,797 ^(c)	\$ 15,909	\$ 112	\$ 16,541 ^(c)	\$ 16,391	\$ (150)
Nonprincipal-protected debt ^(b)	NA	12,969	NA	NA	14,397	NA
Total long-term debt	NA	\$ 28,878	NA	NA	\$ 30,788	NA
Long-term beneficial interests						
Nonprincipal-protected debt ^(b)	NA	\$ 1,996	NA	NA	\$ 1,170	NA
Total long-term beneficial interests	NA	\$ 1,996	NA	NA	\$ 1,170	NA

(a) There were no performing loans that were ninety days or more past due as of December 31, 2013 and 2012, respectively.

(b) Remaining contractual principal is not applicable to nonprincipal-protected notes. Unlike principal-protected structured notes, for which the Firm is obligated to return a stated amount of principal at the maturity of the note, nonprincipal-protected structured notes do not obligate the Firm to return a stated amount of principal at maturity, but to return an amount based on the performance of an underlying variable or derivative feature embedded in the note.

(c) Where the Firm issues principal-protected zero-coupon or discount notes, the balance reflected as the remaining contractual principal is the final principal payment at maturity.

(d) During 2013, certain loans that resulted from restructurings that were previously classified as performing were reclassified as nonperforming loans. Prior periods were revised to conform with the current presentation.

At December 31, 2013 and 2012, the contractual amount of letters of credit for which the fair value option was elected was \$4.5 billion and \$4.5 billion, respectively, with a corresponding fair value of \$(99) million and \$(75) million, respectively. For further information regarding off-balance sheet lending-related financial instruments, see Note 29 on pages 318-324 of this Annual Report.

Notes to consolidated financial statements

Structured note products by balance sheet classification and risk component

The table below presents the fair value of the structured notes issued by the Firm, by balance sheet classification and the primary risk to which the structured notes' embedded derivative relates.

(in millions)	December 31, 2013				December 31, 2012			
	Long-term debt	Other borrowed funds	Deposits	Total	Long-term debt	Other borrowed funds	Deposits	Total
Risk exposure								
Interest rate	\$ 9,516	\$ 615	\$ 1,270	\$ 11,401	\$ 8,669	\$ 1,143	\$ 559	\$ 10,371
Credit	4,248	13	—	4,261	6,166	—	—	6,166
Foreign exchange	2,321	194	27	2,542	2,819	—	29	2,848
Equity	11,082	11,936	3,736	26,754	11,580	9,809	2,972	24,361
Commodity	1,260	310	1,133	2,703	1,379	332	1,555	3,266
Total structured notes	\$ 28,427	\$ 13,068	\$ 6,166	\$ 47,661	\$ 30,613	\$ 11,284	\$ 5,115	\$ 47,012

Note 5 – Credit risk concentrations

Concentrations of credit risk arise when a number of customers are engaged in similar business activities or activities in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions.

JPMorgan Chase regularly monitors various segments of its credit portfolios to assess potential concentration risks and to obtain collateral when deemed necessary. Senior management is significantly involved in the credit approval and review process, and risk levels are adjusted as needed to reflect the Firm's risk appetite.

In the Firm's consumer portfolio, concentrations are evaluated primarily by product and by U.S. geographic region, with a key focus on trends and concentrations at the portfolio level, where potential risk concentrations can be remedied through changes in underwriting policies and portfolio guidelines. In the wholesale portfolio, risk concentrations are evaluated primarily by industry and monitored regularly on both an aggregate portfolio level and on an individual customer basis. Management of the Firm's wholesale exposure is accomplished through loan syndications and participations, loan sales, securitizations, credit derivatives, use of master netting agreements, and collateral and other risk-reduction techniques. For

additional information on loans see Note 14 on pages 258-283 of this Annual Report.

The Firm does not believe that its exposure to any particular loan product (e.g., option adjustable rate mortgages ("ARMs")), industry segment (e.g., commercial real estate) or its exposure to residential real estate loans with high loan-to-value ratios results in a significant concentration of credit risk. Terms of loan products and collateral coverage are included in the Firm's assessment when extending credit and establishing its allowance for loan losses.

Customer receivables representing primarily margin loans to prime and retail brokerage clients of \$26.9 billion and \$23.8 billion at December 31, 2013 and 2012, respectively, are included in the table below. These margin loans are generally over-collateralized through a pledge of assets maintained in clients' brokerage accounts and are subject to daily minimum collateral requirements. In the event that the collateral value decreases, a maintenance margin call is made to the client to provide additional collateral into the account. If additional collateral is not provided by the client, the client's positions may be liquidated by the Firm to meet the minimum collateral requirements. As a result of the Firm's credit risk mitigation practices, the Firm did not hold any reserves for credit impairment on these receivables as of December 31, 2013 and 2012.

The table below presents both on-balance sheet and off-balance sheet consumer and wholesale-related credit exposure by the Firm's three credit portfolio segments as of December 31, 2013 and 2012.

December 31, (in millions)	2013				2012			
	Credit exposure	On-balance sheet		Off-balance sheet ^(b)	Credit exposure	On-balance sheet		Off-balance sheet ^(b)
		Loans	Derivatives			Loans	Derivatives	
Total consumer, excluding credit card	\$ 345,259	\$ 289,063	\$ –	\$ 56,057	\$ 352,889	\$ 292,620	\$ –	\$ 60,156
Total credit card	657,174	127,791	–	529,383	661,011	127,993	–	533,018
Total consumer	1,002,433	416,854	–	585,440	1,013,900	420,613	–	593,174
Wholesale-related								
Real Estate	87,102	69,151	460	17,491	76,198	60,740	1,084	14,374
Banks & Finance Cos	66,881	25,482	18,888	22,511	73,318	26,651	19,846	26,821
Oil & Gas	46,934	14,383	2,203	30,348	42,563	14,704	2,345	25,514
Healthcare	45,910	13,319	3,202	29,389	48,487	11,638	3,359	33,490
State & Municipal Govt	35,666	8,708	3,319	23,639	41,821	7,998	5,138	28,685
Consumer Products	34,145	9,099	715	24,331	32,778	9,151	826	22,801
Asset Managers	33,506	5,656	7,175	20,675	31,474	6,220	8,390	16,864
Utilities	28,983	5,582	2,248	21,153	29,533	6,814	2,649	20,070
Retail & Consumer Services	25,068	7,504	273	17,291	25,597	7,901	429	17,267
Technology	21,403	4,426	1,392	15,585	18,488	3,806	1,192	13,490
Central Govt	21,049	1,754	9,998	9,297	21,223	1,333	11,232	8,658
Machinery & Equipment Mfg	19,078	5,969	476	12,633	18,504	6,304	592	11,608
Metals/Mining	17,434	5,825	560	11,049	20,958	6,059	624	14,275
Business Services	14,601	4,497	594	9,510	13,577	4,550	190	8,837
Transportation	13,975	6,845	621	6,509	19,827	12,763	673	6,391
All other ^(a)	308,519	120,063	13,635	174,821	301,673	119,590	16,414	165,669
Subtotal	820,254	308,263	65,759	446,232	816,019	306,222	74,983	434,814
Loans held-for-sale and loans at fair value	13,301	13,301	–	–	6,961	6,961	–	–
Receivables from customers and other	26,744	–	–	–	23,648	–	–	–
Total wholesale-related	860,299	321,564	65,759	446,232	846,628	313,183	74,983	434,814
Total exposure^(c)	\$ 1,862,732	\$ 738,418	\$ 65,759	\$ 1,031,672	\$ 1,860,528	\$ 733,796	\$ 74,983	\$ 1,027,988

(a) For more information on exposures to SPEs included within All other see Note 16 on pages 288-299 of this Annual Report.

(b) Represents lending-related financial instruments.

(c) For further information regarding on-balance sheet credit concentrations by major product and/or geography, see Notes 6, 14 and 15 on pages 220-233, 258-283 and 284-287, respectively, of this Annual Report. For information regarding concentrations of off-balance sheet lending-related financial instruments by major product, see Note 29 on pages 318-324 of this Annual Report.

Note 6 – Derivative instruments

Derivative instruments enable end-users to modify or mitigate exposure to credit or market risks. Counterparties to a derivative contract seek to obtain risks and rewards similar to those that could be obtained from purchasing or selling a related cash instrument without having to exchange upfront the full purchase or sales price. JPMorgan Chase makes markets in derivatives for customers and also uses derivatives to hedge or manage its own risk exposures. Predominantly all of the Firm's derivatives are entered into for market-making or risk management purposes.

Market-making derivatives

The majority of the Firm's derivatives are entered into for market-making purposes. Customers use derivatives to mitigate or modify interest rate, credit, foreign exchange, equity and commodity risks. The Firm actively manages the risks from its exposure to these derivatives by entering into other derivative transactions or by purchasing or selling other financial instruments that partially or fully offset the exposure from client derivatives. The Firm also seeks to earn a spread between the client derivatives and offsetting positions, and from the remaining open risk positions.

Risk management derivatives

The Firm manages its market risk exposures using various derivative instruments.

Interest rate contracts are used to minimize fluctuations in earnings that are caused by changes in interest rates. Fixed-rate assets and liabilities appreciate or depreciate in market value as interest rates change. Similarly, interest income and expense increases or decreases as a result of variable-rate assets and liabilities resetting to current market rates, and as a result of the repayment and subsequent origination or issuance of fixed-rate assets and liabilities at current market rates. Gains or losses on the derivative instruments that are related to such assets and liabilities are expected to substantially offset this variability in earnings. The Firm generally uses interest rate swaps, forwards and futures to manage the impact of interest rate fluctuations on earnings.

Foreign currency forward contracts are used to manage the foreign exchange risk associated with certain foreign currency-denominated (i.e., non-U.S. dollar) assets and liabilities and forecasted transactions, as well as the Firm's net investments in certain non-U.S. subsidiaries or branches whose functional currencies are not the U.S. dollar. As a result of fluctuations in foreign currencies, the U.S. dollar-equivalent values of the foreign currency-denominated assets and liabilities or forecasted revenue or expense increase or decrease. Gains or losses on the derivative instruments related to these foreign currency-denominated assets or liabilities, or forecasted transactions, are expected to substantially offset this variability.

Commodities contracts are used to manage the price risk of certain commodities inventories. Gains or losses on these derivative instruments are expected to substantially offset

the depreciation or appreciation of the related inventory. Also in the commodities portfolio, electricity and natural gas futures and forwards contracts are used to manage price risk associated with energy-related tolling and load-serving contracts and investments.

The Firm uses credit derivatives to manage the counterparty credit risk associated with loans and lending-related commitments. Credit derivatives compensate the purchaser when the entity referenced in the contract experiences a credit event, such as bankruptcy or a failure to pay an obligation when due. Credit derivatives primarily consist of credit default swaps. For a further discussion of credit derivatives, see the discussion in the Credit derivatives section on pages 231–233 of this Note.

For more information about risk management derivatives, see the risk management derivatives gains and losses table on page 231 of this Note, and the hedge accounting gains and losses tables on pages 229–231 of this Note.

Derivative counterparties and settlement types

The Firm enters into over-the-counter ("OTC") derivatives, which are negotiated and settled bilaterally with the derivative counterparty. The Firm also enters into, as principal, certain exchange traded derivatives ("ETD") such as futures and options, and "cleared" over-the-counter ("OTC-cleared") derivative contracts with central counterparties ("CCPs"). ETD contracts are generally standardized contracts traded on an exchange and cleared by the CCP, which is the counterparty from the inception of the transactions. OTC-cleared derivatives are traded on a bilateral basis and then novated to the CCP for clearing.

Accounting for derivatives

All free-standing derivatives that the Firm executes for its own account are required to be recorded on the Consolidated Balance Sheets at fair value. For information on the derivatives that the Firm clears for its clients' accounts, see Note 29 on pages 318–324 of this Annual Report.

As permitted under U.S. GAAP, the Firm nets derivative assets and liabilities, and the related cash collateral receivables and payables, when a legally enforceable master netting agreement exists between the Firm and the derivative counterparty. For further discussion of the offsetting of assets and liabilities, see Note 1 on pages 189–191 of this Annual Report. The accounting for changes in value of a derivative depends on whether or not the transaction has been designated and qualifies for hedge accounting. Derivatives that are not designated as hedges are reported and measured at fair value through earnings. The tabular disclosures on pages 223–233 of this Note provide additional information on the amount of, and reporting for, derivative assets, liabilities, gains and losses. For further discussion of derivatives embedded in structured notes, see Notes 3 and 4 on pages 195–215 and 215–218, respectively, of this Annual Report.

Derivatives designated as hedges

The Firm applies hedge accounting to certain derivatives executed for risk management purposes – generally interest rate, foreign exchange and commodity derivatives. However, JPMorgan Chase does not seek to apply hedge accounting to all of the derivatives involved in the Firm's risk management activities. For example, the Firm does not apply hedge accounting to purchased credit default swaps used to manage the credit risk of loans and lending-related commitments, because of the difficulties in qualifying such contracts as hedges. For the same reason, the Firm does not apply hedge accounting to certain interest rate and commodity derivatives used for risk management purposes.

To qualify for hedge accounting, a derivative must be highly effective at reducing the risk associated with the exposure being hedged. In addition, for a derivative to be designated as a hedge, the risk management objective and strategy must be documented. Hedge documentation must identify the derivative hedging instrument, the asset or liability or forecasted transaction and type of risk to be hedged, and how the effectiveness of the derivative is assessed prospectively and retrospectively. To assess effectiveness, the Firm uses statistical methods such as regression analysis, as well as nonstatistical methods including dollar-value comparisons of the change in the fair value of the derivative to the change in the fair value or cash flows of the hedged item. The extent to which a derivative has been, and is expected to continue to be, effective at offsetting changes in the fair value or cash flows of the hedged item must be assessed and documented at least quarterly. Any hedge ineffectiveness (i.e., the amount by which the gain or loss on the designated derivative instrument does not exactly offset the change in the hedged item attributable to the hedged risk) must be reported in current-period earnings. If it is determined that a derivative is not highly effective at hedging the designated exposure, hedge accounting is discontinued.

There are three types of hedge accounting designations: fair value hedges, cash flow hedges and net investment hedges. JPMorgan Chase uses fair value hedges primarily to hedge fixed-rate long-term debt, AFS securities and certain commodities inventories. For qualifying fair value hedges, the changes in the fair value of the derivative, and in the value of the hedged item for the risk being hedged, are recognized in earnings. If the hedge relationship is terminated, then the adjustment to the hedged item continues to be reported as part of the basis of the hedged item and for interest-bearing instruments is amortized to earnings as a yield adjustment. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item – primarily net interest income and principal transactions revenue.

JPMorgan Chase uses cash flow hedges primarily to hedge the exposure to variability in forecasted cash flows from floating-rate assets and liabilities and foreign currency-denominated revenue and expense. For qualifying cash flow hedges, the effective portion of the change in the fair value of the derivative is recorded in OCI and recognized in the Consolidated Statements of Income when the hedged cash flows affect earnings. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item – primarily interest income, interest expense, noninterest revenue and compensation expense. The ineffective portions of cash flow hedges are immediately recognized in earnings. If the hedge relationship is terminated, then the value of the derivative recorded in accumulated other comprehensive income/(loss) ("AOCI") is recognized in earnings when the cash flows that were hedged affect earnings. For hedge relationships that are discontinued because a forecasted transaction is expected to not occur according to the original hedge forecast, any related derivative values recorded in AOCI are immediately recognized in earnings.

JPMorgan Chase uses foreign currency hedges to protect the value of the Firm's net investments in certain non-U.S. subsidiaries or branches whose functional currencies are not the U.S. dollar. For foreign currency qualifying net investment hedges, changes in the fair value of the derivatives are recorded in the translation adjustments account within AOCI.

Notes to consolidated financial statements

The following table outlines the Firm's primary uses of derivatives and the related hedge accounting designation or disclosure category.

Type of Derivative	Use of Derivative	Designation and disclosure	Affected segment or unit	Page reference
Manage specifically identified risk exposures in qualifying hedge accounting relationships:				
◦ Interest rate	Hedge fixed rate assets and liabilities	Fair value hedge	Corporate/PE	229
◦ Interest rate	Hedge floating rate assets and liabilities	Cash flow hedge	Corporate/PE	230
◦ Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	Corporate/PE	229
◦ Foreign exchange	Hedge forecasted revenue and expense	Cash flow hedge	Corporate/PE	230
◦ Foreign exchange	Hedge the value of the Firm's investments in non-U.S. subsidiaries	Net investment hedge	Corporate/PE	231
◦ Commodity	Hedge commodity inventory	Fair value hedge	CIB	229
Manage specifically identified risk exposures not designated in qualifying hedge accounting relationships:				
◦ Interest rate	Manage the risk of the mortgage pipeline, warehouse loans and MSRs	Specified risk management	CCB	231
◦ Credit	Manage the credit risk of wholesale lending exposures	Specified risk management	CIB	231
◦ Credit ^(a)	Manage the credit risk of certain AFS securities	Specified risk management	Corporate/PE	231
◦ Commodity	Manage the risk of certain commodities-related contracts and investments	Specified risk management	CIB	231
◦ Interest rate and foreign exchange	Manage the risk of certain other specified assets and liabilities	Specified risk management	Corporate/PE	231
Market-making derivatives and other activities:				
• Various	Market-making and related risk management	Market-making and other	CIB	231
• Various ^(b)	Other derivatives, including the synthetic credit portfolio	Market-making and other	CIB, Corporate/PE	231

(a) Includes a limited number of single-name credit derivatives used to mitigate the credit risk arising from specified AFS securities.

(b) The synthetic credit portfolio is a portfolio of index credit derivatives, including short and long positions, that was held by CIO. On July 2, 2012, CIO transferred the synthetic credit portfolio, other than a portion that aggregated to a notional amount of approximately \$12 billion, to CIB. The positions making up the portion of the synthetic credit portfolio retained by CIO on July 2, 2012, were effectively closed out during the third quarter of 2012. The results of the synthetic credit portfolio, including the portion transferred to CIB, have been included in the gains and losses on derivatives related to market-making activities and other derivatives category discussed on page 231 of this Note.

Notional amount of derivative contracts

The following table summarizes the notional amount of derivative contracts outstanding as of December 31, 2013 and 2012.

December 31, (in billions)	Notional amounts ^(c)	
	2013	2012
Interest rate contracts^(a)		
Swaps	\$ 35,221	\$ 33,037
Futures and forwards	11,251	11,756
Written options	3,991	3,860
Purchased options	4,187	3,909
Total interest rate contracts	54,650	52,562
Credit derivatives^(b)	5,386	5,981
Foreign exchange contracts^(a)		
Cross-currency swaps	3,488	3,413
Spot, futures and forwards	3,773	4,005
Written options	659	651
Purchased options	652	662
Total foreign exchange contracts	8,572	8,731
Equity contracts		
Swaps	205	163
Futures and forwards ^(a)	49	38
Written options ^(a)	425	441
Purchased options	380	403
Total equity contracts	1,059	1,045
Commodity contracts		
Swaps ^(a)	124	120
Spot, futures and forwards ^(a)	234	367
Written options	202	262
Purchased options	203	260
Total commodity contracts	763	1,009
Total derivative notional amounts	\$ 70,430	\$ 69,328

(a) The prior period amounts have been revised. This revision had no impact on the Firm's Consolidated Balance Sheets or its results of operations.

(b) Primarily consists of credit default swaps. For more information on volumes and types of credit derivative contracts, see the Credit derivatives discussion on pages 231-233 of this Note.

(c) Represents the sum of gross long and gross short third-party notional derivative contracts.

While the notional amounts disclosed above give an indication of the volume of the Firm's derivatives activity, the notional amounts significantly exceed, in the Firm's view, the possible losses that could arise from such transactions. For most derivative transactions, the notional amount is not exchanged; it is used simply as a reference to calculate payments.

Notes to consolidated financial statements

Impact of derivatives on the Consolidated Balance Sheets

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Firm's Consolidated Balance Sheets as of December 31, 2013 and 2012, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables^(a)

	Gross derivative receivables					Gross derivative payables			
December 31, 2013 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables ^(c)	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables ^(c)	
Trading assets and liabilities									
Interest rate	\$ 851,189	\$ 3,490	\$ 854,679	\$ 25,782	\$ 820,811	\$ 4,543	\$ 825,354	\$ 13,283	
Credit	83,520	—	83,520	1,516	82,402	—	82,402	2,281	
Foreign exchange	152,240	1,359	153,599	16,790	158,728	1,397	160,125	15,947	
Equity	52,931	—	52,931	12,227	54,654	—	54,654	14,719	
Commodity	34,344	1,394	35,738	9,444	37,605	9	37,614	11,084	
Total fair value of trading assets and liabilities	\$ 1,174,224	\$ 6,243	\$ 1,180,467	\$ 65,759	\$ 1,154,200	\$ 5,949	\$ 1,160,149	\$ 57,314	

	Gross derivative receivables					Gross derivative payables			
December 31, 2012 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables ^(c)	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables ^(c)	
Trading assets and liabilities									
Interest rate ^(b)	\$ 1,296,268	\$ 6,064	\$ 1,302,332	\$ 39,205	\$ 1,257,654	\$ 3,120	\$ 1,260,774	\$ 24,906	
Credit	100,310	—	100,310	1,735	100,027	—	100,027	2,504	
Foreign exchange ^(b)	145,676	1,577	147,253	14,142	158,419	2,133	160,552	18,601	
Equity ^(b)	42,679	—	42,679	9,266	44,535	—	44,535	11,819	
Commodity ^(b)	43,185	586	43,771	10,635	46,981	644	47,625	12,826	
Total fair value of trading assets and liabilities	\$ 1,628,118	\$ 8,227	\$ 1,636,345	\$ 74,983	\$ 1,607,616	\$ 5,897	\$ 1,613,513	\$ 70,656	

(a) Balances exclude structured notes for which the fair value option has been elected. See Note 4 on pages 215–218 of this Annual Report for further information.

(b) The prior period amounts have been revised. This revision had no impact on the Firm's Consolidated Balance Sheets or its results of operations.

(c) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral receivables and payables when a legally enforceable master netting agreement exists.

The following table presents, as of December 31, 2013 and 2012, the gross and net derivative receivables by contract and settlement type. Derivative receivables have been netted on the Consolidated Balance Sheets against derivative payables to the same counterparty with respect to derivative contracts for which the Firm has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, the receivables are not eligible under U.S. GAAP for netting against related derivative payables on the Consolidated Balance Sheets, and are shown separately in the table below.

December 31, (in millions)	2013			2012		
	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables
U.S. GAAP nettable derivative receivables						
Interest rate contracts:						
Over-the-counter ("OTC") ^(a)	\$ 486,449	\$ (466,493)	\$ 19,956	\$ 794,282	\$ (771,449)	\$ 22,833
OTC-cleared	362,426	(362,404)	22	491,947	(491,678)	269
Exchange traded ^(b)	—	—	—	—	—	—
Total interest rate contracts	848,875	(828,897)	19,978	1,286,229	(1,263,127)	23,102
Credit contracts:						
OTC	66,269	(65,725)	544	90,744	(90,104)	640
OTC-cleared	16,841	(16,279)	562	8,471	(8,471)	—
Total credit contracts	83,110	(82,004)	1,106	99,215	(98,575)	640
Foreign exchange contracts:						
OTC ^(a)	148,953	(136,763)	12,190	141,053	(133,088)	7,965
OTC-cleared	46	(46)	—	23	(23)	—
Exchange traded ^(b)	—	—	—	—	—	—
Total foreign exchange contracts	148,999	(136,809)	12,190	141,076	(133,111)	7,965
Equity contracts:						
OTC ^(a)	31,870	(29,289)	2,581	26,025	(24,645)	1,380
OTC-cleared	—	—	—	—	—	—
Exchange traded ^(b)	17,732	(11,415)	6,317	12,841	(8,768)	4,073
Total equity contracts	49,602	(40,704)	8,898	38,866	(33,413)	5,453
Commodity contracts:						
OTC ^(a)	21,619	(15,082)	6,537	26,850	(20,729)	6,121
OTC-cleared	—	—	—	—	—	—
Exchange traded ^(b)	12,528	(11,212)	1,316	15,108	(12,407)	2,701
Total commodity contracts	34,147	(26,294)	7,853	41,958	(33,136)	8,822
Derivative receivables with appropriate legal opinion	\$ 1,164,733	\$ (1,114,708) ^(c)	\$ 50,025	\$ 1,607,344	\$ (1,561,362) ^(c)	\$ 45,982
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	15,734		15,734	29,001		29,001
Total derivative receivables recognized on the Consolidated Balance Sheets	\$ 1,180,467		\$ 65,759	\$ 1,636,345		\$ 74,983

(a) The prior period amounts have been revised. This revision had no impact on the Firm's Consolidated Balance Sheets or its results of operations.

(b) Exchange traded derivative amounts that relate to futures contracts are settled daily.

(c) Included netted cash collateral payables of \$63.9 billion and \$79.2 billion at December 31, 2013, and December 31, 2012, respectively.

Notes to consolidated financial statements

The following table presents, as of December 31, 2013 and 2012, the gross and net derivative payables by contract and settlement type. Derivative payables have been netted on the Consolidated Balance Sheets against derivative receivables to the same counterparty with respect to derivative contracts for which the Firm has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, the payables are not eligible under U.S. GAAP for netting against related derivative receivables on the Consolidated Balance Sheets, and are shown separately in the table below.

December 31, (in millions)	2013			2012		
	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables
U.S. GAAP nettable derivative payables						
Interest rate contracts:						
OTC ^(a)	\$ 467,850	\$ (458,081)	\$ 9,769	\$ 774,824	\$ (754,105)	\$ 20,719
OTC-cleared	354,698	(353,990)	708	482,018	(481,763)	255
Exchange traded ^(b)	—	—	—	—	—	—
Total interest rate contracts	822,548	(812,071)	10,477	1,256,842	(1,235,868)	20,974
Credit contracts:						
OTC	65,223	(63,671)	1,552	89,170	(88,151)	1,019
OTC-cleared	16,506	(16,450)	56	9,372	(9,372)	—
Total credit contracts	81,729	(80,121)	1,608	98,542	(97,523)	1,019
Foreign exchange contracts:						
OTC ^(a)	155,110	(144,119)	10,991	153,181	(141,928)	11,253
OTC-cleared	61	(59)	2	29	(23)	6
Exchange traded ^(b)	—	—	—	—	—	—
Total foreign exchange contracts	155,171	(144,178)	10,993	153,210	(141,951)	11,259
Equity contracts:						
OTC ^(a)	33,295	(28,520)	4,775	28,321	(23,949)	4,372
OTC-cleared	—	—	—	—	—	—
Exchange traded ^(b)	17,349	(11,415)	5,934	12,000	(8,767)	3,233
Total equity contracts	50,644	(39,935)	10,709	40,321	(32,716)	7,605
Commodity contracts:						
OTC ^(a)	21,993	(15,318)	6,675	28,744	(22,392)	6,352
OTC-cleared	—	—	—	—	—	—
Exchange traded ^(b)	12,367	(11,212)	1,155	14,488	(12,407)	2,081
Total commodity contracts	34,360	(26,530)	7,830	43,232	(34,799)	8,433
Derivative payables with appropriate legal opinions	\$ 1,144,452	\$ (1,102,835) ^(c)	\$ 41,617	\$ 1,592,147	\$ (1,542,857) ^(c)	\$ 49,290
Derivative payables where an appropriate legal opinion has not been either sought or obtained	15,697		15,697	21,366		21,366
Total derivative payables recognized on the Consolidated Balance Sheets	\$ 1,160,149		\$ 57,314	\$ 1,613,513		\$ 70,656

(a) The prior period amounts have been revised. This revision had no impact on the Firm's Consolidated Balance Sheets or its results of operations.

(b) Exchange traded derivative balances that relate to futures contracts are settled daily.

(c) Included netted cash collateral receivables of \$52.1 billion and \$60.7 billion related to OTC and OTC-cleared derivatives at December 31, 2013, and December 31, 2012, respectively.

In addition to the cash collateral received and transferred that is presented on a net basis with net derivative receivables and payables, the Firm receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with the Firm's derivative instruments but are not eligible for net presentation, because (a) the collateral is non-cash

financial instruments (generally U.S. government and agency securities and other G7 government bonds), (b) the amount of collateral held or transferred exceeds the fair value exposure, at the individual counterparty level, as of the date presented, or (c) the collateral relates to derivative receivables or payables where an appropriate legal opinion has not been either sought or obtained.

The following tables present information regarding certain financial instrument collateral received and transferred as of December 31, 2013 and 2012, that is not eligible for net presentation under U.S. GAAP. The collateral included in these tables relates only to the derivative instruments for which appropriate legal opinions have been obtained; excluded are (i) additional collateral that exceeds the fair value exposure and (ii) all collateral related to derivative instruments where an appropriate legal opinion has not been either sought or obtained.

Derivative receivable collateral

December 31, (in millions)	2013			2012		
	Net derivative receivables	Collateral not nettable on the Consolidated balance sheets	Net exposure	Net derivative receivables	Collateral not nettable on the Consolidated balance sheets	Net exposure
Derivative receivables with appropriate legal opinions	\$ 50,025	\$ (12,414) ^(a)	\$ 37,611	\$ 45,982	\$ (11,350) ^(a)	\$ 34,632

Derivative payable collateral^(b)

December 31, (in millions)	2013			2012		
	Net derivative payables	Collateral not nettable on the Consolidated balance sheets	Net amount ^(c)	Net derivative payables	Collateral not nettable on the Consolidated balance sheets	Net amount ^(c)
Derivative payables with appropriate legal opinions	\$ 41,617	\$ (6,873) ^(a)	\$ 34,744	\$ 49,290	\$ (20,109) ^(a)	\$ 29,181

- (a) Represents liquid security collateral as well as cash collateral held at third party custodians. For some counterparties, the collateral amounts of financial instruments may exceed the derivative receivables and derivative payables balances. Where this is the case, the total amount reported is limited to the net derivative receivables and net derivative payables balances with that counterparty.
- (b) Derivative payable collateral relates only to OTC and OTC-cleared derivative instruments. Amounts exclude collateral transferred related to exchange-traded derivative instruments.
- (c) Net amount represents exposure of counterparties to the Firm.

Liquidity risk and credit-related contingent features

In addition to the specific market risks introduced by each derivative contract type, derivatives expose JPMorgan Chase to credit risk – the risk that derivative counterparties may fail to meet their payment obligations under the derivative contracts and the collateral, if any, held by the Firm proves to be of insufficient value to cover the payment obligation. It is the policy of JPMorgan Chase to actively pursue, where possible, the use of legally enforceable master netting arrangements and collateral agreements to mitigate derivative counterparty credit risk. The amount of derivative receivables reported on the Consolidated Balance Sheets is the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and cash collateral held by the Firm.

While derivative receivables expose the Firm to credit risk, derivative payables expose the Firm to liquidity risk, as the derivative contracts typically require the Firm to post cash or securities collateral with counterparties as the fair value

of the contracts moves in the counterparties' favor or upon specified downgrades in the Firm's and its subsidiaries' respective credit ratings. Certain derivative contracts also provide for termination of the contract, generally upon a downgrade of either the Firm or the counterparty, at the fair value of the derivative contracts. The following table shows the aggregate fair value of net derivative payables related to OTC and OTC-cleared derivatives that contain contingent collateral or termination features that may be triggered upon a ratings downgrade, and the associated collateral the Firm has posted in the normal course of business, at December 31, 2013 and 2012.

OTC and OTC-cleared derivative payables containing downgrade triggers

December 31, (in millions)	2013	2012
Aggregate fair value of net derivative payables	\$ 24,631	\$ 40,844
Collateral posted	20,346	34,414

Notes to consolidated financial statements

The following table shows the impact of a single-notch and two-notch downgrade of the long-term issuer ratings of JPMorgan Chase & Co. and its subsidiaries, predominantly JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), at December 31, 2013 and 2012, related to OTC and OTC-cleared derivative contracts with contingent collateral or termination features that may be triggered upon a ratings downgrade. Derivatives contracts generally require additional collateral to be posted or terminations to be triggered when the predefined threshold rating is breached. A downgrade by a single rating agency that does not result in a rating lower than a preexisting corresponding rating provided by another major rating agency will generally not result in additional collateral, except in certain instances in which additional initial margin may be required upon a ratings downgrade, or termination payment requirements. The liquidity impact in the table is calculated based upon a downgrade below the lowest current rating of the rating agencies referred to in the derivative contract.

Liquidity impact of downgrade triggers on OTC and OTC-cleared derivatives

December 31, (in millions)	2013		2012	
	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade ^(a)	\$ 952	\$ 3,244	\$ 1,234	\$ 4,090
Amount required to settle contracts with termination triggers upon downgrade ^(b)	540	876	857	1,270

(a) Includes the additional collateral to be posted for initial margin. Prior period amounts have been revised to conform with the current presentation.

(b) Amounts represent fair value of derivative payables, and do not reflect collateral posted.

Impact of derivatives on the Consolidated Statements of Income

The following tables provide information related to gains and losses recorded on derivatives based on their hedge accounting designation or purpose.

Fair value hedge gains and losses

The following tables present derivative instruments, by contract type, used in fair value hedge accounting relationships, as well as pretax gains/(losses) recorded on such derivatives and the related hedged items for the years ended December 31, 2013, 2012 and 2011, respectively. The Firm includes gains/(losses) on the hedging derivative and the related hedged item in the same line item in the Consolidated Statements of Income.

Year ended December 31, 2013 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness ^(e)	Excluded components ^(f)
Contract type					
Interest rate ^(a)	\$ (3,469)	\$ 4,851	\$ 1,382	\$ (132)	\$ 1,514
Foreign exchange ^(b)	(1,096) ^(d)	864	(232)	—	(232)
Commodity ^(c)	485	(1,304)	(819)	38	(857)
Total	\$ (4,080)	\$ 4,411	\$ 331	\$ (94)	\$ 425

Year ended December 31, 2012 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness ^(e)	Excluded components ^(f)
Contract type					
Interest rate ^(a)	\$ (1,238)	\$ 1,879	\$ 641	\$ (28)	\$ 669
Foreign exchange ^(b)	(3,027) ^(d)	2,925	(102)	—	(102)
Commodity ^(c)	(2,530)	1,131	(1,399)	107	(1,506)
Total	\$ (6,795)	\$ 5,935	\$ (860)	\$ 79	\$ (939)

Year ended December 31, 2011 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness ^(e)	Excluded components ^(f)
Contract type					
Interest rate ^(a)	\$ 532	\$ 33	\$ 565	\$ 104	\$ 461
Foreign exchange ^(b)	5,684 ^(d)	(3,761)	1,923	—	1,923
Commodity ^(c)	1,784	(2,880)	(1,096)	(10)	(1,086)
Total	\$ 8,000	\$ (6,608)	\$ 1,392	\$ 94	\$ 1,298

- (a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate ("LIBOR")) interest rate risk of fixed-rate long-term debt and AFS securities. Gains and losses were recorded in net interest income. The current presentation excludes accrued interest.
- (b) Primarily consists of hedges of the foreign currency risk of long-term debt and AFS securities for changes in spot foreign currency rates. Gains and losses related to the derivatives and the hedged items, due to changes in foreign currency rates, were recorded in principal transactions revenue and net interest income.
- (c) Consists of overall fair value hedges of physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value). Gains and losses were recorded in principal transactions revenue.
- (d) Included \$(556) million, \$(3.1) billion and \$4.9 billion for the years ended December 31, 2013, 2012 and 2011, respectively, of revenue related to certain foreign exchange trading derivatives designated as fair value hedging instruments.
- (e) Hedge ineffectiveness is the amount by which the gain or loss on the designated derivative instrument does not exactly offset the gain or loss on the hedged item attributable to the hedged risk.
- (f) The assessment of hedge effectiveness excludes certain components of the changes in fair values of the derivatives and hedged items such as forward points on foreign exchange forward contracts and time values.

Notes to consolidated financial statements

Cash flow hedge gains and losses

The following tables present derivative instruments, by contract type, used in cash flow hedge accounting relationships, and the pretax gains/(losses) recorded on such derivatives, for the years ended December 31, 2013, 2012 and 2011, respectively. The Firm includes the gain/(loss) on the hedging derivative and the change in cash flows on the hedged item in the same line item in the Consolidated Statements of Income.

Year ended December 31, 2013 (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss) ^(c)				
	Derivatives - effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income ^(d)	Total income statement impact	Derivatives - effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate ^(a)	\$ (108)	\$ —	\$ (108)	\$ (565)	\$ (457)
Foreign exchange ^(b)	7	—	7	40	33
Total	\$ (101)	\$ —	\$ (101)	\$ (525)	\$ (424)

Year ended December 31, 2012 (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss) ^(c)				
	Derivatives - effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income ^(d)	Total income statement impact	Derivatives - effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate ^(a)	\$ (3)	\$ 5	\$ 2	\$ 13	\$ 16
Foreign exchange ^(b)	31	—	31	128	97
Total	\$ 28	\$ 5	\$ 33	\$ 141	\$ 113

Year ended December 31, 2011 (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss) ^(c)				
	Derivatives - effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income ^(d)	Total income statement impact	Derivatives - effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate ^(a)	\$ 310	\$ 19	\$ 329	\$ 107	\$ (203)
Foreign exchange ^(b)	(9)	—	(9)	(57)	(48)
Total	\$ 301	\$ 19	\$ 320	\$ 50	\$ (251)

(a) Primarily consists of benchmark interest rate hedges of LIBOR-indexed floating-rate assets and floating-rate liabilities. Gains and losses were recorded in net interest income.

(b) Primarily consists of hedges of the foreign currency risk of non-U.S. dollar-denominated revenue and expense. The income statement classification of gains and losses follows the hedged item - primarily noninterest revenue and compensation expense.

(c) The Firm did not experience any forecasted transactions that failed to occur for the years ended December 31, 2013, 2012 or 2011.

(d) Hedge ineffectiveness is the amount by which the cumulative gain or loss on the designated derivative instrument exceeds the present value of the cumulative expected change in cash flows on the hedged item attributable to the hedged risk.

Over the next 12 months, the Firm expects that \$4.6 million (after-tax) of net losses recorded in AOCI at December 31, 2013, related to cash flow hedges will be recognized in income. The maximum length of time over which forecasted transactions are hedged is 10 years, and such transactions primarily relate to core lending and borrowing activities.

Net investment hedge gains and losses

The following tables present hedging instruments, by contract type, that were used in net investment hedge accounting relationships, and the pretax gains/(losses) recorded on such instruments for the years ended December 31, 2013, 2012 and 2011.

Year ended December 31, (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss)					
	2013		2012		2011	
	Excluded components recorded directly in income ^(a)	Effective portion recorded in OCI	Excluded components recorded directly in income ^(a)	Effective portion recorded in OCI	Excluded components recorded directly in income ^(a)	Effective portion recorded in OCI
Contract type						
Foreign exchange derivatives	\$ (383)	\$ 773	\$ (306)	\$ (82)	\$ (251)	\$ 225
Foreign currency denominated debt	—	—	—	—	—	1
Total	\$ (383)	\$ 773	\$ (306)	\$ (82)	\$ (251)	\$ 226

(a) Certain components of hedging derivatives are permitted to be excluded from the assessment of hedge effectiveness, such as forward points on foreign exchange forward contracts. Amounts related to excluded components are recorded in current-period income. The Firm measures the ineffectiveness of net investment hedge accounting relationships based on changes in spot foreign currency rates, and therefore there was no ineffectiveness for net investment hedge accounting relationships during 2013, 2012 and 2011.

Gains and losses on derivatives used for specified risk management purposes

The following table presents pretax gains/(losses) recorded on a limited number of derivatives, not designated in hedge accounting relationships, that are used to manage risks associated with certain specified assets and liabilities, including certain risks arising from the mortgage pipeline, warehouse loans, MSRs, wholesale lending exposures, AFS securities, foreign currency-denominated liabilities, and commodities-related contracts and investments.

Year ended December 31, (in millions)	Derivatives gains/(losses) recorded in income		
	2013	2012	2011
Contract type			
Interest rate ^(a)	\$ 617	\$ 5,353	\$ 8,084
Credit ^(b)	(142)	(175)	(52)
Foreign exchange ^(c)	1	47	(157)
Commodity ^(d)	178	94	41
Total	\$ 654	\$ 5,319	\$ 7,916

(a) Primarily relates to interest rate derivatives used to hedge the interest rate risks associated with the mortgage pipeline, warehouse loans and MSRs. Gains and losses were recorded predominantly in mortgage fees and related income.

(b) Relates to credit derivatives used to mitigate credit risk associated with lending exposures in the Firm's wholesale businesses, and single-name credit derivatives used to mitigate credit risk arising from certain AFS securities. These derivatives do not include the synthetic credit portfolio or credit derivatives used to mitigate counterparty credit risk arising from derivative receivables, both of which are included in gains and losses on derivatives related to market-making activities and other derivatives. Gains and losses were recorded in principal transactions revenue.

(c) Primarily relates to hedges of the foreign exchange risk of specified foreign currency-denominated liabilities. Gains and losses were recorded in principal transactions revenue and net interest income.

(d) Primarily relates to commodity derivatives used to mitigate energy price risk associated with energy-related contracts and investments. Gains and losses were recorded in principal transactions revenue.

Gains and losses on derivatives related to market-making activities and other derivatives

The Firm makes markets in derivatives in order to meet the needs of customers and uses derivatives to manage certain risks associated with net open risk positions from the Firm's market-making activities, including the counterparty credit risk arising from derivative receivables. These derivatives, as well as all other derivatives (including the synthetic credit portfolio) that are not included in the hedge accounting or specified risk management categories above, are included in this category. Gains and losses on these derivatives are primarily recorded in principal transactions revenue. See Note 7 on pages 234-235 of this Annual Report for information on principal transactions revenue.

Credit derivatives

Credit derivatives are financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity) and which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Credit derivatives expose the protection purchaser to the creditworthiness of the protection seller, as the protection seller is required to make payments under the contract when the reference entity experiences a credit event, such as a bankruptcy, a failure to pay its obligation or a restructuring. The seller of credit protection receives a premium for providing protection but has the risk that the underlying instrument referenced in the contract will be subject to a credit event.

The Firm is both a purchaser and seller of protection in the credit derivatives market and uses these derivatives for two primary purposes. First, in its capacity as a market-maker, the Firm actively manages a portfolio of credit derivatives by purchasing and selling credit protection, predominantly on corporate debt obligations, to meet the needs of customers. Second, as an end-user, the Firm uses credit derivatives to manage credit risk associated with lending exposures (loans and unfunded commitments) and derivatives counterparty exposures in the Firm's wholesale businesses, and to manage the credit risk arising from

certain AFS securities and from certain financial instruments in the Firm's market-making businesses. For more information on the synthetic credit portfolio, see the discussion on page 222 of this Note. Following is a summary of various types of credit derivatives.

Credit default swaps

Credit derivatives may reference the credit of either a single reference entity ("single-name") or a broad-based index. The Firm purchases and sells protection on both single-name and index-reference obligations. Single-name CDS and index CDS contracts are typically OTC-cleared derivative contracts. Single-name CDS are used to manage the default risk of a single reference entity, while index CDS contracts are used to manage the credit risk associated with the broader credit markets or credit market segments. Like the S&P 500 and other market indices, a CDS index comprises a portfolio of CDS across many reference entities. New series of CDS indices are periodically established with a new underlying portfolio of reference entities to reflect changes in the credit markets. If one of the reference entities in the index experiences a credit event, then the reference entity that defaulted is removed from the index. CDS can also be referenced against specific portfolios of reference names or against customized exposure levels based on specific client demands: for example, to provide protection against the first \$1 million of realized credit losses in a \$10 million portfolio of exposure. Such structures are commonly known as tranche CDS.

For both single-name CDS contracts and index CDS contracts, upon the occurrence of a credit event, under the terms of a CDS contract neither party to the CDS contract has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value of the reference obligation at settlement of the credit derivative contract, also known as the recovery value. The protection purchaser does not need to hold the debt instrument of the underlying reference entity in order to receive amounts due under the CDS contract when a credit event occurs.

Credit-related notes

A credit-related note is a funded credit derivative where the issuer of the credit-related note purchases from the note investor credit protection on a reference entity or an index. Under the contract, the investor pays the issuer the par value of the note at the inception of the transaction, and in return, the issuer pays periodic payments to the investor, based on the credit risk of the referenced entity. The issuer also repays the investor the par value of the note at maturity unless the reference entity experiences a specified credit event (or one of the entities that makes up a reference index). If a credit event occurs, the issuer is not obligated to repay the par value of the note, but rather, the issuer pays the investor the difference between the par value of the note and the fair value of the defaulted reference obligation at the time of settlement. Neither party to the credit-related note has recourse to the defaulting reference entity. For a further discussion of credit-related notes, see Note 16 on pages 288-299 of this Annual Report.

The following tables present a summary of the notional amounts of credit derivatives and credit-related notes the Firm sold and purchased as of December 31, 2013 and 2012. Upon a credit event, the Firm as a seller of protection would typically pay out only a percentage of the full notional amount of net protection sold, as the amount actually required to be paid on the contracts takes into account the recovery value of the reference obligation at the time of settlement. The Firm manages the credit risk on contracts to sell protection by purchasing protection with identical or similar underlying reference entities. Other purchased protection referenced in the following tables includes credit derivatives bought on related, but not identical, reference positions (including indices, portfolio coverage and other reference points) as well as protection purchased through credit-related notes.

The Firm does not use notional amounts of credit derivatives as the primary measure of risk management for such derivatives, because the notional amount does not take into account the probability of the occurrence of a credit event, the recovery value of the reference obligation, or related cash instruments and economic hedges, each of which reduces, in the Firm's view, the risks associated with such derivatives.

Total credit derivatives and credit-related notes

December 31, 2013 (in millions)	Maximum payout/Notional amount			
	Protection sold	Protection purchased with identical underlyings ^(b)	Net protection (sold)/purchased ^(c)	Other protection purchased ^(d)
Credit derivatives				
Credit default swaps	\$ (2,601,581)	\$ 2,610,198	\$ 8,617	\$ 8,722
Other credit derivatives ^(a)	(95,094)	45,921	(49,173)	24,192
Total credit derivatives	(2,696,675)	2,656,119	(40,556)	32,914
Credit-related notes	(130)	—	(130)	2,720
Total	\$ (2,696,805)	\$ 2,656,119	\$ (40,686)	\$ 35,634

December 31, 2012 (in millions)	Maximum payout/Notional amount			
	Protection sold	Protection purchased with identical underlyings ^(b)	Net protection (sold)/purchased ^(c)	Other protection purchased ^(d)
Credit derivatives				
Credit default swaps	\$ (2,954,705)	\$ 2,879,105	\$ (75,600)	\$ 42,460
Other credit derivatives ^(a)	(66,244)	5,649	(60,595)	33,174
Total credit derivatives	(3,020,949)	2,884,754	(136,195)	75,634
Credit-related notes	(233)	—	(233)	3,255
Total	\$ (3,021,182)	\$ 2,884,754	\$ (136,428)	\$ 78,889

(a) Other credit derivatives predominantly consists of put options on fixed income portfolios.

(b) Represents the total notional amount of protection purchased where the underlying reference instrument is identical to the reference instrument on protection sold; the notional amount of protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.

(c) Does not take into account the fair value of the reference obligation at the time of settlement, which would generally reduce the amount the seller of protection pays to the buyer of protection in determining settlement value.

(d) Represents protection purchased by the Firm on referenced instruments (single-name, portfolio or index) where the Firm has not sold any protection on the identical reference instrument.

The following tables summarize the notional and fair value amounts of credit derivatives and credit-related notes as of December 31, 2013 and 2012, where JPMorgan Chase is the seller of protection. The maturity profile is based on the remaining contractual maturity of the credit derivative contracts. The ratings profile is based on the rating of the reference entity on which the credit derivative contract is based. The ratings and maturity profile of credit derivatives and credit-related notes where JPMorgan Chase is the purchaser of protection are comparable to the profile reflected below.

Protection sold - credit derivatives and credit-related notes ratings^(a)/maturity profile

December 31, 2013 (in millions)	<1 year	1-5 years	>5 years	Total notional amount	Fair value of receivables ^(b)	Fair value of payables ^(b)	Net fair value
Risk rating of reference entity							
Investment-grade	\$ (365,660)	\$ (1,486,394)	\$ (130,597)	\$ (1,982,651)	\$ 31,727	\$ (5,629)	\$ 26,098
Noninvestment-grade	(140,540)	(544,671)	(28,943)	(714,154)	27,426	(16,674)	10,752
Total	\$ (506,200)	\$ (2,031,065)	\$ (159,540)	\$ (2,696,805)	\$ 59,153	\$ (22,303)	\$ 36,850

December 31, 2012 (in millions)	<1 year	1-5 years	>5 years	Total notional amount	Fair value of receivables ^(b)	Fair value of payables ^(b)	Net fair value
Risk rating of reference entity							
Investment-grade	\$ (409,748)	\$ (1,383,644)	\$ (224,001)	\$ (2,017,393)	\$ 16,690	\$ (22,393)	\$ (5,703)
Noninvestment-grade	(214,949)	(722,115)	(66,725)	(1,003,789)	22,355	(36,815)	(14,460)
Total	\$ (624,697)	\$ (2,105,759)	\$ (290,726)	\$ (3,021,182)	\$ 39,045	\$ (59,208)	\$ (20,163)

(a) The ratings scale is based on the Firm's internal ratings, which generally correspond to ratings as defined by S&P and Moody's.

(b) Amounts are shown on a gross basis, before the benefit of legally enforceable master netting agreements and cash collateral received by the Firm.

Note 7 – Noninterest revenue

Investment banking fees

This revenue category includes equity and debt underwriting and advisory fees. Underwriting fees are recognized as revenue when the Firm has rendered all services to the issuer and is entitled to collect the fee from the issuer, as long as there are no other contingencies associated with the fee. Underwriting fees are net of syndicate expense; the Firm recognizes credit arrangement and syndication fees as revenue after satisfying certain retention, timing and yield criteria. Advisory fees are recognized as revenue when the related services have been performed and the fee has been earned.

The following table presents the components of investment banking fees.

Year ended December 31, (in millions)	2013	2012	2011
Underwriting			
Equity	\$ 1,499	\$ 1,026	\$ 1,181
Debt	3,537	3,290	2,934
Total underwriting	5,036	4,316	4,115
Advisory	1,318	1,492	1,796
Total investment banking fees	\$ 6,354	\$ 5,808	\$ 5,911

Principal transactions

Principal transactions revenue includes realized and unrealized gains and losses recorded on derivatives, other financial instruments, and private equity investments.

Principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk management activities disclosed separately in Note 6, including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specific risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk, and (c) other derivatives, including the synthetic credit portfolio. See Note 6 on pages 220-233 of this Form Annual Report for information on the income statement classification of gains and losses on derivatives.

Principal transactions revenue also includes revenue associated with market-making and client-driven activities that involve physical commodities. The Firm, through its Global Commodities Group within CIB (“Commodities Group”) generally provides risk management, investment and financing solutions to clients globally both through financial derivatives transactions, as well as through physical commodities transactions. On the financial side, the Commodities Group engages in OTC derivatives transactions (e.g., swaps, forwards, options) and exchange-traded derivatives referencing various types of commodities (see below and Note 6 – Derivative instruments for further information). On the physical side, the Commodities Group engages in the purchase, sale, transport, and storage of power, gas, liquefied natural gas, coal, crude oil, refined

products, precious and base metals among others. Realized gains and losses and unrealized losses arising from market-making and client-driven activities involving physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value), subject to any applicable fair value hedge accounting adjustments, are recorded in principal transactions revenue. Fees relating to storage and transportation are recorded in other income. These fees are generally recognized over the arrangement period. Expenses relating to such activities are recorded in other expense (see Note 11 on page 249 of this Annual Report for further information). Additional information on the physical commodities business can be found in Note 2 – Business Changes and Developments on pages 192-194 of this Annual Report.

The following table presents principal transactions revenue by major underlying type of risk exposures. This table does not include other types of revenue, such as net interest income on trading assets, which are an integral part of the overall performance of the Firm’s client-driven market-making activities.

Year ended December 31, (in millions)	2013	2012	2011
Trading revenue by risk exposure			
Interest rate ^(a)	\$ 776	\$ 3,922	\$ (873)
Credit ^(b)	2,424	(5,460)	3,393
Foreign exchange	1,540	1,436	1,154
Equity	2,526	2,504	2,401
Commodity ^(c)	2,073	2,363	2,823
Total trading revenue^{(d)(e)}	9,339	4,765	8,898
Private equity gains ^(f)	802	771	1,107
Principal transactions	\$ 10,141	\$ 5,536	\$ 10,005

- Includes a pretax gain of \$665 million for the year ended December 31, 2012, reflecting the recovery on a Bear Stearns-related subordinated loan.
- Includes \$5.8 billion of losses incurred by CIO from the synthetic credit portfolio for the six months ended June 30, 2012, and \$449 million of losses incurred by CIO from the retained index credit derivative positions for the three months ended September 30, 2012; and losses incurred by CIB from the synthetic credit portfolio.
- Includes realized gains and losses and unrealized losses on physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value), subject to any applicable fair value hedge accounting adjustments, and gains and losses on commodity derivatives and other financial instruments that are carried at fair value through income. Commodity derivatives are frequently used to manage the Firm’s risk exposure to its physical commodities inventories. Gains/(losses) related to commodity fair value hedges were \$(819) million, \$(1.4) billion and \$(1.1) billion for the years ended December 31, 2013, 2012 and 2011, respectively.
- Principal transactions revenue included DVA related to structured notes and derivative liabilities measured at fair value in CIB. DVA gains/(losses) were \$(452) million, \$(930) million, and \$1.4 billion for the years ended December 31, 2013, 2012 and 2011, respectively.
- During the fourth quarter of 2013, the Firm implemented a funding valuation adjustment (“FVA”) framework in order to incorporate the impact of funding into its valuation estimates for over-the-counter (“OTC”) derivatives and structured notes. As a result the Firm recorded a \$1.5 billion loss in principal transactions revenue in the fourth quarter of 2013, reported in the CIB. This reflects an industry migration towards incorporating the cost of unsecured funding in the valuation of such instruments.
- Includes revenue on private equity investments held in the Private Equity business within Corporate/Private Equity, as well as those held in other business segments.

Lending- and deposit-related fees

This revenue category includes fees from loan commitments, standby letters of credit, financial guarantees, deposit-related fees in lieu of compensating balances, cash management-related activities or transactions, deposit accounts and other loan-servicing activities. These fees are recognized over the period in which the related service is provided.

Asset management, administration and commissions

This revenue category includes fees from investment management and related services, custody, brokerage services, insurance premiums and commissions, and other products. These fees are recognized over the period in which the related service is provided. Performance-based fees, which are earned based on exceeding certain benchmarks or other performance targets, are accrued and recognized at the end of the performance period in which the target is met. The Firm has contractual arrangements with third parties to provide certain services in connection with its asset management activities. Amounts paid to third-party service providers are predominantly expensed, such that asset management fees are recorded gross of payments made to third parties.

The following table presents components of asset management, administration and commissions.

Year ended December 31, (in millions)	2013	2012	2011
Asset management			
Investment management fees ^(a)	\$ 8,044	\$ 6,744	\$ 6,449
All other asset management fees ^(b)	505	357	241
Total asset management fees	8,549	7,101	6,690
Total administration fees ^(c)	2,101	2,135	2,171
Commissions and other fees			
Brokerage commissions	2,321	2,331	2,753
All other commissions and fees	2,135	2,301	2,480
Total commissions and fees	4,456	4,632	5,233
Total asset management, administration and commissions	\$ 15,106	\$ 13,868	\$ 14,094

- (a) Represents fees earned from managing assets on behalf of Firm clients, including investors in Firm-sponsored funds and owners of separately managed investment accounts.
- (b) Represents fees for services that are ancillary to investment management services, such as commissions earned on the sales or distribution of mutual funds to clients.
- (c) Predominantly, includes fees for custody, securities lending, funds services and securities clearance.

Mortgage fees and related income

This revenue category primarily reflects CCB's Mortgage Production and Mortgage Servicing revenue, including: fees and income derived from mortgages originated with the intent to sell; mortgage sales and servicing including losses related to the repurchase of previously-sold loans; the impact of risk management activities associated with the mortgage pipeline, warehouse loans and MSR; and revenue related to any residual interests held from mortgage securitizations. This revenue category also includes gains and losses on sales and lower of cost or fair value adjustments for mortgage loans held-for-sale, as well as changes in fair value for mortgage loans originated with the intent to sell and measured at fair value under the fair value option. Changes in the fair value of CCB MSR are reported in mortgage fees and related income. Net interest income from mortgage loans is recorded in interest income. For a further discussion of MSR, see Note 17 on pages 299-304 of this Annual Report.

Card income

This revenue category includes interchange income from credit and debit cards and net fees earned from processing credit card transactions for merchants. Card income is recognized as earned. Annual fees and direct loan origination costs are deferred and recognized on a straight-line basis over a 12-month period. Expense related to rewards programs is recorded when the rewards are earned by the customer and netted against interchange income.

Credit card revenue sharing agreements

The Firm has contractual agreements with numerous co-brand partners and affinity organizations (collectively, "partners"), which grant the Firm exclusive rights to market to the customers or members of such partners. These partners endorse the credit card programs and provide their customer and member lists to the Firm, and they may also conduct marketing activities and provide awards under the various credit card programs. The terms of these agreements generally range from three to ten years.

The Firm typically makes incentive payments to the partners based on new account originations, charge volumes and the cost of the partners' marketing activities and awards. Payments based on new account originations are accounted for as direct loan origination costs. Payments to partners based on charge volumes are deducted from interchange income as the related revenue is earned. Payments based on marketing efforts undertaken by the partners are expensed by the Firm as incurred and reported as noninterest expense.

Other income

Included in other income is operating lease income of \$1.5 billion, \$1.3 billion and \$1.2 billion for the years ended December 31, 2013, 2012 and 2011, respectively. Additionally, included in other income is a net pre-tax gain of approximately \$1.3 billion, from the sale of the Visa B Shares. See Note 2 on pages 192-194 of this Annual Report for more information.

Note 8 – Interest income and Interest expense

Interest income and interest expense is recorded in the Consolidated Statements of Income and classified based on the nature of the underlying asset or liability. Interest income and interest expense includes the current-period interest accruals for financial instruments measured at fair value, except for financial instruments containing embedded derivatives that would be separately accounted for in accordance with U.S. GAAP absent the fair value option election; for those instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue. For financial instruments that are not measured at fair value, the related interest is included within interest income or interest expense, as applicable.

Details of interest income and interest expense were as follows.

Year ended December 31, (in millions)	2013	2012	2011
Interest income			
Loans	\$33,489	\$ 35,832	\$ 37,098
Securities	7,812	7,939	9,215
Trading assets	8,426	9,039	11,142
Federal funds sold and securities purchased under resale agreements	1,940	2,442	2,523
Securities borrowed	(127) ^(c)	(3) ^(c)	110
Deposits with banks	918	555	599
Other assets ^(a)	538	259	606
Total interest income	52,996	56,063	61,293
Interest expense			
Interest-bearing deposits	2,067	2,655	3,855
Short-term and other liabilities ^(b)	2,125	1,788	2,873
Long-term debt	5,007	6,062	6,109
Beneficial interests issued by consolidated VIEs	478	648	767
Total interest expense	9,677	11,153	13,604
Net interest income	43,319	44,910	47,689
Provision for credit losses	225	3,385	7,574
Net interest income after provision for credit losses	\$43,094	\$ 41,525	\$ 40,115

(a) Largely margin loans.

(b) Includes brokerage customer payables.

(c) Negative interest income for the years ended December 31, 2013 and 2012, is a result of increased client-driven demand for certain securities combined with the impact of low interest rates; the offset of this matched book activity is reflected as lower net interest expense reported within short-term and other liabilities.

Note 9 – Pension and other postretirement employee benefit plans

The Firm's defined benefit pension plans and its other postretirement employee benefit ("OPEB") plans (collectively the "Plans") are accounted for in accordance with U.S. GAAP for retirement benefits.

Defined benefit pension plans

The Firm has a qualified noncontributory U.S. defined benefit pension plan that provides benefits to substantially all U.S. employees. The U.S. plan employs a cash balance formula in the form of pay and interest credits to determine the benefits to be provided at retirement, based on eligible compensation and years of service. Employees begin to accrue plan benefits after completing one year of service, and benefits generally vest after three years of service. The Firm also offers benefits through defined benefit pension plans to qualifying employees in certain non-U.S. locations based on factors such as eligible compensation, age and/or years of service.

It is the Firm's policy to fund the pension plans in amounts sufficient to meet the requirements under applicable laws. The Firm does not anticipate at this time any contribution to the U.S. defined benefit pension plan in 2014. The 2014 contributions to the non-U.S. defined benefit pension plans are expected to be \$49 million of which \$32 million are contractually required.

JPMorgan Chase also has a number of defined benefit pension plans that are not subject to Title IV of the Employee Retirement Income Security Act. The most significant of these plans is the Excess Retirement Plan, pursuant to which certain employees previously earned pay credits on compensation amounts above the maximum stipulated by law under a qualified plan; no further pay credits are allocated under this plan. The Excess Retirement Plan had an unfunded projected benefit obligation in the amount of \$245 million and \$276 million, at December 31, 2013 and 2012, respectively.

Effective March 19, 2012, pursuant to the WaMu Global Settlement, JPMorgan Chase Bank, N.A. became the sponsor of the WaMu Pension Plan. This plan's assets were merged with and into the JPMorgan Chase Retirement Plan effective as of December 31, 2012.

Defined contribution plans

JPMorgan Chase currently provides two qualified defined contribution plans in the U.S. and other similar arrangements in certain non-U.S. locations, all of which are administered in accordance with applicable local laws and regulations. The most significant of these plans is The JPMorgan Chase 401(k) Savings Plan (the "401(k) Savings Plan"), which covers substantially all U.S. employees. The 401(k) Savings Plan allows employees to make pretax and Roth 401(k) contributions to tax-deferred investment portfolios. The JPMorgan Chase Common Stock Fund, which is an investment option under the 401(k) Savings Plan, is a nonleveraged employee stock ownership plan.

The Firm matches eligible employee contributions up to 5% of benefits-eligible compensation (e.g., base pay) on an annual basis. Employees begin to receive matching contributions after completing a one-year-of-service requirement. Employees with total annual cash compensation of \$250,000 or more are not eligible for matching contributions. Matching contributions vest after three years of service for employees hired on or after May 1, 2009. The 401(k) Savings Plan also permits discretionary profit-sharing contributions by participating companies for certain employees, subject to a specified vesting schedule.

OPEB plans

JPMorgan Chase offers postretirement medical and life insurance benefits to certain retirees and postretirement medical benefits to qualifying U.S. employees. These benefits vary with the length of service and the date of hire and provide for limits on the Firm's share of covered medical benefits. The medical and life insurance benefits are both contributory. Postretirement medical benefits also are offered to qualifying U.K. employees.

JPMorgan Chase's U.S. OPEB obligation is funded with corporate-owned life insurance ("COLI") purchased on the lives of eligible employees and retirees. While the Firm owns the COLI policies, COLI proceeds (death benefits, withdrawals and other distributions) may be used only to reimburse the Firm for its net postretirement benefit claim payments and related administrative expense. The U.K. OPEB plan is unfunded.

Notes to consolidated financial statements

The following table presents the changes in benefit obligations, plan assets and funded status amounts reported on the Consolidated Balance Sheets for the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans.

As of or for the year ended December 31, (in millions)	Defined benefit pension plans				OPEB plans ^(d)	
	U.S.		Non-U.S.			
	2013	2012	2013	2012	2013	2012
Change in benefit obligation						
Benefit obligation, beginning of year	\$ (11,478)	\$ (9,043)	\$ (3,243)	\$ (2,829)	\$ (990)	\$ (999)
Benefits earned during the year	(314)	(272)	(34)	(41)	(1)	(1)
Interest cost on benefit obligations	(447)	(466)	(125)	(126)	(35)	(44)
Plan amendments	—	—	—	6	—	—
WaMu Global Settlement	—	(1,425)	—	—	—	—
Employee contributions	NA	NA	(7)	(5)	(72)	(74)
Net gain/(loss)	794	(864)	(62)	(244)	138	(9)
Benefits paid	669	592	106	108	144	149
Expected Medicare Part D subsidy receipts	NA	NA	NA	NA	(10)	(10)
Foreign exchange impact and other	—	—	(68)	(112)	—	(2)
Benefit obligation, end of year	\$ (10,776)	\$ (11,478)	\$ (3,433)	\$ (3,243)	\$ (826)	\$ (990)
Change in plan assets						
Fair value of plan assets, beginning of year	\$ 13,012	\$ 10,472	\$ 3,330	\$ 2,989	\$ 1,563	\$ 1,435
Actual return on plan assets	1,979	1,292	187	237	211	142
Firm contributions	32	31	45	86	2	2
WaMu Global Settlement	—	1,809	—	—	—	—
Employee contributions	—	—	7	5	—	—
Benefits paid	(669)	(592)	(106)	(108)	(19)	(16)
Foreign exchange impact and other	—	—	69	121	—	—
Fair value of plan assets, end of year	\$ 14,354 ^{(b)(c)}	\$ 13,012 ^{(b)(c)}	\$ 3,532 ^(c)	\$ 3,330 ^(c)	\$ 1,757	\$ 1,563
Funded/(unfunded) status^(a)	\$ 3,578	\$ 1,534	\$ 99	\$ 87	\$ 931	\$ 573
Accumulated benefit obligation, end of year	\$ (10,685)	\$ (11,447)	\$ (3,406)	\$ (3,221)	NA	NA

- (a) Represents plans with an aggregate overfunded balance of \$5.1 billion and \$2.8 billion at December 31, 2013 and 2012, respectively, and plans with an aggregate underfunded balance of \$540 million and \$612 million at December 31, 2013 and 2012, respectively.
- (b) At December 31, 2013 and 2012, approximately \$429 million and \$418 million, respectively, of U.S. plan assets included participation rights under participating annuity contracts.
- (c) At December 31, 2013 and 2012, defined benefit pension plan amounts not measured at fair value included \$96 million and \$137 million, respectively, of accrued receivables, and \$104 million and \$310 million, respectively, of accrued liabilities, for U.S. plans; and at December 31, 2012, \$47 million of accrued receivables, and \$46 million of accrued liabilities, for non-U.S. plans.
- (d) Includes an unfunded accumulated postretirement benefit obligation of \$34 million and \$31 million at December 31, 2013 and 2012, respectively, for the U.K. plan.

Gains and losses

For the Firm's defined benefit pension plans, fair value is used to determine the expected return on plan assets. Amortization of net gains and losses is included in annual net periodic benefit cost if, as of the beginning of the year, the net gain or loss exceeds 10% of the greater of the projected benefit obligation or the fair value of the plan assets. Any excess is amortized over the average future service period of defined benefit pension plan participants, which for the U.S. defined benefit pension plan is currently nine years. In addition, prior service costs are amortized over the average remaining service period of active employees expected to receive benefits under the plan when the prior service cost is first recognized. The average remaining amortization period for current prior service costs is six years.

For the Firm's OPEB plans, a calculated value that recognizes changes in fair value over a five-year period is used to determine the expected return on plan assets. This value is referred to as the market related value of assets. Amortization of net gains and losses, adjusted for gains and losses not yet recognized, is included in annual net periodic benefit cost if, as of the beginning of the year, the net gain or loss exceeds 10% of the greater of the accumulated postretirement benefit obligation or the market related value of assets. Any excess net gain or loss is amortized over the average expected lifetime of retired participants, which is currently thirteen years; however, prior service costs resulting from plan changes are amortized over the average years of service remaining to full eligibility age, which is currently two years.

The following table presents pretax pension and OPEB amounts recorded in AOCI.

December 31, (in millions)	Defined benefit pension plans				OPEB plans	
	U.S.		Non-U.S.			
	2013	2012	2013	2012	2013	2012
Net gain/(loss)	\$ (1,726)	\$ (3,814)	\$ (658)	\$ (676)	\$ 125	\$ (133)
Prior service credit/(cost)	196	237	14	18	1	1
Accumulated other comprehensive income/(loss), pretax, end of year	\$ (1,530)	\$ (3,577)	\$ (644)	\$ (658)	\$ 126	\$ (132)

The following table presents the components of net periodic benefit costs reported in the Consolidated Statements of Income and other comprehensive income for the Firm's U.S. and non-U.S. defined benefit pension, defined contribution and OPEB plans.

Year ended December 31, (in millions)	Pension plans						OPEB plans		
	U.S.			Non-U.S.					
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Components of net periodic benefit cost									
Benefits earned during the year	\$ 314	\$ 272	\$ 249	\$ 34	\$ 41	\$ 36	\$ 1	\$ 1	\$ 1
Interest cost on benefit obligations	447	466	451	125	126	133	35	44	51
Expected return on plan assets	(956)	(861)	(791)	(142)	(137)	(141)	(92)	(90)	(88)
Amortization:									
Net (gain)/loss	271	289	165	49	36	48	1	(1)	1
Prior service cost/(credit)	(41)	(41)	(43)	(2)	—	(1)	—	—	(8)
Net periodic defined benefit cost	35	125	31	64	66	75	(55)	(46)	(43)
Other defined benefit pension plans ^(a)	15	15	19	14	8	12	NA	NA	NA
Total defined benefit plans	50	140	50	78	74	87	(55)	(46)	(43)
Total defined contribution plans	447	409	370	321	302	285	NA	NA	NA
Total pension and OPEB cost included in compensation expense	\$ 497	\$ 549	\$ 420	\$ 399	\$ 376	\$ 372	\$ (55)	\$ (46)	\$ (43)
Changes in plan assets and benefit obligations recognized in other comprehensive income									
Net (gain)/loss arising during the year	\$ (1,817)	\$ 434	\$ 1,207	\$ 19	\$ 146	\$ 25	\$ (257)	\$ (43)	\$ 58
Prior service credit arising during the year	—	—	—	—	(6)	—	—	—	—
Amortization of net loss	(271)	(289)	(165)	(49)	(36)	(48)	(1)	1	(1)
Amortization of prior service (cost)/credit	41	41	43	2	—	1	—	—	8
Foreign exchange impact and other	—	—	—	14 ^(a)	22	1	—	(1)	—
Total recognized in other comprehensive income	\$ (2,047)	\$ 186	\$ 1,085	\$ (14)	\$ 126	\$ (21)	\$ (258)	\$ (43)	\$ 65
Total recognized in net periodic benefit cost and other comprehensive income	\$ (2,012)	\$ 311	\$ 1,116	\$ 50	\$ 192	\$ 54	\$ (313)	\$ (89)	\$ 22

(a) Includes various defined benefit pension plans which are individually immaterial.

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The estimated pretax amounts that will be amortized from AOCI into net periodic benefit cost in 2014 are as follows.

(in millions)	Defined benefit pension plans		OPEB plans	
	U.S.	Non-U.S.	U.S.	Non-U.S.
Net loss/(gain)	\$ 35	\$ 47	\$ —	\$ —
Prior service cost/(credit)	(41)	(2)	—	—
Total	\$ (6)	\$ 45	\$ —	\$ —

The following table presents the actual rate of return on plan assets for the U.S. and non-U.S. defined benefit pension and OPEB plans.

Year ended December 31,	U.S.			Non-U.S.		
	2013	2012	2011	2013	2012	2011
Actual rate of return:						
Defined benefit pension plans	15.95%	12.66%	0.72%	3.74 - 23.80%	7.21 - 11.72%	(4.29)-13.12%
OPEB plans	13.88	10.10	5.22	NA	NA	NA

Plan assumptions

JPMorgan Chase's expected long-term rate of return for U.S. defined benefit pension and OPEB plan assets is a blended average of the investment advisor's projected long-term (10 years or more) returns for the various asset classes, weighted by the asset allocation. Returns on asset classes are developed using a forward-looking approach and are not strictly based on historical returns. Equity returns are generally developed as the sum of inflation, expected real earnings growth and expected long-term dividend yield. Bond returns are generally developed as the sum of inflation, real bond yield and risk spread (as appropriate), adjusted for the expected effect on returns from changing yields. Other asset-class returns are derived from their relationship to the equity and bond markets. Consideration is also given to current market conditions and the short-term portfolio mix of each plan; as a result, in 2013 the Firm generally maintained the same expected return on assets as in the prior year.

For the U.K. defined benefit pension plans, which represent the most significant of the non-U.S. defined benefit pension plans, procedures similar to those in the U.S. are used to develop the expected long-term rate of return on plan

assets, taking into consideration local market conditions and the specific allocation of plan assets. The expected long-term rate of return on U.K. plan assets is an average of projected long-term returns for each asset class. The return on equities has been selected by reference to the yield on long-term U.K. government bonds plus an equity risk premium above the risk-free rate. The expected return on "AA" rated long-term corporate bonds is based on an implied yield for similar bonds.

The discount rate used in determining the benefit obligation under the U.S. defined benefit pension and OPEB plans was selected by reference to the yields on portfolios of bonds with maturity dates and coupons that closely match each of the plan's projected cash flows; such portfolios are derived from a broad-based universe of high-quality corporate bonds as of the measurement date. In years in which these hypothetical bond portfolios generate excess cash, such excess is assumed to be reinvested at the one-year forward rates implied by the Citigroup Pension Discount Curve published as of the measurement date. The discount rate for the U.K. defined benefit pension plan represents a rate implied from the yield curve of the year-end iBoxx £ corporate "AA" 15-year-plus bond index.

The following tables present the weighted-average annualized actuarial assumptions for the projected and accumulated postretirement benefit obligations, and the components of net periodic benefit costs, for the Firm's significant U.S. and non-U.S. defined benefit pension and OPEB plans, as of and for the periods indicated.

Weighted-average assumptions used to determine benefit obligations

December 31,	U.S.		Non-U.S.	
	2013	2012	2013	2012
Discount rate:				
Defined benefit pension plans	5.00%	3.90%	1.10 - 4.40%	1.40 - 4.40%
OPEB plans	4.90	3.90	—	—
Rate of compensation increase	3.50	4.00	2.75 - 4.60	2.75 - 4.10
Health care cost trend rate:				
Assumed for next year	6.50	7.00	—	—
Ultimate	5.00	5.00	—	—
Year when rate will reach ultimate	2017	2017	—	—

Weighted-average assumptions used to determine net periodic benefit costs

Year ended December 31,	U.S.			Non-U.S.		
	2013	2012	2011	2013	2012	2011
Discount rate:						
Defined benefit pension plans	3.90%	4.60%	5.50%	1.40 - 4.40%	1.50 - 4.80%	1.60-5.50%
OPEB plans	3.90	4.70	5.50	—	—	—
Expected long-term rate of return on plan assets:						
Defined benefit pension plans	7.50	7.50	7.50	2.40 - 4.90	2.50 - 4.60	2.40-5.40
OPEB plans	6.25	6.25	6.25	NA	NA	NA
Rate of compensation increase	4.00	4.00	4.00	2.75 - 4.10	2.75 - 4.20	3.00-4.50
Health care cost trend rate:						
Assumed for next year	7.00	7.00	7.00	—	—	—
Ultimate	5.00	5.00	5.00	—	—	—
Year when rate will reach ultimate	2017	2017	2017	—	—	—

The following table presents the effect of a one-percentage-point change in the assumed health care cost trend rate on JPMorgan Chase's total service and interest cost and accumulated postretirement benefit obligation.

Year ended December 31, 2013 (in millions)	1-Percentage point increase	1-Percentage point decrease
Effect on total service and interest cost	\$ 1	\$ (1)
Effect on accumulated postretirement benefit obligation	31	(26)

At December 31, 2013, the Firm increased the discount rates used to determine its benefit obligations for the U.S. defined benefit pension and OPEB plans in light of current market interest rates, which will result in a decrease in expense of approximately \$84 million for 2014. The 2014 expected long-term rate of return on U.S. defined benefit pension plan assets and U.S. OPEB plan assets are 7.00% and 6.25%, respectively. For 2014, the initial health care benefit obligation trend assumption has been set at 6.50%, and the ultimate health care trend assumption and the year to reach the ultimate rate remains at 5.00% and 2017, respectively, unchanged from 2013. As of December 31, 2013, the interest crediting rate assumption remained at 5.00% while the assumed rate of compensation increase decreased to 3.50%.

JPMorgan Chase's U.S. defined benefit pension and OPEB plan expense is sensitive to the expected long-term rate of return on plan assets and the discount rate. With all other assumptions held constant, a 25-basis point decline in the expected long-term rate of return on U.S. plan assets would result in an aggregate increase of approximately \$39 million in 2014 U.S. defined benefit pension and OPEB plan expense. A 25-basis point decline in the discount rate for the U.S. plans would result in an increase in 2014 U.S. defined benefit pension and OPEB plan expense of approximately an aggregate \$26 million and an increase in the related benefit obligations of approximately an aggregate \$254 million. A 25-basis point decrease in the interest crediting rate for the U.S. defined benefit pension plan would result in a decrease in 2014 U.S. defined benefit pension expense of approximately \$32 million and a

decrease in the related projected benefit obligations of approximately \$130 million. A 25-basis point decline in the discount rates for the non-U.S. plans would result in an increase in the 2014 non-U.S. defined benefit pension plan expense of approximately \$15 million.

Investment strategy and asset allocation

The Firm's U.S. defined benefit pension plan assets are held in trust and are invested in a well-diversified portfolio of equity and fixed income securities, cash and cash equivalents, and alternative investments (e.g., hedge funds, private equity, real estate and real assets). Non-U.S. defined benefit pension plan assets are held in various trusts and are also invested in well-diversified portfolios of equity, fixed income and other securities. Assets of the Firm's COLI policies, which are used to partially fund the U.S. OPEB plan, are held in separate accounts with an insurance company and are invested in funds intended to replicate equity and fixed income indices.

The investment policy for the Firm's U.S. defined benefit pension plan assets is to optimize the risk-return relationship as appropriate to the needs and goals using a global portfolio of various asset classes diversified by market segment, economic sector, and issuer. Assets are managed by a combination of internal and external investment managers. Periodically the Firm performs a comprehensive analysis on the U.S. defined benefit pension plan asset allocations, incorporating projected asset and liability data, which focuses on the short- and long-term impact of the asset allocation on cumulative pension expense, economic cost, present value of contributions and funded status. As the U.S. defined benefit pension plan is overfunded, the investment strategy for this plan was adjusted in 2013 to provide for greater liquidity. Currently, approved asset allocation ranges are: U.S. equity 0% to 45%, international equity 0% to 40%, debt securities 0% to 80%, hedge funds 0% to 20%, and real estate 0% to 10%, real assets 0% to 10% and private equity 0% to 20%. Asset allocations are not managed to a specific target but seek to shift asset class allocations within these stated ranges. Investment strategies incorporate the economic outlook and the anticipated implications of the

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macroeconomic environment on the various asset classes while maintaining an appropriate level of liquidity for the plan. The Firm regularly reviews the asset allocations and asset managers, as well as other factors that impact the portfolio, which is rebalanced when deemed necessary.

For the U.K. defined benefit pension plans, which represent the most significant of the non-U.S. defined benefit pension plans, the assets are invested to maximize returns subject to an appropriate level of risk relative to the plans' liabilities. In order to reduce the volatility in returns relative to the plans' liability profiles, the U.K. defined benefit pension plans' largest asset allocations are to debt securities of appropriate durations. Other assets, mainly equity securities, are then invested for capital appreciation, to provide long-term investment growth. Similar to the U.S. defined benefit pension plan, asset allocations and asset managers for the U.K. plans are reviewed regularly and the portfolio is rebalanced when deemed necessary.

Investments held by the Plans include financial instruments which are exposed to various risks such as interest rate, market and credit risks. Exposure to a concentration of credit risk is mitigated by the broad diversification of both U.S. and non-U.S. investment instruments. Additionally, the investments in each of the common/collective trust funds and registered investment companies are further diversified into various financial instruments. As of December 31, 2013, assets held by the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans do not include JPMorgan Chase common stock, except through indirect exposures through investments in third-party stock-index funds. The plans hold investments in funds that are sponsored or managed by affiliates of JPMorgan Chase in the amount of \$2.9 billion and \$1.8 billion for U.S. plans and \$242 million and \$220 million for non-U.S. plans, as of December 31, 2013 and 2012, respectively.

The following table presents the weighted-average asset allocation of the fair values of total plan assets at December 31 for the years indicated, as well as the respective approved range/target allocation by asset category, for the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans.

December 31,	Defined benefit pension plans						OPEB plans ^(c)		
	U.S.			Non-U.S.					
	Target	% of plan assets		Target	% of plan assets		Target	% of plan assets	
	Allocation	2013	2012	Allocation	2013	2012	Allocation	2013	2012
Asset category									
Debt securities ^(a)	0-80%	25%	20%	64%	63%	72%	50%	50%	50%
Equity securities	0-85	48	41	35	36	27	50	50	50
Real estate	0-10	4	5	—	—	—	—	—	—
Alternatives ^(b)	0-50	23	34	1	1	1	—	—	—
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

(a) Debt securities primarily include corporate debt, U.S. federal, state, local and non-U.S. government, and mortgage-backed securities.

(b) Alternatives primarily include limited partnerships.

(c) Represents the U.S. OPEB plan only, as the U.K. OPEB plan is unfunded.

Fair value measurement of the plans' assets and liabilities

For information on fair value measurements, including descriptions of level 1, 2, and 3 of the fair value hierarchy and the valuation methods employed by the Firm, see Note 3 on pages 195-215 of this Annual Report.

Pension and OPEB plan assets and liabilities measured at fair value

December 31, 2013 (in millions)	U.S. defined benefit pension plans				Non-U.S. defined benefit pension plans ⁽ⁱ⁾			
	Level 1	Level 2	Level 3	Total fair value	Level 1	Level 2	Total fair value	
Cash and cash equivalents	\$ 62	\$ —	\$ —	\$ 62	\$ 221	\$ 3	\$ 224	
Equity securities:								
Capital equipment	1,084	—	—	1,084	86	17	103	
Consumer goods	1,085	—	—	1,085	225	50	275	
Banks and finance companies	737	—	—	737	233	29	262	
Business services	510	—	—	510	209	14	223	
Energy	292	—	—	292	64	20	84	
Materials	344	—	—	344	36	9	45	
Real Estate	38	—	—	38	—	1	1	
Other	1,337	18	4	1,359	25	103	128	
Total equity securities	5,427	18	4	5,449	878	243	1,121	
Common/collective trust funds ^(a)	—	1,308	4	1,312	98	248	346	
Limited partnerships: ^(b)								
Hedge funds	—	355	718	1,073	—	—	—	
Private equity	—	—	1,969	1,969	—	—	—	
Real estate	—	—	558	558	—	—	—	
Real assets ^(c)	—	—	271	271	—	—	—	
Total limited partnerships	—	355	3,516	3,871	—	—	—	
Corporate debt securities ^(d)	—	1,223	7	1,230	—	787	787	
U.S. federal, state, local and non-U.S. government debt securities	343	299	—	642	—	777	777	
Mortgage-backed securities	37	50	—	87	73	—	73	
Derivative receivables	—	30	—	30	—	302	302	
Other ^(e)	1,214	41	430	1,685	148	52	200	
Total assets measured at fair value^{(f)(g)}	\$ 7,083	\$ 3,324	\$ 3,961	\$ 14,368	\$ 1,418	\$ 2,412	\$ 3,830	
Derivative payables	\$ —	\$ (6)	\$ —	\$ (6)	\$ —	\$ (298)	\$ (298)	
Total liabilities measured at fair value^(h)	\$ —	\$ (6)	\$ —	\$ (6)	\$ —	\$ (298)	\$ (298)	

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December 31, 2012 (in millions)	U.S. defined benefit pension plans				Non-U.S. defined benefit pension plans ^(f)			
	Level 1	Level 2	Level 3	Total fair value	Level 1	Level 2	Total fair value	
Cash and cash equivalents	\$ 162	\$ —	\$ —	\$ 162	\$ 142	\$ —	\$ 142	
Equity securities:								
Capital equipment	702	6	—	708	115	15	130	
Consumer goods	744	4	—	748	136	32	168	
Banks and finance companies	425	54	—	479	94	23	117	
Business services	424	—	—	424	125	8	133	
Energy	192	—	—	192	54	12	66	
Materials	211	—	—	211	30	6	36	
Real estate	18	—	—	18	10	—	10	
Other	1,107	42	4	1,153	19	71	90	
Total equity securities	3,823	106	4	3,933	583	167	750	
Common/collective trust funds ^(a)	412	1,660	199	2,271	62	192	254	
Limited partnerships: ^(b)								
Hedge funds	—	878	1,166	2,044	—	—	—	
Private equity	—	—	1,743	1,743	—	—	—	
Real estate	—	—	467	467	—	—	—	
Real assets ^(c)	—	—	311	311	—	—	—	
Total limited partnerships	—	878	3,687	4,565	—	—	—	
Corporate debt securities ^(d)	—	1,114	1	1,115	—	765	765	
U.S. federal, state, local and non-U.S. government debt securities	—	537	—	537	—	1,237	1,237	
Mortgage-backed securities	107	30	—	137	100	—	100	
Derivative receivables	3	5	—	8	109	—	109	
Other ^(e)	7	34	420	461	21	67	88	
Total assets measured at fair value^{(f)(g)}	\$ 4,514	\$ 4,364	\$ 4,311	\$ 13,189	\$ 1,017	\$ 2,428	\$ 3,445	
Derivative payables	\$ —	\$ (4)	\$ —	\$ (4)	\$ (116)	\$ —	\$ (116)	
Total liabilities measured at fair value^(h)	\$ —	\$ (4)	\$ —	\$ (4)	\$ (116)	\$ —	\$ (116)	

- (a) At December 31, 2013 and 2012, common/collective trust funds primarily included a mix of short-term investment funds, domestic and international equity investments (including index) and real estate funds.
- (b) Unfunded commitments to purchase limited partnership investments for the plans were \$1.6 billion and \$1.4 billion for 2013 and 2012, respectively.
- (c) Real assets include investments in productive assets such as agriculture, energy rights, mining and timber properties and exclude raw land to be developed for real estate purposes.
- (d) Corporate debt securities include debt securities of U.S. and non-U.S. corporations.
- (e) Other consists of money markets, exchange-traded funds and participating and non-participating annuity contracts. Money markets and exchange-traded funds are primarily classified within level 1 of the fair value hierarchy given they are valued using market observable prices. Participating and non-participating annuity contracts are classified within level 3 of the fair value hierarchy due to lack of market mechanisms for transferring each policy and surrender restrictions.
- (f) At December 31, 2013 and 2012, the fair value of investments valued at NAV were \$2.7 billion and \$4.4 billion, respectively, which were classified within the valuation hierarchy as follows: \$100 million and \$400 million in level 1, \$1.9 billion and \$2.5 billion in level 2 and \$700 million and \$1.5 billion in level 3.
- (g) At December 31, 2013 and 2012, excluded U.S. defined benefit pension plan receivables for investments sold and dividends and interest receivables of \$96 million and \$137 million, respectively; and at December 31, 2012, excluded non-U.S. defined benefit pension plan receivables for investments sold and dividends and interest receivables of \$47 million.
- (h) At December 31, 2013 and 2012, excluded \$102 million and \$306 million, respectively, of U.S. defined benefit pension plan payables for investments purchased; and \$2 million and \$4 million, respectively, of other liabilities; and at December 31, 2012, excluded non-U.S. defined benefit pension plan payables for investments purchased of \$46 million.
- (i) There were no assets or liabilities classified as level 3 for the non-U.S. defined benefit pension plans as of December 31, 2013 and 2012.

The Firm's U.S. OPEB plan was partially funded with COLI policies of \$1.7 billion and \$1.6 billion at December 31, 2013 and 2012, respectively, which were classified in level 3 of the valuation hierarchy.

Changes in level 3 fair value measurements using significant unobservable inputs

Year ended December 31, 2013 (in millions)	Fair value, January 1, 2013	Actual return on plan assets		Purchases, sales and settlements, net	Transfers in and/or out of level 3	Fair value, December 31, 2013
		Realized gains/(losses)	Unrealized gains/(losses)			
U.S. defined benefit pension plans						
Equities	\$ 4	\$ —	\$ —	\$ —	\$ —	\$ 4
Common/collective trust funds	199	59	(32)	(222)	—	4
Limited partnerships:						
Hedge funds	1,166	137	14	(593)	(6)	718
Private equity	1,743	108	170	(4)	(48)	1,969
Real estate	467	21	44	26	—	558
Real assets	311	4	12	(98)	42	271
Total limited partnerships	3,687	270	240	(669)	(12)	3,516
Corporate debt securities	1	—	—	—	6	7
Other	420	—	10	—	—	430
Total U.S. defined benefit pension plans	\$ 4,311	\$ 329	\$ 218	\$ (891)	\$ (6)	\$ 3,961
OPEB plans						
COLI	\$ 1,554	\$ —	\$ 195	\$ —	\$ —	\$ 1,749
Total OPEB plans	\$ 1,554	\$ —	\$ 195	\$ —	\$ —	\$ 1,749

Year ended December 31, 2012 (in millions)	Fair value, January 1, 2012	Actual return on plan assets		Purchases, sales and settlements, net	Transfers in and/or out of level 3	Fair value, December 31, 2012
		Realized gains/(losses)	Unrealized gains/(losses)			
U.S. defined benefit pension plans						
Equities	\$ 1	\$ —	\$ (1)	\$ —	\$ 4	\$ 4
Common/collective trust funds	202	2	22	(27)	—	199
Limited partnerships:						
Hedge funds	1,039	1	71	55	—	1,166
Private equity	1,367	59	54	263	—	1,743
Real estate	306	16	1	144	—	467
Real assets	264	—	10	37	—	311
Total limited partnerships	2,976	76	136	499	—	3,687
Corporate debt securities	2	—	—	(1)	—	1
Other	427	—	(7)	—	—	420
Total U.S. defined benefit pension plans	\$ 3,608	\$ 78	\$ 150	\$ 471	\$ 4	\$ 4,311
OPEB plans						
COLI	\$ 1,427	\$ —	\$ 127	\$ —	\$ —	\$ 1,554
Total OPEB plans	\$ 1,427	\$ —	\$ 127	\$ —	\$ —	\$ 1,554

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Year ended December 31, 2011 (in millions)	Fair value, January 1, 2011	Actual return on plan assets		Purchases, sales and settlements, net	Transfers in and/or out of level 3	Fair value, December 31, 2011
		Realized gains/(losses)	Unrealized gains/(losses)			
U.S. defined benefit pension plans						
Equities	\$ —	\$ —	\$ —	\$ —	\$ 1	\$ 1
Common/collective trust funds	194	35	1	(28)	—	202
Limited partnerships:						
Hedge funds	1,160	(16)	27	(76)	(56)	1,039
Private equity	1,232	56	2	77	—	1,367
Real estate	304	8	40	14	(60)	306
Real assets	—	5	(7)	150	116	264
Total limited partnerships	2,696	53	62	165	—	2,976
Corporate debt securities	1	—	—	1	—	2
Other	387	—	41	(1)	—	427
Total U.S. defined benefit pension plans	\$ 3,278	\$ 88	\$ 104	\$ 137	\$ 1	\$ 3,608
OPEB plans						
COLI	\$ 1,381	\$ —	\$ 70	\$ (24)	\$ —	\$ 1,427
Total OPEB plans	\$ 1,381	\$ —	\$ 70	\$ (24)	\$ —	\$ 1,427

Estimated future benefit payments

The following table presents benefit payments expected to be paid, which include the effect of expected future service, for the years indicated. The OPEB medical and life insurance payments are net of expected retiree contributions.

Year ended December 31, (in millions)	U.S. defined benefit pension plans	Non-U.S. defined benefit pension plans	OPEB before Medicare Part D subsidy	Medicare Part D subsidy
2014	\$ 703	\$ 112	\$ 86	\$ 10
2015	731	118	85	11
2016	872	123	83	12
2017	907	129	81	12
2018	931	140	78	13
Years 2019–2023	4,139	785	345	47

Note 10 – Employee stock-based incentives

Employee stock-based awards

In 2013, 2012 and 2011, JPMorgan Chase granted long-term stock-based awards to certain employees under its Long-Term Incentive Plan, which was last amended in May 2011 (“LTIP”). Under the terms of the LTIP, as of December 31, 2013, 266 million shares of common stock were available for issuance through May 2015. The LTIP is the only active plan under which the Firm is currently granting stock-based incentive awards. In the following discussion, the LTIP, plus prior Firm plans and plans assumed as the result of acquisitions, are referred to collectively as the “LTI Plans,” and such plans constitute the Firm’s stock-based incentive plans.

Restricted stock units (“RSUs”) are awarded at no cost to the recipient upon their grant. Generally, RSUs are granted annually and vest at a rate of 50% after two years and 50% after three years and are converted into shares of common stock as of the vesting date. In addition, RSUs typically include full-career eligibility provisions, which allow employees to continue to vest upon voluntary termination, subject to post-employment and other restrictions based on age or service-related requirements. All RSUs awards are subject to forfeiture until vested and contain clawback provisions that may result in cancellation under certain specified circumstances. RSUs entitle the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSUs are outstanding and, as such, are considered participating securities as discussed in Note 24 on page 311 of this Annual Report.

Under the LTI Plans, stock options and stock appreciation rights (“SARs”) have generally been granted with an exercise price equal to the fair value of JPMorgan Chase’s common stock on the grant date. The Firm typically awards SARs to certain key employees once per year; the Firm also periodically grants employee stock options and SARs to individual employees. The 2013, 2012 and 2011 grants of SARs become exercisable ratably over five years (i.e., 20% per year) and contain clawback provisions similar to RSUs. The 2013, 2012 and 2011 grants of SARs contain full-career eligibility provisions. SARs generally expire ten years after the grant date.

The Firm separately recognizes compensation expense for each tranche of each award as if it were a separate award with its own vesting date. Generally, for each tranche granted, compensation expense is recognized on a straight-line basis from the grant date until the vesting date of the respective tranche, provided that the employees will not become full-career eligible during the vesting period. For awards with full-career eligibility provisions and awards granted with no future substantive service requirement, the Firm accrues the estimated value of awards expected to be awarded to employees as of the grant date without giving consideration to the impact of post-employment restrictions. For each tranche granted to employees who will become full-career eligible during the vesting period, compensation expense is recognized on a straight-line basis from the grant date until the earlier of the employee’s full-career eligibility date or the vesting date of the respective tranche.

The Firm’s policy for issuing shares upon settlement of employee stock-based incentive awards is to issue either new shares of common stock or treasury shares. During 2013, 2012 and 2011, the Firm settled all of its employee stock-based awards by issuing treasury shares.

In January 2008, the Firm awarded to its Chairman and Chief Executive Officer up to 2 million SARs. The terms of this award are distinct from, and more restrictive than, other equity grants regularly awarded by the Firm. Effective January 2013, the Compensation Committee and Board of Directors determined that, while all the requirements for vesting of these awards have been met, vesting should be deferred for a period of up to 18 months (i.e., up to July 22, 2014), to enable the Firm to make progress against the Firm’s strategic priorities and performance goals, including remediation relating to the CIO matter. The SARs, which will expire in January 2018, will become exercisable no earlier than July 22, 2014, and have an exercise price of \$39.83 (the price of JPMorgan Chase common stock on the date of grant). Vesting will be subject to a Board determination taking into consideration the extent of such progress and such other factors as it deems relevant. The expense related to this award is dependent on changes in fair value of the SARs through the date when the vested number of SARs are determined, if any, and the cumulative expense is recognized ratably over the service period, which was initially assumed to be five years but, effective in the first quarter of 2013, has been extended to six and one-half years. The Firm recognized \$14 million, \$5 million and \$(4) million in compensation expense in 2013, 2012 and 2011, respectively, for this award.

Notes to consolidated financial statements

RSUs, employee stock options and SARs activity

Compensation expense for RSUs is measured based on the number of shares granted multiplied by the stock price at the grant date, and for employee stock options and SARs, is measured at the grant date using the Black-Scholes valuation model. Compensation expense for these awards is recognized in net income as described previously. The following table summarizes JPMorgan Chase's RSUs, employee stock options and SARs activity for 2013.

Year ended December 31, 2013 (in thousands, except weighted-average data, and where otherwise stated)	RSUs		Options/SARs			
	Number of shares	Weighted-average grant date fair value	Number of awards	Weighted-average exercise price	Weighted-average remaining contractual life (in years)	Aggregate intrinsic value
Outstanding, January 1	142,006	\$ 40.49	115,906	\$ 42.44		
Granted	46,171	46.92	12,563	46.77		
Exercised or vested	(62,331)	43.28	(35,825)	37.32		
Forfeited	(4,605)	40.77	(4,007)	39.44		
Canceled	NA	NA	(1,562)	104.49		
Outstanding, December 31	121,241	\$ 41.47	87,075	\$ 44.24	5.6	\$ 1,622,238
Exercisable, December 31	NA	NA	46,855	47.50	4.2	904,017

The total fair value of RSUs that vested during the years ended December 31, 2013, 2012 and 2011, was \$2.9 billion, \$2.8 billion and \$5.4 billion, respectively. The weighted-average grant date per share fair value of stock options and SARs granted during the years ended December 31, 2013, 2012 and 2011, was \$9.58, \$8.89 and \$13.04, respectively. The total intrinsic value of options exercised during the years ended December 31, 2013, 2012 and 2011, was \$507 million, \$283 million and \$191 million, respectively.

Compensation expense

The Firm recognized the following noncash compensation expense related to its various employee stock-based incentive plans in its Consolidated Statements of Income.

Year ended December 31, (in millions)	2013	2012	2011
Cost of prior grants of RSUs and SARs that are amortized over their applicable vesting periods	\$ 1,440	\$ 1,810	\$ 1,986
Accrual of estimated costs of RSUs and SARs to be granted in future periods including those to full-career eligible employees	779	735	689
Total noncash compensation expense related to employee stock-based incentive plans	\$ 2,219	\$ 2,545	\$ 2,675

At December 31, 2013, approximately \$848 million (pretax) of compensation cost related to unvested awards had not yet been charged to net income. That cost is expected to be amortized into compensation expense over a weighted-average period of 1.0 year. The Firm does not capitalize any compensation cost related to share-based compensation awards to employees.

Cash flows and tax benefits

Income tax benefits related to stock-based incentive arrangements recognized in the Firm's Consolidated Statements of Income for the years ended December 31, 2013, 2012 and 2011, were \$865 million, \$1.0 billion and \$1.0 billion, respectively.

The following table sets forth the cash received from the exercise of stock options under all stock-based incentive arrangements, and the actual income tax benefit realized related to tax deductions from the exercise of the stock options.

Year ended December 31, (in millions)	2013	2012	2011
Cash received for options exercised	\$ 166	\$ 333	\$ 354
Tax benefit realized ^(a)	42	53	31

(a) The tax benefit realized from dividends or dividend equivalents paid on equity-classified share-based payment awards that are charged to retained earnings are recorded as an increase to additional paid-in capital and included in the pool of excess tax benefits available to absorb tax deficiencies on share-based payment awards.

Valuation assumptions

The following table presents the assumptions used to value employee stock options and SARs granted during the years ended December 31, 2013, 2012 and 2011, under the Black-Scholes valuation model.

Year ended December 31,	2013	2012	2011
Weighted-average annualized valuation assumptions			
Risk-free interest rate	1.18%	1.19%	2.58%
Expected dividend yield	2.66	3.15	2.20
Expected common stock price volatility	28	35	34
Expected life (in years)	6.6	6.6	6.5

The expected dividend yield is determined using forward-looking assumptions. The expected volatility assumption is derived from the implied volatility of JPMorgan Chase's stock options. The expected life assumption is an estimate of the length of time that an employee might hold an option or SAR before it is exercised or canceled, and the assumption is based on the Firm's historical experience.

Note 11 – Noninterest expense

The following table presents the components of noninterest expense.

Year ended December 31, (in millions)	2013	2012	2011
Compensation expense	\$ 30,810	\$ 30,585	\$ 29,037
Noncompensation expense:			
Occupancy expense	3,693	3,925	3,895
Technology, communications and equipment expense	5,425	5,224	4,947
Professional and outside services	7,641	7,429	7,482
Marketing	2,500	2,577	3,143
Other expense ^{(a)(b)}	19,761	14,032	13,559
Amortization of intangibles	637	957	848
Total noncompensation expense	39,657	34,144	33,874
Total noninterest expense	\$ 70,467	\$ 64,729	\$ 62,911

(a) Included firmwide legal expense of \$11.1 billion, \$5.0 billion and \$4.9 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) Included FDIC-related expense of \$1.5 billion, \$1.7 billion and \$1.5 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

Note 12 – Securities

Securities are classified as AFS, held-to-maturity (“HTM”) or trading. Securities classified as trading assets are discussed in Note 3 on pages 195–215 of this Annual Report.

Predominantly all of the Firm’s AFS and HTM investment securities (the “investment securities portfolio”) is held by CIO in connection with its asset-liability management objectives. At December 31, 2013, the average credit rating of the debt securities comprising the investment securities portfolio was AA+ (based upon external ratings where available, and where not available, based primarily upon internal ratings which correspond to ratings as defined by S&P and Moody’s). AFS securities are carried at fair value on the Consolidated Balance Sheets. Unrealized gains and losses, after any applicable hedge accounting adjustments, are reported as net increases or decreases to accumulated other comprehensive income/(loss). The specific identification method is used to determine realized gains and losses on AFS securities, which are included in securities gains/(losses) on the Consolidated Statements of Income. HTM debt securities, which management has the intent and ability to hold until maturity, are carried at amortized cost on the Consolidated Balance Sheets. For both AFS and HTM debt securities, purchase discounts or premiums are amortized into interest income.

Other-than-temporary impairment

AFS debt and equity securities and HTM debt securities in unrealized loss positions are analyzed as part of the Firm’s ongoing assessment of other-than-temporary impairment (“OTTI”). For most types of debt securities, the Firm considers a decline in fair value to be other-than-temporary when the Firm does not expect to recover the entire amortized cost basis of the security. For beneficial interests

in securitizations that are rated below “AA” at their acquisition, or that can be contractually prepaid or otherwise settled in such a way that the Firm would not recover substantially all of its recorded investment, the Firm considers an OTTI to have occurred when there is an adverse change in expected cash flows. For AFS equity securities, the Firm considers a decline in fair value to be other-than-temporary if it is probable that the Firm will not recover its amortized cost basis.

Potential OTTI is considered using a variety of factors, including the length of time and extent to which the market value has been less than cost; adverse conditions specifically related to the industry, geographic area or financial condition of the issuer or underlying collateral of a security; payment structure of the security; changes to the rating of the security by a rating agency; the volatility of the fair value changes; and the Firm’s intent and ability to hold the security until recovery.

For AFS debt securities, the Firm recognizes OTTI losses in earnings if the Firm has the intent to sell the debt security, or if it is more likely than not that the Firm will be required to sell the debt security before recovery of its amortized cost basis. In these circumstances the impairment loss is equal to the full difference between the amortized cost basis and the fair value of the securities. For debt securities in an unrealized loss position, including AFS securities the Firm has the intent and ability to hold, the expected cash flows to be received from the securities are evaluated to determine if a credit loss exists. In the event of a credit loss, only the amount of impairment associated with the credit loss is recognized in income. Amounts relating to factors other than credit losses are recorded in OCI.

The Firm’s cash flow evaluations take into account the factors noted above and expectations of relevant market and economic data as of the end of the reporting period. For securities issued in a securitization, the Firm estimates cash flows considering underlying loan-level data and structural features of the securitization, such as subordination, excess spread, overcollateralization or other forms of credit enhancement, and compares the losses projected for the underlying collateral (“pool losses”) against the level of credit enhancement in the securitization structure to determine whether these features are sufficient to absorb the pool losses, or whether a credit loss exists. The Firm also performs other analyses to support its cash flow projections, such as first-loss analyses or stress scenarios.

For equity securities, OTTI losses are recognized in earnings if the Firm intends to sell the security. In other cases the Firm considers the relevant factors noted above, as well as the Firm’s intent and ability to retain its investment for a period of time sufficient to allow for any anticipated recovery in market value, and whether evidence exists to support a realizable value equal to or greater than the carrying value. Any impairment loss on an equity security is equal to the full difference between the amortized cost basis and the fair value of the security.

Notes to consolidated financial statements

Realized gains and losses

The following table presents realized gains and losses and credit losses that were recognized in income from AFS securities.

Year ended December 31, (in millions)	2013	2012	2011
Realized gains	\$1,302	\$2,610	\$1,811
Realized losses	(614)	(457)	(142)
Net realized gains^(a)	688	2,153	1,669
OTTI losses			
Credit-related	(1)	(28)	(76)
Securities the Firm intends to sell	(20) ^(b)	(15) ^(b)	—
Total OTTI losses recognized in income	(21)	(43)	(76)
Net securities gains	\$ 667	\$2,110	\$1,593

(a) Proceeds from securities sold were within approximately 2% of amortized cost in 2013, and within approximately 4% of amortized cost in 2012 and 2011.

(b) Excludes realized losses of \$12 million and \$24 million for the years ended December 31, 2013 and 2012, respectively that had been previously reported as an OTTI loss due to the intention to sell the securities.

The amortized costs and estimated fair values of the investment securities portfolio were as follows for the dates indicated.

December 31, (in millions)	2013				2012			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale debt securities								
Mortgage-backed securities:								
U.S. government agencies ^(a)	\$ 76,428	\$ 2,364	\$ 977	\$ 77,815	\$ 93,693	\$ 4,708	\$ 13	\$ 98,388
Residential:								
Prime and Alt-A	2,744	61	27	2,778	1,853	83	3	1,933
Subprime	908	23	1	930	825	28	—	853
Non-U.S.	57,448	1,314	1	58,761	70,358	1,524	29	71,853
Commercial	15,891	560	26	16,425	12,268	948	13	13,203
Total mortgage-backed securities	153,419	4,322	1,032	156,709	178,997	7,291	58	186,230
U.S. Treasury and government agencies ^(a)	21,310	385	306	21,389	12,022	116	8	12,130
Obligations of U.S. states and municipalities	29,741	707	987	29,461	19,876	1,845	10	21,711
Certificates of deposit	1,041	1	1	1,041	2,781	4	2	2,783
Non-U.S. government debt securities	55,507	863	122	56,248	65,168	901	25	66,044
Corporate debt securities	21,043	498	29	21,512	37,999	694	84	38,609
Asset-backed securities:								
Collateralized loan obligations	28,130	236	136	28,230	27,483	465	52	27,896
Other	12,062	186	3	12,245	12,816	166	11	12,971
Total available-for-sale debt securities	322,253	7,198	2,616	326,835	357,142	11,482	250	368,374
Available-for-sale equity securities	3,125	17	—	3,142	2,750	21	—	2,771
Total available-for-sale securities	\$ 325,378	\$ 7,215	\$ 2,616	\$ 329,977	\$ 359,892	\$ 11,503	\$ 250	\$ 371,145
Total held-to-maturity securities ^(b)	\$ 24,026	\$ 22	\$ 317	\$ 23,731	\$ 7	\$ 1	\$ —	\$ 8

(a) Includes total U.S. government-sponsored enterprise obligations with fair values of \$67.0 billion and \$84.0 billion at December 31, 2013 and 2012, respectively, which were predominantly mortgage-related.

(b) As of December 31, 2013, consists of MBS issued by U.S. government-sponsored enterprises with an amortized cost of \$23.1 billion and obligations of U.S. states and municipalities with an amortized cost of \$920 million.

Securities impairment

The following tables present the fair value and gross unrealized losses for the investment securities portfolio by aging category at December 31, 2013 and 2012.

December 31, 2013 (in millions)	Securities with gross unrealized losses					
	Less than 12 months		12 months or more		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	\$ 20,293	\$ 895	\$ 1,150	\$ 82	\$ 21,443	\$ 977
Residential:						
Prime and Alt-A	1,061	27	—	—	1,061	27
Subprime	152	1	—	—	152	1
Non-U.S.	—	—	158	1	158	1
Commercial	3,980	26	—	—	3,980	26
Total mortgage-backed securities	25,486	949	1,308	83	26,794	1,032
U.S. Treasury and government agencies	6,293	250	237	56	6,530	306
Obligations of U.S. states and municipalities	15,387	975	55	12	15,442	987
Certificates of deposit	988	1	—	—	988	1
Non-U.S. government debt securities	11,286	110	821	12	12,107	122
Corporate debt securities	1,580	21	505	8	2,085	29
Asset-backed securities:						
Collateralized loan obligations	18,369	129	393	7	18,762	136
Other	1,114	3	—	—	1,114	3
Total available-for-sale debt securities	80,503	2,438	3,319	178	83,822	2,616
Available-for-sale equity securities	—	—	—	—	—	—
Held-to-maturity securities	20,745	317	—	—	20,745	317
Total securities with gross unrealized losses	\$ 101,248	\$ 2,755	\$ 3,319	\$ 178	\$ 104,567	\$ 2,933

Notes to consolidated financial statements

December 31, 2012 (in millions)	Securities with gross unrealized losses					
	Less than 12 months		12 months or more		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	\$ 2,440	\$ 13	\$ —	\$ —	\$ 2,440	\$ 13
Residential:						
Prime and Alt-A	218	2	76	1	294	3
Subprime	—	—	—	—	—	—
Non-U.S.	2,442	6	734	23	3,176	29
Commercial	1,159	8	312	5	1,471	13
Total mortgage-backed securities	6,259	29	1,122	29	7,381	58
U.S. Treasury and government agencies	4,198	8	—	—	4,198	8
Obligations of U.S. states and municipalities	907	10	—	—	907	10
Certificates of deposit	741	2	—	—	741	2
Non-U.S. government debt securities	14,527	21	1,927	4	16,454	25
Corporate debt securities	2,651	10	5,641	74	8,292	84
Asset-backed securities:						
Collateralized loan obligations	6,328	17	2,063	35	8,391	52
Other	2,076	7	275	4	2,351	11
Total available-for-sale debt securities	37,687	104	11,028	146	48,715	250
Available-for-sale equity securities	—	—	—	—	—	—
Held-to-maturity securities	—	—	—	—	—	—
Total securities with gross unrealized losses	\$ 37,687	\$ 104	\$ 11,028	\$ 146	\$ 48,715	\$ 250

Other-than-temporary impairment

The following table presents OTTI losses that are included in the securities gains and losses table above.

Year ended December 31, (in millions)	2013	2012	2011
Debt securities the Firm does not intend to sell that have credit losses			
Total OTTI ^(a)	\$ (1)	\$ (113)	\$ (27)
Losses recorded in/ (reclassified from) AOCI	—	85	(49)
Total credit losses recognized in income^(b)	(1)	(28)	(76)
Securities the Firm intends to sell	(20) ^(c)	(15) ^(c)	—
Total OTTI losses recognized in income	\$ (21)	\$ (43)	\$ (76)

(a) For initial OTTI, represents the excess of the amortized cost over the fair value of AFS debt securities. For subsequent impairments of the same security, represents additional declines in fair value subsequent to previously recorded OTTI, if applicable.

(b) Subsequent credit losses may be recorded on securities without a corresponding further decline in fair value if there has been a decline in expected cash flows.

(c) Excludes realized losses of \$12 million and \$24 million for the years ended December 31, 2013 and 2012, respectively that had been previously reported as an OTTI loss due to the intention to sell the securities.

Changes in the credit loss component of credit-impaired debt securities

The following table presents a rollforward for the years ended December 31, 2013, 2012 and 2011, of the credit loss component of OTTI losses that have been recognized in income, related to AFS debt securities that the Firm does not intend to sell.

Year ended December 31, (in millions)	2013	2012	2011
Balance, beginning of period	\$ 522	\$ 708	\$ 632
Additions:			
Newly credit-impaired securities	1	21	4
Losses reclassified from other comprehensive income on previously credit-impaired securities	—	7	72
Reductions:			
Sales and redemptions of credit-impaired securities	(522)	(214)	—
Balance, end of period	\$ 1	\$ 522	\$ 708

Gross unrealized losses

Gross unrealized losses, including those that have been in an unrealized loss position for 12 months or more, have generally increased since December 31, 2012. The Firm has recognized the unrealized losses on securities it intends to sell. As of December 31, 2013, the Firm does not intend to sell any securities with a loss position in AOCI, and it is not likely that the Firm will be required to sell these securities before recovery of their amortized cost basis. Except for the securities reported in the table above for which credit losses have been recognized in income, the Firm believes that the securities with an unrealized loss in AOCI are not other-than-temporarily impaired as of December 31, 2013.

Notes to consolidated financial statements

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at December 31, 2013, of JPMorgan Chase's investment securities portfolio by contractual maturity.

By remaining maturity December 31, 2013 (in millions)	Due in one year or less	Due after one year through five years	Due after five years through 10 years	Due after 10 years ^(c)	Total
Available-for-sale debt securities					
Mortgage-backed securities ^(a)					
Amortized cost	\$ 209	\$ 13,689	\$ 8,239	\$ 131,282	\$ 153,419
Fair value	210	14,117	8,489	133,893	156,709
Average yield ^(b)	2.17%	2.10%	2.83%	2.93%	2.85%
U.S. Treasury and government agencies ^(a)					
Amortized cost	\$ 8,781	\$ 10,246	\$ 1,425	\$ 858	\$ 21,310
Fair value	8,792	10,257	1,425	915	21,389
Average yield ^(b)	0.36%	0.39%	0.34%	0.59%	0.38%
Obligations of U.S. states and municipalities					
Amortized cost	\$ 57	\$ 479	\$ 1,644	\$ 27,561	\$ 29,741
Fair value	58	505	1,664	27,234	29,461
Average yield ^(b)	3.12%	4.91%	4.27%	6.19%	6.06%
Certificates of deposit					
Amortized cost	\$ 990	\$ 51	\$ —	\$ —	\$ 1,041
Fair value	988	53	—	—	1,041
Average yield ^(b)	6.37%	3.28%	—%	—%	6.22%
Non-U.S. government debt securities					
Amortized cost	\$ 11,210	\$ 16,999	\$ 24,735	\$ 2,563	\$ 55,507
Fair value	11,223	17,191	25,166	2,668	56,248
Average yield ^(b)	2.72%	2.26%	1.39%	1.64%	1.94%
Corporate debt securities					
Amortized cost	\$ 2,871	\$ 12,318	\$ 5,854	\$ —	\$ 21,043
Fair value	2,873	12,638	6,001	—	21,512
Average yield ^(b)	1.94%	2.41%	2.60%	—%	2.40%
Asset-backed securities					
Amortized cost	\$ 42	\$ 2,412	\$ 15,135	\$ 22,603	\$ 40,192
Fair value	42	2,438	15,258	22,737	40,475
Average yield ^(b)	2.17%	1.98%	1.74%	1.80%	1.79%
Total available-for-sale debt securities					
Amortized cost	\$ 24,160	\$ 56,194	\$ 57,032	\$ 184,867	\$ 322,253
Fair value	24,186	57,199	58,003	187,447	326,835
Average yield ^(b)	1.91%	1.93%	1.87%	3.25%	2.67%
Available-for-sale equity securities					
Amortized cost	\$ —	\$ —	\$ —	\$ 3,125	\$ 3,125
Fair value	—	—	—	3,142	3,142
Average yield ^(b)	—%	—%	—%	0.20%	0.20%
Total available-for-sale securities					
Amortized cost	\$ 24,160	\$ 56,194	\$ 57,032	\$ 187,992	\$ 325,378
Fair value	24,186	57,199	58,003	190,589	329,977
Average yield ^(b)	1.91%	1.93%	1.87%	3.20%	2.65%
Total held-to-maturity securities					
Amortized cost	\$ —	\$ 3	\$ 1	\$ 24,022	\$ 24,026
Fair value	—	4	1	23,726	23,731
Average yield ^(b)	—%	6.86%	6.48%	3.53%	3.53%

(a) U.S. government-sponsored enterprises were the only issuers whose securities exceeded 10% of JPMorgan Chase's total stockholders' equity at December 31, 2013.

(b) Average yield is computed using the effective yield of each security owned at the end of the period, weighted based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts, and the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable. The effective yield excludes unscheduled principal prepayments; and accordingly, actual maturities of securities may differ from their contractual or expected maturities as certain securities may be prepaid.

(c) Includes securities with no stated maturity. Substantially all of the Firm's residential mortgage-backed securities and collateralized mortgage obligations are due in 10 years or more, based on contractual maturity. The estimated duration, which reflects anticipated future prepayments based on a consensus of dealers in the market, is approximately five years for agency residential mortgage-backed securities, two years for agency residential collateralized mortgage obligations and three years for nonagency residential collateralized mortgage obligations.

Note 13 – Securities financing activities

JPMorgan Chase enters into resale agreements, repurchase agreements, securities borrowed transactions and securities loaned transactions (collectively, “securities financing agreements”) primarily to finance the Firm’s inventory positions, acquire securities to cover short positions, accommodate customers’ financing needs, and settle other securities obligations.

Securities financing agreements are treated as collateralized financings on the Firm’s Consolidated Balance Sheets. Resale and repurchase agreements are generally carried at the amounts at which the securities will be subsequently sold or repurchased. Securities borrowed and securities loaned transactions are generally carried at the amount of cash collateral advanced or received. Where appropriate under applicable accounting guidance, resale and repurchase agreements with the same counterparty are reported on a net basis. For further discussion of the offsetting of assets and liabilities, see Note 1 on pages 189–191 of this Annual Report. Fees received and paid in

connection with securities financing agreements are recorded in interest income and interest expense on the Consolidated Statements of Income.

The Firm has elected the fair value option for certain securities financing agreements. For further information regarding the fair value option, see Note 4 on pages 215–218 of this Annual Report. The securities financing agreements for which the fair value option has been elected are reported within securities purchased under resale agreements; securities loaned or sold under repurchase agreements; and securities borrowed on the Consolidated Balance Sheets. Generally, for agreements carried at fair value, current-period interest accruals are recorded within interest income and interest expense, with changes in fair value reported in principal transactions revenue. However, for financial instruments containing embedded derivatives that would be separately accounted for in accordance with accounting guidance for hybrid instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue.

The following table presents as of December 31, 2013 and 2012, the gross and net securities purchased under resale agreements and securities borrowed. Securities purchased under resale agreements have been presented on the Consolidated Balance Sheets net of securities sold under repurchase agreements where the Firm has obtained an appropriate legal opinion with respect to the master netting agreement, and where the other relevant criteria have been met. Where such a legal opinion has not been either sought or obtained, the securities purchased under resale agreements are not eligible for netting and are shown separately in the table below. Securities borrowed are presented on a gross basis on the Consolidated Balance Sheets.

December 31, (in millions)	2013			2012		
	Gross asset balance	Amounts netted on the Consolidated Balance Sheets	Net asset balance	Gross asset balance	Amounts netted on the Consolidated Balance Sheets	Net asset balance
Securities purchased under resale agreements						
Securities purchased under resale agreements with an appropriate legal opinion	\$ 354,814	\$ (115,408)	\$ 239,406	\$ 381,377	\$ (96,947)	\$ 284,430
Securities purchased under resale agreements where an appropriate legal opinion has not been either sought or obtained	8,279		8,279	10,983		10,983
Total securities purchased under resale agreements	\$ 363,093	\$ (115,408)	\$ 247,685 ^(a)	\$ 392,360	\$ (96,947)	\$ 295,413 ^(a)
Securities borrowed	\$ 111,465	N/A	\$ 111,465 ^{(b)(c)}	\$ 119,017	N/A	\$ 119,017 ^{(b)(c)}

(a) At December 31, 2013 and 2012, included securities purchased under resale agreements of \$25.1 billion and \$24.3 billion, respectively, accounted for at fair value.

(b) At December 31, 2013 and 2012, included securities borrowed of \$3.7 billion and \$10.2 billion, respectively, accounted for at fair value.

(c) Included \$26.9 billion and \$28.4 billion at December 31, 2013 and 2012, respectively, of securities borrowed where an appropriate legal opinion has not been either sought or obtained with respect to the master netting agreement. The prior period amounts have been revised with a corresponding impact in the table below. This revision had no impact on the Firm’s Consolidated Balance Sheets or its results of operations.

Notes to consolidated financial statements

The following table presents information as of December 31, 2013 and 2012, regarding the securities purchased under resale agreements and securities borrowed for which an appropriate legal opinion has been obtained with respect to the master netting agreement. The below table excludes information related to resale agreements and securities borrowed where such a legal opinion has not been either sought or obtained.

December 31, (in millions)	2013				2012			
	Net asset balance	Amounts not nettable on the Consolidated Balance Sheets ^(a)		Net exposure	Net asset balance	Amounts not nettable on the Consolidated Balance Sheets ^(a)		Net exposure
		Financial instruments ^(b)	Cash collateral			Financial instruments ^(b)	Cash collateral	
Securities purchased under resale agreements with an appropriate legal opinion	\$ 239,406	\$ (234,495)	\$ (98)	\$ 4,813	\$ 284,430	\$ (282,468)	\$ (998)	\$ 964
Securities borrowed	\$ 84,531	\$ (81,127)	\$ –	\$ 3,404	\$ 90,609	\$ (87,651)	\$ –	\$ 2,958

- (a) For some counterparties, the sum of the financial instruments and cash collateral not nettable on the Consolidated Balance Sheets may exceed the net asset balance. Where this is the case the total amounts reported in these two columns are limited to the balance of the net reverse repurchase agreement or securities borrowed asset with that counterparty. As a result a net exposure amount is reported even though the Firm, on an aggregate basis for its securities purchased under resale agreements and securities borrowed, has received securities collateral with a total fair value that is greater than the funds provided to counterparties.
- (b) Includes financial instrument collateral received, repurchase liabilities and securities loaned liabilities with an appropriate legal opinion with respect to the master netting agreement; these amounts are not presented net on the Consolidated Balance Sheets because other U.S. GAAP netting criteria are not met.

The following table presents as of December 31, 2013 and 2012, the gross and net securities sold under repurchase agreements and securities loaned. Securities sold under repurchase agreements have been presented on the Consolidated Balance Sheets net of securities purchased under resale agreements where the Firm has obtained an appropriate legal opinion with respect to the master netting agreement, and where the other relevant criteria have been met. Where such a legal opinion has not been either sought or obtained, the securities sold under repurchase agreements are not eligible for netting and are shown separately in the table below. Securities loaned are presented on a gross basis on the Consolidated Balance Sheets.

December 31, (in millions)	2013			2012		
	Gross liability balance	Amounts netted on the Consolidated Balance Sheets		Gross liability balance	Amounts netted on the Consolidated Balance Sheets	
			Net liability balance			Net liability balance
Securities sold under repurchase agreements						
Securities sold under repurchase agreements with an appropriate legal opinion	\$ 261,265	\$ (115,408)	\$ 145,857	\$ 301,352	\$ (96,947)	\$ 204,405
Securities sold under repurchase agreements where an appropriate legal opinion has not been either sought or obtained ^(a)	14,508		14,508	11,155		11,155
Total securities sold under repurchase agreements	\$ 275,773	\$ (115,408)	\$ 160,365 ^(c)	\$ 312,507	\$ (96,947)	\$ 215,560 ^(c)
Securities loaned^(b)	\$ 25,769	N/A	\$ 25,769 ^{(d)(e)}	\$ 30,458	N/A	\$ 30,458 ^{(d)(e)}

- (a) Includes repurchase agreements that are not subject to a master netting agreement but do provide rights to collateral.
- (b) Included securities-for-securities borrow vs. pledge transactions of \$5.8 billion and \$6.9 billion at December 31, 2013 and 2012, respectively, when acting as lender and as presented within other liabilities in the Consolidated Balance Sheets.
- (c) At December 31, 2013 and 2012, included securities sold under repurchase agreements of \$4.9 billion and \$3.9 billion, respectively, accounted for at fair value.
- (d) At December 31, 2013 and 2012, included securities loaned of \$483 million and \$457 million, respectively, accounted for at fair value.
- (e) Included \$397 million and \$889 million at December 31, 2013 and 2012, respectively, of securities loaned where an appropriate legal opinion has not been either sought or obtained with respect to the master netting agreement.

The following table presents information as of December 31, 2013 and 2012, regarding the securities sold under repurchase agreements and securities loaned for which an appropriate legal opinion has been obtained with respect to the master netting agreement. The below table excludes information related to repurchase agreements and securities loaned where such a legal opinion has not been either sought or obtained.

December 31, (in millions)	2013				2012			
	Net liability balance	Amounts not nettable on the Consolidated balance sheets ^(a)		Net amount ^(c)	Net liability balance	Amounts not nettable on the Consolidated balance sheets ^(a)		Net amount ^(c)
		Financial instruments ^(b)	Cash collateral			Financial instruments ^(b)	Cash collateral	
Securities sold under repurchase agreements with an appropriate legal opinion	\$ 145,857	\$ (142,686)	\$ (450)	\$ 2,721	\$ 204,405	\$ (202,925)	\$ (162)	\$ 1,318
Securities loaned	\$ 25,372	\$ (25,125)	\$ –	\$ 247	\$ 29,569	\$ (28,465)	\$ –	\$ 1,104

(a) For some counterparties the sum of the financial instruments and cash collateral not nettable on the Consolidated Balance Sheets may exceed the net liability balance. Where this is the case the total amounts reported in these two columns are limited to the balance of the net repurchase agreement or securities loaned liability with that counterparty.

(b) Includes financial instrument collateral transferred, reverse repurchase assets and securities borrowed assets with an appropriate legal opinion with respect to the master netting agreement; these amounts are not presented net on the Consolidated Balance Sheets because other U.S. GAAP netting criteria are not met.

(c) Net amount represents exposure of counterparties to the Firm.

JPMorgan Chase's policy is to take possession, where possible, of securities purchased under resale agreements and of securities borrowed. The Firm monitors the value of the underlying securities (primarily G7 government securities, U.S. agency securities and agency MBS, and equities) that it has received from its counterparties and either requests additional collateral or returns a portion of the collateral when appropriate in light of the market value of the underlying securities. Margin levels are established initially based upon the counterparty and type of collateral and monitored on an ongoing basis to protect against declines in collateral value in the event of default. JPMorgan Chase typically enters into master netting agreements and other collateral arrangements with its resale agreement and securities borrowed counterparties, which provide for the right to liquidate the purchased or borrowed securities in the event of a customer default. As a result of the Firm's credit risk mitigation practices with respect to resale and securities borrowed agreements as described above, the Firm did not hold any reserves for credit impairment with respect to these agreements as of December 31, 2013 and 2012.

For further information regarding assets pledged and collateral received in securities financing agreements, see Note 30 on page 325 of this Annual Report.

Transfers not qualifying for sale accounting

In addition, at December 31, 2013 and 2012, the Firm held \$14.6 billion and \$9.6 billion, respectively, of financial assets for which the rights have been transferred to third parties; however, the transfers did not qualify as a sale in accordance with U.S. GAAP. These transfers have been recognized as collateralized financing transactions. The transferred assets are recorded in trading assets, other assets and loans, and the corresponding liabilities are recorded in other borrowed funds, accounts payable and other liabilities, and long-term debt, on the Consolidated Balance Sheets.

Note 14 – Loans

Loan accounting framework

The accounting for a loan depends on management's strategy for the loan, and on whether the loan was credit-impaired at the date of acquisition. The Firm accounts for loans based on the following categories:

- Originated or purchased loans held-for-investment (i.e., "retained"), other than purchased credit-impaired ("PCI") loans
- Loans held-for-sale
- Loans at fair value
- PCI loans held-for-investment

The following provides a detailed accounting discussion of these loan categories:

Loans held-for-investment (other than PCI loans)

Originated or purchased loans held-for-investment, other than PCI loans, are measured at the principal amount outstanding, net of the following: allowance for loan losses; net charge-offs; interest applied to principal (for loans accounted for on the cost recovery method); unamortized discounts and premiums; and net deferred loan fees or costs. Credit card loans also include billed finance charges and fees net of an allowance for uncollectible amounts.

Interest income

Interest income on performing loans held-for-investment, other than PCI loans, is accrued and recognized as interest income at the contractual rate of interest. Purchase price discounts or premiums, as well as net deferred loan fees or costs, are amortized into interest income over the life of the loan to produce a level rate of return.

Nonaccrual loans

Nonaccrual loans are those on which the accrual of interest has been suspended. Loans (other than credit card loans and certain consumer loans insured by U.S. government agencies) are placed on nonaccrual status and considered nonperforming when full payment of principal and interest is in doubt, which for consumer loans, excluding credit card, generally occurs when principal or interest is 90 days or more past due unless the loan is both well secured and in the process of collection. A loan is determined to be past due when the minimum payment is not received from the borrower by the contractually specified due date or for certain loans (e.g., residential real estate loans), when a monthly payment is due and unpaid for 30 days or more. Consumer, excluding credit card, loans that are less than 90 days past due may be placed on nonaccrual status when there is evidence that full payment of principal and interest is in doubt (e.g., performing junior liens that are subordinate to nonperforming senior liens). Finally, collateral-dependent loans are typically maintained on nonaccrual status.

On the date a loan is placed on nonaccrual status, all interest accrued but not collected is reversed against interest income. In addition, the amortization of deferred amounts is suspended. Interest income on nonaccrual loans may be recognized as cash interest payments are received (i.e., on a cash basis) if the recorded loan balance is deemed fully collectible; however, if there is doubt regarding the ultimate collectibility of the recorded loan balance, all interest cash receipts are applied to reduce the carrying value of the loan (the cost recovery method). For consumer loans, application of this policy typically results in the Firm recognizing interest income on nonaccrual consumer loans on a cash basis.

A loan may be returned to accrual status when repayment is reasonably assured and there has been demonstrated performance under the terms of the loan or, if applicable, the terms of the restructured loan.

As permitted by regulatory guidance, credit card loans are generally exempt from being placed on nonaccrual status; accordingly, interest and fees related to credit card loans continue to accrue until the loan is charged off or paid in full. However, the Firm separately establishes an allowance for the estimated uncollectible portion of accrued interest and fee income on credit card loans. The allowance is established with a charge to interest income and is reported as an offset to loans.

Allowance for loan losses

The allowance for loan losses represents the estimated probable credit losses inherent in the held-for-investment loan portfolio at the balance sheet date. Changes in the allowance for loan losses are recorded in the provision for credit losses on the Firm's Consolidated Statements of Income. See Note 15 on pages 284–287 of this Annual Report for further information on the Firm's accounting policies for the allowance for loan losses.

Charge-offs

Consumer loans, other than risk-rated business banking, risk-rated auto and PCI loans, are generally charged off or charged down to the net realizable value of the underlying collateral (i.e., fair value less costs to sell), with an offset to the allowance for loan losses, upon reaching specified stages of delinquency in accordance with standards established by the Federal Financial Institutions Examination Council ("FFIEC"). Residential real estate loans, non-modified credit card loans and scored business banking loans are generally charged off at 180 days past due. In the second quarter of 2012, the Firm revised its policy to charge-off modified credit card loans that do not comply with their modified payment terms at 120 days past due rather than 180 days past due. Auto and student loans are charged off no later than 120 days past due.

Certain consumer loans will be charged off earlier than the FFIEC charge-off standards in certain circumstances as follows:

- A charge-off is recognized when a loan is modified in a TDR if the loan is determined to be collateral-dependent. A loan is considered to be collateral-dependent when repayment of the loan is expected to be provided solely by the underlying collateral, rather than by cash flows from the borrower's operations, income or other resources.
- Loans to borrowers who have experienced an event (e.g., bankruptcy) that suggests a loss is either known or highly certain are subject to accelerated charge-off standards. Residential real estate and auto loans are charged off when the loan becomes 60 days past due, or sooner if the loan is determined to be collateral-dependent. Credit card and scored business banking loans are charged off within 60 days of receiving notification of the bankruptcy filing or other event. Student loans are generally charged off when the loan becomes 60 days past due after receiving notification of a bankruptcy.
- Auto loans are written down to net realizable value upon repossession of the automobile and after a redemption period (i.e., the period during which a borrower may cure the loan) has passed.

Other than in certain limited circumstances, the Firm typically does not recognize charge-offs on government-guaranteed loans.

Wholesale loans, risk-rated business banking loans and risk-rated auto loans are charged off when it is highly certain that a loss has been realized, including situations where a loan is determined to be both impaired and collateral-dependent. The determination of whether to recognize a charge-off includes many factors, including the prioritization of the Firm's claim in bankruptcy, expectations of the workout/restructuring of the loan and valuation of the borrower's equity or the loan collateral.

When a loan is charged down to the estimated net realizable value, the determination of the fair value of the collateral depends on the type of collateral (e.g., securities, real estate). In cases where the collateral is in the form of liquid securities, the fair value is based on quoted market prices or broker quotes. For illiquid securities or other financial assets, the fair value of the collateral is estimated using a discounted cash flow model.

For residential real estate loans, collateral values are based upon external valuation sources. When it becomes likely that a borrower is either unable or unwilling to pay, the Firm obtains a broker's price opinion of the home based on an exterior-only valuation ("exterior opinions"), which is then updated at least every six months thereafter. As soon as practicable after the Firm receives the property in satisfaction of a debt (e.g., by taking legal title or physical possession), generally, either through foreclosure or upon the execution of a deed in lieu of foreclosure transaction with the borrower, the Firm obtains an appraisal based on an inspection that includes the interior of the home ("interior appraisals"). Exterior opinions and interior appraisals are discounted based upon the Firm's experience with actual liquidation values as compared to the estimated values provided by exterior opinions and interior appraisals, considering state- and product-specific factors.

For commercial real estate loans, collateral values are generally based on appraisals from internal and external valuation sources. Collateral values are typically updated every six to twelve months, either by obtaining a new appraisal or by performing an internal analysis, in accordance with the Firm's policies. The Firm also considers both borrower- and market-specific factors, which may result in obtaining appraisal updates or broker price opinions at more frequent intervals.

Loans held-for-sale

Held-for-sale loans are measured at the lower of cost or fair value, with valuation changes recorded in noninterest revenue. For consumer loans, the valuation is performed on a portfolio basis. For wholesale loans, the valuation is performed on an individual loan basis.

Interest income on loans held-for-sale is accrued and recognized based on the contractual rate of interest.

Loan origination fees or costs and purchase price discounts or premiums are deferred in a contra loan account until the related loan is sold. The deferred fees and discounts or premiums are an adjustment to the basis of the loan and therefore are included in the periodic determination of the lower of cost or fair value adjustments and/or the gain or losses recognized at the time of sale.

Held-for-sale loans are subject to the nonaccrual policies described above.

Because held-for-sale loans are recognized at the lower of cost or fair value, the Firm's allowance for loan losses and charge-off policies do not apply to these loans.

Notes to consolidated financial statements

Loans at fair value

Loans used in a market-making strategy or risk managed on a fair value basis are measured at fair value, with changes in fair value recorded in noninterest revenue.

For these loans, the earned current contractual interest payment is recognized in interest income. Changes in fair value are recognized in noninterest revenue. Loan origination fees are recognized upfront in noninterest revenue. Loan origination costs are recognized in the associated expense category as incurred.

Because these loans are recognized at fair value, the Firm's nonaccrual, allowance for loan losses, and charge-off policies do not apply to these loans.

See Note 4 on pages 215–218 of this Annual Report for further information on the Firm's elections of fair value accounting under the fair value option. See Note 3 and Note 4 on pages 195–215 and 215–218 of this Annual Report for further information on loans carried at fair value and classified as trading assets.

PCI loans

PCI loans held-for-investment are initially measured at fair value. PCI loans have evidence of credit deterioration since the loan's origination date and therefore it is probable, at acquisition, that all contractually required payments will not be collected. Because PCI loans are initially measured at fair value, which includes an estimate of future credit losses, no allowance for loan losses related to PCI loans is recorded at the acquisition date. See page 274 of this Note for information on accounting for PCI loans subsequent to their acquisition.

Loan classification changes

Loans in the held-for-investment portfolio that management decides to sell are transferred to the held-for-sale portfolio at the lower of cost or fair value on the date of transfer. Credit-related losses are charged against the allowance for loan losses; losses due to changes in interest rates or foreign currency exchange rates are recognized in noninterest revenue.

In the event that management decides to retain a loan in the held-for-sale portfolio, the loan is transferred to the held-for-investment portfolio at the lower of cost or fair value on the date of transfer. These loans are subsequently assessed for impairment based on the Firm's allowance methodology. For a further discussion of the methodologies used in establishing the Firm's allowance for loan losses, see Note 15 on pages 284–287 of this Annual Report.

Loan modifications

The Firm seeks to modify certain loans in conjunction with its loss-mitigation activities. Through the modification, JPMorgan Chase grants one or more concessions to a borrower who is experiencing financial difficulty in order to minimize the Firm's economic loss, avoid foreclosure or repossession of the collateral, and to ultimately maximize payments received by the Firm from the borrower. The concessions granted vary by program and by borrower-specific characteristics, and may include interest rate reductions, term extensions, payment deferrals, principal forgiveness, or the acceptance of equity or other assets in lieu of payments.

Such modifications are accounted for and reported as troubled debt restructurings ("TDRs"). A loan that has been modified in a TDR is generally considered to be impaired until it matures, is repaid, or is otherwise liquidated, regardless of whether the borrower performs under the modified terms. In certain limited cases, the effective interest rate applicable to the modified loan is at or above the current market rate at the time of the restructuring. In such circumstances, and assuming that the loan subsequently performs under its modified terms and the Firm expects to collect all contractual principal and interest cash flows, the loan is disclosed as impaired and as a TDR only during the year of the modification; in subsequent years, the loan is not disclosed as an impaired loan or as a TDR so long as repayment of the restructured loan under its modified terms is reasonably assured.

Loans, except for credit card loans, modified in a TDR are generally placed on nonaccrual status, although in many cases such loans were already on nonaccrual status prior to modification. These loans may be returned to performing status (the accrual of interest is resumed) if the following criteria are met: (a) the borrower has performed under the modified terms for a minimum of six months and/or six payments, and (b) the Firm has an expectation that repayment of the modified loan is reasonably assured based on, for example, the borrower's debt capacity and level of future earnings, collateral values, loan-to-value ("LTV") ratios, and other current market considerations. In certain limited and well-defined circumstances in which the loan is current at the modification date, such loans are not placed on nonaccrual status at the time of modification.

Because loans modified in TDRs are considered to be impaired, these loans are measured for impairment using the Firm's established asset-specific allowance methodology, which considers the expected re-default rates for the modified loans. A loan modified in a TDR remains subject to the asset-specific allowance methodology throughout its remaining life, regardless of whether the loan is performing and has been returned to accrual status and/or the loan has been removed from the impaired loans disclosures (i.e., loans restructured at market rates). For further discussion of the methodology used to estimate the Firm's asset-specific allowance, see Note 15 on pages 284–287 of this Annual Report.

Foreclosed property

The Firm acquires property from borrowers through loan restructurings, workouts, and foreclosures. Property acquired may include real property (e.g., residential real estate, land, and buildings) and commercial and personal property (e.g., automobiles, aircraft, railcars, and ships).

The Firm recognizes foreclosed property upon receiving assets in satisfaction of a loan (e.g., by taking legal title or physical possession). For loans collateralized by real property, the Firm generally recognizes the asset received at foreclosure sale or upon the execution of a deed in lieu of

foreclosure transaction with the borrower. Foreclosed assets are reported in other assets on the Consolidated Balance Sheets and initially recognized at fair value less costs to sell. Each quarter the fair value of the acquired property is reviewed and adjusted, if necessary, to the lower of cost or fair value. Subsequent adjustments to fair value are charged/credited to noninterest revenue. Operating expense, such as real estate taxes and maintenance, are charged to other expense.

Loan portfolio

The Firm's loan portfolio is divided into three portfolio segments, which are the same segments used by the Firm to determine the allowance for loan losses: Consumer, excluding credit card; Credit card; and Wholesale. Within each portfolio segment, the Firm monitors and assesses the credit risk in the following classes of loans, based on the risk characteristics of each loan class:

Consumer, excluding credit card ^(a)	Credit card	Wholesale ^(c)
<u>Residential real estate – excluding PCI</u> • Home equity – senior lien • Home equity – junior lien • Prime mortgage, including option ARMs • Subprime mortgage <u>Other consumer loans</u> • Auto^(b) • Business banking^(b) • Student and other <u>Residential real estate – PCI</u> • Home equity • Prime mortgage • Subprime mortgage • Option ARMs	• Credit card loans	• Commercial and industrial • Real estate • Financial institutions • Government agencies • Other^(d)

(a) Includes loans held in CCB, and prime mortgage loans held in the AM business segment and in Corporate/Private Equity.

(b) Includes certain business banking and auto dealer risk-rated loans that apply the wholesale methodology for determining the allowance for loan losses; these loans are managed by CCB, and therefore, for consistency in presentation, are included with the other consumer loan classes.

(c) Includes loans held in CIB, CB and AM business segments and in Corporate/Private Equity. Classes are internally defined and may not align with regulatory definitions.

(d) Other primarily includes loans to SPEs and loans to private banking clients. See Note 1 on pages 189–191 of this Annual Report for additional information on SPEs.

Notes to consolidated financial statements

The following tables summarize the Firm's loan balances by portfolio segment.

December 31, 2013 (in millions)	Consumer, excluding credit card	Credit card ^(a)	Wholesale	Total
Retained	\$ 288,449	\$ 127,465	\$ 308,263	\$ 724,177 ^(b)
Held-for-sale	614	326	11,290	12,230
At fair value	—	—	2,011	2,011
Total	\$ 289,063	\$ 127,791	\$ 321,564	\$ 738,418

December 31, 2012 (in millions)	Consumer, excluding credit card	Credit card ^(a)	Wholesale	Total
Retained	\$ 292,620	\$ 127,993	\$ 306,222	\$ 726,835 ^(b)
Held-for-sale	—	—	4,406	4,406
At fair value	—	—	2,555	2,555
Total	\$ 292,620	\$ 127,993	\$ 313,183	\$ 733,796

(a) Includes billed finance charges and fees net of an allowance for uncollectible amounts.

(b) Loans (other than PCI loans and those for which the fair value option has been elected) are presented net of unearned income, unamortized discounts and premiums, and net deferred loan costs of \$1.9 billion and \$2.5 billion at December 31, 2013 and 2012, respectively.

The following table provides information about the carrying value of retained loans purchased, sold and reclassified to held-for-sale during the periods indicated. These tables exclude loans recorded at fair value. The Firm manages its exposure to credit risk on an ongoing basis. Selling loans is one way that the Firm reduces its credit exposures.

Years ended December 31, (in millions)	2013				2012			
	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	\$ 7,616 ^{(a)(b)}	\$ 328	\$ 697	\$ 8,641	\$ 6,601 ^{(a)(b)}	\$ —	\$ 827	\$ 7,428
Sales	4,845	—	4,232	9,077	1,852	—	3,423	5,275
Retained loans reclassified to held-for-sale	1,261	309	5,641	7,211	—	1,043	504	1,547

(a) Purchases predominantly represent the Firm's voluntary repurchase of certain delinquent loans from loan pools as permitted by Ginnie Mae guidelines. The Firm typically elects to repurchase these delinquent loans as it continues to service them and/or manage the foreclosure process in accordance with applicable requirements of Ginnie Mae, the Federal Housing Administration ("FHA"), Rural Housing Services ("RHS") and/or the U.S. Department of Veterans Affairs ("VA").

(b) Excluded retained loans purchased from correspondents that were originated in accordance with the Firm's underwriting standards. Such purchases were \$5.7 billion and \$1.4 billion for the years ended December 31, 2013 and 2012, respectively.

The following table provides information about gains/(losses) on loan sales by portfolio segment.

Year ended December 31, (in millions)	2013	2012	2011
Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)^(a)			
Consumer, excluding credit card	\$ 313	\$ 122	\$ 131
Credit card	3	(9)	(24)
Wholesale	(76)	180	121
Total net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)	\$ 240	\$ 293	\$ 228

(a) Excludes sales related to loans accounted for at fair value.

Consumer, excluding credit card, loan portfolio

Consumer loans, excluding credit card loans, consist primarily of residential mortgages, home equity loans and lines of credit, auto loans, business banking loans, and student and other loans, with a focus on serving the prime consumer credit market. The portfolio also includes home equity loans secured by junior liens, prime mortgage loans with an interest-only payment period, and certain payment-option loans originated by Washington Mutual that may result in negative amortization.

The table below provides information about retained consumer loans, excluding credit card, by class.

December 31, (in millions)	2013	2012
Residential real estate – excluding PCI		
Home equity:		
Senior lien	\$ 17,113	\$ 19,385
Junior lien	40,750	48,000
Mortgages:		
Prime, including option ARMs	87,162	76,256
Subprime	7,104	8,255
Other consumer loans		
Auto	52,757	49,913
Business banking	18,951	18,883
Student and other	11,557	12,191
Residential real estate – PCI		
Home equity	18,927	20,971
Prime mortgage	12,038	13,674
Subprime mortgage	4,175	4,626
Option ARMs	17,915	20,466
Total retained loans	\$ 288,449	\$ 292,620

Delinquency rates are a primary credit quality indicator for consumer loans. Loans that are more than 30 days past due provide an early warning of borrowers who may be experiencing financial difficulties and/or who may be unable or unwilling to repay the loan. As the loan continues to age, it becomes more clear that the borrower is likely either unable or unwilling to pay. In the case of residential real estate loans, late-stage delinquencies (greater than 150 days past due) are a strong indicator of loans that will ultimately result in a foreclosure or similar liquidation transaction. In addition to delinquency rates, other credit quality indicators for consumer loans vary based on the class of loan, as follows:

- For residential real estate loans, including both non-PCI and PCI portfolios, the current estimated LTV ratio, or the combined LTV ratio in the case of junior lien loans, is an indicator of the potential loss severity in the event of default. Additionally, LTV or combined LTV can provide

insight into a borrower's continued willingness to pay, as the delinquency rate of high-LTV loans tends to be greater than that for loans where the borrower has equity in the collateral. The geographic distribution of the loan collateral also provides insight as to the credit quality of the portfolio, as factors such as the regional economy, home price changes and specific events such as natural disasters, will affect credit quality. The borrower's current or "refreshed" FICO score is a secondary credit-quality indicator for certain loans, as FICO scores are an indication of the borrower's credit payment history. Thus, a loan to a borrower with a low FICO score (660 or below) is considered to be of higher risk than a loan to a borrower with a high FICO score. Further, a loan to a borrower with a high LTV ratio and a low FICO score is at greater risk of default than a loan to a borrower that has both a high LTV ratio and a high FICO score.

- For scored auto, scored business banking and student loans, geographic distribution is an indicator of the credit performance of the portfolio. Similar to residential real estate loans, geographic distribution provides insights into the portfolio performance based on regional economic activity and events.
- Risk-rated business banking and auto loans are similar to wholesale loans in that the primary credit quality indicators are the risk rating that is assigned to the loan and whether the loans are considered to be criticized and/or nonaccrual. Risk ratings are reviewed on a regular and ongoing basis by Credit Risk Management and are adjusted as necessary for updated information about borrowers' ability to fulfill their obligations. For further information about risk-rated wholesale loan credit quality indicators, see page 279 of this Note.

Residential real estate – excluding PCI loans

The following table provides information by class for residential real estate – excluding retained PCI loans in the consumer, excluding credit card, portfolio segment.

The following factors should be considered in analyzing certain credit statistics applicable to the Firm's residential real estate – excluding PCI loans portfolio: (i) junior lien home equity loans may be fully charged off when the loan becomes 180 days past due, and the value of the collateral does not support the repayment of the loan, resulting in relatively high charge-off rates for this product class; and (ii) the lengthening of loss-mitigation timelines may result in higher delinquency rates for loans carried at the net realizable value of the collateral that remain on the Firm's Consolidated Balance Sheets.

Notes to consolidated financial statements

Residential real estate – excluding PCI loans

December 31, (in millions, except ratios)	Home equity			
	Senior lien		Junior lien	
	2013	2012	2013	2012
Loan delinquency^(a)				
Current	\$ 16,470	\$ 18,688	\$ 39,864	\$ 46,805
30-149 days past due	298	330	662	960
150 or more days past due	345	367	224	235
Total retained loans	\$ 17,113	\$ 19,385	\$ 40,750	\$ 48,000
% of 30+ days past due to total retained loans	3.76%	3.60%	2.17%	2.49%
90 or more days past due and still accruing	\$ —	\$ —	\$ —	\$ —
90 or more days past due and government guaranteed ^(b)	—	—	—	—
Nonaccrual loans	932	931	1,876	2,277
Current estimated LTV ratios^{(c)(d)(e)}				
Greater than 125% and refreshed FICO scores:				
Equal to or greater than 660	\$ 40	\$ 197	\$ 1,101	\$ 4,561
Less than 660	22	93	346	1,338
101% to 125% and refreshed FICO scores:				
Equal to or greater than 660	212	491	4,645	7,089
Less than 660	107	191	1,407	1,971
80% to 100% and refreshed FICO scores:				
Equal to or greater than 660	858	1,502	7,995	9,604
Less than 660	326	485	2,128	2,279
Less than 80% and refreshed FICO scores:				
Equal to or greater than 660	13,186	13,988	19,732	18,252
Less than 660	2,362	2,438	3,396	2,906
U.S. government-guaranteed	—	—	—	—
Total retained loans	\$ 17,113	\$ 19,385	\$ 40,750	\$ 48,000
Geographic region				
California	\$ 2,397	\$ 2,786	\$ 9,240	\$ 10,969
New York	2,732	2,847	8,429	9,753
Illinois	1,248	1,358	2,815	3,265
Florida	847	892	2,167	2,572
Texas	2,044	2,508	1,199	1,503
New Jersey	630	652	2,442	2,838
Arizona	1,019	1,183	1,827	2,151
Washington	555	651	1,378	1,629
Michigan	799	910	976	1,169
Ohio	1,298	1,514	907	1,091
All other ^(f)	3,544	4,084	9,370	11,060
Total retained loans	\$ 17,113	\$ 19,385	\$ 40,750	\$ 48,000

- (a) Individual delinquency classifications included mortgage loans insured by U.S. government agencies as follows: current included \$4.7 billion and \$3.8 billion; 30-149 days past due included \$2.4 billion and \$2.3 billion; and 150 or more days past due included \$6.6 billion and \$9.5 billion at December 31, 2013 and 2012, respectively.
- (b) These balances, which are 90 days or more past due but insured by U.S. government agencies, are excluded from nonaccrual loans. In predominantly all cases, 100% of the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting agreed-upon servicing guidelines. These amounts have been excluded from nonaccrual loans based upon the government guarantee. At December 31, 2013 and 2012, these balances included \$4.7 billion and \$6.8 billion, respectively, of loans that are no longer accruing interest because interest has been curtailed by the U.S. government agencies although, in predominantly all cases, 100% of the principal is still insured. For the remaining balance, interest is being accrued at the guaranteed reimbursement rate.
- (c) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. These property values do not represent actual appraised loan level collateral values; as such, the resulting ratios are necessarily imprecise and should be viewed as estimates.
- (d) Junior lien represents combined LTV, which considers all available lien positions, as well as unused lines, related to the property. All other products are presented without consideration of subordinate liens on the property.
- (e) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by the Firm on at least a quarterly basis.
- (f) At December 31, 2013 and 2012, included mortgage loans insured by U.S. government agencies of \$13.7 billion and \$15.6 billion, respectively.
- (g) At December 31, 2013 and 2012, excluded mortgage loans insured by U.S. government agencies of \$9.0 billion and \$11.8 billion, respectively. These amounts have been excluded from nonaccrual loans based upon the government guarantee.

(table continued from previous page)

Mortgages							
Prime, including option ARMs		Subprime		Total residential real estate - excluding PCI			
2013	2012	2013	2012	2013	2012		
\$ 76,108	\$ 61,439	\$ 5,956	\$ 6,673	\$ 138,398	\$ 133,605		
3,155	3,237	646	727	4,761	5,254		
7,899	11,580	502	855	8,970	13,037		
\$ 87,162	\$ 76,256	\$ 7,104	\$ 8,255	\$ 152,129	\$ 151,896		
2.32% ^(g)	3.97% ^(g)	16.16%	19.16%	3.09% ^(g)	4.28% ^(g)		
\$ —	\$ —	\$ —	\$ —	\$ —	\$ —		
7,823	10,625	—	—	7,823	10,625		
2,666	3,445	1,390	1,807	6,864	8,460		
\$ 1,084	\$ 2,573	\$ 52	\$ 236	\$ 2,277	\$ 7,567		
303	991	197	653	868	3,075		
1,433	3,697	249	457	6,539	11,734		
687	1,376	597	985	2,798	4,523		
4,528	7,070	614	726	13,995	18,902		
1,579	2,117	1,141	1,346	5,174	6,227		
58,477	38,281	1,961	1,793	93,356	72,314		
5,359	4,549	2,293	2,059	13,410	11,952		
13,712	15,602	—	—	13,712	15,602		
\$ 87,162	\$ 76,256	\$ 7,104	\$ 8,255	\$ 152,129	\$ 151,896		
\$ 21,876	\$ 17,539	\$ 1,069	\$ 1,240	\$ 34,582	\$ 32,534		
14,085	11,190	942	1,081	26,188	24,871		
5,216	3,999	280	323	9,559	8,945		
4,598	4,372	885	1,031	8,497	8,867		
3,565	2,927	220	257	7,028	7,195		
2,679	2,131	339	399	6,090	6,020		
1,385	1,162	144	165	4,375	4,661		
1,951	1,741	150	177	4,034	4,198		
998	866	178	203	2,951	3,148		
466	405	161	191	2,832	3,201		
30,343	29,924	2,736	3,188	45,993	48,256		
\$ 87,162	\$ 76,256	\$ 7,104	\$ 8,255	\$ 152,129	\$ 151,896		

Notes to consolidated financial statements

The following tables represent the Firm's delinquency statistics for junior lien home equity loans and lines as of December 31, 2013 and 2012.

December 31, 2013 (in millions, except ratios)	Delinquencies			Total loans	Total 30+ day delinquency rate
	30-89 days past due	90-149 days past due	150+ days past due		
HELOCs: ^(a)					
Within the revolving period ^(b)	\$ 341	\$ 104	\$ 162	\$ 31,848	1.91%
Beyond the revolving period	84	21	46	4,980	3.03
HELOANS	86	26	16	3,922	3.26
Total	\$ 511	\$ 151	\$ 224	\$ 40,750	2.17%

December 31, 2012 (in millions, except ratios)	Delinquencies			Total loans	Total 30+ day delinquency rate
	30-89 days past due	90-149 days past due	150+ days past due		
HELOCs: ^(a)					
Within the revolving period ^(b)	\$ 514	\$ 196	\$ 185	\$ 40,794	2.19%
Beyond the revolving period	48	19	27	2,127	4.42
HELOANS	125	58	23	5,079	4.06
Total	\$ 687	\$ 273	\$ 235	\$ 48,000	2.49%

(a) These HELOCs are predominantly revolving loans for a 10-year period, after which time the HELOC converts to a loan with a 20-year amortization period, but also include HELOCs originated by Washington Mutual that require interest-only payments beyond the revolving period.

(b) The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are experiencing financial difficulty or when the collateral does not support the loan amount.

Home equity lines of credit ("HELOCs") beyond the revolving period and home equity loans ("HELOANS") have higher delinquency rates than do HELOCs within the revolving period. That is primarily because the fully-amortizing payment that is generally required for those products is higher than the minimum payment options

available for HELOCs within the revolving period. The higher delinquency rates associated with amortizing HELOCs and HELOANS are factored into the loss estimates produced by the Firm's delinquency roll-rate methodology, which estimates defaults based on the current delinquency status of a portfolio.

Impaired loans

The table below sets forth information about the Firm's residential real estate impaired loans, excluding PCI loans. These loans are considered to be impaired as they have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 on pages 284-287 of this Annual Report.

December 31, (in millions)	Home equity				Mortgages				Total residential real estate - excluding PCI	
	Senior lien		Junior lien		Prime, including option ARMs		Subprime		2013	2012
	2013	2012	2013	2012	2013	2012	2013	2012		
Impaired loans										
With an allowance	\$ 567	\$ 542	\$ 727	\$ 677	\$ 5,871	\$ 5,810	\$ 2,989	\$ 3,071	\$ 10,154	\$ 10,100
Without an allowance ^(a)	579	550	592	546	1,133	1,308	709	741	3,013	3,145
Total impaired loans^(b)	\$ 1,146	\$ 1,092	\$ 1,319	\$ 1,223	\$ 7,004	\$ 7,118	\$ 3,698	\$ 3,812	\$ 13,167	\$ 13,245
Allowance for loan losses related to impaired loans	\$ 94	\$ 159	\$ 162	\$ 188	\$ 144	\$ 70	\$ 94	\$ 174	\$ 494	\$ 591
Unpaid principal balance of impaired loans ^(c)	1,515	1,408	2,625	2,352	8,990	9,095	5,461	5,700	18,591	18,555
Impaired loans on nonaccrual status ^(d)	641	607	666	599	1,737	1,888	1,127	1,308	4,171	4,402

- (a) Represents collateral-dependent residential mortgage loans that are charged off to the fair value of the underlying collateral less cost to sell. The Firm reports, in accordance with regulatory guidance, residential real estate loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status.
- (b) At December 31, 2013 and 2012, \$7.6 billion and \$7.5 billion, respectively, of loans modified subsequent to repurchase from Government National Mortgage Association ("Ginnie Mae") in accordance with the standards of the appropriate government agency (i.e., FHA, VA, RHS) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure.
- (c) Represents the contractual amount of principal owed at December 31, 2013 and 2012. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs, net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.
- (d) As of December 31, 2013 and 2012, nonaccrual loans included \$3.0 billion and \$2.9 billion, respectively, of TDRs for which the borrowers were less than 90 days past due. For additional information about loans modified in a TDR that are on nonaccrual status refer to the Loan accounting framework on pages 258-260 of this Note.

The following table presents average impaired loans and the related interest income reported by the Firm.

Year ended December 31, (in millions)	Average impaired loans			Interest income on impaired loans ^(a)			Interest income on impaired loans on a cash basis ^(a)		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Home equity									
Senior lien	\$ 1,151	\$ 610	\$ 287	\$ 59	\$ 27	\$ 10	\$ 40	\$ 12	\$ 1
Junior lien	1,297	848	521	82	42	18	55	16	2
Mortgages									
Prime, including option ARMs	7,214	5,989	3,859	280	238	147	59	28	14
Subprime	3,798	3,494	3,083	200	183	148	55	31	16
Total residential real estate - excluding PCI	\$ 13,460	\$ 10,941	\$ 7,750	\$ 621	\$ 490	\$ 323	\$ 209	\$ 87	\$ 33

- (a) Generally, interest income on loans modified in TDRs is recognized on a cash basis until such time as the borrower has made a minimum of six payments under the new terms.

Notes to consolidated financial statements

Loan modifications

As required under the terms of certain settlements, the Firm is required to provide borrower relief, which will include, for example, reductions of principal and forbearance. For further information on the global and RMBS settlements, see Business changes and developments in Note 2 on pages 192-194 of this Annual Report.

Modifications of residential real estate loans, excluding PCI loans, are generally accounted for and reported as TDRs. There were no additional commitments to lend to borrowers whose residential real estate loans, excluding PCI loans, have been modified in TDRs.

TDR activity rollforward

The following table reconciles the beginning and ending balances of residential real estate loans, excluding PCI loans, modified in TDRs for the periods presented.

Year ended December 31, (in millions)	Home equity						Mortgages						Total residential real estate - excluding PCI		
	Senior lien			Junior lien			Prime, including option ARMs			Subprime					
	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011
Beginning balance of TDRs	\$1,092	\$ 335	\$ 226	\$1,223	\$ 657	\$ 283	\$ 7,118	\$ 4,877	\$ 2,084	\$3,812	\$3,219	\$2,751	\$13,245	\$ 9,088	\$ 5,344
New TDRs	210	835	138	388	711	518	770	2,918	3,268	319	1,043	883	1,687	5,507	4,807
Charge-offs post- modification ^(a)	(31)	(31)	(15)	(100)	(2)	(78)	(51)	(135)	(119)	(93)	(208)	(234)	(275)	(376)	(446)
Foreclosures and other liquidations (e.g., short sales)	(18)	(5)	—	(24)	(21)	(11)	(145)	(138)	(108)	(73)	(113)	(82)	(260)	(277)	(201)
Principal payments and other	(107)	(42)	(14)	(168)	(122)	(55)	(688)	(404)	(248)	(267)	(129)	(99)	(1,230)	(697)	(416)
Ending balance of TDRs	\$1,146	\$1,092	\$ 335	\$1,319	\$1,223	\$ 657	\$ 7,004	\$ 7,118	\$ 4,877	\$3,698	\$3,812	\$3,219	\$13,167	\$13,245	\$ 9,088
Permanent modifications	\$1,107	\$1,058	\$ 285	\$1,313	\$1,218	\$ 634	\$ 6,838	\$ 6,834	\$ 4,601	\$3,596	\$3,661	\$3,029	\$12,854	\$12,771	\$ 8,549
Trial modifications	\$ 39	\$ 34	\$ 50	\$ 6	\$ 5	\$ 23	\$ 166	\$ 284	\$ 276	\$ 102	\$ 151	\$ 190	\$ 313	\$ 474	\$ 539

(a) Includes charge-offs on unsuccessful trial modifications.

Nature and extent of modifications

Making Home Affordable (“MHA”), as well as the Firm’s proprietary modification programs, generally provide various concessions to financially troubled borrowers including, but not limited to, interest rate reductions, term

or payment extensions and deferral of principal and/or interest payments that would otherwise have been required under the terms of the original agreement.

The following table provides information about how residential real estate loans, excluding PCI loans, were modified under the Firm’s loss mitigation programs during the periods presented. This table excludes Chapter 7 loans where the sole concession granted is the discharge of debt. At December 31, 2013, there were approximately 36,700 of such Chapter 7 loans, consisting of approximately 8,800 senior lien home equity loans, 21,700 junior lien home equity loans, 3,100 prime mortgage, including option ARMs, and 3,100 subprime mortgages.

Year ended Dec. 31,	Home equity						Mortgages						Total residential real estate - excluding PCI		
	Senior lien			Junior lien			Prime, including option ARMs			Subprime					
	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011
Number of loans approved for a trial modification ^(a)	1,719	1,695	1,219	884	918	1,308	2,846	3,895	4,676	4,233	4,841	6,446	9,682	11,349	13,649
Number of loans permanently modified	1,765	4,385	1,006	5,040	7,430	9,142	4,356	9,043	9,579	5,364	9,964	4,972	16,525	30,822	24,699
Concession granted: ^{(a)(b)}															
Interest rate reduction	70%	83%	80%	88%	88%	95%	73%	74%	53%	72%	69%	80%	77%	77%	75%
Term or payment extension	76	47	88	80	76	81	73	57	71	56	41	72	70	55	75
Principal and/or interest deferred	12	6	10	24	17	21	30	16	17	13	7	19	21	12	19
Principal forgiveness	38	11	7	32	23	20	38	29	2	48	42	13	39	29	11
Other ^(c)	—	—	29	—	—	7	23	29	68	14	8	26	11	11	35

(a) Prior period amounts have been revised to conform with the current presentation.

(b) Represents concessions granted in permanent modifications as a percentage of the number of loans permanently modified. The sum of the percentages exceeds 100% because predominantly all of the modifications include more than one type of concession. A significant portion of trial modifications include interest rate reductions and/or term or payment extensions.

(c) Represents variable interest rate to fixed interest rate modifications.

Notes to consolidated financial statements

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the various concessions granted in modifications of residential real estate loans, excluding PCI, under the Firm's loss mitigation programs and about redefaults of certain loans modified in TDRs for the periods presented. Because the specific types and amounts of concessions offered to borrowers frequently change between the trial modification and the permanent modification, the following tables present only the financial effects of permanent modifications. These tables also exclude Chapter 7 loans where the sole concession granted is the discharge of debt.

Year ended December 31, (in millions, except weighted-average data and number of loans)	Home equity						Mortgages						Total residential real estate – excluding PCI		
	Senior lien			Junior lien			Prime, including option ARMs			Subprime					
	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011
Weighted-average interest rate of loans with interest rate reductions – before TDR	6.35%	7.20%	7.25%	5.05%	5.45%	5.46%	5.28%	6.14%	5.98%	7.33%	7.73%	8.25%	5.88%	6.57%	6.44%
Weighted-average interest rate of loans with interest rate reductions – after TDR	3.23	4.61	3.51	2.14	1.94	1.49	2.77	3.67	3.34	3.52	4.14	3.46	2.92	3.69	3.09
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	19	18	18	20	20	21	25	25	25	24	24	23	23	24	24
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	31	28	30	34	32	34	37	36	35	35	32	34	36	34	35
Charge-offs recognized upon permanent modification	\$ 7	\$ 8	\$ 1	\$ 70	\$ 65	\$ 117	\$ 16	\$ 35	\$ 61	\$ 5	\$ 29	\$ 19	\$ 98	\$ 137	\$ 198
Principal deferred	7	4	4	24	23	35	129	133	167	43	43	61	203	203	267
Principal forgiven	30	20	1	51	58	62	206	249	20	218	324	46	505	651	129
Number of loans that redefaulted within one year of permanent modification ^(a)	404	374	222	1,069	1,436	1,310	673	920	1,142	1,072	1,426	1,989	3,218	4,156	4,663
Balance of loans that redefaulted within one year of permanent modification ^(a)	\$ 26	\$ 30	\$ 18	\$ 20	\$ 46	\$ 52	\$ 164	\$ 255	\$ 340	\$ 106	\$ 156	\$ 281	\$ 316	\$ 487	\$ 691

(a) Represents loans permanently modified in TDRs that experienced a payment default in the periods presented, and for which the payment default occurred within one year of the modification. The dollar amounts presented represent the balance of such loans at the end of the reporting period in which such loans defaulted. For residential real estate loans modified in TDRs, payment default is deemed to occur when the loan becomes two contractual payments past due. In the event that a modified loan redefaults, it is probable that the loan will ultimately be liquidated through foreclosure or another similar type of liquidation transaction. Defaults of loans modified within the last 12 months may not be representative of ultimate redefault levels.

Approximately 85% of the trial modifications approved on or after July 1, 2010 (the approximate date on which substantial revisions were made to the HAMP program), that are seasoned more than six months have been successfully converted to permanent modifications.

The primary performance indicator for TDRs is the rate at which permanently modified loans redefault. At December 31, 2013, the cumulative redefault rates of residential real estate loans that have been modified under the Firm's loss mitigation programs, excluding PCI loans, based upon permanent modifications that were completed after October 1, 2009, and that are seasoned more than six months, are 20% for senior lien home equity, 20% for junior lien home equity, 15% for prime mortgages, including option ARMs, and 26% for subprime mortgages.

Default rates of Chapter 7 loans vary significantly based on the delinquency status of the loan and overall economic conditions at the time of discharge. Default rates for

Chapter 7 residential real estate loans that were less than 60 days past due at the time of discharge have ranged between approximately 10% and 40% in recent years based on the economic conditions at the time of discharge. At December 31, 2013, Chapter 7 residential real estate loans included approximately 20% of senior lien home equity, 11% of junior lien home equity, 33% of prime mortgages, including option ARMs, and 23% of subprime mortgages that were 30 days or more past due.

At December 31, 2013, the weighted-average estimated remaining lives of residential real estate loans, excluding PCI loans, permanently modified in TDRs were 6 years for senior lien home equity, 7 years for junior lien home equity, 10 years for prime mortgages, including option ARMs and 8 years for subprime mortgage. The estimated remaining lives of these loans reflect estimated prepayments, both voluntary and involuntary (i.e., foreclosures and other forced liquidations).

Other consumer loans

The table below provides information for other consumer retained loan classes, including auto, business banking and student loans.

December 31, (in millions, except ratios)	Auto		Business banking		Student and other		Total other consumer	
	2013	2012	2013	2012	2013	2012	2013	2012
Loan delinquency^(a)								
Current	\$ 52,152	\$ 49,290	\$ 18,511	\$ 18,482	\$ 10,529	\$ 11,038	\$ 81,192	\$ 78,810
30-119 days past due	599	616	280	263	660	709	1,539	1,588
120 or more days past due	6	7	160	138	368	444	534	589
Total retained loans	\$ 52,757	\$ 49,913	\$ 18,951	\$ 18,883	\$ 11,557	\$ 12,191	\$ 83,265	\$ 80,987
% of 30+ days past due to total retained loans	1.15%	1.25%	2.32%	2.12%	2.52% ^(d)	2.12% ^(d)	1.60% ^(d)	1.58% ^(d)
90 or more days past due and still accruing ^(b)	\$ —	\$ —	\$ —	\$ —	\$ 428	\$ 525	\$ 428	\$ 525
Nonaccrual loans	161	163	385	481	86	70	632	714
Geographic region								
California	\$ 5,615	\$ 4,962	\$ 2,374	\$ 1,983	\$ 1,112	\$ 1,108	\$ 9,101	\$ 8,053
New York	3,898	3,742	3,084	2,981	1,218	1,202	8,200	7,925
Illinois	2,917	2,738	1,341	1,404	740	748	4,998	4,890
Florida	2,012	1,922	646	527	539	556	3,197	3,005
Texas	5,310	4,739	2,646	2,749	878	891	8,834	8,379
New Jersey	2,014	1,921	392	379	397	409	2,803	2,709
Arizona	1,855	1,719	1,046	1,139	252	265	3,153	3,123
Washington	950	824	234	202	227	287	1,411	1,313
Michigan	1,902	2,091	1,383	1,368	513	548	3,798	4,007
Ohio	2,229	2,462	1,316	1,443	708	770	4,253	4,675
All other	24,055	22,793	4,489	4,708	4,973	5,407	33,517	32,908
Total retained loans	\$ 52,757	\$ 49,913	\$ 18,951	\$ 18,883	\$ 11,557	\$ 12,191	\$ 83,265	\$ 80,987
Loans by risk ratings^(c)								
Noncriticized	\$ 9,968	\$ 8,882	\$ 13,622	\$ 13,336	NA	NA	\$ 23,590	\$ 22,218
Criticized performing	54	130	711	713	NA	NA	765	843
Criticized nonaccrual	38	4	316	386	NA	NA	354	390

(a) Individual delinquency classifications included loans insured by U.S. government agencies under the Federal Family Education Loan Program ("FFELP") as follows: current included \$4.9 billion and \$5.4 billion; 30-119 days past due included \$387 million and \$466 million; and 120 or more days past due included \$350 million and \$428 million at December 31, 2013 and 2012, respectively.

(b) These amounts represent student loans, which are insured by U.S. government agencies under the FFELP. These amounts were accruing as reimbursement of insured amounts is proceeding normally.

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- (c) For risk-rated business banking and auto loans, the primary credit quality indicator is the risk rating of the loan, including whether the loans are considered to be criticized and/or nonaccrual.
- (d) December 31, 2013 and 2012, excluded loans 30 days or more past due and still accruing, which are insured by U.S. government agencies under the FFELP, of \$737 million and \$894 million, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.

Other consumer impaired loans and loan modifications

The table below sets forth information about the Firm's other consumer impaired loans, including risk-rated business banking and auto loans that have been placed on nonaccrual status, and loans that have been modified in TDRs.

December 31, (in millions)	Auto		Business banking		Total other consumer ^(c)	
	2013	2012	2013	2012	2013	2012
Impaired loans						
With an allowance	\$ 96	\$ 78	\$ 475	\$ 543	\$ 571	\$ 621
Without an allowance ^(a)	47	72	—	—	47	72
Total impaired loans	\$ 143	\$ 150	\$ 475	\$ 543	\$ 618	\$ 693
Allowance for loan losses related to impaired loans	\$ 13	\$ 12	\$ 94	\$ 126	\$ 107	\$ 138
Unpaid principal balance of impaired loans ^(b)	235	259	553	624	788	883
Impaired loans on nonaccrual status	113	109	328	394	441	503

- (a) When discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged off and/or there have been interest payments received and applied to the loan balance.
- (b) Represents the contractual amount of principal owed at December 31, 2013 and 2012. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the principal balance; net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.
- (c) There were no impaired student and other loans at December 31, 2013 and 2012.

The following table presents average impaired loans for the periods presented.

Year ended December 31, (in millions)	Average impaired loans ^(b)		
	2013	2012	2011
Auto	\$ 132	\$ 111	\$ 92
Business banking	516	622	760
Total other consumer^(a)	\$ 648	\$ 733	\$ 852

- (a) There were no impaired student and other loans for the years ended 2013, 2012 and 2011.
- (b) The related interest income on impaired loans, including those on a cash basis, was not material for the years ended 2013, 2012 and 2011.

Loan modifications

The following table provides information about the Firm's other consumer loans modified in TDRs. All of these TDRs are reported as impaired loans in the tables above.

December 31, (in millions)	Auto		Business banking		Total other consumer ^(c)	
	2013	2012	2013	2012	2013	2012
Loans modified in troubled debt restructurings ^{(a)(b)}	\$ 107	\$ 150	\$ 271	\$ 352	\$ 378	\$ 502
TDRs on nonaccrual status	77	109	124	203	201	312

- (a) These modifications generally provided interest rate concessions to the borrower or term or payment extensions.
- (b) Additional commitments to lend to borrowers whose loans have been modified in TDRs as of December 31, 2013 and 2012 were immaterial.
- (c) There were no student and other loans modified in TDRs at December 31, 2013 and 2012.

TDR activity rollforward

The following table reconciles the beginning and ending balances of other consumer loans modified in TDRs for the periods presented.

Year ended December 31, (in millions)	Auto			Business banking			Total other consumer		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Beginning balance of TDRs	\$ 150	\$ 88	\$ 91	\$ 352	\$ 415	\$ 395	\$ 502	\$ 503	\$ 486
New TDRs	90	145	54	66	104	195	156	249	249
Charge-offs post-modification	(10)	(9)	(5)	(10)	(9)	(11)	(20)	(18)	(16)
Foreclosures and other liquidations	—	—	—	—	(1)	(3)	—	(1)	(3)
Principal payments and other	(123)	(74)	(52)	(137)	(157)	(161)	(260)	(231)	(213)
Ending balance of TDRs	\$ 107	\$ 150	\$ 88	\$ 271	\$ 352	\$ 415	\$ 378	\$ 502	\$ 503

Financial effects of modifications and redefaults

For auto loans, TDRs typically occur in connection with the bankruptcy of the borrower. In these cases, the loan is modified with a revised repayment plan that typically incorporates interest rate reductions and, to a lesser extent, principal forgiveness. Beginning September 30, 2012, Chapter 7 auto loans are also considered TDRs.

For business banking loans, concessions are dependent on individual borrower circumstances and can be of a short-term nature for borrowers who need temporary relief or longer term for borrowers experiencing more fundamental financial difficulties. Concessions are predominantly term or payment extensions, but also may include interest rate reductions.

The balance of business banking loans modified in TDRs that experienced a payment default, and for which the payment default occurred within one year of the modification, was \$43 million, \$42 million and \$80 million, during the years ended December 31, 2013, 2012 and 2011, respectively. The balance of auto loans modified in TDRs that experienced a payment default, and for which the payment default occurred within one year of the modification, was \$54 million and \$46 million during the years ended December 31, 2013 and 2012, respectively. The corresponding amount for the year ended December 31, 2011 was insignificant. A payment default is deemed to occur as follows: (1) for scored auto and business banking loans, when the loan is two payments past due; and (2) for risk-rated business banking loans and auto loans, when the borrower has not made a loan payment by its scheduled due date after giving effect to the contractual grace period, if any.

The following table provides information about the financial effects of the various concessions granted in modifications of other consumer loans for the periods presented.

Year ended December 31,	Auto			Business banking		
	2013	2012	2011	2013	2012	2011
Weighted-average interest rate of loans with interest rate reductions - before TDR	13.66%	12.64%	12.45%	8.37%	7.33%	7.55%
Weighted-average interest rate of loans with interest rate reductions - after TDR	4.94	4.83	5.70	6.05	5.49	5.52
Weighted-average remaining contractual term (in years) of loans with term or payment extensions - before TDR	NM	NM	NM	1.1	1.4	1.4
Weighted-average remaining contractual term (in years) of loans with term or payment extensions - after TDR	NM	NM	NM	3.1	2.4	2.6

Purchased credit-impaired loans

PCI loans are initially recorded at fair value at acquisition; PCI loans acquired in the same fiscal quarter may be aggregated into one or more pools, provided that the loans have common risk characteristics. A pool is then accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows. With respect to the Washington Mutual transaction, all of the consumer PCI loans were aggregated into pools of loans with common risk characteristics.

On a quarterly basis, the Firm estimates the total cash flows (both principal and interest) expected to be collected over the remaining life of each pool. These estimates incorporate assumptions regarding default rates, loss severities, the amounts and timing of prepayments and other factors that reflect then-current market conditions. Probable decreases in expected cash flows (i.e., increased credit losses) trigger the recognition of impairment, which is then measured as the present value of the expected principal loss plus any related foregone interest cash flows, discounted at the pool's effective interest rate. Impairments are recognized through the provision for credit losses and an increase in the allowance for loan losses. Probable and significant increases in expected cash flows (e.g., decreased credit losses, the net benefit of modifications) would first reverse any previously recorded allowance for loan losses with any remaining increases recognized prospectively as a yield adjustment over the remaining estimated lives of the underlying loans. The impacts of (i) prepayments, (ii) changes in variable interest rates, and (iii) any other changes in the timing of expected cash flows are recognized prospectively as adjustments to interest income.

The Firm continues to modify certain PCI loans. The impact of these modifications is incorporated into the Firm's quarterly assessment of whether a probable and significant change in expected cash flows has occurred, and the loans continue to be accounted for and reported as PCI loans. In evaluating the effect of modifications on expected cash flows, the Firm incorporates the effect of any foregone interest and also considers the potential for redefault. The Firm develops product-specific probability of default estimates, which are used to compute expected credit losses. In developing these probabilities of default, the Firm considers the relationship between the credit quality characteristics of the underlying loans and certain assumptions about home prices and unemployment based upon industry-wide data. The Firm also considers its own historical loss experience to-date based on actual redefaulted modified PCI loans.

The excess of cash flows expected to be collected over the carrying value of the underlying loans is referred to as the accretable yield. This amount is not reported on the Firm's Consolidated Balance Sheets but is accreted into interest income at a level rate of return over the remaining estimated lives of the underlying pools of loans.

If the timing and/or amounts of expected cash flows on PCI loans were determined not to be reasonably estimable, no interest would be accreted and the loans would be reported as nonaccrual loans; however, since the timing and amounts of expected cash flows for the Firm's PCI consumer loans are reasonably estimable, interest is being accreted and the loans are being reported as performing loans.

The liquidation of PCI loans, which may include sales of loans, receipt of payment in full by the borrower, or foreclosure, results in removal of the loans from the underlying PCI pool. When the amount of the liquidation proceeds (e.g., cash, real estate), if any, is less than the unpaid principal balance of the loan, the difference is first applied against the PCI pool's nonaccretable difference for principal losses (i.e., the lifetime credit loss estimate established as a purchase accounting adjustment at the acquisition date). When the nonaccretable difference for a particular loan pool has been fully depleted, any excess of the unpaid principal balance of the loan over the liquidation proceeds is written off against the PCI pool's allowance for loan losses. Because the Firm's PCI loans are accounted for at a pool level, the Firm does not recognize charge-offs of PCI loans when they reach specified stages of delinquency (i.e., unlike non-PCI consumer loans, these loans are not charged off based on FFIEC standards).

The PCI portfolio affects the Firm's results of operations primarily through: (i) contribution to net interest margin; (ii) expense related to defaults and servicing resulting from the liquidation of the loans; and (iii) any provision for loan losses. The PCI loans acquired in the Washington Mutual transaction were funded based on the interest rate characteristics of the loans. For example, variable-rate loans were funded with variable-rate liabilities and fixed-rate loans were funded with fixed-rate liabilities with a similar maturity profile. A net spread will be earned on the declining balance of the portfolio, which is estimated as of December 31, 2013, to have a remaining weighted-average life of 8 years.

Residential real estate – PCI loans

The table below sets forth information about the Firm's consumer, excluding credit card, PCI loans.

December 31, (in millions, except ratios)	Home equity		Prime mortgage		Subprime mortgage		Option ARMs		Total PCI	
	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012
Carrying value ^(a)	\$18,927	\$20,971	\$12,038	\$13,674	\$ 4,175	\$ 4,626	\$17,915	\$20,466	\$53,055	\$59,737
Related allowance for loan losses ^(b)	1,758	1,908	1,726	1,929	180	380	494	1,494	4,158	5,711
Loan delinquency (based on unpaid principal balance)										
Current	\$18,135	\$20,331	\$10,118	\$11,078	\$ 4,012	\$ 4,198	\$15,501	\$16,415	\$47,766	\$52,022
30-149 days past due	583	803	589	740	662	698	1,006	1,314	2,840	3,555
150 or more days past due	1,112	1,209	1,169	2,066	797	1,430	2,716	4,862	5,794	9,567
Total loans	\$19,830	\$22,343	\$11,876	\$13,884	\$ 5,471	\$ 6,326	\$19,223	\$22,591	\$56,400	\$65,144
% of 30+ days past due to total loans	8.55%	9.01%	14.80%	20.21%	26.67%	33.64%	19.36%	27.34%	15.31%	20.14%
Current estimated LTV ratios (based on unpaid principal balance)^{(c)(d)}										
Greater than 125% and refreshed FICO scores:										
Equal to or greater than 660	\$ 1,168	\$ 4,508	\$ 240	\$ 1,478	\$ 115	\$ 375	\$ 301	\$ 1,597	\$ 1,824	\$ 7,958
Less than 660	662	2,344	290	1,449	459	1,300	575	2,729	1,986	7,822
101% to 125% and refreshed FICO scores:										
Equal to or greater than 660	3,248	4,966	1,017	2,968	316	434	1,164	3,281	5,745	11,649
Less than 660	1,541	2,098	884	1,983	919	1,256	1,563	3,200	4,907	8,537
80% to 100% and refreshed FICO scores:										
Equal to or greater than 660	4,473	3,531	2,787	1,872	544	416	3,311	3,794	11,115	9,613
Less than 660	1,782	1,305	1,699	1,378	1,197	1,182	2,769	2,974	7,447	6,839
Lower than 80% and refreshed FICO scores:										
Equal to or greater than 660	5,077	2,524	2,897	1,356	521	255	5,671	2,624	14,166	6,759
Less than 660	1,879	1,067	2,062	1,400	1,400	1,108	3,869	2,392	9,210	5,967
Total unpaid principal balance	\$19,830	\$22,343	\$11,876	\$13,884	\$ 5,471	\$ 6,326	\$19,223	\$22,591	\$56,400	\$65,144
Geographic region (based on unpaid principal balance)										
California	\$11,937	\$13,493	\$ 6,845	\$ 7,877	\$ 1,293	\$ 1,444	\$10,419	\$11,889	\$30,494	\$34,703
New York	962	1,067	807	927	563	649	1,196	1,404	3,528	4,047
Illinois	451	502	353	433	283	338	481	587	1,568	1,860
Florida	1,865	2,054	826	1,023	526	651	1,817	2,480	5,034	6,208
Texas	327	385	106	148	328	368	100	118	861	1,019
New Jersey	381	423	334	401	213	260	701	854	1,629	1,938
Arizona	361	408	187	215	95	105	264	305	907	1,033
Washington	1,072	1,215	266	328	112	142	463	563	1,913	2,248
Michigan	62	70	189	211	145	163	206	235	602	679
Ohio	23	27	55	71	84	100	75	89	237	287
All other	2,389	2,699	1,908	2,250	1,829	2,106	3,501	4,067	9,627	11,122
Total unpaid principal balance	\$19,830	\$22,343	\$11,876	\$13,884	\$ 5,471	\$ 6,326	\$19,223	\$22,591	\$56,400	\$65,144

- (a) Carrying value includes the effect of fair value adjustments that were applied to the consumer PCI portfolio at the date of acquisition.
- (b) Management concluded as part of the Firm's regular assessment of the PCI loan pools that it was probable that higher expected credit losses would result in a decrease in expected cash flows. As a result, an allowance for loan losses for impairment of these pools has been recognized.
- (c) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. These property values do not represent actual appraised loan level collateral values; as such, the resulting ratios are necessarily imprecise and should be viewed as estimates. Current estimated combined LTV for junior lien home equity loans considers all available lien positions, as well as unused lines, related to the property.
- (d) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by the Firm on at least a quarterly basis.

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Approximately 20% of the PCI home equity portfolio are senior lien loans; the remaining balance are junior lien HELOANS or HELOCs. The following tables set forth delinquency statistics for PCI junior lien home equity loans and lines of credit based on unpaid principal balance as of December 31, 2013 and 2012.

December 31, 2013 (in millions, except ratios)	Delinquencies			Total loans	Total 30+ day delinquency rate
	30-89 days past due	90-149 days past due	150+ days past due		
HELOCs: ^(a)					
Within the revolving period ^(b)	\$ 243	\$ 88	\$ 526	\$ 12,670	6.76%
Beyond the revolving period ^(c)	54	21	82	2,336	6.72
HELOANS	24	11	39	908	8.15
Total	\$ 321	\$ 120	\$ 647	\$ 15,914	6.84%

December 31, 2012 (in millions, except ratios)	Delinquencies			Total loans	Total 30+ day delinquency rate
	30-89 days past due	90-149 days past due	150+ days past due		
HELOCs: ^(a)					
Within the revolving period ^(b)	\$ 361	\$ 175	\$ 591	\$ 15,915	7.08%
Beyond the revolving period ^(c)	30	13	20	666	9.46
HELOANS	37	18	44	1,085	9.12
Total	\$ 428	\$ 206	\$ 655	\$ 17,666	7.30%

(a) In general, these HELOCs are revolving loans for a 10-year period, after which time the HELOC converts to an interest-only loan with a balloon payment at the end of the loan's term.

(b) Substantially all undrawn HELOCs within the revolving period have been closed.

(c) Includes loans modified into fixed-rate amortizing loans.

The table below sets forth the accretable yield activity for the Firm's PCI consumer loans for the years ended December 31, 2013, 2012 and 2011, and represents the Firm's estimate of gross interest income expected to be earned over the remaining life of the PCI loan portfolios. The table excludes the cost to fund the PCI portfolios, and therefore the accretable yield does not represent net interest income expected to be earned on these portfolios.

Year ended December 31, (in millions, except ratios)	Total PCI		
	2013	2012	2011
Beginning balance	\$ 18,457	\$ 19,072	\$ 19,097
Accretion into interest income	(2,201)	(2,491)	(2,767)
Changes in interest rates on variable-rate loans	(287)	(449)	(573)
Other changes in expected cash flows ^(a)	198	2,325	3,315
Balance at December 31	\$ 16,167	\$ 18,457	\$ 19,072
Accretable yield percentage	4.31%	4.38%	4.33%

(a) Other changes in expected cash flows may vary from period to period as the Firm continues to refine its cash flow model and periodically updates model assumptions. For the year ended December 31, 2013, other changes in expected cash flows were due to refining the expected interest cash flows on HELOCs with balloon payments, partially offset by changes in prepayment assumptions. For the years ended December 31, 2012 and December 31, 2011, other changes in expected cash flows were principally driven by the impact of modifications, but also related to changes in prepayment assumptions.

The factors that most significantly affect estimates of gross cash flows expected to be collected, and accordingly the accretable yield balance, include: (i) changes in the benchmark interest rate indices for variable-rate products such as option ARM and home equity loans; and (ii) changes in prepayment assumptions.

Since the date of acquisition, the decrease in the accretable yield percentage has been primarily related to a decrease in interest rates on variable-rate loans and, to a lesser extent, extended loan liquidation periods. Certain events, such as extended or shortened loan liquidation periods, affect the timing of expected cash flows and the accretable yield

percentage, but not the amount of cash expected to be received (i.e., the accretable yield balance). While extended loan liquidation periods reduce the accretable yield percentage (because the same accretable yield balance is recognized against a higher-than-expected loan balance over a longer-than-expected period of time), shortened loan liquidation periods would have the opposite effect.

Credit card loan portfolio

The credit card portfolio segment includes credit card loans originated and purchased by the Firm. Delinquency rates are the primary credit quality indicator for credit card loans as they provide an early warning that borrowers may be experiencing difficulties (30 days past due); information on those borrowers that have been delinquent for a longer period of time (90 days past due) is also considered. In addition to delinquency rates, the geographic distribution of the loans provides insight as to the credit quality of the portfolio based on the regional economy.

While the borrower's credit score is another general indicator of credit quality, the Firm does not view credit scores as a primary indicator of credit quality because the borrower's credit score tends to be a lagging indicator. However, the distribution of such scores provides a general indicator of credit quality trends within the portfolio. Refreshed FICO score information, which is obtained at least quarterly, for a statistically significant random sample of the credit card portfolio is indicated in the table below; FICO is considered to be the industry benchmark for credit scores.

The Firm generally originates new card accounts to prime consumer borrowers. However, certain cardholders' FICO scores may decrease over time, depending on the performance of the cardholder and changes in credit score technology.

The table below sets forth information about the Firm's credit card loans.

As of or for the year ended December 31, (in millions, except ratios)	2013	2012
Net charge-offs	\$ 3,879	\$ 4,944
% of net charge-offs to retained loans	3.14%	3.95%
Loan delinquency		
Current and less than 30 days past due and still accruing	\$ 125,335	\$ 125,309
30-89 days past due and still accruing	1,108	1,381
90 or more days past due and still accruing	1,022	1,302
Nonaccrual loans	—	1
Total retained credit card loans	\$ 127,465	\$ 127,993
Loan delinquency ratios		
% of 30+ days past due to total retained loans	1.67%	2.10%
% of 90+ days past due to total retained loans	0.80	1.02
Credit card loans by geographic region		
California	\$ 17,194	\$ 17,115
New York	10,497	10,379
Texas	10,400	10,209
Illinois	7,412	7,399
Florida	7,178	7,231
New Jersey	5,554	5,503
Ohio	4,881	4,956
Pennsylvania	4,462	4,549
Michigan	3,618	3,745
Virginia	3,239	3,193
All other	53,030	53,714
Total retained credit card loans	\$ 127,465	\$ 127,993
Percentage of portfolio based on carrying value with estimated refreshed FICO scores		
Equal to or greater than 660	85.1%	84.1%
Less than 660	14.9	15.9

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Credit card impaired loans and loan modifications

The table below sets forth information about the Firm's impaired credit card loans. All of these loans are considered to be impaired as they have been modified in TDRs.

December 31, (in millions)	2013	2012
Impaired credit card loans with an allowance^{(a)(b)}		
Credit card loans with modified payment terms ^(c)	\$ 2,746	\$ 4,189
Modified credit card loans that have reverted to pre-modification payment terms ^(d)	369	573
Total impaired credit card loans	\$ 3,115	\$ 4,762
Allowance for loan losses related to impaired credit card loans	\$ 971	\$ 1,681

- (a) The carrying value and the unpaid principal balance are the same for credit card impaired loans.
- (b) There were no impaired loans without an allowance.
- (c) Represents credit card loans outstanding to borrowers enrolled in a credit card modification program as of the date presented.
- (d) Represents credit card loans that were modified in TDRs but that have subsequently reverted back to the loans' pre-modification payment terms. At December 31, 2013 and 2012, \$226 million and \$341 million, respectively, of loans have reverted back to the pre-modification payment terms of the loans due to noncompliance with the terms of the modified loans. The remaining \$143 million and \$232 million at December 31, 2013 and 2012, respectively, of these loans are to borrowers who have successfully completed a short-term modification program. The Firm continues to report these loans as TDRs since the borrowers' credit lines remain closed.

The following table presents average balances of impaired credit card loans and interest income recognized on those loans.

Year ended December 31, (in millions)	2013	2012	2011
Average impaired credit card loans	\$ 3,882	\$ 5,893	\$ 8,499
Interest income on impaired credit card loans	198	308	463

Loan modifications

JPMorgan Chase may offer one of a number of loan modification programs to credit card borrowers who are experiencing financial difficulty. Most of the credit card loans have been modified under long-term programs for borrowers who are experiencing financial difficulties. Modifications under long-term programs involve placing the customer on a fixed payment plan, generally for 60 months. The Firm may also offer short-term programs for borrowers who may be in need of temporary relief; however, none are currently being offered. Modifications under all short- and long-term programs typically include reducing the interest rate on the credit card. Substantially all modifications are considered to be TDRs.

If the cardholder does not comply with the modified payment terms, then the credit card loan agreement reverts back to its pre-modification payment terms. Assuming that the cardholder does not begin to perform in accordance with those payment terms, the loan continues to age and will ultimately be charged-off in accordance with the Firm's standard charge-off policy. In addition, if a borrower successfully completes a short-term modification program, then the loan reverts back to its pre-modification payment terms. However, in most cases, the Firm does not reinstate the borrower's line of credit.

The following table provides information regarding the nature and extent of modifications of credit card loans for the periods presented.

Year ended December 31, (in millions)	New enrollments		
	2013	2012	2011
Short-term programs	\$ –	\$ 47	\$ 167
Long-term programs	1,180	1,607	2,523
Total new enrollments	\$ 1,180	\$ 1,654	\$ 2,690

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the concessions granted on credit card loans modified in TDRs and redefaults for the periods presented.

Year ended December 31, (in millions, except weighted-average data)	2013	2012	2011
Weighted-average interest rate of loans - before TDR	15.37%	15.67%	16.05%
Weighted-average interest rate of loans - after TDR	4.38	5.19	5.28
Loans that redefaulted within one year of modification ^(a)	\$ 167	\$ 309	\$ 687

- (a) Represents loans modified in TDRs that experienced a payment default in the periods presented, and for which the payment default occurred within one year of the modification. The amounts presented represent the balance of such loans as of the end of the quarter in which they defaulted.

For credit card loans modified in TDRs, payment default is deemed to have occurred when the loans become two payments past due. A substantial portion of these loans is expected to be charged-off in accordance with the Firm's standard charge-off policy. Based on historical experience, the estimated weighted-average default rate was expected to be 30.72%, 38.23% and 35.47% for credit card loans modified as of December 31, 2013, 2012 and 2011, respectively.

Wholesale loan portfolio

Wholesale loans include loans made to a variety of customers, ranging from large corporate and institutional clients to high-net-worth individuals.

The primary credit quality indicator for wholesale loans is the risk rating assigned each loan. Risk ratings are used to identify the credit quality of loans and differentiate risk within the portfolio. Risk ratings on loans consider the probability of default ("PD") and the loss given default ("LGD"). PD is the likelihood that a loan will default and not be repaid. The LGD is the estimated loss on the loan that would be realized upon the default of the borrower and takes into consideration collateral and structural support for each credit facility.

Management considers several factors to determine an appropriate risk rating, including the obligor's debt capacity and financial flexibility, the level of the obligor's earnings, the amount and sources for repayment, the level and nature of contingencies, management strength, and the industry and geography in which the obligor operates. The Firm's definition of criticized aligns with the banking regulatory definition of criticized exposures, which consist of special mention, substandard and doubtful categories. Risk ratings generally represent ratings profiles similar to those defined by S&P and Moody's. Investment-grade ratings range from "AAA/Aaa" to "BBB-/Baa3." Noninvestment-grade ratings are classified as noncriticized ("BB+/Ba1 and B-/B3") and criticized ("CCC+"/"Caa1 and below"), and the criticized portion is further subdivided into performing and nonaccrual loans, representing management's assessment of the collectibility of principal and interest. Criticized loans have a higher probability of default than noncriticized loans.

Risk ratings are reviewed on a regular and ongoing basis by Credit Risk Management and are adjusted as necessary for updated information affecting the obligor's ability to fulfill its obligations.

As noted above, the risk rating of a loan considers the industry in which the obligor conducts its operations. As part of the overall credit risk management framework, the Firm focuses on the management and diversification of its industry and client exposures, with particular attention paid to industries with actual or potential credit concern. See Note 5 on page 219 in this Annual Report for further detail on industry concentrations.

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The table below provides information by class of receivable for the retained loans in the Wholesale portfolio segment.

As of or for the year ended December 31, (in millions, except ratios)	Commercial and industrial		Real estate	
	2013	2012	2013	2012
Loans by risk ratings				
Investment grade	\$ 57,690	\$ 61,870	\$ 52,195	\$ 41,796
Noninvestment grade:				
Noncriticized	43,477	44,651	14,381	14,567
Criticized performing	2,385	2,636	2,229	3,857
Criticized nonaccrual	294	708	346	520
Total noninvestment grade	46,156	47,995	16,956	18,944
Total retained loans	\$ 103,846	\$ 109,865	\$ 69,151	\$ 60,740
% of total criticized to total retained loans	2.58%	3.04 %	3.72%	7.21%
% of nonaccrual loans to total retained loans	0.28	0.64	0.50	0.86
Loans by geographic distribution^(a)				
Total non-U.S.	\$ 34,440	\$ 35,494	\$ 1,369	\$ 1,533
Total U.S.	69,406	74,371	67,782	59,207
Total retained loans	\$ 103,846	\$ 109,865	\$ 69,151	\$ 60,740
Net charge-offs/(recoveries)	\$ 99	\$ (212)	\$ 6	\$ 54
% of net charge-offs/(recoveries) to end-of-period retained loans	0.10%	(0.19)%	0.01%	0.09%
Loan delinquency^(b)				
Current and less than 30 days past due and still accruing	\$ 103,357	\$ 109,019	\$ 68,627	\$ 59,829
30-89 days past due and still accruing	181	119	164	322
90 or more days past due and still accruing ^(c)	14	19	14	69
Criticized nonaccrual	294	708	346	520
Total retained loans	\$ 103,846	\$ 109,865	\$ 69,151	\$ 60,740

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.

(b) The credit quality of wholesale loans is assessed primarily through ongoing review and monitoring of an obligor's ability to meet contractual obligations rather than relying on the past due status, which is generally a lagging indicator of credit quality. For a discussion of more significant risk factors, see page 279 of this Note.

(c) Represents loans that are considered well-collateralized and therefore still accruing interest.

(d) Other primarily includes loans to SPEs and loans to private banking clients. See Note 1 on pages 189-191 of this Annual Report for additional information on SPEs.

The following table presents additional information on the real estate class of loans within the Wholesale portfolio segment for the periods indicated. The real estate class primarily consists of secured commercial loans mainly to borrowers for multi-family and commercial lessor properties. Multifamily lending specifically finances apartment buildings. Commercial lessors receive financing specifically for real estate leased to retail, office and industrial tenants. Commercial construction and development loans represent financing for the construction of apartments, office and professional buildings and malls. Other real estate loans include lodging, real estate investment trusts ("REITs"), single-family, homebuilders and other real estate.

December 31, (in millions, except ratios)	Multifamily		Commercial lessors	
	2013	2012	2013	2012
Real estate retained loans	\$ 44,389	\$ 38,030	\$ 15,949	\$ 14,668
Criticized	1,142	2,118	1,323	1,951
% of criticized to total real estate retained loans	2.57%	5.57%	8.30%	13.30%
Criticized nonaccrual	\$ 191	\$ 249	\$ 143	\$ 207
% of criticized nonaccrual to total real estate retained loans	0.43%	0.65%	0.90%	1.41%

(table continued from previous page)

Financial institutions		Government agencies		Other ^(d)		Total retained loans	
2013	2012	2013	2012	2013	2012	2013	2012
\$ 26,712	\$ 22,064	\$ 9,979	\$ 9,183	\$ 79,494	\$ 79,533	\$ 226,070	\$ 214,446
6,674	13,760	440	356	10,992	9,914	75,964	83,248
272	395	42	5	480	201	5,408	7,094
25	8	1	—	155	198	821	1,434
6,971	14,163	483	361	11,627	10,313	82,193	91,776
\$ 33,683	\$ 36,227	\$ 10,462	\$ 9,544	\$ 91,121	\$ 89,846	\$ 308,263	\$ 306,222
0.88 %	1.11 %	0.41%	0.05%	0.70%	0.44%	2.02%	2.78 %
0.07	0.02	0.01	—	0.17	0.22	0.27	0.47
\$ 22,726	\$ 26,326	\$ 2,146	\$ 1,582	\$ 43,376	\$ 39,421	\$ 104,057	\$ 104,356
10,957	9,901	8,316	7,962	47,745	50,425	204,206	201,866
\$ 33,683	\$ 36,227	\$ 10,462	\$ 9,544	\$ 91,121	\$ 89,846	\$ 308,263	\$ 306,222
\$ (99)	\$ (36)	\$ 1	\$ 2	\$ 9	\$ 14	\$ 16	\$ (178)
(0.29)%	(0.10)%	0.01%	0.02%	0.01%	0.02%	0.01%	(0.06)%
\$ 33,426	\$ 36,151	\$ 10,421	\$ 9,516	\$ 89,717	\$ 88,177	\$ 305,548	\$ 302,692
226	62	40	28	1,233	1,427	1,844	1,958
6	6	—	—	16	44	50	138
25	8	1	—	155	198	821	1,434
\$ 33,683	\$ 36,227	\$ 10,462	\$ 9,544	\$ 91,121	\$ 89,846	\$ 308,263	\$ 306,222

(table continued from previous page)

Commercial construction and development		Other		Total real estate loans	
2013	2012	2013	2012	2013	2012
\$ 3,674	\$ 2,989	\$ 5,139	\$ 5,053	\$ 69,151	\$ 60,740
81	119	29	189	2,575	4,377
2.20%	3.98%	0.56%	3.74%	3.72%	7.21%
\$ 3	\$ 21	\$ 9	\$ 43	\$ 346	\$ 520
0.08%	0.70%	0.18%	0.85%	0.50%	0.86%

Notes to consolidated financial statements

Wholesale impaired loans and loan modifications

Wholesale impaired loans are comprised of loans that have been placed on nonaccrual status and/or that have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 on pages 284-287 of this Annual Report.

The table below sets forth information about the Firm's wholesale impaired loans.

December 31, (in millions)	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other		Total retained loans	
	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012
Impaired loans												
With an allowance	\$ 236	\$ 588	\$ 258	\$ 375	\$ 17	\$ 6	\$ 1	\$ —	\$ 85	\$ 122	\$ 597	\$ 1,091
Without an allowance ^(a)	58	173	109	133	8	2	—	—	73	76	248	384
Total impaired loans	\$ 294	\$ 761	\$ 367	\$ 508	\$ 25	\$ 8	\$ 1	\$ —	\$ 158	\$ 198	\$ 845	\$ 1,475
Allowance for loan losses related to impaired loans	\$ 75	\$ 205	\$ 63	\$ 82	\$ 16	\$ 2	\$ —	\$ —	\$ 27	\$ 30	\$ 181	\$ 319
Unpaid principal balance of impaired loans ^(b)	448	957	454	626	24	22	1	—	241	318	1,168	1,923

(a) When the discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged-off and/or there have been interest payments received and applied to the loan balance.

(b) Represents the contractual amount of principal owed at December 31, 2013 and 2012. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the carrying value; net deferred loan fees or costs; and unamortized discount or premiums on purchased loans.

The following table presents the Firm's average impaired loans for the years ended 2013, 2012 and 2011.

Year ended December 31, (in millions)	2013	2012	2011
Commercial and industrial	\$ 412	\$ 873	\$ 1,309
Real estate	484	784	1,813
Financial institutions	17	17	84
Government agencies	—	9	20
Other	211	277	634
Total^(a)	\$ 1,124	\$ 1,960	\$ 3,860

(a) The related interest income on accruing impaired loans and interest income recognized on a cash basis were not material for the years ended December 31, 2013, 2012 and 2011.

Loan modifications

Certain loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. All TDRs are reported as impaired loans in the tables above.

The following table provides information about the Firm's wholesale loans that have been modified in TDRs, including a reconciliation of the beginning and ending balances of such loans and information regarding the nature and extent of modifications during the periods presented.

Years ended December 31, (in millions)	Commercial and industrial			Real estate			Other ^(b)			Total		
	2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011
Beginning balance of TDRs	\$ 575	\$ 531	\$ 212	\$ 99	\$ 176	\$ 907	\$ 22	\$ 43	\$ 24	\$ 696	\$ 750	\$ 1,143
New TDRs	60	162	665	43	43	113	50	73	32	153	278	810
Increases to existing TDRs	4	183	96	—	—	16	—	—	—	4	183	112
Charge-offs post-modification	(9)	(27)	(30)	(3)	(2)	(146)	—	(7)	—	(12)	(36)	(176)
Sales and other ^(a)	(553)	(274)	(412)	(51)	(118)	(714)	(39)	(87)	(13)	(643)	(479)	(1,139)
Ending balance of TDRs	\$ 77	\$ 575	\$ 531	\$ 88	\$ 99	\$ 176	\$ 33	\$ 22	\$ 43	\$ 198	\$ 696	\$ 750
TDRs on nonaccrual status	\$ 77	\$ 522	\$ 415	\$ 61	\$ 92	\$ 128	\$ 30	\$ 22	\$ 35	\$ 168	\$ 636	\$ 578
Additional commitments to lend to borrowers whose loans have been modified in TDRs	19	44	147	—	—	—	—	2	—	19	46	147

(a) Sales and other are largely sales and paydowns, but also includes performing loans restructured at market rates that were removed from the reported TDR balance of \$12 million, \$44 million and \$152 million during the years ended December 31, 2013, 2012 and 2011 respectively. Loans that have been removed continue to be evaluated along with other impaired loans to determine the asset-specific component of the allowance for loan losses (see page 260 of this Note).

(b) Includes loans to Financial institutions, Government agencies and Other.

Financial effects of modifications and redefaults

Wholesale loans modified as TDRs are typically term or payment extensions and, to a lesser extent, deferrals of principal and/or interest on commercial and industrial and real estate loans. For the years ended December 31, 2013, 2012 and 2011, the average term extension granted on wholesale loans with term or payment extensions was 2.1 years, 1.1 years and 3.3 years, respectively. The weighted-average remaining term for all loans modified during these

periods was 2.0 years, 3.6 years and 4.5 years respectively. Wholesale TDR loans that redefaulted within one year of the modification were \$1 million, \$56 million and \$96 million during the years ended December 31, 2013, 2012 and 2011, respectively. A payment default is deemed to occur when the borrower has not made a loan payment by its scheduled due date after giving effect to any contractual grace period.

Note 15 – Allowance for credit losses

JPMorgan Chase's allowance for loan losses covers the consumer, including credit card, portfolio segments (primarily scored); and wholesale (risk-rated) portfolio, and represents management's estimate of probable credit losses inherent in the Firm's loan portfolio. The allowance for loan losses includes an asset-specific component, a formula-based component and a component related to PCI loans, as described below. Management also estimates an allowance for wholesale and consumer lending-related commitments using methodologies similar to those used to estimate the allowance on the underlying loans. During 2013, the Firm did not make any significant changes to the methodologies or policies used to determine its allowance for credit losses; such policies are described in the following paragraphs.

The asset-specific component of the allowance relates to loans considered to be impaired, which includes loans that have been modified in TDRs as well as risk-rated loans that have been placed on nonaccrual status. To determine the asset-specific component of the allowance, larger loans are evaluated individually, while smaller loans are evaluated as pools using historical loss experience for the respective class of assets. Scored loans (i.e., consumer loans) are pooled by product type, while risk-rated loans (primarily wholesale loans) are segmented by risk rating.

The Firm generally measures the asset-specific allowance as the difference between the recorded investment in the loan and the present value of the cash flows expected to be collected, discounted at the loan's original effective interest rate. Subsequent changes in impairment are reported as an adjustment to the provision for loan losses. In certain cases, the asset-specific allowance is determined using an observable market price, and the allowance is measured as the difference between the recorded investment in the loan and the loan's fair value. Impaired collateral-dependent loans are charged down to the fair value of collateral less costs to sell and therefore may not be subject to an asset-specific reserve as for other impaired loans. See Note 14 on pages 258–283 of this Annual Report for more information about charge-offs and collateral-dependent loans.

The asset-specific component of the allowance for impaired loans that have been modified in TDRs incorporates the effects of foregone interest, if any, in the present value calculation and also incorporates the effect of the modification on the loan's expected cash flows, which considers the potential for redefault. For residential real estate loans modified in TDRs, the Firm develops product-specific probability of default estimates, which are applied at a loan level to compute expected losses. In developing these probabilities of default, the Firm considers the relationship between the credit quality characteristics of the underlying loans and certain assumptions about home prices and unemployment, based upon industry-wide data. The Firm also considers its own historical loss experience to date based on actual redefaulted modified loans. For credit card loans modified in TDRs, expected losses incorporate projected redefaults based on the Firm's historical experience by type of modification program. For wholesale loans modified in TDRs, expected losses incorporate redefaults based on management's expectation of the borrower's ability to repay under the modified terms.

The formula-based component is based on a statistical calculation to provide for incurred credit losses in performing risk-rated loans and all consumer loans, except for any loans restructured in TDRs and PCI loans. See Note 14 on pages 258–283 of this Annual Report for more information on PCI loans.

For scored loans, the statistical calculation is performed on pools of loans with similar risk characteristics (e.g., product type) and generally computed by applying loss factors to outstanding principal balances over an estimated loss emergence period. The loss emergence period represents the time period between the date at which the loss is estimated to have been incurred and the ultimate realization of that loss (through a charge-off). Estimated loss emergence periods may vary by product and may change over time; management applies judgment in estimating loss emergence periods, using available credit information and trends.

Loss factors are statistically derived and sensitive to changes in delinquency status, credit scores, collateral values and other risk factors. The Firm uses a number of different forecasting models to estimate both the PD and the loss severity, including delinquency roll rate models and credit loss severity models. In developing PD and loss severity assumptions, the Firm also considers known and anticipated changes in the economic environment, including changes in home prices, unemployment rates and other risk indicators.

A nationally recognized home price index measure is used to estimate both the PD and the loss severity on residential real estate loans at the metropolitan statistical areas ("MSA") level. Loss severity estimates are regularly validated by comparison to actual losses recognized on defaulted loans, market-specific real estate appraisals and property sales activity. The economic impact of potential modifications of residential real estate loans is not included in the statistical calculation because of the uncertainty regarding the type and results of such modifications.

For risk-rated loans, the statistical calculation is the product of an estimated PD and an estimated LGD. These factors are differentiated by risk rating and expected maturity. In assessing the risk rating of a particular loan, among the factors considered are the obligor's debt capacity and financial flexibility, the level of the obligor's earnings, the amount and sources for repayment, the level and nature of contingencies, management strength, and the industry and geography in which the obligor operates. These factors are based on an evaluation of historical and current information, and involve subjective assessment and interpretation. Emphasizing one factor over another or considering additional factors could impact the risk rating assigned by the Firm to that loan. PD estimates are based on observable external through-the-cycle data, using credit-rating agency default statistics. LGD estimates are based on the Firm's history of actual credit losses over more than one credit cycle.

Management applies judgment within an established framework to adjust the results of applying the statistical calculation described above. The determination of the appropriate adjustment is based on management's view of loss events that have occurred but that are not yet reflected in the loss factors and that relate to current macroeconomic and political conditions, the quality of underwriting standards and other relevant internal and external factors affecting the credit quality of the portfolio. For the scored loan portfolios, adjustments to the statistical calculation are accomplished in part by analyzing the historical loss experience for each major product segment. Factors related to unemployment, home prices, borrower behavior and lien position, the estimated effects of the mortgage foreclosure-related settlement with federal and state officials and uncertainties regarding the ultimate success of loan modifications are incorporated into the calculation, as appropriate. For junior lien products, management considers the delinquency and/or modification status of any senior liens in determining the adjustment. In addition, for the risk-rated portfolios, any adjustments made to the statistical calculation also consider concentrated and deteriorating industries.

Management establishes an asset-specific allowance for lending-related commitments that are considered impaired and computes a formula-based allowance for performing consumer and wholesale lending-related commitments. These are computed using a methodology similar to that used for the wholesale loan portfolio, modified for expected maturities and probabilities of drawdown.

Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. Subsequent evaluations of the loan portfolio, in light of the factors then prevailing, may result in significant changes in the allowances for loan losses and lending-related commitments in future periods. At least quarterly, the allowance for credit losses is reviewed by the Chief Risk Officer, the Chief Financial Officer and the Controller of the Firm and discussed with the Risk Policy and Audit Committees of the Board of Directors of the Firm. As of December 31, 2013, JPMorgan Chase deemed the allowance for credit losses to be appropriate (i.e., sufficient to absorb probable credit losses inherent in the portfolio).

Notes to consolidated financial statements

Allowance for credit losses and loans and lending-related commitments by impairment methodology

The table below summarizes information about the allowance for loan losses, loans by impairment methodology, the allowance for lending-related commitments and lending-related commitments by impairment methodology.

Year ended December 31, (in millions)	2013			
	Consumer, excluding credit card	Credit card	Wholesale	Total
Allowance for loan losses				
Beginning balance at January 1,	\$ 12,292	\$ 5,501	\$ 4,143	\$ 21,936
Gross charge-offs	2,754	4,472	241	7,467
Gross recoveries	(847)	(593)	(225)	(1,665)
Net charge-offs/(recoveries)	1,907	3,879	16	5,802
Write-offs of PCI loans ^(a)	53	—	—	53
Provision for loan losses	(1,872)	2,179	(119)	188
Other	(4)	(6)	5	(5)
Ending balance at December 31,	\$ 8,456	\$ 3,795	\$ 4,013	\$ 16,264
Allowance for loan losses by impairment methodology				
Asset-specific ^(b)	\$ 601	\$ 971 ^(c)	\$ 181	\$ 1,753
Formula-based	3,697	2,824	3,832	10,353
PCI	4,158	—	—	4,158
Total allowance for loan losses	\$ 8,456	\$ 3,795	\$ 4,013	\$ 16,264
Loans by impairment methodology				
Asset-specific	\$ 13,785	\$ 3,115	\$ 845	\$ 17,745
Formula-based	221,609	124,350	307,412	653,371
PCI	53,055	—	6	53,061
Total retained loans	\$ 288,449	\$ 127,465	\$ 308,263	\$ 724,177
Impaired collateral-dependent loans				
Net charge-offs	\$ 235	\$ —	\$ 37	\$ 272
Loans measured at fair value of collateral less cost to sell	3,105	—	362	3,467
Allowance for lending-related commitments				
Beginning balance at January 1,	\$ 7	\$ —	\$ 661	\$ 668
Provision for lending-related commitments	1	—	36	37
Other	—	—	—	—
Ending balance at December 31,	\$ 8	\$ —	\$ 697	\$ 705
Allowance for lending-related commitments by impairment methodology				
Asset-specific	\$ —	\$ —	\$ 60	\$ 60
Formula-based	8	—	637	645
Total allowance for lending-related commitments	\$ 8	\$ —	\$ 697	\$ 705
Lending-related commitments by impairment methodology				
Asset-specific	\$ —	\$ —	\$ 206	\$ 206
Formula-based	56,057	529,383	446,026	1,031,466
Total lending-related commitments	\$ 56,057	\$ 529,383	\$ 446,232	\$ 1,031,672

(a) Write-offs of PCI loans are recorded against the allowance for loan losses when actual losses for a pool exceed estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. Any write-offs of PCI loans are recognized when the underlying loan is removed from a pool (e.g., upon liquidation).

(b) Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR.

(c) The asset-specific credit card allowance for loan losses is related to loans that have been modified in a TDR; such allowance is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.

(d) Consumer, excluding credit card, charge-offs for the year ended December 31, 2012, included \$747 million of charge-offs for Chapter 7 residential real estate loans and \$53 million of charge-offs for Chapter 7 auto loans.

(table continued from previous page)

2012				2011			
Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
\$ 16,294	\$ 6,999	\$ 4,316	\$ 27,609	\$ 16,471	\$ 11,034	\$ 4,761	\$ 32,266
4,805 ^(d)	5,755	346	10,906	5,419	8,168	916	14,503
(508)	(811)	(524)	(1,843)	(547)	(1,243)	(476)	(2,266)
4,297 ^(d)	4,944	(178)	9,063	4,872	6,925	440	12,237
—	—	—	—	—	—	—	—
302	3,444	(359)	3,387	4,670	2,925	17	7,612
(7)	2	8	3	25	(35)	(22)	(32)
\$ 12,292	\$ 5,501	\$ 4,143	\$ 21,936	\$ 16,294	\$ 6,999	\$ 4,316	\$ 27,609
\$ 729	\$ 1,681 ^(c)	\$ 319	\$ 2,729	\$ 828	\$ 2,727 ^(c)	\$ 516	\$ 4,071
5,852	3,820	3,824	13,496	9,755	4,272	3,800	17,827
5,711	—	—	5,711	5,711	—	—	5,711
\$ 12,292	\$ 5,501	\$ 4,143	\$ 21,936	\$ 16,294	\$ 6,999	\$ 4,316	\$ 27,609
\$ 13,938	\$ 4,762	\$ 1,475	\$ 20,175	\$ 9,892	\$ 7,214	\$ 2,549	\$ 19,655
218,945	123,231	304,728	646,904	232,989	124,961	275,825	633,775
59,737	—	19	59,756	65,546	—	21	65,567
\$ 292,620	\$ 127,993	\$ 306,222	\$ 726,835	\$ 308,427	\$ 132,175	\$ 278,395	\$ 718,997
\$ 973 ^(c)	\$ —	\$ 77	\$ 1,050	\$ 110	\$ —	\$ 128	\$ 238
3,272	—	445	3,717	830	—	833	1,663
\$ 7	\$ —	\$ 666	\$ 673	\$ 6	\$ —	\$ 711	\$ 717
—	—	(2)	(2)	2	—	(40)	(38)
—	—	(3)	(3)	(1)	—	(5)	(6)
\$ 7	\$ —	\$ 661	\$ 668	\$ 7	\$ —	\$ 666	\$ 673
\$ —	\$ —	\$ 97	\$ 97	\$ —	\$ —	\$ 150	\$ 150
7	—	564	571	7	—	516	523
\$ 7	\$ —	\$ 661	\$ 668	\$ 7	\$ —	\$ 666	\$ 673
\$ —	\$ —	\$ 355	\$ 355	\$ —	\$ —	\$ 865	\$ 865
60,156	533,018	434,459	1,027,633	62,307	530,616	381,874	974,797
\$ 60,156	\$ 533,018	\$ 434,814	\$ 1,027,988	\$ 62,307	\$ 530,616	\$ 382,739	\$ 975,662

Note 16 – Variable interest entities

For a further description of JPMorgan Chase’s accounting policies regarding consolidation of VIEs, see Note 1 on pages 189-191 of this Annual Report.

The following table summarizes the most significant types of Firm-sponsored VIEs by business segment. The Firm considers a “sponsored” VIE to include any entity where: (1) JPMorgan Chase is the principal beneficiary of the structure; (2) the VIE is used by JPMorgan Chase to securitize Firm assets; (3) the VIE issues financial instruments with the JPMorgan Chase name; or (4) the entity is a JPMorgan Chase-administered asset-backed commercial paper conduit.

Line-of-Business	Transaction Type	Activity	Annual Report page references
CCB	Credit card securitization trusts	Securitization of both originated and purchased credit card receivables	289
	Other securitization trusts	Securitization of originated student loans	290-292
	Mortgage securitization trusts	Securitization of originated and purchased residential mortgages	290-292
CIB	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, automobile and student loans	290-292
	Multi-seller conduits	Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to meet investor needs	292-296
	Investor intermediation activities:		
	Municipal bond vehicles		293-294
	Credit-related note and asset swap vehicles		294-296

The Firm’s other business segments are also involved with VIEs, but to a lesser extent, as follows:

- **Asset Management:** Sponsors and manages certain funds that are deemed VIEs. As asset manager of the funds, AM earns a fee based on assets managed; the fee varies with each fund’s investment objective and is competitively priced. For fund entities that qualify as VIEs, AM’s interests are, in certain cases, considered to be significant variable interests that result in consolidation of the financial results of these entities.
- **Commercial Banking:** CB makes investments in and provides lending to community development entities that may meet the definition of a VIE. In addition, CB provides financing and lending related services to certain client-sponsored VIEs. In general, CB does not control the activities of these entities and does not consolidate these entities.
- **Corporate/Private Equity:** The Private Equity business, within Corporate/Private Equity, may be involved with entities that are deemed VIEs. However, the Firm’s private equity business is subject to specialized investment company accounting, which does not require the consolidation of investments, including VIEs.

The Firm also invests in and provides financing and other services to VIEs sponsored by third parties, as described on page 296 of this Note.

Significant Firm-sponsored variable interest entities

Credit card securitizations

The Card business securitizes originated and purchased credit card loans, primarily through the Chase Issuance Trust (the “Trust”). The Firm’s continuing involvement in credit card securitizations includes servicing the receivables, retaining an undivided seller’s interest in the receivables, retaining certain senior and subordinated securities and maintaining escrow accounts.

The Firm is considered to be the primary beneficiary of these Firm-sponsored credit card securitization trusts based on the Firm’s ability to direct the activities of these VIEs through its servicing responsibilities and other duties, including making decisions as to the receivables that are transferred into those trusts and as to any related modifications and workouts. Additionally, the nature and extent of the Firm’s other continuing involvement with the trusts, as indicated above, obligates the Firm to absorb losses and gives the Firm the right to receive certain benefits from these VIEs that could potentially be significant.

The underlying securitized credit card receivables and other assets of the securitization trusts are available only for payment of the beneficial interests issued by the securitization trusts; they are not available to pay the Firm’s other obligations or the claims of the Firm’s other creditors.

The agreements with the credit card securitization trusts require the Firm to maintain a minimum undivided interest in the credit card trusts (which is generally 4%). As of December 31, 2013 and 2012, the Firm held undivided interests in Firm-sponsored credit card securitization trusts of \$14.3 billion and \$15.8 billion, respectively. The Firm maintained an average undivided interest in principal receivables owned by those trusts of approximately 30% and 28% for the years ended December 31, 2013 and 2012, respectively. The Firm also retained \$130 million and \$362 million of senior securities and \$5.5 billion and \$4.6 billion of subordinated securities in certain of its credit card securitization trusts as of December 31, 2013 and 2012, respectively. The Firm’s undivided interests in the credit card trusts and securities retained are eliminated in consolidation.

Firm-sponsored mortgage and other securitization trusts

The Firm securitizes (or has securitized) originated and purchased residential mortgages, commercial mortgages and other consumer loans (including automobile and student loans) primarily in its CIB and CCB businesses. Depending on the particular transaction, as well as the respective business involved, the Firm may act as the servicer of the loans and/or retain certain beneficial interests in the securitization trusts.

Notes to consolidated financial statements

The following table presents the total unpaid principal amount of assets held in Firm-sponsored private-label securitization entities, including those in which the Firm has continuing involvement, and those that are consolidated by the Firm. Continuing involvement includes servicing the loans, holding senior interests or subordinated interests, recourse or guarantee arrangements, and derivative transactions. In certain instances, the Firm's only continuing involvement is servicing the loans. See Securitization activity on page 297 of this Note for further information regarding the Firm's cash flows with and interests retained in nonconsolidated VIEs, and pages 297-298 of this Note for information on the Firm's loan sales to U.S. government agencies.

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs ^{(d)(e)(f)}		
	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase
December 31, 2013 ^(a) (in billions)						
Securitization-related						
Residential mortgage:						
Prime/Alt-A and Option ARMs	\$ 109.2	\$ 3.2	\$ 90.4	\$ 0.5	\$ 0.3	\$ 0.8
Subprime	32.1	1.3	28.0	0.1	—	0.1
Commercial and other ^(b)	130.4	—	98.0	0.5	3.5	4.0
Total	\$ 271.7	\$ 4.5	\$ 216.4	\$ 1.1	\$ 3.8	\$ 4.9

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs ^{(d)(e)(f)}		
	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase
December 31, 2012 ^(a) (in billions)						
Securitization-related						
Residential mortgage:						
Prime/Alt-A and Option ARMs ^(c)	\$ 133.5	\$ 2.7	\$ 106.7	\$ 0.3	\$ —	\$ 0.3
Subprime	34.5	1.3	31.3	0.1	—	0.1
Commercial and other ^(b)	127.8	—	81.8	1.5	2.8	4.3
Total	\$ 295.8	\$ 4.0	\$ 219.8	\$ 1.9	\$ 2.8	\$ 4.7

(a) Excludes U.S. government agency securitizations. See pages 297-298 of this Note for information on the Firm's loan sales to U.S. government agencies.

(b) Consists of securities backed by commercial loans (predominantly real estate) and non-mortgage-related consumer receivables purchased from third parties. The Firm generally does not retain a residual interest in its sponsored commercial mortgage securitization transactions.

(c) The prior period has been reclassified to conform with the current presentation methodology.

(d) The table above excludes the following: retained servicing (see Note 17 on pages 299-304 of this Annual Report for a discussion of MSRs); securities retained from loans sales to U.S. government agencies; interest rate and foreign exchange derivatives primarily used to manage interest rate and foreign exchange risks of securitization entities (See Note 6 on pages 220-233 of this Annual Report for further information on derivatives); senior and subordinated securities of \$151 million and \$30 million, respectively, at December 31, 2013, and \$131 million and \$45 million, respectively, at December 31, 2012, which the Firm purchased in connection with CIB's secondary market-making activities.

(e) Includes interests held in re-securitization transactions.

(f) As of December 31, 2013 and 2012, 69% and 74%, respectively, of the Firm's retained securitization interests, which are carried at fair value, were risk-rated "A" or better, on an S&P-equivalent basis. The retained interests in prime residential mortgages consisted of \$551 million and \$170 million of investment-grade and \$260 million and \$171 million of noninvestment-grade retained interests at December 31, 2013 and 2012, respectively. The retained interests in commercial and other securitizations trusts consisted of \$3.9 billion and \$4.1 billion of investment-grade and \$80 million and \$164 million of noninvestment-grade retained interests at December 31, 2013 and 2012, respectively.

Residential mortgage

The Firm securitizes residential mortgage loans originated by CCB, as well as residential mortgage loans purchased from third parties by either CCB or CIB. CCB generally retains servicing for all residential mortgage loans originated or purchased by CCB, and for certain mortgage loans purchased by CIB. For securitizations serviced by CCB, the Firm has the power to direct the significant activities of the VIE because it is responsible for decisions related to loan modifications and workouts. CCB may also retain an interest upon securitization.

In addition, CIB engages in underwriting and trading activities involving securities issued by Firm-sponsored securitization trusts. As a result, CIB at times retains senior and/or subordinated interests (including residual interests) in residential mortgage securitizations upon securitization, and/or reacquires positions in the secondary market in the normal course of business. In certain instances, as a result of the positions retained or reacquired by CIB or held by CCB, when considered together with the servicing arrangements entered into by CCB, the Firm is deemed to be the primary beneficiary of certain securitization trusts. See the table on page 296 of this Note for more information on consolidated residential mortgage securitizations.

The Firm does not consolidate a residential mortgage securitization (Firm-sponsored or third-party-sponsored) when it is not the servicer (and therefore does not have the power to direct the most significant activities of the trust) or does not hold a beneficial interest in the trust that could potentially be significant to the trust. At December 31, 2013 and 2012, the Firm did not consolidate the assets of certain Firm-sponsored residential mortgage securitization VIEs, in which the Firm had continuing involvement, primarily due to the fact that the Firm did not hold an interest in these trusts that could potentially be significant to the trusts. See the table on page 296 of this Note for more information on the consolidated residential mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated residential mortgage securitizations.

Commercial mortgages and other consumer securitizations

CIB originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts. CIB may retain unsold senior and/or subordinated interests in commercial mortgage securitizations at the time of securitization but, generally, the Firm does not service commercial loan securitizations. For commercial mortgage securitizations the power to direct the significant activities of the VIE generally is held by the servicer or investors in a specified class of securities ("controlling class"). See the table on page 296 of this Note for more information on the consolidated commercial mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated securitizations.

The Firm also securitizes student loans. The Firm retains servicing responsibilities for all originated and certain purchased student loans and has the power to direct the activities of these VIEs through these servicing responsibilities. See the table on page 296 of this Note for more information on the consolidated student loan securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated securitizations.

Re-securitizations

The Firm engages in certain re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. These transfers occur in connection with both agency (Fannie Mae, Freddie Mac and Ginnie Mae) and nonagency (private-label) sponsored VIEs, which may be backed by either residential or commercial mortgages. The Firm's consolidation analysis is largely dependent on the Firm's role and interest in the re-securitization trusts. During the years ended December 31, 2013, 2012 and 2011, the Firm transferred \$25.3 billion, \$10.0 billion and \$24.9 billion, respectively, of securities to agency VIEs, and \$55 million, \$286 million and \$381 million, respectively, of securities to private-label VIEs.

Most re-securitizations with which the Firm is involved are client-driven transactions in which a specific client or group of clients are seeking a specific return or risk profile. For these transactions, the Firm has concluded that the decision-making power of the entity is shared between the Firm and its client(s), considering the joint effort and decisions in establishing the re-securitization trust and its assets, as well as the significant economic interest the client holds in the re-securitization trust; therefore the Firm does not consolidate the re-securitization VIE.

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In more limited circumstances, the Firm creates a re-securitization trust independently and not in conjunction with specific clients. In these circumstances, the Firm is deemed to have the unilateral ability to direct the most significant activities of the re-securitization trust because of the decisions made during the establishment and design of the trust; therefore, the Firm consolidates the re-securitization VIE if the Firm holds an interest that could potentially be significant.

Additionally, the Firm may invest in beneficial interests of third-party securitizations and generally purchases these interests in the secondary market. In these circumstances, the Firm does not have the unilateral ability to direct the most significant activities of the re-securitization trust, either because it wasn't involved in the initial design of the trust, or the Firm is involved with an independent third party sponsor and demonstrates shared power over the creation of the trust; therefore, the Firm does not consolidate the re-securitization VIE.

As of December 31, 2013 and 2012, the Firm did not consolidate any agency re-securitizations. As of December 31, 2013 and 2012, the Firm consolidated \$86 million and \$76 million, respectively, of assets, and \$23 million and \$5 million, respectively, of liabilities of private-label re-securitizations. See the table on page 296 of this Note for more information on the consolidated re-securitization transactions.

As of December 31, 2013 and 2012, total assets (including the notional amount of interest-only securities) of nonconsolidated Firm-sponsored private-label re-securitization entities in which the Firm has continuing involvement were \$2.8 billion and \$4.6 billion, respectively. At December 31, 2013 and 2012, the Firm held approximately \$1.3 billion and \$2.0 billion, respectively, of interests in nonconsolidated agency re-securitization entities, and \$6 million and \$61 million, respectively, of senior and subordinated interests in nonconsolidated private-label re-securitization entities. See the table on page 290 of this Note for further information on interests held in nonconsolidated securitizations.

Multi-seller conduits

Multi-seller conduit entities are separate bankruptcy remote entities that purchase interests in, and make loans secured by, pools of receivables and other financial assets pursuant to agreements with customers of the Firm. The conduits fund their purchases and loans through the issuance of highly rated commercial paper. The primary source of repayment of the commercial paper is the cash flows from the pools of assets. In most instances, the assets are structured with deal-specific credit enhancements provided to the conduits by the customers (i.e., sellers) or other third parties. Deal-specific credit enhancements are generally structured to cover a multiple of historical losses expected on the pool of assets, and are typically in the form of overcollateralization provided by the seller. The deal-specific credit enhancements mitigate the Firm's potential losses on its agreements with the conduits.

To ensure timely repayment of the commercial paper, and to provide the conduits with funding to purchase interests in or make loans secured by pools of receivables in the event that the conduits do not obtain funding in the commercial paper market, each asset pool financed by the conduits has a minimum 100% deal-specific liquidity facility associated with it provided by JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A. also provides the multi-seller conduit vehicles with uncommitted program-wide liquidity facilities and program-wide credit enhancement in the form of standby letters of credit. The amount of program-wide credit enhancement required is based upon commercial paper issuance and approximates 10% of the outstanding balance.

The Firm consolidates its Firm-administered multi-seller conduits, as the Firm has both the power to direct the significant activities of the conduits and a potentially significant economic interest in the conduits. As administrative agent and in its role in structuring transactions, the Firm makes decisions regarding asset types and credit quality, and manages the commercial paper funding needs of the conduits. The Firm's interests that could potentially be significant to the VIEs include the fees received as administrative agent and liquidity and program-wide credit enhancement provider, as well as the potential exposure created by the liquidity and credit enhancement facilities provided to the conduits. See page 296 of this Note for further information on consolidated VIE assets and liabilities.

In the normal course of business, JPMorgan Chase makes markets in and invests in commercial paper, including commercial paper issued by the Firm-administered multi-seller conduits. The Firm held \$4.1 billion and \$8.3 billion of the commercial paper issued by the Firm-administered multi-seller conduits at December 31, 2013 and 2012, respectively. The Firm's investments were not driven by market illiquidity and the Firm is not obligated under any agreement to purchase the commercial paper issued by the Firm-administered multi-seller conduits.

Deal-specific liquidity facilities, program-wide liquidity and credit enhancement provided by the Firm have been eliminated in consolidation. The Firm or the Firm-administered multi-seller conduits provide lending-related commitments to certain clients of the Firm-administered multi-seller conduits. The unfunded portion of these commitments was \$9.1 billion and \$10.8 billion at December 31, 2013 and 2012, respectively, and are reported as off-balance sheet lending-related commitments. For more information on off-balance sheet lending-related commitments, see Note 29 on pages 318-324 of this Annual Report.

VIEs associated with investor intermediation activities

As a financial intermediary, the Firm creates certain types of VIEs and also structures transactions with these VIEs, typically using derivatives, to meet investor needs. The Firm may also provide liquidity and other support. The risks inherent in the derivative instruments or liquidity commitments are managed similarly to other credit, market or liquidity risks to which the Firm is exposed. The principal types of VIEs for which the Firm is engaged in on behalf of clients are municipal bond vehicles, credit-related note vehicles and asset swap vehicles.

Municipal bond vehicles

The Firm has created a series of trusts that provide short-term investors with qualifying tax-exempt investments, and that allow investors in tax-exempt securities to finance their investments at short-term tax-exempt rates. In a typical transaction, the vehicle purchases fixed-rate longer-term highly rated municipal bonds and funds the purchase by issuing two types of securities: (1) puttable floating-rate certificates and (2) inverse floating-rate residual interests ("residual interests"). The maturity of each of the puttable floating-rate certificates and the residual interests is equal to the life of the vehicle, while the maturity of the underlying municipal bonds is typically longer. Holders of the puttable floating-rate certificates may "put," or tender, the certificates if the remarketing agent cannot successfully remarket the floating-rate certificates to another investor. A liquidity facility conditionally obligates the liquidity provider to fund the purchase of the tendered floating-rate certificates. Upon termination of the vehicle, proceeds from the sale of the underlying municipal bonds would first repay any funded liquidity facility or outstanding floating-rate certificates and the remaining amount, if any, would be paid to the residual interests. If the proceeds from the sale of the underlying municipal bonds are not sufficient to repay the

liquidity facility, in certain transactions the liquidity provider has recourse to the residual interest holders for reimbursement. Certain residual interest holders may be required to post collateral with the Firm, as liquidity provider, to support such reimbursement obligations should the market value of the municipal bonds decline.

JPMorgan Chase Bank, N.A. often serves as the sole liquidity provider, and J.P. Morgan Securities LLC serves as remarketing agent, of the puttable floating-rate certificates. The liquidity provider's obligation to perform is conditional and is limited by certain termination events, which include bankruptcy or failure to pay by the municipal bond issuer or credit enhancement provider, an event of taxability on the municipal bonds or the immediate downgrade of the municipal bond to below investment grade. In addition, the Firm's exposure as liquidity provider is further limited by the high credit quality of the underlying municipal bonds, the excess collateralization in the vehicle, or in certain transactions, the reimbursement agreements with the residual interest holders.

The long-term credit ratings of the puttable floating rate certificates are directly related to the credit ratings of the underlying municipal bonds, the credit rating of any insurer of the underlying municipal bond, and the Firm's short-term credit rating as liquidity provider. A downgrade in any of these ratings would affect the rating of the puttable floating-rate certificates and could cause demand for these certificates by investors to decline or disappear. However, a downgrade of JPMorgan Chase Bank, N.A.'s short-term rating does not affect the Firm's obligation under the liquidity facility.

As remarketing agent, the Firm may hold puttable floating-rate certificates of the municipal bond vehicles. At December 31, 2013 and 2012, the Firm held \$262 million and \$252 million, respectively, of these certificates on its Consolidated Balance Sheets. The largest amount held by the Firm at any time during 2013 was \$470 million, or 4.8%, of the municipal bond vehicles' aggregate outstanding puttable floating-rate certificates. The Firm did not have and continues not to have any intent to protect any residual interest holder from potential losses on any of the municipal bond holdings.

Notes to consolidated financial statements

The Firm consolidates municipal bond vehicles if it owns the residual interest. The residual interest generally allows the owner to make decisions that significantly impact the economic performance of the municipal bond vehicle, primarily by directing the sale of the municipal bonds owned by the vehicle. In addition, the residual interest owners have the right to receive benefits and bear losses that could potentially be significant to the municipal bond

vehicle. The Firm does not consolidate municipal bond vehicles if it does not own the residual interests, since the Firm does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle. See page 296 of this Note for further information on consolidated municipal bond vehicles.

The Firm's exposure to nonconsolidated municipal bond VIEs at December 31, 2013 and 2012, including the ratings profile of the VIEs' assets, was as follows.

December 31, (in billions)	Fair value of assets held by VIEs	Liquidity facilities	Excess/(deficit) ^(a)	Maximum exposure
Nonconsolidated municipal bond vehicles				
2013	\$ 11.8	\$ 6.9	\$ 4.9	\$ 6.9
2012	14.2	8.0	6.2	8.0

December 31, (in billions, except where otherwise noted)	Ratings profile of VIE assets ^(b)					Fair value of assets held by VIEs	Wt. avg. expected life of assets (years)
	Investment-grade				Noninvestment- grade		
	AAA to AAA-	AA+ to AA-	A+ to A-	BBB+ to BBB-	BB+ and below		
2013	\$ 2.7	\$ 8.9	\$ 0.2	\$ —	\$ —	\$ 11.8	7.2
2012	3.1	11.0	0.1	—	—	14.2	5.9

(a) Represents the excess/(deficit) of the fair values of municipal bond assets available to repay the liquidity facilities, if drawn.

(b) The ratings scale is presented on an S&P-equivalent basis. The prior period has been reclassified to conform with the current presentation.

Credit-related note and asset swap vehicles

Credit-related note vehicles

The Firm structures transactions with credit-related note vehicles in which the VIE purchases highly rated assets, such as asset-backed securities, and enters into a credit derivative contract with the Firm to obtain exposure to a referenced credit which the VIE otherwise does not hold. The VIE then issues credit-linked notes ("CLNs") with maturities predominantly ranging from one to ten years in order to transfer the risk of the referenced credit to the VIE's investors. Clients and investors often prefer using a CLN vehicle since the CLNs issued by the VIE generally carry a higher credit rating than such notes would if issued directly by JPMorgan Chase. As a derivative counterparty in a credit-related note structure, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. The collateral purchased by such VIEs is predominantly investment grade. The Firm divides its credit-related note structures broadly into two types: static and managed.

In a static credit-related note structure, the CLNs and associated credit derivative contract either reference a single credit (e.g., a multi-national corporation), or all or part of a fixed portfolio of credits. In a managed credit-related note structure, the CLNs and associated credit

derivative generally reference all or part of an actively managed portfolio of credits. An agreement exists between a portfolio manager and the VIE that gives the portfolio manager the ability to substitute each referenced credit in the portfolio for an alternative credit. The Firm does not act as portfolio manager; its involvement with the VIE is generally limited to being a derivative counterparty. As a net buyer of credit protection, in both static and managed credit-related note structures, the Firm pays a premium to the VIE in return for the receipt of a payment (up to the notional of the derivative) if one or more of the credits within the portfolio defaults, or if the losses resulting from the default of reference credits exceed specified levels. The Firm does not provide any additional contractual financial support to the VIE. In addition, the Firm has not historically provided any financial support to the CLN vehicles over and above its contractual obligations. Since each CLN is established to the specifications of the investors, the investors have the power over the activities of that VIE that most significantly affect the performance of the CLN. Furthermore, the Firm does not generally have a variable interest that could potentially be significant. Accordingly, the Firm does not generally consolidate these credit-related note entities. As a derivative counterparty, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. Substantially all of the assets purchased by such VIEs are investment-grade.

Asset swap vehicles

The Firm structures and executes transactions with asset swap vehicles on behalf of investors. In such transactions, the VIE purchases a specific asset or assets and then enters into a derivative with the Firm in order to tailor the interest rate or foreign exchange currency risk, or both, according to investors' requirements. Generally, the assets are held by the VIE to maturity, and the tenor of the derivatives would match the maturity of the assets. Investors typically invest in the notes issued by such VIEs in order to obtain exposure to the credit risk of the specific assets, as well as exposure to foreign exchange and interest rate risk that is tailored to their specific needs. The derivative transaction between the Firm and the VIE may include currency swaps to hedge assets held by the VIE denominated in foreign currency into the investors' local currency or interest rate swaps to hedge the interest rate risk of assets held by the VIE; to add additional interest rate exposure into the VIE in order to increase the return on the issued notes; or to convert an interest-bearing asset into a zero-coupon bond.

The Firm's exposure to asset swap vehicles is generally limited to its rights and obligations under the interest rate and/or foreign exchange derivative contracts. The Firm historically has not provided any financial support to the asset swap vehicles over and above its contractual obligations. The Firm does not generally consolidate these asset swap vehicles, since the Firm does not have the power to direct the significant activities of these entities and does not have a variable interest that could potentially be significant. As a derivative counterparty, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. Substantially all of the assets purchased by such VIEs are investment-grade.

Exposure to nonconsolidated credit-related note and asset swap VIEs at December 31, 2013 and 2012, was as follows.

December 31, 2013 (in billions)	Net derivative receivables	Total exposure	Par value of collateral held by VIEs ^(a)
Credit-related notes			
Static structure	\$ —	\$ —	\$ 4.8
Managed structure	—	—	3.9
Total credit-related notes	—	—	8.7
Asset swaps	0.4	0.4	7.7
Total	\$ 0.4	\$ 0.4	\$ 16.4

December 31, 2012 (in billions)	Net derivative receivables	Total exposure	Par value of collateral held by VIEs ^(a)
Credit-related notes			
Static structure	\$ 0.5	\$ 0.5	\$ 7.3
Managed structure	0.6	0.6	5.6
Total credit-related notes	1.1	1.1	12.9
Asset swaps	0.4	0.4	7.9
Total	\$ 1.5	\$ 1.5	\$ 20.8

(a) The Firm's maximum exposure arises through the derivatives executed with the VIEs; the exposure varies over time with changes in the fair value of the derivatives. The Firm relies on the collateral held by the VIEs to pay any amounts due under the derivatives; the vehicles are structured at inception so that the par value of the collateral is expected to be sufficient to pay amounts due under the derivative contracts.

Notes to consolidated financial statements

The Firm consolidated Firm-sponsored and third-party credit-related note vehicles with collateral fair values of \$311 million and \$483 million, at December 31, 2013 and 2012, respectively. These consolidated VIEs included some that were structured by the Firm where the Firm provides the credit derivative, and some that have been structured by third parties where the Firm is not the credit derivative provider. The Firm consolidated these vehicles, because it held positions in these entities that provided the Firm with control of certain vehicles. The Firm did not consolidate any asset swap vehicles at December 31, 2013 and 2012.

VIEs sponsored by third parties

VIE used in FRBNY transaction

In conjunction with the Bear Stearns merger in June 2008, the Federal Reserve Bank of New York ("FRBNY") took control, through an LLC formed for this purpose, of a portfolio of \$30.0 billion in assets, based on the value of the portfolio as of March 14, 2008. The assets of the LLC were funded by a \$28.85 billion term loan from the FRBNY

and a \$1.15 billion subordinated loan from JPMorgan Chase. The JPMorgan Chase loan was subordinated to the FRBNY loan and bore the first \$1.15 billion of any losses of the portfolio. Any remaining assets in the portfolio after repayment of the FRBNY loan, repayment of the JPMorgan Chase loan and the expense of the LLC was for the account of the FRBNY. The extent to which the FRBNY and JPMorgan Chase loans were repaid depended on the value of the assets in the portfolio and the liquidation strategy directed by the FRBNY. The Firm did not consolidate the LLC, as it did not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance. In June 2012, the FRBNY loan was repaid in full and in November 2012, the JPMorgan Chase loan was repaid in full. During the year ended December 31, 2012, JPMorgan Chase recognized a pretax gain of \$665 million reflecting the recovery on the \$1.15 billion subordinated loan plus contractual interest.

Consolidated VIE assets and liabilities

The following table presents information on assets and liabilities related to VIEs consolidated by the Firm as of December 31, 2013 and 2012.

	Assets				Liabilities		
	Trading assets - debt and equity instruments	Loans	Other ^(d)	Total assets ^(e)	Beneficial interests in VIE assets ^(f)	Other ^(g)	Total liabilities
December 31, 2013 (in billions)^(a)							
VIE program type							
Firm-sponsored credit card trusts	\$ —	\$ 46.9	\$ 1.1	\$ 48.0	\$ 26.6	\$ —	\$ 26.6
Firm-administered multi-seller conduits	—	19.0	0.1	19.1	14.9	—	14.9
Municipal bond vehicles	3.4	—	—	3.4	2.9	—	2.9
Mortgage securitization entities ^(b)	2.3	1.7	—	4.0	2.9	0.9	3.8
Other ^(c)	0.7	2.5	1.0	4.2	2.3	0.2	2.5
Total	\$ 6.4	\$ 70.1	\$ 2.2	\$ 78.7	\$ 49.6	\$ 1.1	\$ 50.7
	Assets				Liabilities		
	Trading assets - debt and equity instruments	Loans	Other ^(d)	Total assets ^(e)	Beneficial interests in VIE assets ^(f)	Other ^(g)	Total liabilities
December 31, 2012 (in billions)^(a)							
VIE program type							
Firm-sponsored credit card trusts	\$ —	\$ 51.9	\$ 0.8	\$ 52.7	\$ 30.1	\$ —	\$ 30.1
Firm-administered multi-seller conduits	—	25.4	0.1	25.5	17.2	—	17.2
Municipal bond vehicles	9.8	—	0.1	9.9	11.0	—	11.0
Mortgage securitization entities ^(b)	1.4	2.0	—	3.4	2.3	1.1	3.4
Other ^(c)	0.8	3.4	1.1	5.3	2.6	0.1	2.7
Total	\$ 12.0	\$ 82.7	\$ 2.1	\$ 96.8	\$ 63.2	\$ 1.2	\$ 64.4

(a) Excludes intercompany transactions which were eliminated in consolidation.

(b) Includes residential and commercial mortgage securitizations as well as re-securitizations.

(c) Primarily comprises student loan securitization entities. The Firm consolidated \$2.5 billion and \$3.3 billion of student loan securitization entities as of December 31, 2013 and 2012, respectively.

(d) Includes assets classified as cash, derivative receivables, AFS securities, and other assets within the Consolidated Balance Sheets.

(e) The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those entities. The difference between total assets and total liabilities recognized for consolidated VIEs represents the Firm's interest in the consolidated VIEs for each program type.

(f) The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item on the Consolidated Balance Sheets titled, "Beneficial interests issued by consolidated variable interest entities." The holders of these beneficial interests do not have recourse to the general credit of JPMorgan Chase. Included in beneficial interests in VIE assets are long-term beneficial interests of \$31.8 billion and \$35.0 billion at December 31, 2013 and 2012, respectively. The maturities of the long-term beneficial interests as of December 31, 2013, were as follows: \$3.8 billion under one year, \$20.6 billion between one and five years, and \$7.4 billion over five years, all respectively.

(g) Includes liabilities classified as accounts payable and other liabilities in the Consolidated Balance Sheets.

Supplemental information on loan securitizations

The Firm has securitized and sold a variety of loans, including residential mortgage, credit card, automobile, student and commercial (primarily related to real estate) loans, as well as debt securities. The primary purposes of these securitization transactions were to satisfy investor demand and to generate liquidity for the Firm.

For loan securitizations in which the Firm is not required to consolidate the trust, the Firm records the transfer of the loan receivable to the trust as a sale when the accounting criteria for a sale are met. Those criteria are: (1) the transferred financial assets are legally isolated from the Firm's creditors; (2) the transferee or beneficial interest

holder can pledge or exchange the transferred financial assets; and (3) the Firm does not maintain effective control over the transferred financial assets (e.g., the Firm cannot repurchase the transferred assets before their maturity and it does not have the ability to unilaterally cause the holder to return the transferred assets).

For loan securitizations accounted for as a sale, the Firm recognizes a gain or loss based on the difference between the value of proceeds received (including cash, beneficial interests, or servicing assets received) and the carrying value of the assets sold. Gains and losses on securitizations are reported in noninterest revenue.

Securitization activity

The following tables provide information related to the Firm's securitization activities for the years ended December 31, 2013, 2012 and 2011, related to assets held in JPMorgan Chase-sponsored securitization entities that were not consolidated by the Firm, and where sale accounting was achieved based on the accounting rules in effect at the time of the securitization.

Year ended December 31, (in millions, except rates) ^(a)	2013		2012		2011	
	Residential mortgage ^(d)	Commercial and other ^{(f)(g)}	Residential mortgage ^{(d)(e)}	Commercial and other ^{(f)(g)}	Residential mortgage ^{(d)(e)}	Commercial and other ^{(f)(g)}
Principal securitized	\$ 1,404	\$ 11,318	\$ —	\$ 5,421	\$ —	\$ 5,961
All cash flows during the period:						
Proceeds from new securitizations ^(b)	\$ 1,410	\$ 11,507	\$ —	\$ 5,705	\$ —	\$ 6,142
Servicing fees collected	576	5	662	4	755	4
Purchases of previously transferred financial assets (or the underlying collateral) ^(c)	294	—	222	—	772	—
Cash flows received on interests	156	325	185	163	235	178

(a) Excludes re-securitization transactions.

(b) Proceeds from residential mortgage securitizations were received in the form of securities. During 2013, \$1.4 billion of residential mortgage securitizations were classified in level 2 of the fair value hierarchy. Proceeds from commercial mortgage securitizations were received as securities and cash. During 2013, \$11.3 billion of commercial mortgage securitizations were classified in level 2 of the fair value hierarchy, and \$207 million of proceeds from commercial mortgage securitizations were received as cash. During 2012, \$5.7 billion of commercial mortgage securitizations were classified in level 2 of the fair value hierarchy. During 2011, \$4.0 billion and \$2.1 billion commercial mortgage securitizations were classified in levels 2 and 3 of the fair value hierarchy, respectively.

(c) Includes cash paid by the Firm to reacquire assets from off-balance sheet, nonconsolidated entities - for example, loan repurchases due to representation and warranties and servicer clean-up calls.

(d) Includes prime, Alt-A, subprime, and option ARMs. Excludes sales for which the Firm did not securitize the loan (including loans sold to Ginnie Mae, Fannie Mae and Freddie Mac).

(e) There were no residential mortgage securitizations during 2012 and 2011.

(f) Includes commercial and student loan securitizations.

(g) Key assumptions used to measure retained interests originated during the year included weighted-average life (in years) of 8.3, 8.8 and 1.7 for the years ended December 31, 2013, 2012, and 2011, respectively, and weighted-average discount rate of 3.2%, 3.6% and 3.5% for the years ended December 31, 2013, 2012, and 2011, respectively.

Loans and excess mortgage servicing rights sold to agencies and other third-party-sponsored securitization entities

In addition to the amounts reported in the securitization activity tables above, the Firm, in the normal course of business, sells originated and purchased mortgage loans and certain originated excess mortgage servicing rights on a nonrecourse basis, predominantly to Ginnie Mae, Fannie Mae and Freddie Mac (the "Agencies"). These loans and excess mortgage servicing rights are sold primarily for the purpose of securitization by the Agencies, which also provide credit enhancement of the loans and excess

mortgage servicing rights through certain guarantee provisions. The Firm does not consolidate these securitization vehicles as it is not the primary beneficiary. For a limited number of loan sales, the Firm is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. See Note 29 on pages 318-324 of this Annual Report for additional information about the Firm's loan sales- and securitization-related indemnifications. See Note 17 on pages 299-304 of this Annual Report for additional information about the impact of the Firm's sale of certain excess mortgage servicing rights.

Notes to consolidated financial statements

The following table summarizes the activities related to loans sold to U.S. government-sponsored agencies and third-party-sponsored securitization entities.

Year ended December 31, (in millions)	2013	2012 ^(e)	2011 ^(e)
Carrying value of loans sold ^(a)	\$ 166,028	\$ 179,008	\$ 149,247
Proceeds received from loan sales as cash	\$ 782	\$ 195	\$ 122
Proceeds from loan sales as securities ^(b)	163,373	176,592	146,704
Total proceeds received from loan sales^(c)	\$ 164,155	\$ 176,787	\$ 146,826
Gains on loan sales ^(d)	302	141	133

(a) Predominantly to U.S. government agencies.

(b) Predominantly includes securities from U.S. government agencies that are generally sold shortly after receipt.

(c) Excludes the value of MSRs retained upon the sale of loans. Gains on loan sales include the value of MSRs.

(d) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale.

(e) Prior periods have been revised to conform with the current presentation.

Options to repurchase delinquent loans

In addition to the Firm's obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 29 on pages 318–324 of this Annual Report, the Firm also has the option to repurchase delinquent loans that it services for Ginnie Mae loan pools, as well as for other U.S. government agencies under certain arrangements. The Firm typically elects to repurchase delinquent loans from Ginnie Mae loan pools as it continues to service them and/or manage the foreclosure process in accordance with the applicable requirements, and such loans continue to be insured or guaranteed. When the Firm's repurchase option becomes exercisable, such loans must be reported on the Consolidated Balance Sheets as a loan with a corresponding liability. As of December 31, 2013 and 2012, the Firm had recorded on its Consolidated Balance Sheets \$14.3 billion and \$15.6 billion, respectively, of loans that either had been repurchased or for which the Firm had an option to repurchase. Predominantly all of these amounts relate to loans that have been repurchased from Ginnie Mae loan pools. Additionally, real estate owned resulting from voluntary repurchases of loans was \$2.0 billion and \$1.6 billion as of December 31, 2013 and 2012, respectively. Substantially all of these loans and real estate owned are insured or guaranteed by U.S. government agencies. For additional information, refer to Note 14 on pages 258–283 of this Annual Report.

JPMorgan Chase's interest in securitized assets held at fair value

The following table outlines the key economic assumptions used to determine the fair value, as of December 31, 2013 and 2012, of certain of the Firm's retained interests in nonconsolidated VIEs (other than MSRs), that are valued using modeling techniques. The table also outlines the sensitivities of those fair values to immediate 10% and 20% adverse changes in assumptions used to determine fair value. For a discussion of MSRs, see Note 17 on pages 299–304 of this Annual Report.

December 31, (in millions, except rates and where otherwise noted) ^(a)	Commercial and other	
	2013	2012
JPMorgan Chase interests in securitized assets ^(b)	\$ 520	\$ 1,488
Weighted-average life (in years)	5.5	6.1
Weighted-average discount rate ^(b)	3.8%	4.1%
Impact of 10% adverse change	\$ (9)	\$ (34)
Impact of 20% adverse change	(18)	(65)

(a) The Firm's interests in prime mortgage securitizations were \$552 million and \$341 million, as of December 31, 2013 and 2012, respectively. These include retained interests in Alt-A loans and re-securitization transactions. The Firm's interests in subprime mortgage securitizations were \$91 million and \$68 million, as of December 31, 2013 and 2012, respectively.

(b) Incorporates the Firm's weighted-average loss assumption.

The sensitivity analysis in the preceding table is hypothetical. Changes in fair value based on a 10% or 20% variation in assumptions generally cannot be extrapolated easily, because the relationship of the change in the assumptions to the change in fair value may not be linear. Also, in the table, the effect that a change in a particular assumption may have on the fair value is calculated without changing any other assumption. In reality, changes in one factor may result in changes in another, which might counteract or magnify the sensitivities. The above sensitivities also do not reflect risk management practices the Firm may undertake to mitigate such risks.

Loan delinquencies and liquidation losses

The table below includes information about components of nonconsolidated securitized financial assets, in which the Firm has continuing involvement, and delinquencies as of December 31, 2013 and 2012.

As of or for the year ended December 31, (in millions)	Securitized assets		90 days past due		Liquidation losses	
	2013	2012	2013	2012	2013	2012
Securitized loans^(a)						
Residential mortgage:						
Prime/ Alt-A & Option ARMs	\$ 90,381	\$ 106,667	\$ 14,882	\$ 22,865	\$ 4,688	\$ 9,118
Subprime mortgage	28,008	31,264	7,726	10,570	2,420	3,013
Commercial and other	98,018	81,834	2,350	4,077	1,003	1,265
Total loans securitized^(b)	\$ 216,407	\$ 219,765	\$ 24,958	\$ 37,512	\$ 8,111	\$ 13,396

(a) Total assets held in securitization-related SPEs were \$271.7 billion and \$295.8 billion, respectively, at December 31, 2013 and 2012. The \$216.4 billion and \$219.8 billion, respectively, of loans securitized at December 31, 2013 and 2012, excludes: \$50.8 billion and \$72.0 billion, respectively, of securitized loans in which the Firm has no continuing involvement, and \$4.5 billion and \$4.0 billion, respectively, of loan securitizations consolidated on the Firm's Consolidated Balance Sheets at December 31, 2013 and 2012.

(b) Includes securitized loans that were previously recorded at fair value and classified as trading assets.

Note 17 – Goodwill and other intangible assets

Goodwill and other intangible assets consist of the following.

December 31, (in millions)	2013	2012	2011
Goodwill	\$ 48,081	\$ 48,175	\$ 48,188
Mortgage servicing rights	9,614	7,614	7,223
Other intangible assets:			
Purchased credit card relationships	\$ 131	\$ 295	\$ 602
Other credit card-related intangibles	173	229	488
Core deposit intangibles	159	355	594
Other intangibles	1,155	1,356	1,523
Total other intangible assets	\$ 1,618	\$ 2,235	\$ 3,207

Goodwill

Goodwill is recorded upon completion of a business combination as the difference between the purchase price and the fair value of the net assets acquired. Subsequent to initial recognition, goodwill is not amortized but is tested for impairment during the fourth quarter of each fiscal year, or more often if events or circumstances, such as adverse changes in the business climate, indicate there may be impairment.

The goodwill associated with each business combination is allocated to the related reporting units, which are determined based on how the Firm's businesses are managed and how they are reviewed by the Firm's Operating Committee. The following table presents goodwill attributed to the business segments.

December 31, (in millions)	2013	2012	2011
Consumer & Community Banking	\$ 30,985	\$ 31,048	\$ 30,996
Corporate & Investment Bank	6,888	6,895	6,944
Commercial Banking	2,862	2,863	2,864
Asset Management	6,969	6,992	7,007
Corporate/Private Equity	377	377	377
Total goodwill	\$ 48,081	\$ 48,175	\$ 48,188

The following table presents changes in the carrying amount of goodwill.

Year ended December 31, (in millions)	2013	2012	2011
Balance at beginning of period ^(a)	\$ 48,175	\$ 48,188	\$ 48,854
Changes during the period from:			
Business combinations	64	43	97
Dispositions	(5)	(4)	(685)
Other ^(b)	(153)	(52)	(78)
Balance at December 31, ^(a)	\$ 48,081	\$ 48,175	\$ 48,188

(a) Reflects gross goodwill balances as the Firm has not recognized any impairment losses to date.

(b) Includes foreign currency translation adjustments and other tax-related adjustments.

Impairment testing

Goodwill was not impaired at December 31, 2013 or 2012, nor was any goodwill written off due to impairment during 2013, 2012 or 2011.

The goodwill impairment test is performed in two steps. In the first step, the current fair value of each reporting unit is compared with its carrying value, including goodwill. If the fair value is in excess of the carrying value (including goodwill), then the reporting unit's goodwill is considered not to be impaired. If the fair value is less than the carrying value (including goodwill), then a second step is performed. In the second step, the implied current fair value of the reporting unit's goodwill is determined by comparing the fair value of the reporting unit (as determined in step one) to the fair value of the net assets of the reporting unit, as if the reporting unit were being acquired in a business combination. The resulting implied current fair value of goodwill is then compared with the carrying value of the reporting unit's goodwill. If the carrying value of the goodwill exceeds its implied current fair value, then an impairment charge is recognized for the excess. If the carrying value of goodwill is less than its implied current fair value, then no goodwill impairment is recognized.

Notes to consolidated financial statements

The Firm uses the reporting units' allocated equity plus goodwill capital as a proxy for the carrying amounts of equity for the reporting units in the goodwill impairment testing. Reporting unit equity is determined on a similar basis as the allocation of equity to the Firm's lines of business, which takes into consideration the capital the business segment would require if it were operating independently, incorporating sufficient capital to address regulatory capital requirements (including Basel III), economic risk measures and capital levels for similarly rated peers. Proposed line of business equity levels are incorporated into the Firm's annual budget process, which is reviewed by the Firm's Board of Directors. Allocated equity is further reviewed on a periodic basis and updated as needed.

The primary method the Firm uses to estimate the fair value of its reporting units is the income approach. The models project cash flows for the forecast period and use the perpetuity growth method to calculate terminal values. These cash flows and terminal values are then discounted using an appropriate discount rate. Projections of cash flows are based on the reporting units' earnings forecasts, which include the estimated effects of regulatory and legislative changes (including, but not limited to the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act")), and which are reviewed with the Operating Committee of the Firm. The discount rate used for each reporting unit represents an estimate of the cost of equity for that reporting unit and is determined considering the Firm's overall estimated cost of equity (estimated using the Capital Asset Pricing Model), as adjusted for the risk characteristics specific to each reporting unit (for example, for higher levels of risk or uncertainty associated with the business or management's forecasts and assumptions). To assess the reasonableness of the discount rates used for each reporting unit management compares the discount rate to the estimated cost of equity for publicly traded institutions with similar businesses and risk characteristics. In addition, the weighted average cost of equity (aggregating the various reporting units) is compared with the Firm's overall estimated cost of equity to ensure reasonableness.

The valuations derived from the discounted cash flow models are then compared with market-based trading and transaction multiples for relevant competitors. Trading and transaction comparables are used as general indicators to assess the general reasonableness of the estimated fair values, although precise conclusions generally cannot be drawn due to the differences that naturally exist between the Firm's businesses and competitor institutions. Management also takes into consideration a comparison between the aggregate fair value of the Firm's reporting units and JPMorgan Chase's market capitalization. In evaluating this comparison, management considers several factors, including (a) a control premium that would exist in a market transaction, (b) factors related to the level of execution risk that would exist at the firmwide level that do

not exist at the reporting unit level and (c) short-term market volatility and other factors that do not directly affect the value of individual reporting units.

While no impairment of goodwill was recognized, the Firm's Mortgage Banking business in CCB remains at an elevated risk of goodwill impairment due to its exposure to U.S. consumer credit risk and the effects of economic, regulatory and legislative changes. The valuation of this business is particularly dependent upon economic conditions (including primary mortgage interest rates, lower mortgage origination volume, new unemployment claims and home prices), regulatory and legislative changes (for example, those related to residential mortgage servicing, foreclosure and loss mitigation activities), and the amount of equity capital required. The assumptions used in the discounted cash flow valuation models including the amount of capital necessary given the risk of business activities to meet regulatory capital requirements were determined using management's best estimates. The cost of equity reflected the related risks and uncertainties, and was evaluated in comparison to relevant market peers. Deterioration in these assumptions could cause the estimated fair values of these reporting units and their associated goodwill to decline, which may result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

Mortgage servicing rights

Mortgage servicing rights represent the fair value of expected future cash flows for performing servicing activities for others. The fair value considers estimated future servicing fees and ancillary revenue, offset by estimated costs to service the loans, and generally declines over time as net servicing cash flows are received, effectively amortizing the MSR asset against contractual servicing and ancillary fee income. MSRs are either purchased from third parties or recognized upon sale or securitization of mortgage loans if servicing is retained.

As permitted by U.S. GAAP, the Firm elected to account for its MSRs at fair value. The Firm treats its MSRs as a single class of servicing assets based on the availability of market inputs used to measure the fair value of its MSR asset and its treatment of MSRs as one aggregate pool for risk management purposes. The Firm estimates the fair value of MSRs using an option-adjusted spread ("OAS") model, which projects MSR cash flows over multiple interest rate scenarios in conjunction with the Firm's prepayment model, and then discounts these cash flows at risk-adjusted rates. The model considers portfolio characteristics, contractually specified servicing fees, prepayment assumptions, delinquency rates, costs to service, late charges and other ancillary revenue, and other economic factors. The Firm compares fair value estimates and assumptions to observable market data where available, and also considers recent market activity and actual portfolio experience.

The fair value of MSRs is sensitive to changes in interest rates, including their effect on prepayment speeds. MSRs typically decrease in value when interest rates decline because declining interest rates tend to increase prepayments and therefore reduce the expected life of the net servicing cash flows that comprise the MSR asset. Conversely, securities (e.g., mortgage-backed securities), principal-only certificates and certain derivatives (i.e.,

those for which the Firm receives fixed-rate interest payments) increase in value when interest rates decline. JPMorgan Chase uses combinations of derivatives and securities to manage changes in the fair value of MSRs. The intent is to offset any interest-rate related changes in the fair value of MSRs with changes in the fair value of the related risk management instruments.

The following table summarizes MSR activity for the years ended December 31, 2013, 2012 and 2011.

As of or for the year ended December 31, (in millions, except where otherwise noted)	2013	2012	2011
Fair value at beginning of period	\$ 7,614	\$ 7,223	\$ 13,649
MSR activity:			
Originations of MSRs	2,214	2,376	2,570
Purchase of MSRs	1	457	33
Disposition of MSRs ^(a)	(725)	(579)	—
Net additions	1,490	2,254	2,603
Changes due to collection/realization of expected cash flows ^(b)	(1,102)	(1,228)	(1,910)
Changes in valuation due to inputs and assumptions:			
Changes due to market interest rates and other ^(c)	2,122	(589)	(5,392)
Changes in valuation due to other inputs and assumptions:			
Projected cash flows (e.g., cost to service) ^(d)	109	(452)	(1,757)
Discount rates	(78)	(98)	(1,238)
Prepayment model changes and other ^(e)	(541)	504	1,268
Total changes in valuation due to other inputs and assumptions	(510)	(46)	(1,727)
Total changes in valuation due to inputs and assumptions^(b)	\$ 1,612	\$ (635)	\$ (7,119)
Fair value at December 31,^(f)	\$ 9,614	\$ 7,614	\$ 7,223
Change in unrealized gains/(losses) included in income related to MSRs held at December 31,	\$ 1,612	\$ (635)	\$ (7,119)
Contractual service fees, late fees and other ancillary fees included in income	\$ 3,309	\$ 3,783	\$ 3,977
Third-party mortgage loans serviced at December 31, (in billions)	\$ 822	\$ 867	\$ 910
Servicer advances, net of an allowance for uncollectible amounts, at December 31, (in billions) ^(g)	\$ 9.6	\$ 10.9	\$ 11.1

(a) Predominantly represents excess mortgage servicing rights transferred to agency-sponsored trusts in exchange for stripped mortgage backed securities ("SMBS"). In each transaction, a portion of the SMBS was acquired by third parties at the transaction date; the Firm acquired and has retained the remaining balance of those SMBS as trading securities. Also includes sales of MSRs in 2013 and 2012.

(b) Included changes related to commercial real estate of \$(5) million, \$(8) million and \$(9) million for the years ended December 31, 2013, 2012 and 2011, respectively.

(c) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.

(d) For the year ended December 31, 2013, the increase was driven by the inclusion in the MSR valuation model of servicing fees receivable on certain delinquent loans.

(e) Represents changes in prepayments other than those attributable to changes in market interest rates. For the year ended December 31, 2013, the decrease was driven by changes in the inputs and assumptions used to derive prepayment speeds, primarily increases in home prices.

(f) Included \$18 million, \$23 million and \$31 million related to commercial real estate at December 31, 2013, 2012, and 2011, respectively.

(g) Represents amounts the Firm pays as the servicer (e.g., scheduled principal and interest to a trust, taxes and insurance), which will generally be reimbursed within a short period of time after the advance from future cash flows from the trust or the underlying loans. The Firm's credit risk associated with these advances is minimal because reimbursement of the advances is typically senior to all cash payments to investors. In addition, the Firm maintains the right to stop payment to investors if the collateral is insufficient to cover the advance. However, certain of these servicer advances may not be recoverable if they were not made in accordance with applicable rules and agreements.

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During the year ended December 31, 2011, the fair value of the MSR decreased by \$6.4 billion. This decrease was predominantly due to a decline in market interest rates, which resulted in a loss in fair value of \$5.4 billion. These losses were offset by gains of \$5.6 billion on derivatives used to hedge the MSR asset; these derivatives are recognized on the Consolidated Balance Sheets separately from the MSR asset. Also contributing to the decline in fair value of the MSR asset was a \$1.7 billion decrease related to revised cost to service and ancillary income assumptions incorporated in the MSR valuation. The increased cost to service assumptions reflected the estimated impact of higher servicing costs to enhance servicing processes, particularly loan modification and foreclosure procedures, including costs to comply with Consent Orders entered into with banking regulators. The increase in the cost to service assumption contemplated significant and prolonged increases in staffing levels in the core and default servicing functions. The decreased ancillary income assumption was similarly related to a reassessment of business practices in consideration of the Consent Orders and the existing industry-wide regulatory environment, which was broadly affecting market participants.

Also in the fourth quarter of 2011, the Firm revised its OAS assumption and updated its proprietary prepayment model; these changes had generally offsetting effects. The Firm's OAS assumption is based upon capital and return requirements that the Firm believes a market participant would consider, taking into account factors such as the pending Basel III capital rules. Consequently, the OAS assumption for the Firm's portfolio increased by approximately 400 basis points and decreased the fair value of the MSR asset by approximately \$1.2 billion.

Finally, in the fourth quarter of 2011, the Firm further enhanced its proprietary prepayment model to incorporate: (i) the impact of the Home Affordable Refinance Program ("HARP") 2.0, and (ii) assumptions that to limit modeled refinancings due to the combined influences of relatively strict underwriting standards and reduced levels of expected home price appreciation. In the aggregate, these refinements increased the fair value of the MSR asset by approximately \$1.2 billion.

The following table presents the components of mortgage fees and related income (including the impact of MSR risk management activities) for the years ended December 31, 2013, 2012 and 2011.

Year ended December 31, (in millions)	2013	2012	2011
CCB mortgage fees and related income			
Net production revenue:			
Production revenue	\$ 2,673	\$ 5,783	\$ 3,395
Repurchase losses	331	(272)	(1,347)
Net production revenue	3,004	5,511	2,048
Net mortgage servicing revenue			
Operating revenue:			
Loan servicing revenue	3,552	3,772	4,134
Changes in MSR asset fair value due to collection/realization of expected cash flows	(1,094)	(1,222)	(1,904)
Total operating revenue	2,458	2,550	2,230
Risk management:			
Changes in MSR asset fair value due to market interest rates and other ^(a)	2,119	(587)	(5,390)
Other changes in MSR asset fair value due to other inputs and assumptions in model ^(b)	(511)	(46)	(1,727)
Change in derivative fair value and other	(1,875)	1,252	5,553
Total risk management	(267)	619	(1,564)
Total CCB net mortgage servicing revenue	2,191	3,169	666
All other	10	7	7
Mortgage fees and related income	\$ 5,205	\$ 8,687	\$ 2,721

- (a) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.
- (b) Represents the aggregate impact of changes in model inputs and assumptions such as projected cash flows (e.g., cost to service), discount rates and changes in prepayments other than those attributable to changes in market interest rates (e.g., changes in prepayments due to changes in home prices). For the year ended December 31, 2013, the decrease was driven by changes in the inputs and assumptions used to derive prepayment speeds, primarily increases in home prices.

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSRs at December 31, 2013 and 2012, and outlines the sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

December 31, (in millions, except rates)	2013	2012
Weighted-average prepayment speed assumption ("CPR")	8.07%	13.04%
Impact on fair value of 10% adverse change	\$ (362)	\$ (517)
Impact on fair value of 20% adverse change	(705)	(1,009)
Weighted-average option adjusted spread	7.77%	7.61%
Impact on fair value of 100 basis points adverse change	\$ (389)	\$ (306)
Impact on fair value of 200 basis points adverse change	(750)	(591)

CPR: Constant prepayment rate.

The sensitivity analysis in the preceding table is hypothetical and should be used with caution. Changes in fair value based on variation in assumptions generally cannot be easily extrapolated, because the relationship of the change in the assumptions to the change in fair value are often highly interrelated and may not be linear. In this table, the effect that a change in a particular assumption may have on the fair value is calculated without changing any other assumption. In reality, changes in one factor may result in changes in another, which would either magnify or counteract the impact of the initial change.

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Other intangible assets

Other intangible assets are recorded at their fair value upon completion of a business combination or certain other transactions, and generally represent the value of customer relationships or arrangements. Subsequently, the Firm's intangible assets with finite lives, including core deposit intangibles, purchased credit card relationships, and other intangible assets, are amortized over their useful lives in a manner that best reflects the economic benefits of the intangible asset. The \$617 million decrease in other intangible assets during 2013 was predominantly due to \$637 million in amortization.

The components of credit card relationships, core deposits and other intangible assets were as follows.

December 31, (in millions)	2013			2012		
	Gross amount ^(a)	Accumulated amortization ^(a)	Net carrying value	Gross amount	Accumulated amortization	Net carrying value
Purchased credit card relationships	\$ 3,540	\$ 3,409	\$ 131	\$ 3,775	\$ 3,480	\$ 295
Other credit card-related intangibles	542	369	173	850	621	229
Core deposit intangibles	4,133	3,974	159	4,133	3,778	355
Other intangibles ^(b)	2,374	1,219	1,155	2,390	1,034	1,356

(a) The decrease in the gross amount and accumulated amortization from December 31, 2012, was due to the removal of fully amortized assets.

(b) Includes intangible assets of approximately \$600 million consisting primarily of asset management advisory contracts, which were determined to have an indefinite life and are not amortized.

Amortization expense

The following table presents amortization expense related to credit card relationships, core deposits and other intangible assets.

Year ended December 31, (in millions)	2013	2012	2011
Purchased credit card relationships	\$ 195	\$ 309	\$ 295
Other credit card-related intangibles	58	265	106
Core deposit intangibles	196	239	285
Other intangibles	188	144	162
Total amortization expense	\$ 637	\$ 957	\$ 848

Future amortization expense

The following table presents estimated future amortization expense related to credit card relationships, core deposits and other intangible assets at December 31, 2013.

Year ended December 31, (in millions)	Purchased credit card relationships	Other credit card-related intangibles	Core deposit intangibles	Other intangibles	Total
2014	\$ 96	\$ 51	\$ 102	\$ 111	\$ 360
2015	12	39	26	92	169
2016	9	34	14	86	143
2017	5	29	7	61	102
2018	3	20	5	52	80

Impairment testing

The Firm's intangible assets are tested for impairment annually or more often if events or changes in circumstances indicate that the asset might be impaired.

The impairment test for a finite-lived intangible asset compares the undiscounted cash flows associated with the use or disposition of the intangible asset to its carrying value. If the sum of the undiscounted cash flows exceeds its carrying value, then no impairment charge is recorded. If the sum of the undiscounted cash flows is less than its carrying value, then an impairment charge is recognized in amortization expense to the extent the carrying amount of the asset exceeds its fair value.

The impairment test for indefinite-lived intangible assets compares the fair value of the intangible asset to its carrying amount. If the carrying value exceeds the fair value, then an impairment charge is recognized in amortization expense for the difference.

Note 18 – Premises and equipment

Premises and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. JPMorgan Chase computes depreciation using the straight-line method over the estimated useful life of an asset. For leasehold improvements, the Firm uses the straight-line method computed over the lesser of the remaining term of the leased facility or the estimated useful life of the leased asset. JPMorgan Chase has recorded immaterial asset retirement obligations related to asbestos remediation in those cases where it has sufficient information to estimate the obligations' fair value.

JPMorgan Chase capitalizes certain costs associated with the acquisition or development of internal-use software. Once the software is ready for its intended use, these costs are amortized on a straight-line basis over the software's expected useful life and reviewed for impairment on an ongoing basis.

Note 19 – Deposits

At December 31, 2013 and 2012, noninterest-bearing and interest-bearing deposits were as follows.

December 31, (in millions)	2013	2012
U.S. offices		
Noninterest-bearing	\$ 389,863	\$ 380,320
Interest-bearing		
Demand ^(a)	84,631	53,980
Savings ^(b)	450,405	407,710
Time (included \$5,995 and \$5,140 at fair value) ^(c)	91,356	90,416
Total interest-bearing deposits	626,392	552,106
Total deposits in U.S. offices	1,016,255	932,426
Non-U.S. offices		
Noninterest-bearing	17,611	17,845
Interest-bearing		
Demand	214,391	195,395
Savings	1,083	1,004
Time (included \$629 and \$593 at fair value) ^(c)	38,425	46,923
Total interest-bearing deposits	253,899	243,322
Total deposits in non-U.S. offices	271,510	261,167
Total deposits	\$ 1,287,765	\$ 1,193,593

(a) Includes Negotiable Order of Withdrawal ("NOW") accounts, and certain trust accounts.

(b) Includes Money Market Deposit Accounts ("MMDAs").

(c) Includes structured notes classified as deposits for which the fair value option has been elected. For further discussion, see Note 4 on pages 215-218 of this Annual Report.

At December 31, 2013 and 2012, time deposits in denominations of \$100,000 or more were as follows.

December 31, (in millions)	2013	2012
U.S. offices	\$ 74,804	\$ 70,008
Non-U.S. offices	38,412	46,890
Total	\$ 113,216	\$ 116,898

At December 31, 2013, the maturities of interest-bearing time deposits were as follows.

December 31, 2013 (in millions)	U.S.	Non-U.S.	Total
2014	\$ 73,130	\$ 37,394	\$ 110,524
2015	5,395	361	5,756
2016	6,274	402	6,676
2017	1,387	55	1,442
2018	1,845	201	2,046
After 5 years	3,325	12	3,337
Total	\$ 91,356	\$ 38,425	\$ 129,781

Note 20 – Accounts payable and other liabilities

Accounts payable and other liabilities consist of payables to customers; payables to brokers, dealers and clearing organizations; payables from failed securities purchases; income taxes payables; accrued expense, including interest-bearing liabilities; and all other liabilities, including litigation reserves and obligations to return securities received as collateral.

The following table details the components of accounts payable and other liabilities.

December 31, (in millions)	2013	2012
Brokerage payables ^(a)	\$ 116,391	\$ 108,398
Accounts payable and other liabilities ^(b)	78,100	86,842
Total	\$ 194,491	\$ 195,240

(a) Includes payables to customers, brokers, dealers and clearing organizations, and securities fails.

(b) Includes \$25 million and \$36 million accounted for at fair value at December 31, 2013 and 2012, respectively.

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Note 21 – Long-term debt

JPMorgan Chase issues long-term debt denominated in various currencies, although predominantly U.S. dollars, with both fixed and variable interest rates. Included in senior and subordinated debt below are various equity-linked or other indexed instruments, which the Firm has elected to measure at fair value. Changes in fair value are recorded in principal transactions revenue in the Consolidated Statements of Income. The following table is a summary of long-term debt carrying values (including unamortized original issue discount, valuation adjustments and fair value adjustments, where applicable) by remaining contractual maturity as of December 31, 2013.

By remaining maturity at December 31, (in millions, except rates)		2013				2012
		Under 1 year	1-5 years	After 5 years	Total	Total
Parent company						
Senior debt:	Fixed rate	\$ 11,100	\$ 49,241	\$ 40,733	\$ 101,074	\$ 99,716
	Variable rate	12,411	22,790	5,829	41,030	38,765
	Interest rates ^(a)	0.38-6.25%	0.35-7.25%	0.19-6.40%	0.19-7.25%	0.26-7.25%
Subordinated debt:	Fixed rate	\$ 2,904	\$ 4,966	\$ 7,328	\$ 15,198	\$ 16,312
	Variable rate	—	4,557	9	4,566	3,440
	Interest rates ^(a)	1.92-5.13%	0.63-6.13%	3.38-8.53%	0.63-8.53%	0.61-8.53%
Subtotal		\$ 26,415	\$ 81,554	\$ 53,899	\$ 161,868	\$ 158,233
Subsidiaries						
Federal Home Loan Banks ("FHLB") advances:	Fixed rate	\$ 1,029	\$ 2,022	\$ 185	\$ 3,236	\$ 4,712
	Variable rate	11,050	39,590	8,000	58,640	37,333
	Interest rates ^(a)	0.20-1.54%	0.16-2.04%	0.36-0.43%	0.16-2.04%	0.30-2.04%
Senior debt:	Fixed rate	\$ 347	\$ 1,655	\$ 3,426	\$ 5,428	\$ 6,761
	Variable rate	6,593	14,117	2,748	23,458	21,607
	Interest rates ^(a)	0.12-3.75%	0.21-8.00%	7.28%	0.12-8.00%	0.16-7.28%
Subordinated debt:	Fixed rate	\$ —	\$ 5,445	\$ 1,841	\$ 7,286	\$ 7,513
	Variable rate	—	2,528	—	2,528	2,466
	Interest rates ^(a)	—%	0.57-6.00%	4.38-8.25%	0.57-8.25%	0.64-8.25%
Subtotal		\$ 19,019	\$ 65,357	\$ 16,200	\$ 100,576	\$ 80,392
Junior subordinated debt:	Fixed rate	\$ —	\$ —	\$ 2,176	\$ 2,176	\$ 7,131
	Variable rate	—	—	3,269	3,269	3,268
	Interest rates ^(a)	—%	—%	0.74-8.75%	0.74-8.75%	0.81-8.75%
Subtotal		\$ —	\$ —	\$ 5,445	\$ 5,445	\$ 10,399
Total long-term debt^{(b)(c)(d)}		\$ 45,434	\$ 146,911	\$ 75,544	\$ 267,889	\$ 249,024
Long-term beneficial interests:						
	Fixed rate	\$ 353	\$ 7,537	\$ 3,068	\$ 10,958	\$ 10,393
	Variable rate	3,438	13,056	4,378	20,872	24,579
	Interest rates	0.19-5.63%	0.19-5.35%	0.04-15.93%	0.04-15.93%	0.23-13.91%
Total long-term beneficial interests^(e)		\$ 3,791	\$ 20,593	\$ 7,446	\$ 31,830	\$ 34,972

- (a) The interest rates shown are the range of contractual rates in effect at year-end, including non-U.S. dollar fixed- and variable-rate issuances, which excludes the effects of the associated derivative instruments used in hedge accounting relationships, if applicable. The use of these derivative instruments modifies the Firm's exposure to the contractual interest rates disclosed in the table above. Including the effects of the hedge accounting derivatives, the range of modified rates in effect at December 31, 2013, for total long-term debt was (0.18)% to 8.00%, versus the contractual range of 0.12% to 8.75% presented in the table above. The interest rate ranges shown exclude structured notes accounted for at fair value.
- (b) Included long-term debt of \$68.4 billion and \$48.0 billion secured by assets totaling \$131.3 billion and \$112.8 billion at December 31, 2013 and 2012, respectively. The amount of long-term debt secured by assets does not include amounts related to hybrid instruments.
- (c) Included \$28.9 billion and \$30.8 billion of long-term debt accounted for at fair value at December 31, 2013 and 2012, respectively.
- (d) Included \$2.7 billion and \$1.6 billion of outstanding zero-coupon notes at December 31, 2013 and 2012, respectively. The aggregate principal amount of these notes at their respective maturities is \$4.5 billion and \$3.0 billion, respectively.
- (e) Included on the Consolidated Balance Sheets in beneficial interests issued by consolidated VIEs. Also included \$2.0 billion and \$1.2 billion of outstanding structured notes accounted for at fair value at December 31, 2013 and 2012, respectively. Excluded short-term commercial paper and other short-term beneficial interests of \$17.8 billion and \$28.2 billion at December 31, 2013 and 2012, respectively.
- (f) At December 31, 2013, long-term debt in the aggregate of \$24.6 billion was redeemable at the option of JPMorgan Chase, in whole or in part, prior to maturity, based on the terms specified in the respective notes.
- (g) The aggregate carrying values of debt that matures in each of the five years subsequent to 2013 is \$45.4 billion in 2014, \$43.3 billion in 2015, \$36.3 billion in 2016, \$32.5 billion in 2017 and \$34.8 billion in 2018.

The weighted-average contractual interest rates for total long-term debt excluding structured notes accounted for at fair value were 2.56% and 3.09% as of December 31, 2013 and 2012, respectively. In order to modify exposure to interest rate and currency exchange rate movements, JPMorgan Chase utilizes derivative instruments, primarily interest rate and cross-currency interest rate swaps, in conjunction with some of its debt issues. The use of these instruments modifies the Firm's interest expense on the associated debt. The modified weighted-average interest rates for total long-term debt, including the effects of related derivative instruments, were 1.54% and 2.33% as of December 31, 2013 and 2012, respectively.

The Parent Company has guaranteed certain long-term debt of its subsidiaries, including both long-term debt and structured notes sold as part of the Firm's market-making activities. These guarantees rank on parity with all of the Firm's other unsecured and unsubordinated indebtedness. Guaranteed liabilities were \$478 million and \$1.7 billion at December 31, 2013 and 2012, respectively.

The Firm's unsecured debt does not contain requirements that would call for an acceleration of payments, maturities or changes in the structure of the existing debt, provide any limitations on future borrowings or require additional collateral, based on unfavorable changes in the Firm's credit ratings, financial ratios, earnings or stock price.

Junior subordinated deferrable interest debentures held by trusts that issued guaranteed capital debt securities

On May 8, 2013, the Firm redeemed approximately \$5.0 billion, or 100% of the liquidation amount, of the following

eight series of guaranteed capital debt securities ("trust preferred securities"): JPMorgan Chase Capital X, XI, XII, XIV, XVI, XIX and XXIV, and BANK ONE Capital VI. Other income for the year ended December 31, 2013, reflected a modest loss related to the redemption of trust preferred securities. On July 12, 2012, the Firm redeemed \$9.0 billion, or 100% of the liquidation amount, of the following nine series of trust preferred securities: JPMorgan Chase Capital XV, XVII, XVIII, XX, XXII, XXV, XXVI, XXVII and XXVIII. Other income for the year ended December 31, 2012, reflected \$888 million of pretax extinguishment gains related to adjustments applied to the cost basis of the redeemed trust preferred securities during the period they were in a qualified hedge accounting relationship.

At December 31, 2013, the Firm had outstanding 9 wholly owned Delaware statutory business trusts ("issuer trusts") that had issued guaranteed capital debt securities.

The junior subordinated deferrable interest debentures issued by the Firm to the issuer trusts, totaling \$5.4 billion and \$10.4 billion at December 31, 2013 and 2012, respectively, were reflected on the Firm's Consolidated Balance Sheets in long-term debt, and in the table on the preceding page under the caption "Junior subordinated debt" (i.e., trust preferred securities). The Firm also records the common capital securities issued by the issuer trusts in other assets in its Consolidated Balance Sheets at December 31, 2013 and 2012. The debentures issued to the issuer trusts by the Firm, less the common capital securities of the issuer trusts, qualified as Tier 1 capital as of December 31, 2013 and 2012.

Notes to consolidated financial statements

The following is a summary of the outstanding trust preferred securities, including unamortized original issue discount, issued by each trust, and the junior subordinated deferrable interest debenture issued to each trust, as of December 31, 2013.

December 31, 2013 (in millions)	Amount of trust preferred securities issued by trust ^(a)	Principal amount of debenture issued to trust ^(b)	Issue date	Stated maturity of trust preferred securities and debentures	Earliest redemption date	Interest rate of trust preferred securities and debentures	Interest payment/ distribution dates
Bank One Capital III	\$ 474	\$ 675	2000	2030	Any time	8.75%	Semiannually
Chase Capital II	482	498	1997	2027	Any time	LIBOR + 0.50%	Quarterly
Chase Capital III	296	305	1997	2027	Any time	LIBOR + 0.55%	Quarterly
Chase Capital VI	241	249	1998	2028	Any time	LIBOR + 0.625%	Quarterly
First Chicago NBD Capital I	249	257	1997	2027	Any time	LIBOR + 0.55%	Quarterly
JPMorgan Chase Capital XIII	465	480	2004	2034	2014	LIBOR + 0.95%	Quarterly
JPMorgan Chase Capital XXI	836	837	2007	2037	Any time	LIBOR + 0.95%	Quarterly
JPMorgan Chase Capital XXIII	643	644	2007	2047	Any time	LIBOR + 1.00%	Quarterly
JPMorgan Chase Capital XXIX	1,500	1,500	2010	2040	2015	6.70%	Quarterly
Total	\$ 5,186	\$ 5,445					

(a) Represents the amount of trust preferred securities issued to the public by each trust, including unamortized original issue discount.

(b) Represents the principal amount of JPMorgan Chase debentures issued to each trust, including unamortized original-issue discount. The principal amount of debentures issued to the trusts includes the impact of hedging and purchase accounting fair value adjustments that were recorded on the Firm's Consolidated Financial Statements.

Note 22 – Preferred stock

At December 31, 2013 and 2012, JPMorgan Chase was authorized to issue 200 million shares of preferred stock, in one or more series, with a par value of \$1 per share.

In the event of a liquidation or dissolution of the Firm, JPMorgan Chase's preferred stock then outstanding takes precedence over the Firm's common stock for the payment of dividends and the distribution of assets.

The following is a summary of JPMorgan Chase's preferred stock outstanding as of December 31, 2013 and 2012.

	Contractual rate in effect at December 31, 2013	Shares at December 31, ^(a)		Carrying value (in millions) at December 31,		Earliest redemption date	Share value and redemption price per share ^(b)
		2013	2012	2013	2012		
Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series I	7.900%	600,000	600,000	\$ 6,000	\$ 6,000	4/30/2018	\$ 10,000
8.625% Non-Cumulative Perpetual Preferred Stock, Series J	N/A	—	180,000	—	1,800	9/1/2013	10,000
5.50% Non-Cumulative Perpetual Preferred Stock, Series O	5.500%	125,750	125,750	1,258	1,258	9/1/2017	10,000
5.45% Non-Cumulative Perpetual Preferred Stock, Series P	5.450%	90,000	—	900	—	3/1/2018	10,000
Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series Q	5.150%	150,000	—	1,500	—	5/1/2023	10,000
Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series R	6.000%	150,000	—	1,500	—	8/1/2023	10,000
Total preferred stock		1,115,750	905,750	\$ 11,158	\$ 9,058		

(a) Represented by depositary shares.

(b) The redemption price includes the amount shown in the table plus any accrued but unpaid dividends.

Dividends on the Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series I shares are payable semiannually at a fixed annual dividend rate of 7.90% through April 2018, and then become payable quarterly at an annual dividend rate of three-month LIBOR plus 3.47%. Dividends on the 5.50% Non-Cumulative Preferred Stock, Series O and the 5.45% Non-Cumulative Preferred Stock, Series P are payable quarterly. Dividends on the Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series Q shares are payable semi-annually at a fixed annual rate of 5.15% through April 2023, and then become payable at a dividend rate of three-month LIBOR plus 3.25%. Dividends on the Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series R shares are payable semi-annually at a fixed annual dividend rate of 6.00% through July 2023, and then become payable at a dividend rate of three-month LIBOR plus 3.30%.

The Series O Non-Cumulative Preferred Stock was issued in August 2012. Series P Non-Cumulative Preferred Stock was issued in February 2013; Series Q Fixed-to-Floating Non-Cumulative Preferred Stock was issued in April 2013; and Series R Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series R was issued in July 2013.

On September 1, 2013, the Firm redeemed all of the outstanding shares of its 8.625% Non-Cumulative Preferred Stock, Series J at their stated redemption value.

Redemption rights

Each series of the Firm's preferred stock may be redeemed on any dividend payment date on or after the earliest redemption date for that series. The Series O, Series P, Series Q and Series R preferred stock may also be redeemed following a capital treatment event, as described in the terms of that series. Any redemption of the Firm's preferred stock is subject to non-objection from the Federal Reserve.

Subsequent events

Issuance of preferred stock

On January 22, 2014, January 30, 2014, and February 6, 2014, the Firm issued \$2.0 billion, \$850 million, and \$75 million, respectively, of noncumulative preferred stock.

Notes to consolidated financial statements

Note 23 – Common stock

At December 31, 2013 and 2012, JPMorgan Chase was authorized to issue 9.0 billion shares of common stock with a par value of \$1 per share.

Common shares issued (newly issued or distributed from treasury) by JPMorgan Chase during the years ended December 31, 2013, 2012 and 2011 were as follows.

Year ended December 31, (in millions)	2013	2012	2011
Total issued – balance at January 1 and December 31	4,104.9	4,104.9	4,104.9
Treasury – balance at January 1	(300.9)	(332.2)	(194.6)
Purchase of treasury stock	(96.1)	(33.5)	(226.9)
Share repurchases related to employee stock-based awards ^(a)	–	(0.2)	(0.1)
Issued from treasury:			
Employee benefits and compensation plans	47.1	63.7	88.3
Employee stock purchase plans	1.1	1.3	1.1
Total issued from treasury	48.3	65.0	89.4
Total treasury – balance at December 31	(348.8)	(300.9)	(332.2)
Outstanding	3,756.1	3,804.0	3,772.7

(a) Participants in the Firm's stock-based incentive plans may have shares withheld to cover income taxes.

At December 31, 2013, 2012, and 2011, respectively, the Firm had 59.8 million, 59.8 million and 78.2 million warrants outstanding to purchase shares of common stock. The warrants were originally issued pursuant to the U.S. Treasury Capital Purchase Program in 2008, and are currently traded on the New York Stock Exchange. The warrants are exercisable, in whole or in part, at any time and from time to time until October 28, 2018, at an exercise price of \$42.42 per share. The number of shares issuable upon the exercise of each warrant and the warrant exercise price is subject to adjustment upon the occurrence of certain events, including in the case of: stock splits, subdivisions, reclassifications or combinations of common stock; cash dividends or distributions to all holders of the Firm's common stock of assets, rights or warrants (and with respect to cash dividends, only to the extent regular quarterly cash dividends exceed \$0.38 per share (as adjusted for any stock split, reverse stock split, reclassification or similar transaction)); pro rata repurchases of common stock (as defined in the warrants) pursuant to an offer available to substantially all holders of common stock; and certain business combinations (as defined in the warrants) requiring the approval of the Firm's stockholders or a reclassification of the Firm's common stock.

On March 13, 2012, the Board of Directors authorized a \$15.0 billion common equity (i.e., common stock and warrants) repurchase program. The amount of equity that may be repurchased is also subject to the amount that is set forth in the Firm's annual capital plan that is submitted to the Federal Reserve as part of the CCAR process. The following table shows the Firm's repurchases of common equity for the years ended December 31, 2013, 2012 and 2011, on a trade-date basis. As of December 31, 2013,

\$8.6 billion of authorized repurchase capacity remained under the program.

Year ended December 31, (in millions)	2013	2012	2011
Total number of shares of common stock repurchased	96	31	229
Aggregate purchase price of common stock repurchases	\$ 4,789	\$ 1,329	\$ 8,827
Total number of warrants repurchased	–	18	10
Aggregate purchase price of warrant repurchases	\$ –	\$ 238	\$ 122

The Firm may, from time to time, enter into written trading plans under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate repurchases in accordance with the common equity repurchase program. A Rule 10b5-1 repurchase plan allows the Firm to repurchase its equity during periods when it would not otherwise be repurchasing common equity – for example, during internal trading “black-out periods.” All purchases under a Rule 10b5-1 plan must be made according to a predefined plan established when the Firm is not aware of material nonpublic information. For additional information regarding repurchases of the Firm's equity securities, see Part II, Item 5: Market for registrant's common equity, related stockholder matters and issuer purchases of equity securities, on pages 20–21 of JPMorgan Chase's 2013 Form 10-K.

On March 18, 2011, the Board of Directors raised the Firm's quarterly common stock dividend from \$0.05 to \$0.25 per share, effective with the dividend paid on April 30, 2011, to shareholders of record on April 6, 2011. On March 13, 2012, the Board of Directors increased the Firm's quarterly common stock dividend from \$0.25 to \$0.30 per share, effective with the dividend paid on April 30, 2012, to shareholders of record on April 5, 2012. On May 21, 2013, the Board of Directors increased the Firm's quarterly common stock dividend from \$0.30 per share to \$0.38 per share, effective with the dividend paid on July 31, 2013, to shareholders of record on July 5, 2013.

As of December 31, 2013, approximately 290 million unissued shares of common stock were reserved for issuance under various employee incentive, compensation, option and stock purchase plans, director compensation plans, and the warrants sold by the U.S. Treasury as discussed above.

Note 24 – Earnings per share

Earnings per share (“EPS”) is calculated under the two-class method under which all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities based on their respective rights to receive dividends. JPMorgan Chase grants restricted stock and RSUs to certain employees under its stock-based compensation programs, which entitle recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock; these unvested awards meet the definition of participating securities. Options issued under employee benefit plans that have an antidilutive effect are excluded from the computation of diluted EPS.

The following table presents the calculation of basic and diluted EPS for the years ended December 31, 2013, 2012 and 2011.

Year ended December 31, (in millions, except per share amounts)	2013	2012	2011
Basic earnings per share			
Net income	\$ 17,923	\$ 21,284	\$ 18,976
Less: Preferred stock dividends	805	653	629
Net income applicable to common equity	17,118	20,631	18,347
Less: Dividends and undistributed earnings allocated to participating securities	525	754	779
Net income applicable to common stockholders	\$ 16,593	\$ 19,877	\$ 17,568
Total weighted-average basic shares outstanding	3,782.4	3,809.4	3,900.4
Net income per share	\$ 4.39	\$ 5.22	\$ 4.50
Diluted earnings per share			
Net income applicable to common stockholders	\$ 16,593	\$ 19,877	\$ 17,568
Total weighted-average basic shares outstanding	3,782.4	3,809.4	3,900.4
Add: Employee stock options, SARs and warrants ^(a)	32.5	12.8	19.9
Total weighted-average diluted shares outstanding^(b)	3,814.9	3,822.2	3,920.3
Net income per share	\$ 4.35	\$ 5.20	\$ 4.48

(a) Excluded from the computation of diluted EPS (due to the antidilutive effect) were options issued under employee benefit plans and the warrants originally issued in 2008 under the U.S. Treasury's Capital Purchase Program to purchase shares of the Firm's common stock. The aggregate number of shares issuable upon the exercise of such options and warrants was 6 million, 148 million and 133 million for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) Participating securities were included in the calculation of diluted EPS using the two-class method, as this computation was more dilutive than the calculation using the treasury stock method.

Notes to consolidated financial statements

Note 25 – Accumulated other comprehensive income/(loss)

AOCI includes the after-tax change in unrealized gains and losses on AFS securities, foreign currency translation adjustments (including the impact of related derivatives), cash flow hedging activities, and net loss and prior service costs/(credit) related to the Firm's defined benefit pension and OPEB plans.

Year ended December 31, (in millions)	Unrealized gains/ (losses) on AFS securities ^(a)	Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	Accumulated other comprehensive income/(loss)
Balance at December 31, 2010	\$ 2,498	\$ 253	\$ 206	\$ (1,956)	\$ 1,001
Net change	1,067 ^(b)	(279)	(155)	(690)	(57)
Balance at December 31, 2011	\$ 3,565 ^(c)	\$ (26)	\$ 51	\$ (2,646)	\$ 944
Net change	3,303 ^(d)	(69)	69	(145)	3,158
Balance at December 31, 2012	\$ 6,868 ^(c)	\$ (95)	\$ 120	\$ (2,791)	\$ 4,102
Net change	(4,070) ^(e)	(41)	(259)	1,467	(2,903)
Balance at December 31, 2013	\$ 2,798 ^(c)	\$ (136)	\$ (139)	\$ (1,324)	\$ 1,199

(a) Represents the after-tax difference between the fair value and amortized cost of securities accounted for as AFS.

(b) The net change for 2011 was due primarily to increased market value on U.S. government agency issued MBS and obligations of U.S. states and municipalities, partially offset by the widening of spreads on non-U.S. corporate debt and the realization of gains due to portfolio repositioning.

(c) Included after-tax unrealized losses not related to credit on debt securities for which credit losses have been recognized in income of \$(56) million at December 31, 2011. There were no such losses at December 31, 2012 and 2013.

(d) The net change for 2012 was predominantly driven by increased market value on non-U.S. residential MBS, corporate debt securities and obligations of U.S. states and municipalities, partially offset by realized gains.

(e) The net change for 2013 was primarily related to the decline in fair value of U.S. government agency issued MBS and obligations of U.S. states and municipalities due to market changes, as well as net realized gains.

The following table presents the before- and after-tax changes in the components of other comprehensive income/(loss).

Year ended December 31, (in millions)	2013			2012			2011		
	Pretax	Tax effect	After- tax	Pretax	Tax effect	After- tax	Pretax	Tax effect	After- tax
Unrealized gains/(losses) on AFS securities:									
Net unrealized gains/(losses) arising during the period	\$ (5,987)	\$ 2,323	\$ (3,664)	\$ 7,521	\$ (2,930)	\$ 4,591	\$ 3,361	\$ (1,322)	\$ 2,039
Reclassification adjustment for realized (gains)/losses included in net income ^(a)	(667)	261	(406)	(2,110)	822	(1,288)	(1,593)	621	(972)
Net change	(6,654)	2,584	(4,070)	5,411	(2,108)	3,303	1,768	(701)	1,067
Translation adjustments:									
Translation ^(b)	(807)	295	(512)	(26)	8	(18)	(672)	255	(417)
Hedges ^(b)	773	(302)	471	(82)	31	(51)	226	(88)	138
Net change	(34)	(7)	(41)	(108)	39	(69)	(446)	167	(279)
Cash flow hedges:									
Net unrealized gains/(losses) arising during the period	(525)	206	(319)	141	(55)	86	50	(19)	31
Reclassification adjustment for realized (gains)/losses included in net income ^(c)	101	(41)	60	(28)	11	(17)	(301)	115	(186)
Net change	(424)	165	(259)	113	(44)	69	(251)	96	(155)
Defined benefit pension and OPEB plans:									
Prior service credits arising during the period	—	—	—	6	(2)	4	—	—	—
Net gains/(losses) arising during the period	2,055	(750)	1,305	(537)	228	(309)	(1,290)	502	(788)
Reclassification adjustments included in net income ^(d) :									
Amortization of net loss	321	(124)	197	324	(126)	198	214	(83)	131
Prior service costs/(credits)	(43)	17	(26)	(41)	16	(25)	(52)	20	(32)
Foreign exchange and other	(14)	5	(9)	(21)	8	(13)	(1)	—	(1)
Net change	2,319	(852)	1,467	(269)	124	(145)	(1,129)	439	(690)
Total other comprehensive income/(loss)	\$ (4,793)	\$ 1,890	\$ (2,903)	\$ 5,147	\$ (1,989)	\$ 3,158	\$ (58)	\$ 1	\$ (57)

(a) The pretax amount is reported in securities gains in the Consolidated Statements of Income.

(b) Reclassifications of pretax realized gains/(losses) on translation adjustments and related hedges are reported in other income in the Consolidated Statements of Income. The amounts were not material for the year ended December 31, 2013.

(c) The pretax amount is reported in the same line as the hedged items, which are predominantly recorded in net interest income in the Consolidated Statements of Income.

(d) The pretax amount is reported in compensation expense in the Consolidated Statements of Income.

Note 26 – Income taxes

JPMorgan Chase and its eligible subsidiaries file a consolidated U.S. federal income tax return. JPMorgan Chase uses the asset and liability method to provide income taxes on all transactions recorded in the Consolidated Financial Statements. This method requires that income taxes reflect the expected future tax consequences of temporary differences between the carrying amounts of assets or liabilities for book and tax purposes. Accordingly, a deferred tax asset or liability for each temporary difference is determined based on the tax rates that the Firm expects to be in effect when the underlying items of income and expense are realized. JPMorgan Chase's expense for income taxes includes the current and deferred portions of that expense. A valuation allowance is established to reduce deferred tax assets to the amount the Firm expects to realize.

Due to the inherent complexities arising from the nature of the Firm's businesses, and from conducting business and being taxed in a substantial number of jurisdictions, significant judgments and estimates are required to be made. Agreement of tax liabilities between JPMorgan Chase and the many tax jurisdictions in which the Firm files tax returns may not be finalized for several years. Thus, the Firm's final tax-related assets and liabilities may ultimately be different from those currently reported.

A reconciliation of the applicable statutory U.S. income tax rate to the effective tax rate for each of the years ended December 31, 2013, 2012 and 2011, is presented in the following table.

Effective tax rate

Year ended December 31,	2013	2012	2011
Statutory U.S. federal tax rate	35.0%	35.0%	35.0%
Increase/(decrease) in tax rate resulting from:			
U.S. state and local income taxes, net of U.S. federal income tax benefit	2.2	1.6	1.6
Tax-exempt income	(3.1)	(2.9)	(2.1)
Non-U.S. subsidiary earnings ^(a)	(4.9)	(2.4)	(2.3)
Business tax credits	(5.4)	(4.2)	(4.0)
Nondeductible legal expense ^(b)	8.0	(0.2)	0.9
Other, net	(1.0)	(0.5)	—
Effective tax rate	30.8%	26.4%	29.1%

(a) Includes earnings deemed to be reinvested indefinitely in non-U.S. subsidiaries.

(b) The prior periods have been revised to conform with the current presentation.

The components of income tax expense/(benefit) included in the Consolidated Statements of Income were as follows for each of the years ended December 31, 2013, 2012, and 2011.

Income tax expense/(benefit)

Year ended December 31, (in millions)	2013	2012	2011
Current income tax expense/(benefit)			
U.S. federal	\$ (1,316)	\$ 3,225	\$ 3,719
Non-U.S.	1,308	1,782	1,183
U.S. state and local	(4)	1,496	1,178
Total current income tax expense/(benefit)	(12)	6,503	6,080
Deferred income tax expense/(benefit)			
U.S. federal	7,080	2,238	2,109
Non-U.S.	10	(327)	102
U.S. state and local	913	(781)	(518)
Total deferred income tax expense/(benefit)	8,003	1,130	1,693
Total income tax expense	\$ 7,991	\$ 7,633	\$ 7,773

Total income tax expense was \$8.0 billion in 2013 with an effective tax rate of 30.8%. The relationship between current and deferred income tax expense is largely driven by the reversal of significant deferred tax assets as well as prior year tax adjustments and audit resolutions. Total income tax expense includes \$531 million, \$200 million and \$76 million of tax benefits recorded in 2013, 2012, and 2011, respectively, as a result of tax audit resolutions.

The preceding table does not reflect the tax effect of certain items that are recorded each period directly in stockholders' equity and certain tax benefits associated with the Firm's employee stock-based compensation plans. The tax effect of all items recorded directly to stockholders' equity resulted in an increase of \$2.1 billion in 2013, a decrease of \$1.9 billion in 2012, and an increase of \$927 million in 2011.

U.S. federal income taxes have not been provided on the undistributed earnings of certain non-U.S. subsidiaries, to the extent that such earnings have been reinvested abroad for an indefinite period of time. Based on JPMorgan Chase's ongoing review of the business requirements and capital needs of its non-U.S. subsidiaries, combined with the formation of specific strategies and steps taken to fulfill these requirements and needs, the Firm has determined that the undistributed earnings of certain of its subsidiaries would be indefinitely reinvested to fund current and future growth of the related businesses. As management does not intend to use the earnings of these subsidiaries as a source of funding for its U.S. operations, such earnings will not be distributed to the U.S. in the foreseeable future. For 2013, pretax earnings of approximately \$3.4 billion were generated and will be indefinitely reinvested in these subsidiaries. At December 31, 2013, the cumulative amount of undistributed pretax earnings in these subsidiaries approximated \$28.5 billion. If the Firm were to record a deferred tax liability associated with these

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undistributed earnings, the amount would be approximately \$6.4 billion at December 31, 2013.

Tax expense applicable to securities gains and losses for the years 2013, 2012 and 2011 was \$261 million, \$822 million, and \$617 million, respectively.

Deferred income tax expense/(benefit) results from differences between assets and liabilities measured for financial reporting purposes versus income tax return purposes. Deferred tax assets are recognized if, in management's judgment, their realizability is determined to be more likely than not. If a deferred tax asset is determined to be unrealizable, a valuation allowance is established. The significant components of deferred tax assets and liabilities are reflected in the following table as of December 31, 2013 and 2012.

Deferred taxes

December 31, (in millions)	2013	2012
Deferred tax assets		
Allowance for loan losses	\$ 6,593	\$ 8,712
Employee benefits	4,468	4,308
Accrued expenses and other	9,179	12,393
Non-U.S. operations	5,493	3,537
Tax attribute carryforwards	748	1,062
Gross deferred tax assets	26,481	30,012
Valuation allowance	(724)	(689)
Deferred tax assets, net of valuation allowance	\$ 25,757	\$ 29,323
Deferred tax liabilities		
Depreciation and amortization	\$ 3,196	\$ 2,563
Mortgage servicing rights, net of hedges	5,882	5,336
Leasing transactions	2,352	2,242
Non-U.S. operations	4,705	3,582
Other, net	3,459	4,340
Gross deferred tax liabilities	19,594	18,063
Net deferred tax assets	\$ 6,163	\$ 11,260

JPMorgan Chase has recorded deferred tax assets of \$748 million at December 31, 2013, in connection with U.S. federal and state and local net operating loss carryforwards and foreign tax credit carryforwards. At December 31, 2013, the U.S. federal net operating loss carryforwards were approximately \$1.5 billion; the state and local net operating loss carryforward was approximately \$156 million; and the U.S. foreign tax credit carryforward was approximately \$203 million. If not utilized, the U.S. federal net operating loss carryforwards and the state and local net operating loss carryforward will expire between 2027 and 2030; and the U.S. foreign tax credit carryforward will expire in 2022.

The valuation allowance at December 31, 2013, was due to losses associated with non-U.S. subsidiaries.

At December 31, 2013, 2012 and 2011, JPMorgan Chase's unrecognized tax benefits, excluding related interest expense and penalties, were \$5.5 billion, \$7.2 billion and \$7.2 billion, respectively, of which \$3.7 billion, \$4.2 billion and \$4.0 billion, respectively, if recognized, would reduce the annual effective tax rate. Included in the amount of unrecognized tax benefits are certain items that would not affect the effective tax rate if they were recognized in the Consolidated Statements of Income. These unrecognized items include the tax effect of certain temporary differences, the portion of gross state and local unrecognized tax benefits that would be offset by the benefit from associated U.S. federal income tax deductions, and the portion of gross non-U.S. unrecognized tax benefits that would have offsets in other jurisdictions. JPMorgan Chase is presently under audit by a number of taxing authorities, most notably by the Internal Revenue Service, New York State and City, and the State of California as summarized in the Tax examination status table below. Based upon the status of all of the tax examinations currently in process, it is reasonably possible that over the next 12 months the resolution of some of these examinations could result in a significant reduction in the gross balance of unrecognized tax benefits; however, at this time, it is not possible to reasonably estimate the amount of the reduction, if any.

The following table presents a reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2013, 2012 and 2011.

Unrecognized tax benefits

Year ended December 31, (in millions)	2013	2012	2011
Balance at January 1,	\$ 7,158	\$ 7,189	\$ 7,767
Increases based on tax positions related to the current period	542	680	516
Decreases based on tax positions related to the current period	—	—	(110)
Increases based on tax positions related to prior periods	88	234	496
Decreases based on tax positions related to prior periods	(2,200)	(853)	(1,433)
Decreases related to settlements with taxing authorities	(53)	(50)	(16)
Decreases related to a lapse of applicable statute of limitations	—	(42)	(31)
Balance at December 31,	\$ 5,535	\$ 7,158	\$ 7,189

After-tax interest (benefit)/expense and penalties related to income tax liabilities recognized in income tax expense were \$(184) million, \$147 million and \$184 million in 2013, 2012 and 2011, respectively.

At December 31, 2013 and 2012, in addition to the liability for unrecognized tax benefits, the Firm had accrued \$1.2 billion and \$1.9 billion, respectively, for income tax-related interest and penalties.

JPMorgan Chase is continually under examination by the Internal Revenue Service, by taxing authorities throughout the world, and by many states throughout the U.S. The following table summarizes the status of significant income tax examinations of JPMorgan Chase and its consolidated subsidiaries as of December 31, 2013.

Tax examination status

December 31, 2013	Periods under examination	Status
JPMorgan Chase - U.S.	2003 - 2005	Field examination completed, JPMorgan Chase intends to appeal
JPMorgan Chase - U.S.	2006 - 2010	Field examination
Bear Stearns - U.S.	2003 - 2005	Refund claims under review
Bear Stearns - U.S.	2006 - 2008	Field examination
JPMorgan Chase - United Kingdom	2006 - 2011	Field examination
JPMorgan Chase - New York State and City	2005 - 2007	Field examination
JPMorgan Chase - California	2006 - 2010	Field examination

The following table presents the U.S. and non-U.S. components of income before income tax expense for the years ended December 31, 2013, 2012 and 2011.

Income before income tax expense - U.S. and non-U.S.

Year ended December 31, (in millions)	2013	2012	2011
U.S.	\$ 17,229	\$ 24,895	\$ 16,336
Non-U.S. ^(a)	8,685	4,022	10,413
Income before income tax expense	\$ 25,914	\$ 28,917	\$ 26,749

(a) For purposes of this table, non-U.S. income is defined as income generated from operations located outside the U.S.

Note 27 – Restrictions on cash and intercompany funds transfers

The business of JPMorgan Chase Bank, National Association (“JPMorgan Chase Bank, N.A.”) is subject to examination and regulation by the OCC. The Bank is a member of the U.S. Federal Reserve System, and its deposits in the U.S. are insured by the FDIC.

The Federal Reserve requires depository institutions to maintain cash reserves with a Federal Reserve Bank. The average amount of reserve balances deposited by the Firm’s bank subsidiaries with various Federal Reserve Banks was approximately \$5.3 billion and \$5.6 billion in 2013 and 2012, respectively.

Restrictions imposed by U.S. federal law prohibit JPMorgan Chase and certain of its affiliates from borrowing from banking subsidiaries unless the loans are secured in specified amounts. Such secured loans to the Firm or to other affiliates are generally limited to 10% of the banking subsidiary’s total capital, as determined by the risk-based capital guidelines; the aggregate amount of all such loans is limited to 20% of the banking subsidiary’s total capital.

The principal sources of JPMorgan Chase’s income (on a parent company-only basis) are dividends and interest from JPMorgan Chase Bank, N.A., and the other banking and nonbanking subsidiaries of JPMorgan Chase. In addition to dividend restrictions set forth in statutes and regulations, the Federal Reserve, the OCC and the FDIC have authority under the Financial Institutions Supervisory Act to prohibit or to limit the payment of dividends by the banking organizations they supervise, including JPMorgan Chase and its subsidiaries that are banks or bank holding companies, if, in the banking regulator’s opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization.

At January 1, 2014, JPMorgan Chase’s banking subsidiaries could pay, in the aggregate, \$29.8 billion in dividends to their respective bank holding companies without the prior approval of their relevant banking regulators. The capacity to pay dividends in 2014 will be supplemented by the banking subsidiaries’ earnings during the year.

In compliance with rules and regulations established by U.S. and non-U.S. regulators, as of December 31, 2013 and 2012, cash in the amount of \$17.2 billion and \$25.1 billion, respectively, and securities with a fair value of \$1.5 billion and \$0.7 billion, respectively, were segregated in special bank accounts for the benefit of securities and futures brokerage customers. In addition, as of December 31, 2013 and 2012, the Firm had other restricted cash of \$3.9 billion and \$3.4 billion, respectively, primarily representing cash reserves held at non-U.S. central banks and held for other general purposes.

Note 28 – Regulatory capital

The Federal Reserve establishes capital requirements, including well-capitalized standards, for the consolidated financial holding company. The OCC establishes similar capital requirements and standards for the Firm’s national banks, including JPMorgan Chase Bank, N.A., and Chase Bank USA, N.A.

There are two categories of risk-based capital: Tier 1 capital and Tier 2 capital. Tier 1 capital consists of common stockholders’ equity, perpetual preferred stock, noncontrolling interests in subsidiaries and trust preferred securities, less goodwill and certain other adjustments. Tier 2 capital consists of preferred stock not qualifying as Tier 1 capital, subordinated long-term debt and other instruments qualifying as Tier 2 capital, and the aggregate allowance for credit losses up to a certain percentage of risk-weighted assets. Total capital is Tier 1 capital plus Tier 2 capital. Under the risk-based capital guidelines of the Federal Reserve, JPMorgan Chase is required to maintain minimum ratios of Tier 1 and Total capital to risk-weighted assets, as well as minimum leverage ratios (which are defined as Tier 1 capital divided by adjusted quarterly average assets). Failure to meet these minimum requirements could cause the Federal Reserve to take action. Banking subsidiaries also are subject to these capital requirements by their respective primary regulators. As of December 31, 2013 and 2012, JPMorgan Chase and all of its banking subsidiaries were well-capitalized and met all capital requirements to which each was subject.

The following table presents the regulatory capital, assets and risk-based capital ratios for JPMorgan Chase and its significant banking subsidiaries at December 31, 2013 and 2012. These amounts are determined in accordance with regulations issued by the Federal Reserve and/or OCC. The table reflects the Firm's and JPMorgan Chase Bank, N.A.'s implementation of rules that provide for additional capital requirements for trading positions and securitizations ("Basel 2.5"). Basel 2.5 rules became effective for the Firm and JPMorgan Chase Bank, N.A. on January 1, 2013. The implementation of these rules in the first quarter of 2013 resulted in an increase of approximately \$150 billion and \$140 billion, respectively, in the Firm's and JPMorgan Chase Bank, N.A.'s risk-weighted assets compared with the Basel I rules at March 31, 2013. The implementation of these rules also resulted in decreases of the Firm's Tier 1 capital and Total capital ratios of 140 basis points and 160 basis points, respectively, at March 31, 2013, and decreases of JPMorgan Chase Bank, N.A.'s Tier 1 capital and Total capital ratios of 130 basis points and 150 basis points, respectively, at March 31, 2013. Implementation of Basel 2.5 in the first quarter of 2013 did not impact Chase Bank USA, N.A.'s RWA or Tier 1 capital and Total capital ratios.

December 31, (in millions, except ratios)	JPMorgan Chase & Co. ^(d)		JPMorgan Chase Bank, N.A. ^(d)		Chase Bank USA, N.A. ^(d)		Well-capitalized ratios ^(e)	Minimum capital ratios ^(e)
	2013	2012	2013	2012	2013	2012		
Regulatory capital								
Tier 1 ^(a)	\$ 165,663	\$ 160,002	\$ 139,727	\$ 111,827	\$ 12,956	\$ 9,648		
Total	199,286	194,036	165,496	146,870	16,389	13,131		
Assets								
Risk-weighted ^(b)	\$1,387,863	\$1,270,378	\$1,171,574	\$1,094,155	\$100,990	\$103,593		
Adjusted average ^(c)	2,343,713	2,243,242	1,900,770	1,815,816	109,731	103,688		
Capital ratios								
Tier 1 ^(a)	11.9%	12.6%	11.9%	10.2%	12.8%	9.3%	6.0%	4.0%
Total	14.4	15.3	14.1	13.4	16.2	12.7	10.0	8.0
Tier 1 leverage	7.1	7.1	7.4	6.2	11.8	9.3	5.0 ^(f)	3.0 ^(g)

- (a) At December 31, 2013, for JPMorgan Chase and JPMorgan Chase Bank, N.A., trust preferred securities were \$5.3 billion and \$600 million, respectively. If these securities were excluded from the calculation at December 31, 2013, Tier 1 capital would be \$160.4 billion and \$139.1 billion, respectively, and the Tier 1 capital ratio would be 11.6% and 11.9%, respectively. At December 31, 2013, Chase Bank USA, N.A. had no trust preferred securities.
- (b) Included off-balance sheet risk-weighted assets at December 31, 2013, of \$315.9 billion, \$304.0 billion and \$14 million, and at December 31, 2012, of \$304.5 billion, \$297.1 billion and \$16 million, for JPMorgan Chase, JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., respectively.
- (c) Adjusted average assets, for purposes of calculating the leverage ratio, included total quarterly average assets adjusted for unrealized gains/(losses) on securities, less deductions for disallowed goodwill and other intangible assets, investments in certain subsidiaries, and the total adjusted carrying value of nonfinancial equity investments that are subject to deductions from Tier 1 capital.
- (d) Asset and capital amounts for JPMorgan Chase's banking subsidiaries reflect intercompany transactions; whereas the respective amounts for JPMorgan Chase reflect the elimination of intercompany transactions.
- (e) As defined by the regulations issued by the Federal Reserve, OCC and FDIC.
- (f) Represents requirements for banking subsidiaries pursuant to regulations issued under the FDIC Improvement Act. There is no Tier 1 leverage component in the definition of a well-capitalized bank holding company.
- (g) The minimum Tier 1 leverage ratio for bank holding companies and banks is 3% or 4%, depending on factors specified in regulations issued by the Federal Reserve and OCC.

Note: Rating agencies allow measures of capital to be adjusted upward for deferred tax liabilities, which have resulted from both nontaxable business combinations and from tax-deductible goodwill. The Firm had deferred tax liabilities resulting from nontaxable business combinations totaling \$192 million and \$291 million at December 31, 2013 and 2012, respectively; and deferred tax liabilities resulting from tax-deductible goodwill of \$2.8 billion and \$2.5 billion at December 31, 2013 and 2012, respectively.

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A reconciliation of the Firm's Total stockholders' equity to Tier 1 capital and Total qualifying capital is presented in the table below.

December 31, (in millions)	2013	2012
Tier 1 capital		
Total stockholders' equity	\$ 211,178	\$ 204,069
Effect of certain items in AOCI excluded from Tier 1 capital	(1,337)	(4,198)
Qualifying hybrid securities and noncontrolling interests ^(a)	5,618	10,608
Less: Goodwill ^(b)	45,320	45,663
Other intangible assets ^(b)	2,012	2,311
Fair value DVA on structured notes and derivative liabilities related to the Firm's credit quality	1,300	1,577
Investments in certain subsidiaries and other	1,164	926
Total Tier 1 capital	165,663	160,002
Tier 2 capital		
Long-term debt and other instruments qualifying as Tier 2	16,695	18,061
Qualifying allowance for credit losses	16,969	15,995
Other	(41)	(22)
Total Tier 2 capital	33,623	34,034
Total qualifying capital	\$ 199,286	\$ 194,036

(a) Primarily includes trust preferred securities of certain business trusts.

(b) Goodwill and other intangible assets are net of any associated deferred tax liabilities.

Note 29 – Off-balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the counterparty draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm's view, representative of its actual future credit exposure or funding requirements.

To provide for probable credit losses inherent in consumer (excluding credit card) and wholesale lending commitments, an allowance for credit losses on lending-related commitments is maintained. See Note 15 on pages 284–287 of this Annual Report for further discussion regarding the allowance for credit losses on lending-related commitments. The following table summarizes the contractual amounts and carrying values of off-balance sheet lending-related financial instruments, guarantees and other commitments at December 31, 2013 and 2012. The amounts in the table below for credit card and home equity lending-related commitments represent the total available credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. The Firm can reduce or cancel credit card lines of credit by providing the borrower notice or, in some cases, without notice as permitted by law. The Firm may reduce or close home equity lines of credit when there are significant decreases in the value of the underlying property, or when there has been a demonstrable decline in the creditworthiness of the borrower. Also, the Firm typically closes credit card lines when the borrower is 60 days or more past due.

Off-balance sheet lending-related financial instruments, guarantees and other commitments

By remaining maturity at December 31, (in millions)	Contractual amount						Carrying value ^(g)	
	2013					2012	2013	2012
	Expires in 1 year or less	Expires after 1 year through 3 years	Expires after 3 years through 5 years	Expires after 5 years	Total	Total		
Lending-related								
Consumer, excluding credit card:								
Home equity – senior lien	\$ 2,471	\$ 4,411	\$ 4,202	\$ 2,074	\$ 13,158	\$ 15,180	\$ –	\$ –
Home equity – junior lien	3,918	6,908	4,865	2,146	17,837	21,796	–	–
Prime mortgage	4,817	–	–	–	4,817	4,107	–	–
Subprime mortgage	–	–	–	–	–	–	–	–
Auto	7,992	191	115	11	8,309	7,185	1	1
Business banking	10,282	548	101	320	11,251	11,092	7	6
Student and other	108	111	4	462	685	796	–	–
Total consumer, excluding credit card	29,588	12,169	9,287	5,013	56,057	60,156	8	7
Credit card	529,383	–	–	–	529,383	533,018	–	–
Total consumer	558,971	12,169	9,287	5,013	585,440	593,174	8	7
Wholesale:								
Other unfunded commitments to extend credit ^{(a)(b)}	61,459	79,519	97,139	8,378	246,495	243,225	432	377
Standby letters of credit and other financial guarantees ^{(a)(b)(c)}	25,223	32,331	32,773	2,396	92,723	100,929	943	647
Unused advised lines of credit	88,443	12,411	423	717	101,994	85,087	–	–
Other letters of credit ^(a)	4,176	722	107	15	5,020	5,573	2	2
Total wholesale	179,301	124,983	130,442	11,506	446,232	434,814	1,377	1,026
Total lending-related	\$ 738,272	\$ 137,152	\$ 139,729	\$ 16,519	\$ 1,031,672	\$ 1,027,988	\$ 1,385	\$ 1,033
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees ^(d)	\$ 169,709	\$ –	\$ –	\$ –	\$ 169,709	\$ 166,493	NA	NA
Derivatives qualifying as guarantees	1,922	765	16,061	37,526	56,274	61,738	\$ 72	\$ 42
Unsettled reverse repurchase and securities borrowing agreements ^(e)	38,211	–	–	–	38,211	34,871	–	–
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	NA	NA	NA	NA	NA	NA	681	2,811
Loans sold with recourse	NA	NA	NA	NA	7,692	9,305	131	141
Other guarantees and commitments^(f)	654	256	1,484	4,392	6,786	6,780	(99)	(75)

- (a) At December 31, 2013 and 2012, reflects the contractual amount net of risk participations totaling \$476 million and \$473 million, respectively, for other unfunded commitments to extend credit; \$14.8 billion and \$16.6 billion, respectively, for standby letters of credit and other financial guarantees; and \$622 million and \$690 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.
- (b) At December 31, 2013 and 2012, included credit enhancements and bond and commercial paper liquidity commitments to U.S. states and municipalities, hospitals and other non-profit entities of \$18.9 billion and \$21.3 billion, respectively, within other unfunded commitments to extend credit; and \$17.2 billion and \$23.2 billion, respectively, within standby letters of credit and other financial guarantees. These commitments also include liquidity facilities to nonconsolidated municipal bond VIEs; for further information, see Note 16 on pages 288-299 of this Annual Report.
- (c) At December 31, 2013 and 2012, included unissued standby letters of credit commitments of \$42.8 billion and \$44.4 billion, respectively.
- (d) At December 31, 2013 and 2012, collateral held by the Firm in support of securities lending indemnification agreements was \$176.4 billion and \$165.1 billion, respectively. Securities lending collateral comprises primarily cash and securities issued by governments that are members of the Organisation for Economic Co-operation and Development ("OECD") and U.S. government agencies.
- (e) At December 31, 2013 and 2012, the amount of commitments related to forward-starting reverse repurchase agreements and securities borrowing agreements were \$9.9 billion and \$13.2 billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular-way settlement periods were \$28.3 billion and \$21.7 billion, at December 31, 2013 and 2012, respectively.
- (f) At December 31, 2013 and 2012, included unfunded commitments of \$215 million and \$370 million, respectively, to third-party private equity funds; and \$1.9 billion and \$1.5 billion, respectively, to other equity investments. These commitments included \$184 million and \$333 million, respectively, related to investments that are generally fair valued at net asset value as discussed in Note 3 on pages 195-215 of this Annual Report. In addition, at both December 31, 2013 and 2012, included letters of credit hedged by derivative transactions and managed on a market risk basis of \$4.5 billion.
- (g) For lending-related products, the carrying value represents the allowance for lending-related commitments and the guarantee liability; for derivative-related products, the carrying value represents the fair value.

Other unfunded commitments to extend credit

Other unfunded commitments to extend credit generally comprise commitments for working capital and general corporate purposes, extensions of credit to support commercial paper facilities and bond financings in the event that those obligations cannot be remarketed to new investors as well as committed liquidity facilities to clearing organizations.

Also included in other unfunded commitments to extend credit are commitments to noninvestment-grade counterparties in connection with leveraged and acquisition finance activities, which were \$18.3 billion at December 31, 2013. In the fourth quarter of 2013, the Firm implemented prospectively interagency guidance that revised the Firm's definition of leveraged lending to include all Commercial and Industrial borrowers, whether or not they are affiliated with financial sponsors, which meet certain leverage criteria and use of proceeds purpose tests related to a buyout, acquisition or capital distribution. Prior to this change, the Firm defined leveraged lending as primarily being affiliated with a financial sponsor-related company and used internal risk grades to identify the leveraged lending portfolio. For further information, see Note 3 and Note 4 on pages 195-215 and 215-218 respectively, of this Annual Report.

In addition, the Firm acts as a clearing and custody bank in the U.S. tri-party repurchase transaction market. In its role as clearing and custody bank, the Firm is exposed to intra-day credit risk of the cash borrowers, usually broker-dealers; however, this exposure is secured by collateral and typically extinguished through the settlement process by the end of the day. Tri-party repurchase daily balances averaged \$307 billion and \$370 billion for the years ended December 31, 2013 and 2012, respectively.

Guarantees

U.S. GAAP requires that a guarantor recognize, at the inception of a guarantee, a liability in an amount equal to the fair value of the obligation undertaken in issuing the guarantee. U.S. GAAP defines a guarantee as a contract that contingently requires the guarantor to pay a guaranteed party based upon: (a) changes in an underlying asset, liability or equity security of the guaranteed party; or (b) a third party's failure to perform under a specified agreement. The Firm considers the following off-balance sheet lending-related arrangements to be guarantees under U.S. GAAP: standby letters of credit and financial guarantees, securities lending indemnifications, certain

indemnification agreements included within third-party contractual arrangements and certain derivative contracts.

As required by U.S. GAAP, the Firm initially records guarantees at the inception date fair value of the obligation assumed (e.g., the amount of consideration received or the net present value of the premium receivable). For certain types of guarantees, the Firm records this fair value amount in other liabilities with an offsetting entry recorded in cash (for premiums received), or other assets (for premiums receivable). Any premium receivable recorded in other assets is reduced as cash is received under the contract, and the fair value of the liability recorded at inception is amortized into income as lending and deposit-related fees over the life of the guarantee contract. For indemnifications provided in sales agreements, a portion of the sale proceeds is allocated to the guarantee, which adjusts the gain or loss that would otherwise result from the transaction. For these indemnifications, the initial liability is amortized to income as the Firm's risk is reduced (i.e., over time or when the indemnification expires). Any contingent liability that exists as a result of issuing the guarantee or indemnification is recognized when it becomes probable and reasonably estimable. The contingent portion of the liability is not recognized if the estimated amount is less than the carrying amount of the liability recognized at inception (adjusted for any amortization). The recorded amounts of the liabilities related to guarantees and indemnifications at December 31, 2013 and 2012, excluding the allowance for credit losses on lending-related commitments, are discussed below.

Standby letters of credit and other financial guarantees

Standby letters of credit ("SBLC") and other financial guarantees are conditional lending commitments issued by the Firm to guarantee the performance of a customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade and similar transactions. The carrying values of standby and other letters of credit were \$945 million and \$649 million at December 31, 2013 and 2012, respectively, which were classified in accounts payable and other liabilities on the Consolidated Balance Sheets; these carrying values included \$265 million and \$284 million, respectively, for the allowance for lending-related commitments, and \$680 million and \$365 million, respectively, for the guarantee liability and corresponding asset.

The following table summarizes the types of facilities under which standby letters of credit and other letters of credit arrangements are outstanding by the ratings profiles of the Firm's customers, as of December 31, 2013 and 2012.

Standby letters of credit, other financial guarantees and other letters of credit

December 31, (in millions)	2013		2012	
	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade ^(a)	\$ 69,109	\$ 3,939	\$ 77,081	\$ 3,998
Noninvestment-grade ^(a)	23,614	1,081	23,848	1,575
Total contractual amount	\$ 92,723	\$ 5,020	\$ 100,929	\$ 5,573
Allowance for lending-related commitments	\$ 263	\$ 2	\$ 282	\$ 2
Commitments with collateral	40,410	1,473	42,654	1,145

(a) The ratings scale is based on the Firm's internal ratings which generally correspond to ratings as defined by S&P and Moody's.

Advised lines of credit

An advised line of credit is a revolving credit line which specifies the maximum amount the Firm may make available to an obligor, on a nonbinding basis. The borrower receives written or oral advice of this facility. The Firm may cancel this facility at any time by providing the borrower notice or, in some cases, without notice as permitted by law.

Securities lending indemnifications

Through the Firm's securities lending program, customers' securities, via custodial and non-custodial arrangements, may be lent to third parties. As part of this program, the Firm provides an indemnification in the lending agreements which protects the lender against the failure of the borrower to return the lent securities. To minimize its liability under these indemnification agreements, the Firm obtains cash or other highly liquid collateral with a market value exceeding 100% of the value of the securities on loan from the borrower. Collateral is marked to market daily to help assure that collateralization is adequate. Additional collateral is called from the borrower if a shortfall exists, or collateral may be released to the borrower in the event of overcollateralization. If a borrower defaults, the Firm would use the collateral held to purchase replacement securities in the market or to credit the lending customer with the cash equivalent thereof.

Derivatives qualifying as guarantees

In addition to the contracts described above, the Firm transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. These contracts include written put options that require the Firm to purchase assets upon exercise by the option holder at a specified price by a specified date in the future. The Firm may enter into written put option contracts in order to meet client needs, or for other trading purposes. The terms of written put options are typically five years or less. Derivative guarantees also include contracts such as stable value derivatives that require the Firm to make a payment of the difference between the market value and the book value of a counterparty's reference portfolio of assets in the event that market value is less than book value and certain other conditions have been met. Stable value derivatives, commonly referred to as "stable value wraps", are

transacted in order to allow investors to realize investment returns with less volatility than an unprotected portfolio and are typically longer-term or may have no stated maturity, but allow the Firm to terminate the contract under certain conditions.

Derivative guarantees are recorded on the Consolidated Balance Sheets at fair value in trading assets and trading liabilities. The total notional value of the derivatives that the Firm deems to be guarantees was \$56.3 billion and \$61.7 billion at December 31, 2013 and 2012, respectively. The notional amount generally represents the Firm's maximum exposure to derivatives qualifying as guarantees. However, exposure to certain stable value contracts is contractually limited to a substantially lower percentage of the notional amount; the notional amount on these stable value contracts was \$27.0 billion and \$26.5 billion at December 31, 2013 and 2012, respectively, and the maximum exposure to loss was \$2.8 billion at both December 31, 2013 and 2012. The fair values of the contracts reflect the probability of whether the Firm will be required to perform under the contract. The fair value related to derivatives that the Firm deems to be guarantees were derivative payables of \$109 million and \$122 million and derivative receivables of \$37 million and \$80 million at December 31, 2013 and 2012, respectively. The Firm reduces exposures to these contracts by entering into offsetting transactions, or by entering into contracts that hedge the market risk related to the derivative guarantees.

In addition to derivative contracts that meet the characteristics of a guarantee, the Firm is both a purchaser and seller of credit protection in the credit derivatives market. For a further discussion of credit derivatives, see Note 6 on pages 220-233 of this Annual Report.

Unsettled reverse repurchase and securities borrowing agreements

In the normal course of business, the Firm enters into reverse repurchase agreements and securities borrowing agreements that settle at a future date. At settlement, these commitments require that the Firm advance cash to and accept securities from the counterparty. These agreements generally do not meet the definition of a derivative, and

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therefore, are not recorded on the Consolidated Balance Sheets until settlement date. At December 31, 2013 and 2012, the amount of commitments related to forward starting reverse repurchase agreements and securities borrowing agreements were \$9.9 billion and \$13.2 billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular way settlement periods were \$28.3 billion and \$21.7 billion at December 31, 2013 and 2012, respectively.

Loan sales- and securitization-related indemnifications

Mortgage repurchase liability

In connection with the Firm's mortgage loan sale and securitization activities with the GSEs and other mortgage loan sale and private-label securitization transactions, as described in Note 16 on pages 288-299 of this Annual Report, the Firm has made representations and warranties that the loans sold meet certain requirements. The Firm has been, and may be, required to repurchase loans and/or indemnify the GSEs (e.g., with "make-whole" payments to reimburse the GSEs for their realized losses on liquidated loans) and other investors for losses due to material breaches of these representations and warranties. To the extent that repurchase demands that are received relate to loans that the Firm purchased from third parties that remain viable, the Firm typically will have the right to seek a recovery of related repurchase losses from the third party. Generally, the maximum amount of future payments the Firm would be required to make for breaches of these representations and warranties would be equal to the unpaid principal balance of such loans that are deemed to have defects that were sold to purchasers (including securitization-related SPEs) plus, in certain circumstances, accrued interest on such loans and certain expense.

On October 25, 2013, the Firm announced that it had reached a \$1.1 billion agreement with the FHFA to resolve, other than certain limited types of exposures, outstanding and future mortgage repurchase demands associated with loans sold to the GSEs from 2000 to 2008 ("FHFA Settlement Agreement"). The majority of the mortgage repurchase demands that the Firm had received from the GSEs related to loans originated from 2005 to 2008.

The Firm has recognized a mortgage repurchase liability of \$681 million and \$2.8 billion as of December 31, 2013 and 2012, respectively. The amount of the mortgage repurchase liability at December 31, 2013, relates to repurchase losses associated with loans sold in connection with loan sale and securitization transactions with the GSEs that are not covered by the FHFA Settlement Agreement (e.g., post-2008 loan sale and securitization transactions, mortgage insurance rescissions and certain mortgage insurance settlement-related exposures, as well as certain other specific exclusions).

The following table summarizes the change in the mortgage repurchase liability for each of the periods presented.

Summary of changes in mortgage repurchase liability

Year ended December 31, (in millions)	2013	2012	2011
Repurchase liability at beginning of period	\$ 2,811	\$ 3,557	\$ 3,285
Net realized losses ^{(a)(b)}	(1,561)	(1,158)	(1,263)
Reclassification to litigation reserve ^(c)	(179)	—	—
Provision for repurchase losses ^(d)	(390)	412	1,535
Repurchase liability at end of period	\$ 681	\$ 2,811	\$ 3,557

- (a) Presented net of third-party recoveries and include principal losses and accrued interest on repurchased loans, "make-whole" settlements, settlements with claimants, and certain related expense. Make-whole settlements were \$414 million, \$524 million and \$640 million, for the years ended December 31, 2013, 2012 and 2011, respectively.
- (b) The 2013 amount includes \$1.1 billion, for the FHFA Settlement Agreement.
- (c) Prior to December 31, 2013, in the absence of a repurchase demand by a party to the relevant contracts, the Firm's decision to repurchase loans from private-label securitization trusts when it determined it had an obligation to do so was recognized in the mortgage repurchase liability. Pursuant to the terms of the RMBS Trust Settlement, all repurchase obligations relating to the subject private-label securitization trusts, whether resulting from a repurchase demand or otherwise, are now recognized in the Firm's litigation reserves for this settlement. The RMBS Trust Settlement is fully accrued as of December 31, 2013.
- (d) Included a provision related to new loan sales of \$20 million, \$112 million and \$52 million, for the years ended December 31, 2013, 2012 and 2011, respectively.

Private label securitizations

The liability related to repurchase demands associated with private label securitizations is separately evaluated by the Firm in establishing its litigation reserves.

On November 15, 2013, the Firm announced that it had reached a \$4.5 billion agreement with 21 major institutional investors to make a binding offer to the trustees of 330 residential mortgage-backed securities trust issued by J.P.Morgan, Chase, and Bear Stearns ("RMBS Trust Settlement") to resolve all representation and warranty claims, as well as all servicing claims, on all trust issued by J.P.Morgan, Chase, and Bear Stearns between 2005 and 2008. The RMBS Trust Settlement may be subject to court approval.

In addition, from 2005 to 2008, Washington Mutual made certain loan level representations and warranties in connection with approximately \$165 billion of residential mortgage loans that were originally sold or deposited into private-label securitizations by Washington Mutual. Of the \$165 billion, approximately \$75 billion has been repaid. In addition, approximately \$47 billion of the principal amount of such loans has liquidated with an average loss severity of 59%. Accordingly, the remaining outstanding principal balance of these loans as of December 31, 2013, was approximately \$43 billion, of which \$10 billion was 60 days or more past due. The Firm believes that any repurchase

obligations related to these loans remain with the FDIC receivership.

For additional information regarding litigation, see Note 31 on pages 326–332 of this Annual Report.

Loans sold with recourse

The Firm provides servicing for mortgages and certain commercial lending products on both a recourse and nonrecourse basis. In nonrecourse servicing, the principal credit risk to the Firm is the cost of temporary servicing advances of funds (i.e., normal servicing advances). In recourse servicing, the servicer agrees to share credit risk with the owner of the mortgage loans, such as Fannie Mae or Freddie Mac or a private investor, insurer or guarantor. Losses on recourse servicing predominantly occur when foreclosure sales proceeds of the property underlying a defaulted loan are less than the sum of the outstanding principal balance, plus accrued interest on the loan and the cost of holding and disposing of the underlying property. The Firm's securitizations are predominantly nonrecourse, thereby effectively transferring the risk of future credit losses to the purchaser of the mortgage-backed securities issued by the trust. At December 31, 2013 and 2012, the unpaid principal balance of loans sold with recourse totaled \$7.7 billion and \$9.3 billion, respectively. The carrying value of the related liability that the Firm has recorded, which is representative of the Firm's view of the likelihood it will have to perform under its recourse obligations, was \$131 million and \$141 million at December 31, 2013 and 2012, respectively.

Other off-balance sheet arrangements

Indemnification agreements – general

In connection with issuing securities to investors, the Firm may enter into contractual arrangements with third parties that require the Firm to make a payment to them in the event of a change in tax law or an adverse interpretation of tax law. In certain cases, the contract also may include a termination clause, which would allow the Firm to settle the contract at its fair value in lieu of making a payment under the indemnification clause. The Firm may also enter into indemnification clauses in connection with the licensing of software to clients ("software licensees") or when it sells a business or assets to a third party ("third-party purchasers"), pursuant to which it indemnifies software licensees for claims of liability or damages that may occur subsequent to the licensing of the software, or third-party purchasers for losses they may incur due to actions taken by the Firm prior to the sale of the business or assets. It is difficult to estimate the Firm's maximum exposure under these indemnification arrangements, since this would require an assessment of future changes in tax law and future claims that may be made against the Firm that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

Credit card charge-backs

Chase Paymentech Solutions, Card's merchant services business and a subsidiary of JPMorgan Chase Bank, N.A., is a global leader in payment processing and merchant acquiring.

Under the rules of Visa USA, Inc., and MasterCard International, JPMorgan Chase Bank, N.A., is primarily liable for the amount of each processed credit card sales transaction that is the subject of a dispute between a cardmember and a merchant. If a dispute is resolved in the cardmember's favor, Chase Paymentech will (through the cardmember's issuing bank) credit or refund the amount to the cardmember and will charge back the transaction to the merchant. If Chase Paymentech is unable to collect the amount from the merchant, Chase Paymentech will bear the loss for the amount credited or refunded to the cardmember. Chase Paymentech mitigates this risk by withholding future settlements, retaining cash reserve accounts or by obtaining other security. However, in the unlikely event that: (1) a merchant ceases operations and is unable to deliver products, services or a refund; (2) Chase Paymentech does not have sufficient collateral from the merchant to provide customer refunds; and (3) Chase Paymentech does not have sufficient financial resources to provide customer refunds, JPMorgan Chase Bank, N.A., would recognize the loss.

Chase Paymentech incurred aggregate losses of \$14 million, \$16 million, and \$13 million on \$750.1 billion, \$655.2 billion, and \$553.7 billion of aggregate volume processed for the years ended December 31, 2013, 2012 and 2011, respectively. Incurred losses from merchant charge-backs are charged to Other expense, with the offset recorded in a valuation allowance against Accrued interest and accounts receivable on the Consolidated Balance Sheets. The carrying value of the valuation allowance was \$5 million and \$6 million at December 31, 2013 and 2012, respectively, which the Firm believes, based on historical experience and the collateral held by Chase Paymentech of \$208 million and \$203 million at December 31, 2013 and 2012, respectively, is representative of the payment or performance risk to the Firm related to charge-backs.

Clearing Services – Client Credit Risk

The Firm provides clearing services for clients entering into securities purchases and sales and derivative transactions, with central counterparties ("CCPs"), including exchange traded derivatives ("ETDs") such as futures and options, as well as cleared over-the-counter ("OTC-cleared") derivative contracts. As a clearing member, the Firm stands behind the performance of its clients, collects cash and securities collateral (margin) as well as any settlement amounts due from or to clients, and remits them to the relevant CCP or client in whole or part. There are two types of margin. Variation margin is posted on a daily basis based on the value of clients' derivative contracts. Initial margin is posted at inception of a derivative contract, generally on the basis of the potential changes in the variation margin requirement for the contract.

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As clearing member, the Firm is exposed to the risk of non-performance by its clients, but is not liable to clients for the performance of the CCPs. Where possible, the Firm seeks to mitigate its risk to the client through the collection of appropriate amounts of margin at inception and throughout the life of the transactions and can also cease provision of clearing services if clients do not adhere to their obligations under the clearing agreement. In the event of non-performance by a client, the Firm would close out the client's positions and access available margin. The CCP would utilize any margin it holds to make itself whole, with any remaining shortfalls required to be paid by the Firm as clearing member.

The Firm reflects its exposure to non-performance risk of the client through the recognition of margin payables or receivables to clients and CCPs, but does not reflect the clients underlying securities or derivative contracts in its Consolidated Financial Statements.

It is difficult to estimate the Firm's maximum possible exposure through its role as clearing member, as this would require an assessment of transactions that clients may execute in the future. However, based upon historical experience, and the credit risk mitigants available to the Firm, management believes it is unlikely that the Firm will have to make any material payments under these arrangements and the risk of loss is expected to be remote.

For information on the derivatives that the Firm executes for its own account and records in its Consolidated Financial Statements, see Note 6 on pages 220-233 of this Annual Report.

Exchange & Clearing House Memberships

Through the provision of clearing services, the Firm is a member of several securities and derivative exchanges and clearinghouses, both in the U.S. and other countries. Membership in some of these organizations requires the Firm to pay a pro rata share of the losses incurred by the organization as a result of the default of another member. Such obligations vary with different organizations. These obligations may be limited to members who dealt with the defaulting member or to the amount (or a multiple of the amount) of the Firm's contribution to the guarantee fund. Alternatively, these obligations may be a full pro-rata share of the residual losses after applying the guarantee fund. It is difficult to estimate the Firm's maximum possible exposure under these membership agreements, since this would require an assessment of future claims that may be made against the Firm that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

Guarantees of subsidiaries

In the normal course of business, JPMorgan Chase & Co. ("Parent Company") may provide counterparties with guarantees of certain of the trading and other obligations of its subsidiaries on a contract-by-contract basis, as negotiated with the Firm's counterparties. The obligations of the subsidiaries are included on the Firm's Consolidated Balance Sheets, or are reflected as off-balance sheet commitments; therefore, the Parent Company has not recognized a separate liability for these guarantees. The Firm believes that the occurrence of any event that would trigger payments by the Parent Company under these guarantees is remote.

The Parent Company has guaranteed certain debt of its subsidiaries, including both long-term debt and structured notes sold as part of the Firm's market-making activities. These guarantees are not included in the table on page 319 of this Note. For additional information, see Note 21 on pages 306-308 of this Annual Report.

Note 30 – Commitments, pledged assets and collateral

Lease commitments

At December 31, 2013, JPMorgan Chase and its subsidiaries were obligated under a number of noncancelable operating leases for premises and equipment used primarily for banking purposes, and for energy-related tolling service agreements. Certain leases contain renewal options or escalation clauses providing for increased rental payments based on maintenance, utility and tax increases, or they require the Firm to perform restoration work on leased premises. No lease agreement imposes restrictions on the Firm's ability to pay dividends, engage in debt or equity financing transactions or enter into further lease agreements.

The following table presents required future minimum rental payments under operating leases with noncancelable lease terms that expire after December 31, 2013.

Year ended December 31, (in millions)	
2014	\$ 1,936
2015	1,845
2016	1,687
2017	1,529
2018	1,267
After 2018	6,002
Total minimum payments required^(a)	14,266
Less: Sublease rentals under noncancelable subleases	(2,595)
Net minimum payment required	\$ 11,671

(a) Lease restoration obligations are accrued in accordance with U.S. GAAP, and are not reported as a required minimum lease payment.

Total rental expense was as follows.

Year ended December 31, (in millions)	2013	2012	2011
Gross rental expense	\$ 2,187	\$ 2,212	\$ 2,228
Sublease rental income	(341)	(288)	(403)
Net rental expense	\$ 1,846	\$ 1,924	\$ 1,825

Pledged assets

At December 31, 2013, assets were pledged to maintain potential borrowing capacity with central banks and for other purposes, including to secure borrowings and public deposits, and to collateralize repurchase and other securities financing agreements. Certain of these pledged assets may be sold or repledged by the secured parties and are identified as financial instruments owned (pledged to various parties) on the Consolidated Balance Sheets. At December 31, 2013 and 2012, the Firm had pledged assets of \$251.3 billion and \$236.4 billion, respectively, at Federal Reserve Banks and FHLBs. In addition, as of December 31, 2013 and 2012, the Firm had pledged \$60.6 billion and \$74.5 billion, respectively, of financial instruments it owns that may not be sold or repledged by the secured parties. The prior period amount (and the corresponding pledged assets parenthetical disclosure for securities on the Consolidated Balance Sheets) have been revised to conform with the current period presentation. Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. See Note 16 on pages 288–299 of this Annual Report for additional information on assets and liabilities of consolidated VIEs. For additional information on the Firm's securities financing activities and long-term debt, see Note 13 on pages 255–257, and Note 21 on pages 306–308, respectively, of this Annual report. The significant components of the Firm's pledged assets were as follows.

December 31, (in billions)	2013	2012
Securities	\$ 68.1	\$ 110.1
Loans	230.3	207.2
Trading assets and other	145.2	155.5
Total assets pledged	\$ 443.7	\$ 472.8

Collateral

At December 31, 2013 and 2012, the Firm had accepted assets as collateral that it could sell or repledge, deliver or otherwise use with a fair value of approximately \$726.7 billion and \$757.1 billion, respectively. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. Of the collateral received, approximately \$543.5 billion and \$545.0 billion, respectively, were sold or repledged, generally as collateral under repurchase agreements, securities lending agreements or to cover short sales and to collateralize deposits and derivative agreements.

Note 31 – Litigation

Contingencies

As of December 31, 2013, the Firm and its subsidiaries are defendants or putative defendants in numerous legal proceedings, including private, civil litigations and regulatory/government investigations. The litigations range from individual actions involving a single plaintiff to class action lawsuits with potentially millions of class members. Investigations involve both formal and informal proceedings, by both governmental agencies and self-regulatory organizations. These legal proceedings are at varying stages of adjudication, arbitration or investigation, and involve each of the Firm's lines of business and geographies and a wide variety of claims (including common law tort and contract claims and statutory antitrust, securities and consumer protection claims), some of which present novel legal theories.

The Firm believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for its legal proceedings is from \$0 to approximately \$5.0 billion at December 31, 2013. This estimated aggregate range of reasonably possible losses is based upon currently available information for those proceedings in which the Firm is involved, taking into account the Firm's best estimate of such losses for those cases for which such estimate can be made. For certain cases, the Firm does not believe that an estimate can currently be made. The Firm's estimate involves significant judgment, given the varying stages of the proceedings (including the fact that many are currently in preliminary stages), the existence in many such proceedings of multiple defendants (including the Firm) whose share of liability has yet to be determined, the numerous yet-unresolved issues in many of the proceedings (including issues regarding class certification and the scope of many of the claims) and the attendant uncertainty of the various potential outcomes of such proceedings. Accordingly, the Firm's estimate will change from time to time, and actual losses may vary.

Set forth below are descriptions of the Firm's material legal proceedings.

Bear Stearns Hedge Fund Matter. In September 2013, an action brought by Bank of America and Banc of America Securities LLC (together "BoFA") in the United States District Court for the Southern District of New York against Bear Stearns Asset Management, Inc. ("BSAM") relating to alleged losses resulting from the failure of the Bear Stearns High Grade Structured Credit Strategies Master Fund, Ltd. and the Bear Stearns High Grade Structured Credit Strategies Enhanced Leverage Master Fund, Ltd. was dismissed after the court granted BSAM's motion for summary judgment. BoFA has determined not to appeal the dismissal.

CIO Investigations and Litigation. The Firm is responding to a consolidated shareholder purported class action, a consolidated purported class action brought under the Employee Retirement Income Security Act and shareholder derivative actions that have been filed in New York state court and the United States District Court for the Southern

District of New York, as well as shareholder demands and government investigations, relating to losses in the synthetic credit portfolio managed by the Firm's Chief Investment Office ("CIO"). The Firm continues to cooperate with ongoing government investigations, including by the United States Attorney's Office for the Southern District of New York and the State of Massachusetts. The purported class actions and shareholder derivative actions are in early stages with defendants' motions to dismiss pending.

Credit Default Swaps Investigations and Litigation. In July 2013, the European Commission (the "EC") filed a Statement of Objections against the Firm (including various subsidiaries) and other industry members in connection with its ongoing investigation into the credit default swaps ("CDS") marketplace. The EC asserts that between 2006 and 2009, a number of investment banks acted collectively through the International Swaps and Derivatives Association ("ISDA") and Markit Group Limited ("Markit") to foreclose exchanges from the potential market for exchange-traded credit derivatives by instructing Markit and ISDA to license their respective data and index benchmarks only for over-the-counter ("OTC") trading and not for exchange trading, allegedly to protect the investment banks' revenues from the OTC market. The Firm submitted a response to the Statement of Objections in January 2014. The U.S. Department of Justice (the "DOJ") also has an ongoing investigation into the CDS marketplace, which was initiated in July 2009.

Separately, the Firm is a defendant in nine purported class actions (all consolidated in the United States District Court for the Southern District of New York) filed on behalf of purchasers and sellers of CDS and asserting federal antitrust law claims. Each of the complaints refers to the ongoing investigations by the EC and DOJ into the CDS market, and alleges that the defendant investment banks and dealers, including the Firm, as well as Markit and/or ISDA, collectively prevented new entrants into the CDS market, in order to artificially inflate the defendants' OTC revenues.

Foreign Exchange Investigations and Litigation. The Firm has received information requests, document production notices and related inquiries from various U.S. and non-U.S. government authorities regarding the Firm's foreign exchange trading business. These investigations are in the early stages and the Firm is cooperating with the relevant authorities.

Since November 2013, a number of class actions have been filed in the United States District Court for the Southern District of New York against a number of foreign exchange dealers, including the Firm, for alleged violations of federal and state antitrust laws and unjust enrichment based on an alleged conspiracy to manipulate foreign exchange rates reported on the WM/Reuters service.

Interchange Litigation. A group of merchants and retail associations filed a series of class action complaints relating to interchange in several federal courts. The complaints alleged that Visa and MasterCard, as well as certain banks, conspired to set the price of credit and debit card interchange fees, enacted respective rules in violation of antitrust laws, and engaged in tying/bundling and exclusive dealing. All cases were consolidated in the United States District Court for the Eastern District of New York for pretrial proceedings.

The parties have entered into an agreement to settle those cases, for a cash payment of \$6.05 billion to the class plaintiffs (of which the Firm's share is approximately 20%) and an amount equal to ten basis points of credit card interchange for a period of eight months to be measured from a date within 60 days of the end of the opt-out period. The agreement also provides for modifications to each credit card network's rules, including those that prohibit surcharging credit card transactions. The rule modifications became effective in January 2013. In December 2013, the Court issued a decision granting final approval of the settlement. A number of merchants have filed notices of appeal. Certain merchants that opted out of the class settlement have filed actions against Visa and MasterCard, as well as against the Firm and other banks.

Investment Management Litigation. The Firm is defending two pending cases that allege that investment portfolios managed by J.P. Morgan Investment Management ("JPMIM") were inappropriately invested in securities backed by residential real estate collateral. Plaintiffs Assured Guaranty (U.K.) and Ambac Assurance UK Limited claim that JPMIM is liable for losses of more than \$1 billion in market value of these securities. Discovery is proceeding.

Italian Proceedings.

City of Milan. In January 2009, the City of Milan, Italy (the "City") issued civil proceedings against (among others) JPMorgan Chase Bank, N.A. and J.P. Morgan Securities plc in the District Court of Milan alleging a breach of advisory obligations in connection with a bond issue by the City in June 2005 and an associated swap transaction. The Firm has entered into a settlement agreement with the City to resolve the City's civil proceedings.

Four current and former JPMorgan Chase employees and JPMorgan Chase Bank, N.A. (as well as other individuals and three other banks) were directed by a criminal judge to participate in a trial that started in May 2010. As it relates to JPMorgan Chase individuals, two were acquitted and two were found guilty of aggravated fraud with sanctions of prison sentences, fines and a ban from dealing with Italian public bodies for one year. JPMorgan Chase (along with other banks involved) was found liable for breaches of Italian administrative law, fined €1 million and ordered to forfeit the profit from the transaction (for JPMorgan Chase, totaling €24.7 million). JPMorgan Chase and the individuals are appealing the verdict, and none of the sanctions will take effect until all appeal avenues have been exhausted. The first appeal hearing took place in January 2014.

Parmalat. In 2003, following the bankruptcy of the Parmalat group of companies ("Parmalat"), criminal prosecutors in Italy investigated the activities of Parmalat, its directors and the financial institutions that had dealings with them following the collapse of the company. In March 2012, the criminal prosecutor served a notice indicating an intention to pursue criminal proceedings against four former employees of the Firm (but not against the Firm) on charges of conspiracy to cause Parmalat's insolvency by underwriting bonds and continuing derivatives trading when Parmalat's balance sheet was false. A preliminary hearing is scheduled for February 2014, at which the judge will determine whether to recommend that the matter go to a full trial.

In addition, the administrator of Parmalat commenced five civil actions against JPMorgan Chase entities including: two claw-back actions; a claim relating to bonds issued by Parmalat in which it is alleged that JPMorgan Chase kept Parmalat "artificially" afloat and delayed the declaration of insolvency; and similar allegations in two claims relating to derivatives transactions.

Lehman Brothers Bankruptcy Proceedings. In May 2010, Lehman Brothers Holdings Inc. ("LBHI") and its Official Committee of Unsecured Creditors (the "Committee") filed a complaint (and later an amended complaint) against JPMorgan Chase Bank, N.A. in the United States Bankruptcy Court for the Southern District of New York that asserts both federal bankruptcy law and state common law claims, and seeks, among other relief, to recover \$8.6 billion in collateral that was transferred to JPMorgan Chase Bank, N.A. in the weeks preceding LBHI's bankruptcy. The amended complaint also seeks unspecified damages on the grounds that JPMorgan Chase Bank, N.A.'s collateral requests hastened LBHI's bankruptcy. The Court dismissed the counts of the amended complaint that sought to void the allegedly constructively fraudulent and preferential transfers made to the Firm during the months of August and September 2008.

The Firm has also filed counterclaims against LBHI alleging that LBHI fraudulently induced the Firm to make large clearing advances to Lehman against inappropriate collateral, which left the Firm with more than \$25 billion in claims (the "Clearing Claims") against the estate of Lehman Brothers Inc. ("LBI"), LBHI's broker-dealer subsidiary. LBHI and the Committee have filed an objection to the claims asserted by JPMorgan Chase Bank, N.A. against LBHI with respect to the Clearing Claims, principally on the grounds that the Firm had not conducted the sale of the securities collateral held for such claims in a commercially reasonable manner. The Clearing Claims, together with approximately \$3 billion of other claims of the Firm against Lehman entities, have been paid in full, subject to the outcome of the objections filed by LBHI and the Committee. Discovery is ongoing.

LBHI and several of its subsidiaries that had been Chapter 11 debtors have filed a separate complaint and objection to derivatives claims asserted by the Firm alleging that the amount of the derivatives claims had been overstated and

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challenging certain set-offs taken by JPMorgan Chase entities to recover on the claims. The Firm responded to this separate complaint and objection in February 2013. Discovery is ongoing.

LIBOR and Other Benchmark Rate Investigations and Litigation. JPMorgan Chase has received subpoenas and requests for documents and, in some cases, interviews, from federal and state agencies and entities, including the DOJ, the Commodity Futures Trading Commission (the “CFTC”), the Securities and Exchange Commission (the “SEC”) and various state attorneys general, as well as the European Commission, the U.K. Financial Conduct Authority (the “FCA”), Canadian Competition Bureau, Swiss Competition Commission and other regulatory authorities and banking associations around the world relating primarily to the process by which interest rates were submitted to the British Bankers Association (“BBA”) in connection with the setting of the BBA’s London Interbank Offered Rate (“LIBOR”) for various currencies, principally in 2007 and 2008. Some of the inquiries also relate to similar processes by which information on rates is submitted to the European Banking Federation (“EBF”) in connection with the setting of the EBF’s Euro Interbank Offered Rates (“EURIBOR”) and to the Japanese Bankers’ Association for the setting of Tokyo Interbank Offered Rates (“TIBOR”) as well as to other processes for the setting of other reference rates in various parts of the world during similar time periods. The Firm is cooperating with these inquiries. In December 2013, JPMorgan Chase reached a settlement with the European Commission regarding its Japanese Yen LIBOR investigation and agreed to pay a fine of €79.9 million. Investigations by the European Commission with regard to other reference rates remain open. In January 2014, the Canadian Competition Bureau announced that it has discontinued its investigation related to Yen LIBOR.

In addition, the Firm has been named as a defendant along with other banks in a series of individual and class actions filed in various United States District Courts in which plaintiffs make varying allegations that in various periods, starting in 2000 or later, defendants either individually or collectively manipulated the U.S. dollar LIBOR, Yen LIBOR and/or Euroyen TIBOR rates by submitting rates that were artificially low or high. Plaintiffs allege that they transacted in loans, derivatives or other financial instruments whose values are impacted by changes in U.S. dollar LIBOR, Yen LIBOR, or Euroyen TIBOR and assert a variety of claims including antitrust claims seeking treble damages.

The U.S. dollar LIBOR-related purported class actions have been consolidated for pre-trial purposes in the United States District Court for the Southern District of New York. In March 2013, the Court granted in part and denied in part the defendants’ motions to dismiss the claims, including dismissal with prejudice of the antitrust claims, and the United States Court of Appeals for the Second Circuit dismissed the appeals for lack of jurisdiction. In September 2013, certain plaintiffs filed amended complaints and others sought leave to amend their complaints to add additional allegations. Defendants have moved to dismiss

the amended complaints and have opposed the requests to amend. Those motions remain pending.

The Firm has also been named as a defendant in a purported class action filed in the United States District Court for the Southern District of New York on behalf of plaintiffs who purchased or sold exchange-traded Euroyen futures and options contracts. The action alleges manipulation of Yen LIBOR. Defendants have filed a motion to dismiss.

The Firm has also been named as a nominal defendant in a derivative action in the Supreme Court of New York in the County of New York against certain current and former members of the Firm’s board of directors for alleged breach of fiduciary duty in connection with the Firm’s purported role in manipulating LIBOR. The defendants have filed a motion to dismiss.

Madoff Litigation and Investigations. In January 2014, certain of the Firm’s bank subsidiaries entered into settlements with various governmental agencies in resolution of investigations relating to Bernard L. Madoff Investment Securities LLC (“BLMIS”). The Firm and certain of its subsidiaries also entered into settlements with several private parties in resolution of civil litigation relating to BLMIS.

JPMorgan Chase Bank, N.A. entered into a Deferred Prosecution Agreement (the “DPA”) with the United States Attorney’s Office for the Southern District of New York (the “U.S. Attorney”) in which it agreed to forfeit \$1.7 billion to the United States as a non-tax-deductible payment. JPMorgan Chase Bank, N.A. also consented, subject to the terms and conditions of the DPA, to the filing by the U.S. Attorney of an Information charging the bank with failure to maintain an adequate anti-money laundering program, and a failure to file a suspicious activity report in the United States in October 2008 with respect to BLMIS, in violation of the Bank Secrecy Act. Pursuant to the DPA, the U.S. Attorney will defer any prosecution of JPMorgan Chase Bank, N.A. for a two-year period and will dismiss the Information with prejudice at the end of that time if the bank is in compliance with its obligations under the DPA. The DPA has been approved by the court.

JPMorgan Chase Bank, N.A., JPMorgan Bank and Trust Company, N.A. and Chase Bank USA, N.A., have also consented to the assessment of a \$350 million Civil Money Penalty by the Office of the Comptroller of the Currency (“OCC”) in connection with various Bank Secrecy Act/Anti-Money Laundering deficiencies, including in relation to the BLMIS fraud. In addition, JPMorgan Chase Bank, N.A. has agreed to the assessment of a \$461 million Civil Money Penalty by the Financial Crimes Enforcement Network (“FinCEN”) for failure to detect and adequately report suspicious transactions relating to BLMIS. The FinCEN penalty, but not the OCC penalty, has been deemed satisfied by the forfeiture payment to the U.S. Attorney.

Additionally, the Firm and certain subsidiaries, including JPMorgan Chase Bank, N.A., have agreed to enter into settlements with the court-appointed trustee for BLMIS (the “Trustee”) and with plaintiffs representing a class of former

BLMIS customers who lost all or a portion of their principal investments with BLMIS. As part of these settlements, the Firm and the bank have agreed to pay the Trustee a total of \$325 million. Separately, the Firm and the bank have agreed to pay the class action plaintiffs \$218 million, as well as attorneys' fees, in exchange for a release of all damages claims relating to BLMIS. The settlements with the Trustee and the class action plaintiffs are subject to court approval. BLMIS customers who did not suffer losses on their principal investments are not eligible to participate in the class action settlement, and certain customers in that category have stated that they intend to pursue claims against the Firm.

Also, various subsidiaries of the Firm, including J.P. Morgan Securities plc, have been named as defendants in lawsuits filed in Bankruptcy Court in New York arising out of the liquidation proceedings of Fairfield Sentry Limited and Fairfield Sigma Limited (together, "Fairfield"), so-called Madoff feeder funds. These actions seek to recover payments made by the funds to defendants totaling approximately \$155 million. Pursuant to an agreement with the Trustee, the liquidators of Fairfield have voluntarily dismissed their action against J.P. Morgan Securities plc without prejudice to re-filing. The other actions remain outstanding.

In addition, a purported class action was brought by investors in certain feeder funds against JPMorgan Chase in the United States District Court for the Southern District of New York, as was a motion by separate potential class plaintiffs to add claims against the Firm and certain subsidiaries to an already pending purported class action in the same court. The allegations in these complaints largely track those raised by the Trustee. The Court dismissed these complaints and plaintiffs have appealed. In September 2013, the United States Court of Appeals for the Second Circuit affirmed the District Court's decision. The plaintiffs have petitioned the entire Court for a rehearing of the appeal and the Court has deferred decision pending a ruling by the United States Supreme Court on a potentially related issue.

The Firm is a defendant in five other Madoff-related investor actions pending in New York state court. The allegations in all of these actions are essentially identical, and involve claims against the Firm for, among other things, aiding and abetting breach of fiduciary duty, conversion and unjust enrichment. The Firm has moved to dismiss these actions.

Additionally, a shareholder derivative action has been filed in New York state court against the Firm, as nominal defendant, and certain of its current and former Board members, alleging breach of fiduciary duty for failure to maintain effective internal controls to detect fraudulent transactions.

MF Global. The Firm has responded to inquiries from the CFTC relating to the Firm's banking and other business relationships with MF Global, including as a depository for MF Global's customer segregated accounts.

J.P. Morgan Securities LLC has been named as one of several defendants in a number of purported class actions filed by purchasers of MF Global's publicly traded securities asserting violations of federal securities laws and alleging that the offering documents contained materially false and misleading statements and omissions regarding MF Global. The actions have been consolidated before the United States District Court for the Southern District of New York. Discovery is ongoing.

Mortgage-Backed Securities and Repurchase Litigation and Related Regulatory Investigations. JPMorgan Chase and affiliates (together, "JPMC"), Bear Stearns and affiliates (together, "Bear Stearns") and Washington Mutual affiliates (together, "Washington Mutual") have been named as defendants in a number of cases in their various roles in offerings of mortgage-backed securities ("MBS"). These cases include purported class action suits on behalf of MBS purchasers, actions by individual MBS purchasers and actions by monoline insurance companies that guaranteed payments of principal and interest for particular tranches of MBS offerings. Following the settlements referred to under "Repurchase Litigation" and "Government Enforcement Investigations and Litigation" below, there are currently pending and tolled investor and monoline insurer claims involving MBS with an original principal balance of approximately \$74 billion, of which \$67 billion involves JPMC, Bear Stearns or Washington Mutual as issuer and \$7 billion involves JPMC, Bear Stearns or Washington Mutual solely as underwriter. The Firm and certain of its current and former officers and Board members have also been sued in shareholder derivative actions relating to the Firm's MBS activities, and trustees have asserted or have threatened to assert claims that loans in securitization trusts should be repurchased.

Issuer Litigation - Class Actions. The Firm is a defendant in three purported class actions brought against JPMC and Bear Stearns as MBS issuers (and, in some cases, also as underwriters of their own MBS offerings) in the United States District Courts for the Eastern and Southern Districts of New York. The Firm has reached an agreement in principle to settle one of these purported class actions, pending in the United States District Court for the Eastern District of New York. Motions to dismiss have largely been denied in the remaining two cases pending in the United States District Court for the Southern District of New York, which are in various stages of litigation.

Issuer Litigation - Individual Purchaser Actions. In addition to class actions, the Firm is defending individual actions brought against JPMC, Bear Stearns and Washington Mutual as MBS issuers (and, in some cases, also as underwriters of their own MBS offerings). These actions are pending in federal and state courts across the United States and are in various stages of litigation.

Monoline Insurer Litigation. The Firm is defending five pending actions relating to monoline insurers' guarantees of principal and interest on certain classes of 14 different Bear Stearns MBS offerings. These actions are pending in

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federal and state courts in New York and are in various stages of litigation.

Underwriter Actions. In actions against the Firm solely as an underwriter of other issuers' MBS offerings, the Firm has contractual rights to indemnification from the issuers. However, those indemnity rights may prove effectively unenforceable in various situations, such as where the issuers are now defunct. There are currently such actions pending against the Firm in federal and state courts in various stages of litigation.

Repurchase Litigation. The Firm is defending a number of actions brought by trustees or master servicers of various MBS trusts and others on behalf of purchasers of securities issued by those trusts. These cases generally allege breaches of various representations and warranties regarding securitized loans and seek repurchase of those loans or equivalent monetary relief, as well as indemnification of attorneys' fees and costs and other remedies. Deutsche Bank National Trust Company, acting as trustee for various MBS trusts, has filed such a suit against JPMC, Washington Mutual and the FDIC in connection with a significant number of MBS issued by Washington Mutual; that case is described in the Washington Mutual Litigations section below. Other repurchase actions, each specific to one or more MBS transactions issued by JPMC and/or Bear Stearns, are in various stages of litigation.

In addition, the Firm received demands by securitization trustees that threaten litigation, as well as demands by investors directing or threatening to direct trustees to investigate claims or bring litigation, based on purported obligations to repurchase loans out of securitization trusts and alleged servicing deficiencies. These include but are not limited to a demand from a law firm, as counsel to a group of 21 institutional MBS investors, to various trustees to investigate potential repurchase and servicing claims. These investors purported to have 25% or more of the voting rights in as many as 191 different trusts sponsored by the Firm or its affiliates with an original principal balance of more than \$174 billion (excluding 52 trusts sponsored by Washington Mutual, with an original principal balance of more than \$58 billion). Pursuant to a settlement agreement with the group of institutional investors, JPMC and the investor group have made a binding offer to the trustees of MBS issued by JPMC and Bear Stearns that provides for the payment of \$4.5 billion and the implementation of certain servicing changes to mortgage loans serviced by JPMC, to resolve all repurchase and servicing claims that have been asserted or could have been asserted with respect to the 330 MBS trusts. The offer, which is subject to acceptance by the trustees, and potentially a judicial approval process, does not resolve claims relating to WaMu MBS. JPMC and the trustees have agreed to toll and forbear from asserting repurchase and servicing claims with respect to most of the JPMC and Bear Stearns trusts subject to the settlement during the pendency of the settlement approval process.

There are additional repurchase and servicing claims made against trustees not affiliated with the Firm, but involving trusts that the Firm sponsored, which have been tolled.

Derivative Actions. Seven shareholder derivative actions relating to the Firm's MBS activities have been filed to date against the Firm, as nominal defendant, and certain of its current and former officers and members of its Board of Directors, in New York state court and California federal court. In one of the actions, the Firm's motion to dismiss was granted and the dismissal was affirmed on appeal. Defendants have filed, or intend to file, motions to dismiss the remaining actions.

Government Enforcement Investigations and Litigation. The Firm resolved actual and potential civil claims by the DOJ and several State Attorneys General relating to residential mortgage-backed securities activities by JPMC, Bear Stearns and Washington Mutual, in addition to resolving litigation by the Federal Housing Finance Agency, the Federal Deposit Insurance Corporation and the National Credit Union Administration. The Firm paid a total of \$9.0 billion, which is comprised of a \$2.0 billion civil monetary penalty and \$7.0 billion in compensatory payments (including \$4.0 billion to resolve the Federal Housing Finance Agency litigation) and made a commitment to provide \$4.0 billion in borrower relief before the end of 2017. In connection with this settlement, including the resolution of litigation by the Federal Housing Finance Agency, the Federal Deposit Insurance Corporation and the National Credit Union Administration, the Firm agreed to waive its right to seek indemnification from the Federal Deposit Insurance Corporation, in its capacity as receiver for Washington Mutual Bank and in its corporate capacity, with respect to any portion of this settlement relating to residential mortgage-backed securities activities of Washington Mutual Bank. The Firm retained its rights to seek indemnification from the Federal Deposit Insurance Corporation for all other liabilities relating to the residential mortgage-backed securities activities of Washington Mutual Bank.

Simultaneously with the resolution of litigation by the Federal Housing Finance Agency, the Firm also agreed to resolve Fannie Mae's and Freddie Mac's repurchase claims associated with whole loan purchases from 2000 to 2008, for \$1.1 billion.

The Firm is responding to an ongoing investigation being conducted by the Criminal Division of the United States Attorney's Office for the Eastern District of California relating to MBS offerings securitized and sold by the Firm and its subsidiaries. The Firm has also received other subpoenas and informal requests for information from federal and state authorities concerning the issuance and underwriting of MBS-related matters. The Firm continues to respond to these MBS-related regulatory inquiries.

In addition, the Firm is responding to and cooperating with requests for information from the U.S. Attorney's Office for the District of Connecticut, subpoenas and requests from the SEC Division of Enforcement, and a request from the Office of the Special Inspector General for the Troubled Asset Relief Program to conduct a review of certain activities, all of which relate to, among other matters, communications with counterparties in connection with certain secondary market trading in MBS.

The Firm has entered into agreements with a number of entities that purchased MBS that toll applicable limitations periods with respect to their claims, and has settled, and in the future may settle, tolled claims. There is no assurance that the Firm will not be named as a defendant in additional MBS-related litigation.

Mortgage-Related Investigations and Litigation. The Attorney General of Massachusetts filed an action against the Firm, other servicers and a mortgage recording company, asserting claims for various alleged wrongdoings relating to mortgage assignments and use of the industry's electronic mortgage registry. The court granted in part and denied in part the defendants' motion to dismiss the action, which remains pending.

The Firm is named as a defendant in a purported class action lawsuit relating to its mortgage foreclosure procedures. The plaintiffs have moved for class certification.

Two shareholder derivative actions have been filed in New York Supreme Court against the Firm's Board of Directors alleging that the Board failed to exercise adequate oversight as to wrongful conduct by the Firm regarding mortgage servicing. These actions seek declaratory relief and damages. In October 2012, the Court consolidated the actions and stayed all proceedings pending the plaintiffs' decision whether to file a consolidated complaint after the Firm completes its response to a demand submitted by one of the plaintiffs under Section 220 of the Delaware General Corporation Law.

In February 2014, the Firm entered into a settlement with the United States Attorney's Office for the Southern District of New York, the Federal Housing Administration ("FHA"), the United States Department of Housing and Urban Development ("HUD") and the United States Department of Veterans Affairs ("VA") resolving claims relating to the Firm's participation in federal mortgage insurance programs overseen by FHA, HUD and VA. Under the settlement, JPMorgan Chase will pay \$614 million and agree to enhance its quality control program for loans that are submitted in the future to FHA's Direct Endorsement Lender program. This settlement releases the Firm from False Claims Act, FIRREA and other civil and administrative liability for FHA and VA insurance claims that have been paid to JPMorgan Chase since 2002 through the date of the settlement.

The Civil Division of the United States Attorney's Office for the Southern District of New York is conducting an investigation concerning the Firm's compliance with the Fair Housing Act ("FHA") and Equal Credit Opportunity Act ("ECOA") in connection with its mortgage lending practices. In addition, two municipalities are pursuing investigations into the impact, if any, of alleged violations of the FHA and ECOA on their respective communities. The Firm is cooperating in these investigations.

Municipal Derivatives Litigation. Several civil actions were commenced in New York and Alabama courts against the Firm relating to certain Jefferson County, Alabama (the "County") warrant underwritings and swap transactions.

The claims in the civil actions generally alleged that the Firm made payments to certain third parties in exchange for being chosen to underwrite more than \$3 billion in warrants issued by the County and to act as the counterparty for certain swaps executed by the County. The County filed for bankruptcy in November 2011. In June 2013, the County filed a Chapter 9 Plan of Adjustment, as amended (the "Plan of Adjustment"), which provided that all the above-described actions against the Firm would be released and dismissed with prejudice. In November 2013, the Bankruptcy Court confirmed the Plan of Adjustment, and in December 2013, certain sewer rate payers filed an appeal challenging the confirmation of the Plan of Adjustment. All conditions to the Plan of Adjustment's effectiveness, including the dismissal of the actions against the Firm, were satisfied or waived and the transactions contemplated by the Plan of Adjustment occurred in December 2013. Accordingly, all the above-described actions against the Firm have been dismissed pursuant to the terms of the Plan of Adjustment. The appeal of the Bankruptcy Court's order confirming the Plan of Adjustment remains pending.

Petters Bankruptcy and Related Matters. JPMorgan Chase and certain of its affiliates, including One Equity Partners ("OEP"), have been named as defendants in several actions filed in connection with the receivership and bankruptcy proceedings pertaining to Thomas J. Petters and certain affiliated entities (collectively, "Petters") and the Polaroid Corporation. The principal actions against JPMorgan Chase and its affiliates have been brought by a court-appointed receiver for Petters and the trustees in bankruptcy proceedings for three Petters entities. These actions generally seek to avoid certain purported transfers in connection with (i) the 2005 acquisition by Petters of Polaroid, which at the time was majority-owned by OEP; (ii) two credit facilities that JPMorgan Chase and other financial institutions entered into with Polaroid; and (iii) a credit line and investment accounts held by Petters. The actions collectively seek recovery of approximately \$450 million. Defendants have moved to dismiss the complaints in the actions filed by the Petters bankruptcy trustees.

Power Matters. The United States Attorney's Office for the Southern District of New York is investigating matters relating to the bidding activities that were the subject of the July 2013 settlement between J.P. Morgan Ventures Energy Corp. and the Federal Energy Regulatory Commission. The Firm is cooperating with the investigation.

Referral Hiring Practices Investigations. The SEC and DOJ are investigating, among other things, the Firm's compliance with the Foreign Corrupt Practices Act and other laws with respect to the Firm's hiring practices related to candidates referred by clients, potential clients and government officials, and its engagement of consultants in the Asia Pacific region. The Firm is cooperating with these investigations. Separate inquiries on these or similar topics have been made by other authorities, including authorities in other jurisdictions, and the Firm is responding to those inquiries.

Sworn Documents, Debt Sales and Collection Litigation Practices. The Firm has been responding to formal and informal inquiries from various state and federal regulators regarding practices involving credit card collections litigation (including with respect to sworn documents), the sale of consumer credit card debt and securities backed by credit card receivables. In September 2013, JPMorgan Chase Bank, N.A., Chase Bank USA, N.A. and JPMorgan Bank and Trust Company, N.A. (collectively, the “Banks”) entered into a consent order with the OCC regarding collections litigation processes pursuant to which the Banks agreed to take certain corrective actions in connection with certain of JPMorgan Chase’s credit card, student loan, auto loan, business banking and commercial banking customers who defaulted on their loan or contract.

Separately, the Consumer Financial Protection Bureau and multiple state Attorneys General are conducting investigations into the Firm’s collection and sale of consumer credit card debt. The California and Mississippi Attorneys General have filed separate civil actions against JPMorgan Chase & Co., Chase Bank USA, N.A. and Chase BankCard Services, Inc. alleging violations of law relating to debt collection practices.

Washington Mutual Litigations. Proceedings related to Washington Mutual’s failure are pending before the United States District Court for the District of Columbia and include a lawsuit brought by Deutsche Bank National Trust Company, initially against the FDIC, asserting an estimated \$6 billion to \$10 billion in damages based upon alleged breach of various mortgage securitization agreements and alleged violation of certain representations and warranties given by certain Washington Mutual, Inc. (“WMI”) subsidiaries in connection with those securitization agreements. The case includes assertions that JPMorgan Chase may have assumed liabilities for the alleged breaches of representations and warranties in the mortgage securitization agreements. The District Court denied as premature motions by the Firm and the FDIC that sought a ruling on whether the FDIC retained liability for Deutsche Bank’s claims. Discovery is underway.

An action filed by certain holders of Washington Mutual Bank debt against JPMorgan Chase, which alleged that JPMorgan Chase acquired substantially all of the assets of Washington Mutual Bank from the FDIC at a price that was allegedly too low, remains pending. JPMorgan Chase and the FDIC moved to dismiss this action and the District Court dismissed the case except as to the plaintiffs’ claim that the Firm tortiously interfered with the plaintiffs’ bond contracts with Washington Mutual Bank prior to its closure. Discovery is ongoing.

JPMorgan Chase has also filed a complaint in the United States District Court for the District of Columbia against the FDIC in its capacity as receiver for Washington Mutual Bank and in its corporate capacity asserting multiple claims for indemnification under the terms of the Purchase & Assumption Agreement between JPMorgan Chase and the FDIC relating to JPMorgan Chase’s purchase of most of the assets and certain liabilities of Washington Mutual Bank.

* * *

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries are named as defendants or are otherwise involved in a substantial number of other legal proceedings. The Firm believes it has meritorious defenses to the claims asserted against it in its currently outstanding legal proceedings and it intends to defend itself vigorously in all such matters. Additional legal proceedings may be initiated from time to time in the future.

The Firm has established reserves for several hundred of its currently outstanding legal proceedings. The Firm accrues for potential liability arising from such proceedings when it is probable that such liability has been incurred and the amount of the loss can be reasonably estimated. The Firm evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upwards or downwards, as appropriate, based on management’s best judgment after consultation with counsel. During the years ended December 31, 2013, 2012 and 2011, the Firm incurred \$11.1 billion, \$5.0 billion and \$4.9 billion, respectively, of legal expense. There is no assurance that the Firm’s litigation reserves will not need to be adjusted in the future.

In view of the inherent difficulty of predicting the outcome of legal proceedings, particularly where the claimants seek very large or indeterminate damages, or where the matters present novel legal theories, involve a large number of parties or are in early stages of discovery, the Firm cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or impact related to those matters. JPMorgan Chase believes, based upon its current knowledge, after consultation with counsel and after taking into account its current litigation reserves, that the legal proceedings currently pending against it should not have a material adverse effect on the Firm’s consolidated financial condition. The Firm notes, however, that in light of the uncertainties involved in such proceedings, there is no assurance the ultimate resolution of these matters will not significantly exceed the reserves it has currently accrued; as a result, the outcome of a particular matter may be material to JPMorgan Chase’s operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of JPMorgan Chase’s income for that period.

Note 32 – International operations

The following table presents income statement-related and balance sheet-related information for JPMorgan Chase by major international geographic area. The Firm defines international activities for purposes of this footnote presentation as business transactions that involve clients residing outside of the U.S., and the information presented below is based predominantly on the domicile of the client, the location from which the client relationship is managed, or the location of the trading desk. However, many of the Firm's U.S. operations serve international businesses.

As the Firm's operations are highly integrated, estimates and subjective assumptions have been made to apportion revenue and expense between U.S. and international operations. These estimates and assumptions are consistent with the allocations used for the Firm's segment reporting as set forth in Note 33 on pages 334–337 of this Annual Report.

The Firm's long-lived assets for the periods presented are not considered by management to be significant in relation to total assets. The majority of the Firm's long-lived assets are located in the United States.

As of or for the year ended December 31, (in millions)	Revenue ^(b)	Expense ^(c)	Income before income tax expense	Net income	Total assets
2013					
Europe/Middle East and Africa	\$ 15,585	\$ 9,069	\$ 6,516	\$ 4,842	\$ 514,747 ^(d)
Asia and Pacific	6,168	4,248	1,920	1,254	145,999
Latin America and the Caribbean	2,251	1,626	625	381	41,473
Total international	24,004	14,943	9,061	6,477	702,219
North America ^(a)	72,602	55,749	16,853	11,446	1,713,470
Total	\$ 96,606	\$ 70,692	\$ 25,914	\$ 17,923	\$ 2,415,689
2012					
Europe/Middle East and Africa	\$ 10,522	\$ 9,326	\$ 1,196	\$ 1,508	\$ 553,147 ^(d)
Asia and Pacific	5,605	3,952	1,653	1,048	167,955
Latin America and the Caribbean	2,328	1,580	748	454	53,984
Total international	18,455	14,858	3,597	3,010	775,086
North America ^(a)	78,576	53,256	25,320	18,274	1,584,055
Total	\$ 97,031	\$ 68,114	\$ 28,917	\$ 21,284	\$ 2,359,141
2011					
Europe/Middle East and Africa	\$ 16,212	\$ 9,157	\$ 7,055	\$ 4,844	\$ 566,866 ^(d)
Asia and Pacific	5,992	3,802	2,190	1,380	156,411
Latin America and the Caribbean	2,273	1,711	562	340	51,481
Total international	24,477	14,670	9,807	6,564	774,758
North America ^(a)	72,757	55,815	16,942	12,412	1,491,034
Total	\$ 97,234	\$ 70,485	\$ 26,749	\$ 18,976	\$ 2,265,792

(a) Substantially reflects the U.S.

(b) Revenue is composed of net interest income and noninterest revenue.

(c) Expense is composed of noninterest expense and the provision for credit losses.

(d) Total assets for the U.K. were approximately \$451 billion, \$498 billion, and \$510 billion at December 31, 2013, 2012 and 2011, respectively.

Note 33 – Business segments

The Firm is managed on a line of business basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset Management. In addition, there is a Corporate/Private Equity segment. The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by management. Results of these lines of business are presented on a managed basis. For a definition of managed basis, see Explanation and Reconciliation of the Firm's use of non-GAAP financial measures, on pages 82–83 of this Annual Report. For a further discussion concerning JPMorgan Chase's business segments, see Business Segment Results on pages 84–85 of this Annual Report.

The following is a description of each of the Firm's business segments, and the products and services they provide to their respective client bases.

Consumer & Community Banking

CCB serves consumers and businesses through personal service at bank branches and through ATMs, online, mobile and telephone banking. CCB is organized into Consumer & Business Banking, Mortgage Banking (including Mortgage Production, Mortgage Servicing and Real Estate Portfolios) and Card. Consumer & Business Banking offers deposit and investment products and services to consumers, and lending, deposit, and cash management and payment solutions to small businesses. Mortgage Banking includes mortgage origination and servicing activities, as well as portfolios comprised of residential mortgages and home equity loans, including the PCI portfolio acquired in the Washington Mutual transaction. Card issues credit cards to consumers and small businesses, provides payment services to corporate and public sector clients through its commercial card products, offers payment processing services to merchants, and provides auto and student loan services.

Corporate & Investment Bank

CIB offers a broad suite of investment banking, market-making, prime brokerage, and treasury and securities products and services to a global client base of corporations, investors, financial institutions, government and municipal entities. Within Banking, the CIB offers a full range of investment banking products and services in all major capital markets, including advising on corporate strategy and structure, capital-raising in equity and debt markets, as well as loan origination and syndication. Also included in Banking is Treasury Services, which includes transaction services, comprised primarily of cash management and liquidity solutions, and trade finance products. The Markets & Investor Services segment of the CIB is a global market-maker in cash securities and derivative instruments, and also offers sophisticated risk management solutions, prime brokerage, and research. Markets & Investor Services also includes the Securities Services business, a leading global custodian which holds, values, clears and services securities, cash and alternative investments for investors and broker-dealers, and manages depositary receipt programs globally.

Commercial Banking

CB delivers extensive industry knowledge, local expertise and dedicated service to U.S. and U.S. multinational clients, including corporations, municipalities, financial institutions and non-profit entities with annual revenue generally ranging from \$20 million to \$2.0 billion. CB provides financing to real estate investors and owners. Partnering with the Firm's other businesses, CB provides comprehensive financial solutions, including lending, treasury services, investment banking and asset management to meet its clients' domestic and international financial needs.

Asset Management

AM, with client assets of \$2.3 trillion, is a global leader in investment and wealth management. AM clients include institutions, high-net-worth individuals and retail investors in every major market throughout the world. AM offers investment management across all major asset classes including equities, fixed income, alternatives and money market funds. AM also offers multi-asset investment management, providing solutions to a broad range of clients' investment needs. For individual investors, AM also provides retirement products and services, brokerage and banking services including trusts and estates, loans, mortgages and deposits. The majority of AM's client assets are in actively managed portfolios.

Corporate/Private Equity

The Corporate/Private Equity segment comprises Private Equity, Treasury and CIO, and Other Corporate, which includes corporate staff units and expense that is centrally managed. Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding and structural interest rate and foreign exchange risks, as well as executing the Firm's capital plan. The major Other Corporate units include Real Estate, Central Technology, Legal, Compliance, Finance, Human Resources, Internal Audit, Risk Management, Oversight & Control, Corporate Responsibility and various Other Corporate groups. Other centrally managed expense includes the Firm's occupancy and pension-related expense that are subject to allocation to the businesses.

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Segment results

The following tables provide a summary of the Firm's segment results for 2013, 2012 and 2011 on a managed basis. Total net revenue (noninterest revenue and net interest income) for each of the segments is presented on a fully taxable-equivalent ("FTE") basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented on a basis comparable to taxable investments and securities; this non-GAAP financial measure allows management to assess the comparability of revenue arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense/(benefit).

The increase in equity levels for the lines of businesses since December 31, 2012, is largely driven by the evolving regulatory requirements and higher capital targets the firm has established under Basel III Advanced approach.

Segment results and reconciliation^(a)

As of or the year ended December 31, (in millions, except ratios)	Consumer & Community Banking ^(b)			Corporate & Investment Bank			Commercial Banking		
	2013	2012	2011	2013	2012	2011	2013	2012	2011
Noninterest revenue	\$ 17,552	\$ 20,813	\$ 15,314	\$ 23,810	\$ 23,104	\$ 22,523	\$ 2,298	\$ 2,283	\$ 2,195
Net interest income	28,474	29,071	30,305	10,415	11,222	11,461	4,675	4,542	4,223
Total net revenue	46,026	49,884	45,619	34,225	34,326	33,984	6,973	6,825	6,418
Provision for credit losses	335	3,774	7,620	(232)	(479)	(285)	85	41	208
Noninterest expense	27,842	28,827	27,637	21,744	21,850	21,979	2,610	2,389	2,278
Income/(loss) before income tax expense/(benefit)	17,849	17,283	10,362	12,713	12,955	12,290	4,278	4,395	3,932
Income tax expense/(benefit)	7,100	6,732	4,257	4,167	4,549	4,297	1,703	1,749	1,565
Net income/(loss)	\$ 10,749	\$ 10,551	\$ 6,105	\$ 8,546	\$ 8,406	\$ 7,993	\$ 2,575	\$ 2,646	\$ 2,367
Average common equity	\$ 46,000	\$ 43,000	\$ 41,000	\$ 56,500	\$ 47,500	\$ 47,000	\$ 13,500	\$ 9,500	\$ 8,000
Total assets	452,929	467,282	486,697	843,577	876,107	845,095	190,782	181,502	158,040
Return on average common equity	23%	25%	15%	15%	18%	17%	19%	28%	30%
Overhead ratio	60	58	61	64	64	65	37	35	35

- (a) Managed basis starts with the reported U.S. GAAP results and includes certain reclassifications as discussed below that do not have any impact on net income as reported by the lines of business or by the Firm as a whole.
- (b) The 2012 and 2011 data for certain income statement line items (predominantly net interest income, compensation and noncompensation expense) and balance sheet items were revised to reflect the transfer of certain technology and operations, as well as real estate-related functions and staff, from Corporate/Private Equity to CCB, effective January 1, 2013.
- (c) Segment managed results reflect revenue on a FTE basis with the corresponding income tax impact recorded within income tax expense/(benefit). These adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results.

(table continued from previous page)

Asset Management			Corporate/Private Equity ^(b)			Reconciling Items ^(c)			Total		
2013	2012	2011	2013	2012	2011	2013	2012	2011	2013	2012	2011
\$ 9,029	\$ 7,847	\$ 7,895	\$ 3,093	\$ 190	\$ 3,621	\$ (2,495)	\$ (2,116)	\$ (2,003)	\$ 53,287	\$ 52,121	\$ 49,545
2,291	2,099	1,648	(1,839)	(1,281)	582	(697)	(743)	(530)	43,319	44,910	47,689
11,320	9,946	9,543	1,254	(1,091)	4,203	(3,192)	(2,859)	(2,533)	96,606	97,031	97,234
65	86	67	(28)	(37)	(36)	—	—	—	225	3,385	7,574
8,016	7,104	7,002	10,255	4,559	4,015	—	—	—	70,467	64,729	62,911
3,239	2,756	2,474	(8,973)	(5,613)	224	(3,192)	(2,859)	(2,533)	25,914	28,917	26,749
1,208	1,053	882	(2,995)	(3,591)	(695)	(3,192)	(2,859)	(2,533)	7,991	7,633	7,773
\$ 2,031	\$ 1,703	\$ 1,592	\$ (5,978)	\$ (2,022)	\$ 919	\$ —	\$ —	\$ —	\$ 17,923	\$ 21,284	\$ 18,976
\$ 9,000	\$ 7,000	\$ 6,500	\$ 71,409	\$ 77,352	\$ 70,766	\$ —	\$ —	\$ —	\$ 196,409	\$ 184,352	\$ 173,266
122,414	108,999	86,242	805,987	725,251	689,718	NA	NA	NA	2,415,689	2,359,141	2,265,792
23%	24%	25%	NM	NM	NM	NM	NM	NM	9%	11%	11%
71	71	73	NM	NM	NM	NM	NM	NM	73	67	65

Notes to consolidated financial statements

Note 34 – Parent company

Parent company – Statements of income and comprehensive income

Year ended December 31, (in millions)	2013	2012	2011
Income			
Dividends from subsidiaries and affiliates:			
Bank and bank holding company	\$ 1,175	\$ 4,828	\$ 10,852
Nonbank ^(a)	876	1,972	2,651
Interest income from subsidiaries	757	1,041	1,099
Other interest income	303	293	384
Other income from subsidiaries, primarily fees:			
Bank and bank holding company	318	939	809
Nonbank	2,065	1,207	92
Other income/(loss)	(1,380)	579	(85)
Total income	4,114	10,859	15,802
Expense			
Interest expense to subsidiaries and affiliates ^(a)	309	836	1,121
Other interest expense	4,031	4,679	4,447
Other noninterest expense	9,597	2,399	649
Total expense	13,937	7,914	6,217
Income (loss) before income tax benefit and undistributed net income of subsidiaries	(9,823)	2,945	9,585
Income tax benefit	4,301	1,665	1,089
Equity in undistributed net income of subsidiaries	23,445	16,674	8,302
Net income	\$ 17,923	\$ 21,284	\$ 18,976
Other comprehensive income, net	(2,903)	3,158	(57)
Comprehensive income	\$ 15,020	\$ 24,442	\$ 18,919

Parent company – Balance sheets

December 31, (in millions)	2013	2012
Assets		
Cash and due from banks	\$ 264	\$ 216
Deposits with banking subsidiaries	64,843	75,521
Trading assets	13,727	8,128
Available-for-sale securities	15,228	3,541
Loans	2,829	2,101
Advances to, and receivables from, subsidiaries:		
Bank and bank holding company	21,693	39,773
Nonbank	68,788	86,904
Investments (at equity) in subsidiaries and affiliates: ^(b)		
Bank and bank holding company	196,950	170,297
Nonbank ^(a)	50,996	46,302
Other assets	18,877	16,481
Total assets	\$ 454,195	\$ 449,264
Liabilities and stockholders' equity		
Borrowings from, and payables to, subsidiaries and affiliates ^(a)	\$ 14,328	\$ 16,744
Other borrowed funds, primarily commercial paper	55,454	62,010
Other liabilities	11,367	8,208
Long-term debt ^{(c)(d)}	161,868	158,233
Total liabilities^(d)	243,017	245,195
Total stockholders' equity	211,178	204,069
Total liabilities and stockholders' equity	\$ 454,195	\$ 449,264

Parent company – Statements of cash flows

Year ended December 31, (in millions)	2013	2012	2011
Operating activities			
Net income	\$ 17,923	\$ 21,284	\$ 18,976
Less: Net income of subsidiaries and affiliates ^(a)	25,496	23,474	21,805
Parent company net loss	(7,573)	(2,190)	(2,829)
Cash dividends from subsidiaries and affiliates ^(a)	1,917	6,798	13,414
Other operating adjustments ^(b)	3,180	2,376	860
Net cash (used in)/provided by operating activities^(b)	(2,476)	6,984	11,445
Investing activities			
Net change in:			
Deposits with banking subsidiaries	10,679	16,100	20,866
Available-for-sale securities:			
Proceeds from paydowns and maturities	61	621	886
Purchases	(12,009)	(364)	(1,109)
Other changes in loans, net	(713)	(350)	153
Advances to subsidiaries, net	13,769	5,951	(28,105)
Investments (at equity) in subsidiaries and affiliates, net ^(a)	700	3,546	(1,530)
All other investing activities, net ^(b)	22	25	29
Net cash provided by/(used in) investing activities^(b)	12,509	25,529	(8,810)
Financing activities			
Net change in:			
Borrowings from subsidiaries and affiliates ^(a)	(2,715)	(14,038)	2,827
Other borrowed funds	(7,297)	3,736	16,268
Proceeds from the issuance of long-term debt	31,303	28,172	33,566
Payments of long-term debt	(21,510)	(44,240)	(41,747)
Excess tax benefits related to stock-based compensation	137	255	867
Proceeds from issuance of preferred stock	3,873	1,234	–
Redemption of preferred stock	(1,800)	–	–
Treasury stock and warrants repurchased	(4,789)	(1,653)	(8,863)
Dividends paid	(6,056)	(5,194)	(3,895)
All other financing activities, net	(1,131)	(701)	(1,622)
Net cash used in financing activities	(9,985)	(32,429)	(2,599)
Net increase in cash and due from banks	48	84	36
Cash and due from banks at the beginning of the year, primarily with bank subsidiaries	216	132	96
Cash and due from banks at the end of the year, primarily with bank subsidiaries	\$ 264	\$ 216	\$ 132
Cash interest paid	\$ 4,409	\$ 5,690	\$ 5,800
Cash income taxes paid, net	2,390	3,080	5,885

(a) Affiliates include trusts that issued guaranteed capital debt securities ("issuer trusts"). The Parent received dividends of \$5 million, \$12 million and \$13 million from the issuer trusts in 2013, 2012 and 2011, respectively. For further discussion on these issuer trusts, see Note 21 on pages 306–308 of this Annual Report.

(b) Prior periods were revised to conform with the current presentation.

(c) At December 31, 2013, long-term debt that contractually matures in 2014 through 2018 totaled \$26.4 billion, \$23.8 billion, \$22.5 billion, \$16.6 billion and \$18.7 billion, respectively.

(d) For information regarding the Firm's guarantees of its subsidiaries' obligations, see Note 21 and Note 29 on pages 306–308 and 318–324, respectively, of this Annual Report.

Supplementary information

Selected quarterly financial data (unaudited)

(Table continued on next page)

As of or for the period ended

(in millions, except per share, ratio and headcount data)

	2013				2012			
	4th quarter	3rd quarter	2nd quarter	1st quarter	4th quarter	3rd quarter	2nd quarter	1st quarter
Selected income statement data								
Total net revenue	\$ 23,156	\$ 23,117	\$ 25,211	\$ 25,122	\$ 23,653	\$ 25,146	\$ 22,180	\$ 26,052
Total noninterest expense	15,552	23,626	15,866	15,423	16,047	15,371	14,966	18,345
Pre-provision profit/(loss)	7,604	(509)	9,345	9,699	7,606	9,775	7,214	7,707
Provision for credit losses	104	(543)	47	617	656	1,789	214	726
Income before income tax expense	7,500	34	9,298	9,082	6,950	7,986	7,000	6,981
Income tax expense	2,222	414	2,802	2,553	1,258	2,278	2,040	2,057
Net income/(loss)	\$ 5,278	\$ (380)	\$ 6,496	\$ 6,529	\$ 5,692	\$ 5,708	\$ 4,960	\$ 4,924
Per common share data								
Net income/(loss) per share: Basic	\$ 1.31	\$ (0.17)	\$ 1.61	\$ 1.61	\$ 1.40	\$ 1.41	\$ 1.22	\$ 1.20
Diluted	1.30	(0.17)	1.60	1.59	1.39	1.40	1.21	1.19
Cash dividends declared per share	0.38	0.38	0.38	0.30	0.30	0.30	0.30	0.30
Book value per share	53.25	52.01	52.48	52.02	51.27	50.17	48.40	47.48
Tangible book value per share ("TBVS") ^(a)	40.81	39.51	39.97	39.54	38.75	37.53	35.71	34.79
Common shares outstanding								
Average: Basic	3,762.1	3,767.0	3,782.4	3,818.2	3,806.7	3,803.3	3,808.9	3,818.8
Diluted	3,797.1	3,767.0	3,814.3	3,847.0	3,820.9	3,813.9	3,820.5	3,833.4
Common shares at period-end	3,756.1	3,759.2	3,769.0	3,789.8	3,804.0	3,799.6	3,796.8	3,822.0
Share price^(b)								
High	\$ 58.55	\$ 56.93	\$ 55.90	\$ 51.00	\$ 44.54	\$ 42.09	\$ 46.35	\$ 46.49
Low	50.25	50.06	46.05	44.20	38.83	33.10	30.83	34.01
Close	58.48	51.69	52.79	47.46	43.97	40.48	35.73	45.98
Market capitalization	219,657	194,312	198,966	179,863	167,260	153,806	135,661	175,737
Selected ratios								
Return on common equity ("ROE")	10%	(1)%	13%	13%	11%	12%	11%	11%
Return on tangible common equity ("ROTCE") ^(a)	14	(2)	17	17	15	16	15	15
Return on assets ("ROA")	0.87	(0.06)	1.09	1.14	0.98	1.01	0.88	0.88
Return on risk-weighted assets ^{(c)(d)}	1.52	(0.11)	1.85	1.88	1.76	1.74	1.52	1.57
Overhead ratio	67	102	63	61	68	61	67	70
Loans-to-deposits ratio	57	57	60	61	61	63	65	64
High Quality Liquid Assets ("HQLA")(in billions) ^(e)	\$ 522	\$ 538	\$ 454	\$ 413	\$ 341	NA	NA	NA
Tier 1 capital ratio ^(d)	11.9%	11.7 %	11.6%	11.6%	12.6%	11.9%	11.3%	11.9%
Total capital ratio ^(d)	14.3	14.3	14.1	14.1	15.3	14.7	14.0	14.9
Tier 1 leverage ratio	7.1	6.9	7.0	7.3	7.1	7.1	6.7	7.1
Tier 1 common capital ratio ^{(d)(f)}	10.7	10.5	10.4	10.2	11.0	10.4	9.9	9.8
Selected balance sheet data (period-end)								
Trading assets	\$ 374,664	\$ 383,348	\$ 401,470	\$ 430,991	\$ 450,028	\$ 447,053	\$ 417,324	\$ 455,633
Securities ^(g)	354,003	356,556	354,725	365,744	371,152	365,901	354,595	381,742
Loans	738,418	728,679	725,586	728,886	733,796	721,947	727,571	720,967
Total assets	2,415,689	2,463,309	2,439,494	2,389,349	2,359,141	2,321,284	2,290,146	2,320,164
Deposits	1,287,765	1,281,102	1,202,950	1,202,507	1,193,593	1,139,611	1,115,886	1,128,512
Long-term debt ^(h)	267,889	263,372	266,212	268,361	249,024	241,140	239,539	255,831
Common stockholders' equity	200,020	195,512	197,781	197,128	195,011	190,635	183,772	181,469
Total stockholders' equity	211,178	206,670	209,239	207,086	204,069	199,639	191,572	189,269
Headcount⁽ⁱ⁾	251,196	255,041	254,063	255,898	258,753	259,144	260,398	261,169

Supplementary information

(Table continued from previous page)

As of or for the period ended (in millions, except ratio data)	2013				2012			
	4th quarter	3rd quarter	2nd quarter	1st quarter	4th quarter	3rd quarter	2nd quarter	1st quarter
Credit quality metrics								
Allowance for credit losses	\$ 16,969	\$ 18,248	\$ 20,137	\$ 21,496	\$ 22,604	\$ 23,576	\$ 24,555	\$ 26,621
Allowance for loan losses to total retained loans	2.25%	2.43%	2.69%	2.88%	3.02%	3.18%	3.29%	3.63%
Allowance for loan losses to retained loans excluding purchased credit-impaired loans ⁽ⁱ⁾	1.80	1.89	2.06	2.27	2.43	2.61	2.74	3.11
Nonperforming assets	\$ 9,706	\$ 10,380	\$ 11,041	\$ 11,739	\$ 11,906	\$ 12,481	\$ 11,397	\$ 11,953
Net charge-offs	1,328	1,346	1,403	1,725	1,628	2,770	2,278	2,387
Net charge-off rate	0.73%	0.74%	0.78%	0.97%	0.90%	1.53%	1.27%	1.35%

- (a) TBVS and ROTCE are non-GAAP financial measures. Tangible book value per share represents the Firm's tangible common equity divided by period-end common shares. ROTCE measures the Firm's annualized earnings as a percentage of tangible common equity. For further discussion of these measures, see Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 82-83 of this Annual Report.
- (b) Share prices shown for JPMorgan Chase's common stock are from the New York Stock Exchange. JPMorgan Chase's common stock is also listed and traded on the London Stock Exchange and the Tokyo Stock Exchange.
- (c) Return on Basel I risk-weighted assets is the annualized earnings of the Firm divided by its average RWA.
- (d) Basel 2.5 rules became effective for the Firm on January 1, 2013. The implementation of these rules in the first quarter of 2013 resulted in an increase of approximately \$150 billion in RWA compared with the Basel I rules. The implementation of these rules also resulted in decreases of the Firm's Tier 1 capital, Total capital and Tier 1 common capital ratios by 140 basis points, 160 basis points and 120 basis points, respectively, at March 31, 2013. For further discussion of Basel 2.5, see Regulatory capital on pages 161-165 of this Annual Report.
- (e) The Firm began estimating its total HQLA as of December 31, 2012, based on its current understanding of the Basel III LCR rules. See HQLA on page 172 of this Annual Report.
- (f) Basel I Tier 1 common capital ratio ("Tier 1 common ratio") is Tier 1 common capital ("Tier 1 common") divided by risk-weighted assets. The Firm uses Tier 1 common capital along with the other capital measures to assess and monitor its capital position. For further discussion of the Tier 1 common ratio, see Regulatory capital on pages 161-165 of this Annual Report.
- (g) Included held-to-maturity securities of \$24.0 billion and \$4.5 billion at December 31, 2013 and September 30, 2013. Held-to-maturity balances for the other periods were not material.
- (h) Included unsecured long-term debt of \$199.4 billion, \$199.2 billion, \$199.1 billion, \$206.1 billion, \$200.6 billion, \$207.3 billion and \$213.4 billion, and \$235.4 billion, respectively, for the periods presented.
- (i) Effective January 1, 2013, interns are excluded from the firmwide and business segment headcount metrics. Prior periods were revised to conform with this presentation.
- (j) Excludes the impact of residential real estate PCI loans. For further discussion, see Allowance for credit losses on pages 139-141 of this Annual Report.

Glossary of Terms

Active foreclosures: Loans referred to foreclosure where formal foreclosure proceedings are ongoing. Includes both judicial and non-judicial states.

Active online customers: Users of all internet browsers and mobile platforms who have logged in within the past 90 days.

Active mobile customers: Users of all mobile platforms, which include: SMS, mobile smartphone and tablet, who have logged in within the past 90 days.

Allowance for loan losses to total loans: Represents period-end allowance for loan losses divided by retained loans.

Assets under management: Represent assets actively managed by AM on behalf of its Private Banking, Institutional and Retail clients. Includes “Committed capital not Called,” on which AM earns fees. Excludes assets managed by American Century Companies, Inc., in which the Firm sold its ownership interest on August 31, 2011.

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities, or other obligations, issued by VIEs that JPMorgan Chase consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

Chase LiquidSM cards - Refers to a prepaid, reloadable card product.

Client advisors: Investment product specialists, including private client advisors, financial advisors, financial advisor associates, senior financial advisors, independent financial advisors and financial advisor associate trainees, who advise clients on investment options, including annuities, mutual funds, stock trading services, etc., sold by the Firm or by third-party vendors through retail branches, Chase Private Client locations and other channels.

Client assets: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

Client investment managed accounts: Assets actively managed by Chase Wealth Management on behalf of clients. The percentage of managed accounts is calculated by dividing managed account assets by total client investment assets.

Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again (or vice versa). The duration of a credit cycle can vary from a couple of years to several years.

CUSIP number: A CUSIP (i.e., Committee on Uniform Securities Identification Procedures) number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security and is assigned by the American Bankers Association and operated by Standard & Poor's. This system facilitates the clearing and settlement process of securities. A similar system is used to identify non-U.S. securities (CUSIP International Numbering System).

Deposit margin/deposit spread: Represents net interest income expressed as a percentage of average deposits.

Exchange traded derivatives: Derivative contracts that are executed on an exchange and settled via a central clearing house.

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

Forward points: Represents the interest rate differential between two currencies, which is either added to or subtracted from the current exchange rate (i.e., “spot rate”) to determine the forward exchange rate.

Group of Seven (“G7”) nations: Countries in the G7 are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

G7 government bonds: Bonds issued by the government of one of the G7 nations.

Headcount-related expense: Includes salary and benefits (excluding performance-based incentives), and other noncompensation costs related to employees.

Home equity - senior lien: Represents loans and commitments where JP Morgan Chase holds the first security interest on the property.

Home equity - junior lien: Represents loans and commitments where JP Morgan Chase holds a security interest that is subordinate in rank to other liens.

Interchange income: A fee paid to a credit card issuer in the clearing and settlement of a sales or cash advance transaction.

Investment-grade: An indication of credit quality based on JPMorgan Chase's internal risk assessment system. “Investment grade” generally represents a risk profile similar to a rating of a “BBB-”/“Baa3” or better, as defined by independent rating agencies.

Glossary of Terms

LLC: Limited Liability Company.

Loan-to-value (“LTV”) ratio: For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Origination date LTV ratio

The LTV ratio at the origination date of the loan. Origination date LTV ratios are calculated based on the actual appraised values of collateral (i.e., loan-level data) at the origination date.

Current estimated LTV ratio

An estimate of the LTV as of a certain date. The current estimated LTV ratios are calculated using estimated collateral values derived from a nationally recognized home price index measured at the metropolitan statistical area (“MSA”) level. These MSA-level home price indices comprise actual data to the extent available and forecasted data where actual data is not available. As a result, the estimated collateral values used to calculate these ratios do not represent actual appraised loan-level collateral values; as such, the resulting LTV ratios are necessarily imprecise and should therefore be viewed as estimates.

Combined LTV ratio

The LTV ratio considering all lien positions related to the property. Combined LTV ratios are used for junior lien home equity products.

Managed basis: A non-GAAP presentation of financial results that includes reclassifications to present revenue on a fully taxable-equivalent basis. Management uses this non-GAAP financial measure at the segment level, because it believes this provides information to enable investors to understand the underlying operational performance and trends of the particular business segment and facilitates a comparison of the business segment with the performance of competitors.

Master netting agreement: An agreement between two counterparties who have multiple derivative contracts with each other that provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default on or termination of any one contract.

Mortgage product types:

Alt-A

Alt-A loans are generally higher in credit quality than subprime loans but have characteristics that would disqualify the borrower from a traditional prime loan. Alt-A lending characteristics may include one or more of the following: (i) limited documentation; (ii) a high combined loan-to-value (“CLTV”) ratio; (iii) loans secured by non-owner occupied properties; or (iv) a debt-to-income ratio above normal limits. A substantial proportion of the Firm’s Alt-A loans are those where a borrower does not provide complete documentation of his or her assets or the amount or source of his or her income.

Option ARMs

The option ARM real estate loan product is an adjustable-rate mortgage loan that provides the borrower with the option each month to make a fully amortizing, interest-only or minimum payment. The minimum payment on an option ARM loan is based on the interest rate charged during the introductory period. This introductory rate is usually significantly below the fully indexed rate. The fully indexed rate is calculated using an index rate plus a margin. Once the introductory period ends, the contractual interest rate charged on the loan increases to the fully indexed rate and adjusts monthly to reflect movements in the index. The minimum payment is typically insufficient to cover interest accrued in the prior month, and any unpaid interest is deferred and added to the principal balance of the loan. Option ARM loans are subject to payment recast, which converts the loan to a variable-rate fully amortizing loan upon meeting specified loan balance and anniversary date triggers.

Prime

Prime mortgage loans are made to borrowers with good credit records and a monthly income at least three to four times greater than their monthly housing expense (mortgage payments plus taxes and other debt payments). These borrowers provide full documentation and generally have reliable payment histories.

Subprime

Subprime loans are loans to customers with one or more high risk characteristics, including but not limited to: (i) unreliable or poor payment histories; (ii) a high LTV ratio of greater than 80% (without borrower-paid mortgage insurance); (iii) a high debt-to-income ratio; (iv) an occupancy type for the loan is other than the borrower’s primary residence; or (v) a history of delinquencies or late payments on the loan.

Glossary of Terms

Multi-asset: Any fund or account that allocates assets under management to more than one asset class.

NA: Data is not applicable or available for the period presented.

Net charge-off/(recovery) rate: Represents net charge-offs/(recoveries) (annualized) divided by average retained loans for the reporting period.

Net yield on interest-earning assets: The average rate for interest-earning assets less the average rate paid for all sources of funds.

NM: Not meaningful.

Over-the-counter derivatives (“OTC”): Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

Over-the-counter cleared derivatives (“OTC cleared”): Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

Overhead ratio: Noninterest expense as a percentage of total net revenue.

Participating securities: Represents unvested stock-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, “dividends”), which are included in the earnings per share calculation using the two-class method. JPMorgan Chase grants restricted stock and RSUs to certain employees under its stock-based compensation programs, which entitle the recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

Personal bankers: Retail branch office personnel who acquire, retain and expand new and existing customer relationships by assessing customer needs and recommending and selling appropriate banking products and services.

Portfolio activity: Describes changes to the risk profile of existing lending-related exposures and their impact on the allowance for credit losses from changes in customer profiles and inputs used to estimate the allowances.

Pre-provision profit/(loss): Represents total net revenue less noninterest expense. The Firm believes that this financial measure is useful in assessing the ability of a lending institution to generate income in excess of its provision for credit losses.

Pretax margin: Represents income before income tax expense divided by total net revenue, which is, in management’s view, a comprehensive measure of pretax performance derived by measuring earnings after all costs are taken into consideration. It is one basis upon which management evaluates the performance of AM against the performance of their respective competitors.

Principal transactions revenue: Principal transactions revenue includes realized and unrealized gains and losses recorded on derivatives, other financial instruments, private equity investments, and physical commodities used in market making and client-driven activities. In addition, Principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk management activities including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specified risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk, and (c) other derivatives, including the synthetic credit portfolio.

Purchased credit-impaired (“PCI”) loans: Represents loans that were acquired in the Washington Mutual transaction and deemed to be credit-impaired on the acquisition date in accordance with the guidance of the Financial Accounting Standards Board (“FASB”). The guidance allows purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools, provided that the loans have common risk characteristics (e.g., product type, LTV ratios, FICO scores, past due status, geographic location). A pool is then accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows.

Real assets: Real assets include investments in productive assets such as agriculture, energy rights, mining and timber properties and exclude raw land to be developed for real estate purposes.

Glossary of Terms

Real estate investment trust (“REIT”): A special purpose investment vehicle that provides investors with the ability to participate directly in the ownership or financing of real-estate related assets by pooling their capital to purchase and manage income property (i.e., equity REIT) and/or mortgage loans (i.e., mortgage REIT). REITs can be publicly- or privately-held and they also qualify for certain favorable tax considerations.

Receivables from customers: Primarily represents margin loans to prime and retail brokerage customers which are included in accrued interest and accounts receivable on the Consolidated Balance Sheets.

Reported basis: Financial statements prepared under U.S. GAAP, which excludes the impact of taxable-equivalent adjustments.

Retained loans: Loans that are held-for-investment (i.e. excludes loans held-for-sale and loans at fair value).

Risk-weighted assets (“RWA”): Risk-weighted assets consist of on- and off-balance sheet assets that are assigned to one of several broad risk categories and weighted by factors representing their risk and potential for default. On-balance sheet assets are risk-weighted based on the estimated credit risk associated with the obligor or counterparty, the nature of any collateral, and the guarantor, if any. Off-balance sheet assets such as lending-related commitments, guarantees, derivatives and other applicable off-balance sheet positions are risk-weighted by multiplying the contractual amount by the appropriate credit conversion factor to determine the on-balance sheet credit equivalent amount, which is then risk-weighted based on the same factors used for on-balance sheet assets. Risk-weighted assets also incorporate a measure for market risk related to applicable trading assets-debt and equity instruments, and foreign exchange and commodity derivatives. The resulting risk-weighted values for each of the risk categories are then aggregated to determine total risk-weighted assets.

Sales specialists: Retail branch office and field personnel, including relationship managers and loan officers, who specialize in marketing and sales of various business banking products (i.e., business loans, letters of credit, deposit accounts, Chase Paymentech, etc.) and mortgage products to existing and new clients.

Seed capital: Initial JPMorgan capital invested in products, such as mutual funds, with the intention of ensuring the fund is of sufficient size to represent a viable offering to clients, enabling pricing of its shares, and allowing the manager to develop a track record. After these goals are achieved, the intent is to remove the Firm’s capital from the investment.

Short sale: A short sale is a sale of real estate in which proceeds from selling the underlying property are less than the amount owed the Firm under the terms of the related mortgage and the related lien is released upon receipt of such proceeds.

Structural Interest Rate Risk: Represents interest rate risk of the non-trading assets and liabilities of the firm.

Suspended foreclosures: Loans referred to foreclosure where formal foreclosure proceedings have started but are currently on hold, which could be due to bankruptcy or loss mitigation. Includes both judicial and non-judicial states.

Taxable-equivalent basis: In presenting managed results, the total net revenue for each of the business segments and the Firm is presented on a tax-equivalent basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities; the corresponding income tax impact related to tax-exempt items is recorded within income tax expense.

Trade-date and settlement-date: For financial instruments, the trade-date is the date that an order to purchase, sell or otherwise acquire an instrument is executed in the market. The trade-date may differ from the settlement-date, which is the date on which the actual transfer of a financial instrument between two parties is executed. The amount of time that passes between the trade-date and the settlement-date differs depending on the financial instrument. For repurchases under the common equity repurchase program, except where the trade-date is specified, the amounts disclosed are presented on a settlement-date basis. In the Capital Management section on pages 160-167, of this Form 10-K, and where otherwise specified, repurchases under the common equity repurchase program are presented on a trade-date basis because the trade-date is used to calculate the Firm’s regulatory capital.

Troubled debt restructuring (“TDR”): A TDR is deemed to occur when the Firm modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty.

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

U.S. GAAP: Accounting principles generally accepted in the United States of America.

Glossary of Terms

U.S. government-sponsored enterprise obligations:

Obligations of agencies originally established or chartered by the U.S. government to serve public purposes as specified by the U.S. Congress; these obligations are not explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government.

U.S. Treasury: U.S. Department of the Treasury.

Value-at-risk (“VaR”): A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

Wallet: Proportion of fee revenues based on estimates of investment banking fees generated across the industry (i.e. the revenue wallet) from investment banking transactions in M&A, equity and debt underwriting, and loan syndications. Source: Dealogic, a third party provider of investment banking competitive analysis and volume-based league tables for the above noted industry products.

Warehouse loans: Consist of prime mortgages originated with the intent to sell that are accounted for at fair value and classified as trading assets.

Washington Mutual transaction: On September 25, 2008, JPMorgan Chase acquired certain of the assets of the banking operations of Washington Mutual Bank (“Washington Mutual”) from the FDIC.

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Retired Deputy Head of Risk
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Retired Executive Vice President
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(Aerospace)

Crandall C. Bowles ^{1, 4}

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The Springs Company
(Diversified investments)

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Chief Executive Officer
NBCUniversal, LLC
(Television and entertainment)

James S. Crown ⁵

President
Henry Crown and Company
(Diversified investments)

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Chairman and
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JPMorgan Chase & Co.

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and Retired Chairman
and Chief Executive Officer
of GE Capital
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(Health care products)

Member of:

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- 2 Compensation &
Management Development
Committee
- 3 Corporate Governance &
Nominating Committee
- 4 Public Responsibility
Committee
- 5 Risk Policy Committee

Operating Committee

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Chief Executive Officer

Ashley Bacon

Chief Risk Officer

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CEO, Corporate & Investment Bank
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General Auditor

Sarah M. Youngwood

Investor Relations

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Gregory L. Guyett, Greater China CEO

Europe, Middle East, Africa

Daniel E. Pinto

Emilio Saracho, Deputy CEO

Latin America

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Kalpana Morparia

Japan

Steve Teru Rinoie

Korea

Steve Lim

Europe

Benelux/Nordics

Jake Donovan

Central & Eastern Europe

Walter Schuster

France/Francophone North Africa

Kyril Courboin

Germany

Martin Weismann

Ireland

Carin Bryans

Israel

Roy Navon

Italy

Francesco Rossi Ferrini

Russia/Central Asia

Yan Tavrovsky

Spain/Portugal

Enrique Casanueva Nardiz

Switzerland

Niklaus Bossart

Turkey/Azerbaijan

Emre Derman

Middle East, North Africa

Bahrain/Egypt/Lebanon

Ali Moosa

Middle East/North Africa

Sjoerd Leenart

Saudi Arabia

Rayan Fayez

Sub-Saharan Africa

Nigeria

Tosin T. Adewuyi

Sub-Saharan Africa

John J. Coulter

Latin America

Andean/Central America/

Caribbean

Moises Mainster

Argentina/Uruguay/Bolivia/
Paraguay

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Former Prime Minister of Great Britain
and Northern Ireland
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Dhahran, Saudi Arabia

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New York, New York

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Hills & Company International
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Sydney, Australia

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Kissinger Associates, Inc.
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Koç Holding A.Ş.
Istanbul, Turkey

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São Paulo, Brazil

Gérard Mestrallet

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Hon. Tung Chee Hwa GBM

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Consultative Conference
Hong Kong, The People's Republic
of China

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Officer, Board of Management
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Arnhem, The Netherlands

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New York, New York

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Chevron Corporation
San Ramon, California

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Chairman and Chief Executive Officer
Ayala Corporation
Makati City, Philippines

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JPMorgan Chase & Co.
New York, New York

Arminio Fraga Neto

Founding Partner
Gávea Investimentos Ltda.
JPMorgan Chase & Co.
Chairman of the Board
BM&F Bovespa
Rio de Janeiro, Brazil

Dr. Jacob A. Frenkel

Chairman, International
JPMorgan Chase & Co.
New York, New York

Walter A. Gubert

Vice Chairman and Chairman, EMEA
JPMorgan Chase & Co.
Brussels, Belgium

David Mayhew, CBE

Vice Chairman
J.P. Morgan
London, United Kingdom

JPMorgan Chase & Co.

Corporate headquarters

270 Park Avenue
New York, NY 10017-2070
Telephone: 212-270-6000
jpmorganchase.com

Principal subsidiaries

JPMorgan Chase Bank,
National Association
Chase Bank USA,
National Association
J.P. Morgan Securities LLC
J.P. Morgan Securities plc

Annual Report on Form 10-K

The Annual Report on Form 10-K of JPMorgan Chase & Co. as filed with the U.S. Securities and Exchange Commission will be made available without charge upon request to:

Office of the Secretary
JPMorgan Chase & Co.
270 Park Avenue
New York, NY 10017-2070

Stock listing

New York Stock Exchange
London Stock Exchange
Tokyo Stock Exchange

The New York Stock Exchange ticker symbol for the common stock of JPMorgan Chase & Co. is JPM.

Financial information about JPMorgan Chase & Co. can be accessed by visiting the Investor Relations website at jpmorganchase.com. Additional questions should be addressed to:

Investor Relations
JPMorgan Chase & Co.
270 Park Avenue
New York, NY 10017-2070
Telephone: 212-270-6000

Directors

To contact any of the Board members or committee chairs, the Lead Independent Director or the Non-management Directors as a group, please mail correspondence to:

JPMorgan Chase & Co.
Attention (Board member(s))
Office of the Secretary
270 Park Avenue
New York, NY 10017-2070

The Corporate Governance Principles of the Board, the charters of the principal Board committees, the Code of Conduct, the Code of Ethics for Finance Professionals and other governance information can be accessed by visiting our website at jpmorganchase.com and clicking on "Governance" under the "About us" tab.

Transfer agent and registrar

Computershare
480 Washington Boulevard
Jersey City, NJ 07310-2053
Telephone: 800-758-4651
computershare.com

Investor Services Program

JPMorgan Chase & Co.'s Investor Services Program offers a variety of convenient, low-cost services to make it easier to reinvest dividends and buy and sell shares of JPMorgan Chase & Co. common stock. A brochure and enrollment materials may be obtained by contacting the Program Administrator, Computershare, by calling 800-758-4651, by writing to the address indicated above or by visiting its website at www-us.computershare.com/investor.

Direct deposit of dividends

For information about direct deposit of dividends, please contact Computershare.

Stockholder inquiries

Contact Computershare:

By telephone:

Within the United States, Canada and Puerto Rico: 800-758-4651 (toll free)

From all other locations:
201-680-6862 (collect)

TDD service for the hearing impaired within the United States, Canada and Puerto Rico: 800-231-5469 (toll free)

All other locations:
201-680-6610 (collect)

By regular mail:

Computershare
P.O. Box 30170
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By overnight delivery:

Computershare
211 Quality Circle
Suite 210
College Station, TX 77845
United States

Duplicate mailings

If you receive duplicate mailings because you have more than one account listing and you wish to consolidate your accounts, please write to Computershare at the address above.

Independent registered public accounting firm

PricewaterhouseCoopers LLP
300 Madison Avenue
New York, NY 10017-6204

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As of the beginning of 2009, JPMorgan Chase & Co. has distributed shareholder information under the U.S. Securities and Exchange Commission "Notice and Access" rule. As a result, the firm prints 700,000 fewer Annual Reports and Proxy Statements, which saves on an annual basis approximately 6,400 trees and 800 metric tons of CO₂ emissions.

This Annual Report is printed on paper made from well-managed forests and other controlled sources. The paper is independently certified by BVQI to the Forest Stewardship Council™ (FSC®) standards. The paper contains a minimum of 20% post-consumer waste recycled fibers.



jpmorganchase.com

