JPMORGAN CHASE & CO
Form 10-K
February 20, 2014

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K
Annual report pursuant to Section 13 or 15(d) of
The Securities Exchange Act of 1934

For the fiscal year ended December 31, 2013	Commission file number 1-5805
JPMorgan Chase & Co. (Exact name of registrant as specified in its charter)	
Delaware (State or other jurisdiction of incorporation or organization)	13-2624428 (I.R.S. employer identification no.)
270 Park Avenue, New York, New York (Address of principal executive offices)	10017 (Zip code)

Registrant's telephone number, including area code: (212) 270-6000
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common stock	The New York Stock Exchange The London Stock Exchange The Tokyo Stock Exchange
Warrants, each to purchase one share of Common Stock	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 5.50% Non-Cumulative Preferred Stock, Series O	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 5.45% Non-Cumulative Preferred Stock, Series P	The New York Stock Exchange
Guarantee of 6.70% Capital Securities, Series CC, of JPMorgan Chase Capital XXIX	The New York Stock Exchange
Alerian MLP Index ETNs due May 24, 2024	NYSE Arca, Inc.

Securities registered pursuant to Section 12(g) of the Act: None
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ý Yes o No
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. o Yes ý No
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ý Yes o No
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ý Yes o No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

x Large accelerated filer	o Accelerated filer	o Non-accelerated filer (Do not check if a smaller reporting company)	o Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). o Yes ý No

The aggregate market value of JPMorgan Chase & Co. common stock held by non-affiliates as of June 30, 2013: $197,931,024,385

Number of shares of common stock outstanding as of January 31, 2014: 3,786,825,346

Documents incorporated by reference: Portions of the registrant's Proxy Statement for the annual meeting of stockholders to be held on May 20, 2014, are incorporated by reference in this Form 10-K in response to Items 10, 11, 12, 13 and 14 of Part III.

Form 10-K Index

Part I

ITEM 1: BUSINESS

Overview

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.” or “United States”), with operations worldwide; the Firm had $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 wholly owned subsidiary of JPMorgan Chase Bank, N.A.

The Firm’s website is www.jpmorganchase.com. JPMorgan Chase makes available free of charge, through its website, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after it electronically files such material with, or furnishes such material to, the U.S. Securities and Exchange Commission (the “SEC”). The Firm has adopted, and posted on its website, a Code of Ethics for its Chairman and Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and other finance professionals of the Firm.

Business segments

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 is provided in the “Business segment results” section of Management’s discussion and analysis of financial condition and results of operations (“MD&A”), beginning on page 64 and in Note 33 on pages 334–337.

Competition

JPMorgan Chase and its subsidiaries and affiliates operate in a highly competitive environment. Competitors include other banks, brokerage firms, investment banking companies, merchant banks, hedge funds, commodity trading companies, private equity firms, insurance companies, mutual fund companies, investment managers, credit card companies, mortgage banking companies, trust companies, securities processing companies, automobile financing companies, leasing companies, e-commerce and other Internet-based companies, and a variety of other financial services and advisory companies. JPMorgan Chase’s businesses generally compete on the basis of the quality and range of their products and services, transaction execution, innovation and price. Competition also varies based on the types of clients, customers, industries and geographies served. With respect to some of its geographies and products, JPMorgan Chase competes globally; with respect to others, the Firm competes on a regional basis. The Firm’s ability to compete also depends on its ability to attract and retain professional and other personnel, and on its reputation.

The financial services industry has experienced consolidation and convergence in recent years, as financial institutions involved in a broad range of financial products and services have merged and, in some cases, failed. This is expected to continue. Consolidation could result in competitors of JPMorgan Chase gaining greater capital and other resources, such as a broader range of products and services and geographic diversity. It is likely that competition will become even more intense as the Firm's businesses continue to compete with other financial institutions that may have a stronger local presence in certain geographies or that operate under different rules and regulatory regimes than the Firm.

Supervision and regulation

The Firm is subject to regulation under state and federal laws in the United States, as well as the applicable laws of each of the various jurisdictions outside the United States in which the Firm does business.

Regulatory reform: On July 21, 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), which is intended to make significant structural reforms to the financial services industry. The Dodd-Frank Act instructs U.S. federal banking and other regulatory agencies to conduct approximately 285 rule-makings and 130 studies and reports. These regulatory agencies include the Commodity Futures Trading Commission (the "CFTC"); the Securities and Exchange Commission (the "SEC"); the Board of Governors of the Federal Reserve System (the "Federal

Reserve"); the Office of the Comptroller of the Currency (the "OCC"); the Federal Deposit Insurance Corporation (the "FDIC"); the Bureau of Consumer Financial Protection (the "CFPB"); and the Financial Stability Oversight Council (the "FSOC"). As a result of the Dodd-Frank Act rule-making and other regulatory reforms, the Firm is currently experiencing a period of unprecedented change in regulation and such changes could have a significant impact on how the Firm conducts business. The Firm continues to work diligently in assessing and understanding the implications of the regulatory changes it is facing, and is devoting substantial resources to implementing all the new regulations, while, at the same time, best meeting the needs and expectations of its clients. Given the current status of the regulatory developments, the Firm cannot currently quantify the possible effects on its business and operations of all of the significant changes that are currently underway. For more information, see "Risk Factors" on pages 9–18. Certain of these changes include the following:

Comprehensive Capital Analysis and Review ("CCAR") and stress testing. In December 2011, the Federal Reserve issued final rules regarding the submission of capital plans by bank holding companies with total assets of $50 billion or more. Pursuant to these rules, the Federal Reserve requires the Firm to submit a capital plan on an annual basis. In October 2012, the Federal Reserve and the OCC issued rules requiring the Firm and certain of its bank subsidiaries to perform stress tests under one stress scenario created by the Firm as well as three scenarios (baseline, adverse and severely adverse) mandated by the Federal Reserve. The Firm will be unable to make any capital distributions unless approved by the Federal Reserve if the Federal Reserve objects to the Firm's capital plan. For more information, see "CCAR and stress testing" on pages 5–6.

Resolution plan. In September 2011, the FDIC and the Federal Reserve issued, pursuant to the Dodd-Frank Act, a final rule that requires bank holding companies with assets of $50 billion or more and companies designated as systemically important by the FSOC to submit periodically to the Federal Reserve and the FDIC a plan for resolution under the Bankruptcy Code in the event of material distress or failure (a "resolution plan"). In January 2012, the FDIC also issued a final rule that requires insured depository institutions with assets of $50 billion or more to submit periodically to the FDIC a plan for resolution under the Federal Deposit Insurance Act (the "FDIA") in the event of failure. The Firm's initial resolution plan submissions were filed by July 1, 2012; annual updates to these resolution plan submissions are due by July 1 each year (although the 2013 plans were permitted to be filed in October 2013).

Derivatives. Under the Dodd-Frank Act, the Firm is subject to comprehensive regulation of its derivatives business (including capital and margin requirements, central clearing of standardized over-the-counter derivatives and the requirement that they be traded on regulated trading platforms) and heightened supervision. Further, some of the rules for derivatives apply extraterritorially to U.S. firms doing business with clients outside of the United States. In addition, commencing July 2015, certain derivatives transactions now executed by JPMorgan Chase Bank, N.A., will be required to be executed through subsidiaries or affiliates of JPMorgan Chase Bank, N.A. The effect of these rules issued under the Dodd-Frank Act will necessitate banking entities, such as the Firm, to significantly restructure their derivatives businesses, including by changing the legal entities through which their derivatives activities are conducted. In the European Union (the "EU"), the implementation of the European Market Infrastructure Regulation ("EMIR") and the revision of the Markets in Financial Instruments Directive ("MiFID II") will result in comparable, but not identical, changes to the European regulatory regime for derivatives. The combined effect of the U.S. and EU requirements, and the conflicts between them, present challenges and risks to the structure and operating model of the Firm's derivatives businesses.

Volcker Rule. The Firm will also be affected by the requirements of Section 619 of the Dodd-Frank Act, and specifically the provisions prohibiting proprietary trading and restricting the activities involving private equity and hedge funds (the "Volcker Rule"). On December 10, 2013, regulators adopted final regulations to implement the Volcker Rule. Under the final rules, "proprietary trading" is defined as the trading of securities, derivatives, or futures (or options on any of the foregoing) as principal, where such trading is principally for the purpose of short-term resale, benefiting from actual or expected short-term price movements and realizing short-term arbitrage profits or hedges of such positions. In order to distinguish permissible from impermissible principal risk taking, the final rules require the establishment of a complex compliance regime that includes the measurement and monitoring of seven metrics. The final rules specifically allow market-making-related activity, certain government-issued securities trading and certain risk management activities. The Firm has ceased all prohibited proprietary trading activities. The Firm must conform its remaining activities and investments to the Volcker Rule by July 21, 2015.

Money Market Fund Reform. In November 2012, the FSOC and the Financial Stability Board (the "FSB") issued separate proposals regarding money market fund reform. Pursuant to Section 120 of the Dodd-Frank Act, the FSOC published proposed recommendations that the SEC proceed with structural reforms of money market funds, including, among other possibilities, requiring that money market funds adopt a floating net asset value, mandating a capital buffer and requiring a hold-back on redemptions for certain shareholders. On June 5, 2013, the SEC approved the publication of proposed structural reforms of money market funds. The proposal considered two reform alternatives that could be adopted either alone or in combination: (i) requiring prime and tax-exempt institutional money market funds to “float” their net asset values or (ii) requiring all non-governmental money market funds to impose liquidity fees of up to 2% and to have the option to temporarily suspend redemptions (or “gate” the money market fund) upon the occurrence of specified events indicating that the fund may be under stress. It is currently anticipated that the SEC will adopt final structural reforms in 2014. The Financial Stability Board (the “FSB”) has endorsed and published for public consultation 15 policy recommendations proposed by the International Organization of Securities Commissions, including requiring money market funds to adopt a floating net asset value. In addition, in September 2013 the European Commission (the “EC”) released a proposal for a new regulation on money market funds in the EU. The EC proposed two options for stable net asset value money market funds: either (i) maintain a capital buffer of at least three percent of assets under management or (ii) float the net asset value of the money market fund. The EC proposal is currently being reviewed by the European Parliament and the Council of Member States as co-legislators, and is expected to be approved in 2014. For further information on international regulatory initiatives, see “Significant international regulatory initiatives” on pages 8–9.

Capital. In October 2013, U.S. federal banking agencies published the interim final rules implementing Basel III in the U.S. Under these rules the treatment of trust preferred securities as Tier 1 capital for regulatory capital purposes 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. In addition, in June 2011, the Basel Committee and the FSB announced that certain global systemically important banks (“GSIBs”) would be required to maintain additional capital, above the Basel III Tier 1 common equity minimum, in amounts ranging from 1% to 2.5%, depending upon the bank’s systemic importance. In June 2012, the Federal Reserve, the OCC and the FDIC issued final rules for implementing ratings alternatives for the computation of risk-based capital for market risk exposures, which will result in significantly higher capital requirements for many securitization exposures. For more information, see “Capital requirements” on pages 4-5.

FDIC Deposit Insurance Fund Assessments. Effective April 1, 2011, the method for calculating the deposit insurance assessment rate changed. This resulted in a substantial increase in the assessments that the Firm’s

bank subsidiaries pay annually to the FDIC. For more information, see “Deposit insurance” on page 6.

Consumer Financial Protection Bureau. The Dodd-Frank Act established the CFPB as a new regulatory agency. The CFPB has authority to regulate providers of credit, payment and other consumer financial products and services. The CFPB has examination authority over large banks, such as JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., with respect to the banks’ consumer financial products and services. The CFPB issued final regulations regarding mortgages, which became effective on January 10, 2014. For more information, see “CFPB and other consumer regulations” on page 7.

Debit interchange. On October 1, 2011, the Federal Reserve adopted final rules implementing the “Durbin Amendment” provisions of the Dodd-Frank Act, which limit the amount the Firm can charge for each debit card transaction it processes. In July 2013, the U.S. District Court for the District of Columbia ruled that the Federal Reserve exceeded its authority in the manner it set a cap on debit card transaction interchange fees and established network exclusivity prohibitions in its regulation implementing the Durbin Amendment. The Federal Reserve announced in August 2013 that it was appealing the decision, and argument was heard in January 2014. On January 17, 2014, the Court of Appeals for the District of Columbia Circuit heard an appeal by the Federal Reserve of the District Court’s decision. The Federal Reserve’s regulations remain in effect until the appeal is decided.

Systemically important financial institutions: The Dodd-Frank Act creates a structure to regulate systemically important financial institutions, and subjects them to heightened prudential standards, including heightened capital, leverage, liquidity, risk management, resolution plan, single-counterparty credit limits and early remediation requirements. JPMorgan Chase is considered a systemically important financial institution. On December 20, 2011, the Federal Reserve issued proposed rules to implement certain of the heightened prudential standards.

Permissible business activities: JPMorgan Chase elected to become a financial holding company as of March 13, 2000, pursuant to the provisions of the Gramm-Leach-Bliley Act. If a financial holding company or any depository institution controlled by a financial holding company ceases to meet certain capital or management standards, the

Federal Reserve may, pursuant to its bank supervisory authority, impose corrective capital and/or managerial requirements on the financial holding company and place limitations on its ability to conduct the broader financial activities permissible for financial holding companies. In addition, the Federal Reserve may require divestiture of the holding company's depository institutions if the deficiencies persist. Federal regulations also provide that if any depository institution controlled by a financial holding company fails to maintain a satisfactory rating under the Community

Reinvestment Act (the “CRA”), the Federal Reserve must prohibit the financial holding company and its subsidiaries from engaging in any additional activities other than those permissible for bank holding companies that are not financial holding companies.
The Federal Reserve has proposed rules under which the Federal Reserve could impose restrictions on systemically important financial institutions that are experiencing financial weakness, which restrictions could include limits on acquisitions, among other things. For more information on the restrictions, see “Prompt corrective action and early remediation” on page 6.
Financial holding companies and bank holding companies are required to obtain the approval of the Federal Reserve before they may acquire more than 5% of the voting shares of an unaffiliated bank. Pursuant to the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 (the “Riegle-Neal Act”), the Federal Reserve may approve an application for such an acquisition without regard to whether the transaction is prohibited under the law of any state, provided that the acquiring bank holding company, before or after the acquisition, does not control more than 10% of the total amount of deposits of insured depository institutions in the United States or more than 30% (or such greater or lesser amounts as permitted under state law) of the total deposits of insured depository institutions in the state in which the acquired bank has its home office or a branch. In addition, the Dodd-Frank Act restricts acquisitions by financial companies if, as a result of the acquisition, the total liabilities of the financial company would exceed 10% of the total liabilities of all financial companies. For non-U.S. financial companies, liabilities are calculated using only the risk-weighted assets of their U.S. operations. U.S. financial companies must include all of their risk-weighted assets (including assets held overseas). This could have the effect of allowing a non-U.S. financial company to grow to hold significantly more than 10% of the U.S. market without exceeding the concentration limit. Under the Dodd-Frank Act, the Firm must provide written notice to the Federal Reserve prior to acquiring direct or indirect ownership or control of any voting shares of any company with over $10 billion in assets that is engaged in “financial in nature” activities.
Dividend restrictions: Federal law imposes limitations on the payment of dividends by national banks. Dividends payable by JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., as national bank subsidiaries of JPMorgan Chase, are limited to the lesser of the amounts calculated under a “recent earnings” test and an “undivided profits” test. Under the recent earnings test, a dividend may not be paid if the total of all dividends declared by a bank in any calendar year is in excess of the current year’s net income combined with the retained net income of the two preceding years, unless the national bank obtains the approval of the OCC. Under the undivided profits test, a dividend may not be paid in excess of a bank’s “undivided profits.” See Note 27 on page 316 for the amount of

dividends that the Firm’s principal bank subsidiaries could pay, at January 1, 2014, to their respective bank holding companies without the approval of their banking regulators.
In addition to the dividend restrictions described above, the OCC, the Federal Reserve and the FDIC have authority to prohibit or limit the payment of dividends by the banking organizations they supervise, including JPMorgan Chase and its bank and bank holding company subsidiaries, 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. Under proposed rules issued by the Federal Reserve, dividends are restricted once any one of three risk-based capital ratios (tier 1 common, tier 1 capital, or total capital) falls below their respective minimum capital ratio requirement (inclusive of the GSIB surcharge) plus 2.5%.
Moreover, the Federal Reserve has issued rules requiring bank holding companies, such as JPMorgan Chase, to submit to the Federal Reserve a capital plan on an annual basis and receive a notice of non-objection from the Federal Reserve before taking capital actions, such as paying dividends, implementing common equity repurchase programs or redeeming or repurchasing capital instruments. For more information, see “CCAR and stress testing” on pages 5–6.
Capital requirements: Federal banking regulators have adopted risk-based capital and leverage guidelines that require the Firm’s capital-to-assets ratios to meet certain minimum standards.
The risk-based capital ratio is determined by allocating assets and specified off-balance sheet financial instruments into risk-weighted categories, with higher levels of capital being required for the categories perceived as representing greater risk. Under the guidelines, capital is divided into two tiers: Tier 1 capital and Tier 2 capital. The amount of

Tier 2 capital may not exceed the amount of Tier 1 capital. Total capital is the sum of Tier 1 capital and Tier 2 capital. Under the guidelines, banking organizations are required to maintain a total capital ratio (total capital to risk-weighted assets) of 8% and a Tier 1 capital ratio of 4%.

The federal banking regulators also have established minimum leverage ratio guidelines. The leverage ratio is defined as Tier 1 capital divided by adjusted average total assets. The minimum leverage ratio is 4% for bank holding companies. Bank holding companies may be expected to maintain ratios well above the minimum levels, depending upon their particular condition, risk profile and growth plans. The minimum risk-based capital requirements adopted by the federal banking agencies follow the Capital Accord of the Basel Committee on Banking Supervision (“Basel I”). In 2004, the Basel Committee published a revision to the Accord (“Basel II”). The goal of the Basel II Framework is to provide more risk-sensitive regulatory capital calculations and promote enhanced risk management practices among large, internationally active banking operations. In December 2010, the Basel Committee finalized further revisions to the Accord (“Basel

III") which narrowed the definition of capital, increased capital requirements for specific exposures, introduced short-term liquidity coverage and term funding standards, and established an international leverage ratio. In June 2011, the U.S. federal banking agencies issued rules to establish a permanent Basel I floor under Basel II/Basel III calculations.

In October 2013, U.S. federal banking agencies published the interim final rules implementing Basel III in the U.S. The interim final rules narrowed the definition of capital, increased capital requirements for certain exposures, set higher capital ratio requirements and minimum floors with respect to the capital ratio requirements and included a supplementary leverage ratio. U.S. banking regulators and the Basel Committee have, in addition, proposed changes to the leverage ratios applicable to the Firm and its bank subsidiaries.

In connection with the U.S. Government's Supervisory Capital Assessment Program in 2009, 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, non-controlling interests in subsidiaries and trust preferred capital debt securities. Tier 1 common, a non-GAAP financial measure, is used by banking regulators, investors and analysts to assess and compare the quality and composition of the Firm's capital with the capital of other financial services companies. The Firm uses Tier 1 common along with the other capital measures to assess and monitor its capital position.In June 2012, the U.S. banking regulators revised, effective January 1, 2013, certain capital requirements for trading positions and securitizations ("Basel 2.5").

GSIBs will be required to maintain additional capital, above the Basel III Tier 1 common equity minimum, in amounts ranging from 1% to 2.5%, depending upon the bank's systemic importance. In November 2012, the FSB indicated that the Firm would be in the category subject to a 2.5% capital surcharge. Furthermore, in order to provide a disincentive for banks facing the highest required level of Tier 1 common equity to "increase materially their global systemic importance in the future," an additional 1% charge could be applied. Currently, no GSIB is required to hold more than the additional 2.5% of Tier 1 common. The Federal Reserve has issued a proposed rule-making that incorporates the concept of a capital surcharge for GSIBs.

The Basel III revisions governing the capital requirements are subject to prolonged observation and transition periods. The phase-in period for banks to meet the revised Tier 1 common equity requirement begins in 2015, with implementation on January 1, 2019. The additional capital requirements for GSIBs will be phased-in starting January 1, 2016, with full implementation on January 1, 2019.

The Basel III 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 measure, is 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 final Basel III rules, the U.S. banking agencies issued proposed rulemaking relating to SLR that would require U.S. bank holding companies, including the Firm, to have a minimum SLR of at least 5%. Insured depository institutions, including JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., are required to have a minimum SLR of at least 6%. In addition, the Basel Committee has proposed further refinements to the computation of the SLR.

In addition to capital requirements, the Basel Committee has also proposed two new measures of liquidity risk: the "liquidity coverage ratio" and the "net stable funding ratio," which are intended to measure, over different time spans, the liquidity of the Firm. The observation periods for both these standards began in 2011, with implementation commencing in 2015 and 2018, respectively. On October 24, 2013, the U.S. banking regulators released a proposal to implement a quantitative liquidity requirement consistent with, but more conservative than, the Basel III liquidity coverage ratio ("LCR") for large banks. It also provides for an accelerated transition period compared to what is currently required under the Basel III LCR rules. The Firm believes that it was in compliance with this new U.S. proposal related to LCR at December 31, 2013.

The Dodd-Frank Act prohibits the use of external credit ratings in federal regulations. In June 2012, the Federal Reserve, OCC and FDIC issued final rules implementing ratings alternatives for the computation of risk-based capital for market risk exposures, which will result in significantly higher capital requirements for many securitization

exposures.
For additional information regarding the Firm's regulatory capital, see Regulatory capital on pages 161–165.
Risk reporting: In January 2013, the Basel Committee issued new regulations relating to risk aggregation and reporting. Under these regulations, the bank's risk governance framework must encompass risk-data aggregation and reporting, and data aggregation must be highly automated and allow for minimal manual intervention. The regulations also impose higher standards for the accuracy, comprehensiveness, granularity and timely distribution of data reporting, and call for regular supervisory review of bank risk aggregation and reporting. GSIBs will be required to comply with these new standards by January 1, 2016.
CCAR and stress testing: In December 2011, the Federal Reserve issued final rules regarding the submission of capital plans by bank holding companies with total assets of $50 billion or more. Pursuant to these rules, the Federal Reserve requires the Firm to submit a capital plan on an

annual basis. In October 2012, the Federal Reserve issued rules requiring bank holding companies with over $50 billion in total assets to perform an annual stress test and report the results to the Federal Reserve in January. The results of the annual stress test will also be publicly disclosed, and will be used as a factor in determining whether the Federal Reserve will or will not object to the bank holding company's capital plan. On January 6, 2014, the Firm submitted its 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. In reviewing the capital plan, the Federal Reserve will consider both quantitative and qualitative factors. Qualitative assessments will include, among other things, the comprehensiveness of the plan, the assumptions and analyses underlying the Firm's capital plan, and any relevant supervisory information. If the Federal Reserve objects to the Firm's capital plan, the Firm will be unable to make any capital distributions unless approved by the Federal Reserve. Bank holding companies must perform an additional stress test in the middle of the year and publicly disclose those results as well. The OCC issued similar regulations that require national banks with over $10 billion in total assets to perform annual stress tests. Accordingly, the Firm submits separate stress tests to the OCC for its national bank subsidiaries that exceed that threshold.

Heightened Expectations: In January 2014, the OCC issued proposed rules and guidelines establishing heightened standards for large banks. The proposed guidelines set forth standards for the design and implementation of the bank's risk governance framework, and minimum standards for oversight of that framework by the board of directors. The proposed guidelines are an extension of the OCC's "heightened expectations" for large banks developed after the financial crisis. The heightened standards are intended to protect the safety and soundness of the bank. The bank may use certain components of the parent company's risk governance framework, but the framework must ensure the bank's risk profile is easily distinguished and separate from parent for risk management purposes. Under the proposed guidelines, the board is required to have two members who are independent of the bank and parent company management. The board is responsible for ensuring the risk governance framework meets the standards in the OCC's guidelines, providing active oversight and credible challenge to management's recommendations and decisions, and ensuring that the parent company decisions do not jeopardize the safety and soundness of the bank.

Prompt corrective action and early remediation: The Federal Deposit Insurance Corporation Improvement Act of 1991 requires the relevant federal banking regulator to take "prompt corrective action" with respect to a depository institution if that institution does not meet certain capital adequacy standards. While these regulations apply only to banks, such as JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., the Federal Reserve is authorized to take

appropriate action against the parent bank holding company, such as JPMorgan Chase & Co., based on the undercapitalized status of any bank subsidiary. In certain instances, the bank holding company would be required to guarantee the performance of the capital restoration plan for its undercapitalized subsidiary.

In addition, in December 2011, the Federal Reserve issued proposed rules which provide for early remediation of systemically important financial companies that experience financial weakness. These proposed restrictions could include limits on capital distributions, acquisitions, and requirements to raise additional capital.

Deposit Insurance: The FDIC deposit insurance fund provides insurance coverage for certain deposits, which is funded through assessments on banks, such as JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A. Higher levels of bank failures during the financial crisis dramatically increased resolution costs of the FDIC. In addition, the amount of FDIC insurance coverage for insured deposits has been increased from $100,000 per depositor to $250,000 per depositor. In light of the increased stress on the deposit insurance fund caused by these developments, and in order to maintain a strong funding position and restore the reserve ratios of the deposit insurance fund, the FDIC has increased assessment rates of insured institutions generally. As required by the Dodd-Frank Act, the FDIC issued a final rule in February 2011 that changes the assessment base from insured deposits to average consolidated total assets less average tangible equity, and changes the assessment rate calculation. These changes became effective on April 1, 2011, and resulted in a substantial increase in the assessments that the Firm's bank subsidiaries pay annually to the FDIC.

Powers of the FDIC upon insolvency of the Firm or its insured depository institution subsidiaries: Upon the insolvency of an insured depository institution, such as JPMorgan Chase Bank, N.A., the FDIC may be appointed the conservator or receiver under the FDIA. Under the Dodd-Frank Act, where a systemically important financial

institution, such as JPMorgan Chase & Co., is in default or danger of default, the FDIC may be appointed receiver in order to conduct an orderly liquidation. In both cases, the FDIC has broad powers to transfer any assets and liabilities without the approval of the institution's creditors.
Depositor preference: Under federal law, the claims of a receiver of an insured depository institution for administrative expense and the claims of holders of U.S. deposit liabilities (including the FDIC) have priority over the claims of other unsecured creditors of the institution, including public noteholders and depositors in non-U.S. offices. As a result, such persons could receive substantially less than the depositors in U.S. offices of the depository institution. The U.K. Prudential Regulation Authority (the "PRA") has issued a proposal that may require the Firm to either obtain equal treatment for U.K. depositors or "subsidiarize" in the U.K. In September 2013, the FDIC issued a final rule, which clarifies that foreign deposits are

considered deposits under the FDIA only if they are also payable in the United States.
Cross-guarantee: An FDIC-insured depository institution can be held liable for any loss incurred or expected to be incurred by the FDIC in connection with another FDIC-insured institution under common control with such institution being “in default” or “in danger of default” (commonly referred to as “cross-guarantee” liability). An FDIC cross-guarantee claim against a depository institution is generally superior in right of payment to claims of the holding company and its affiliates against such depository institution.
The Bank Secrecy Act: The Bank Secrecy Act (“BSA”) requires all financial institutions, including banks and securities broker-dealers, to, among other things, establish a risk-based system of internal controls reasonably designed to prevent money laundering and the financing of terrorism. The BSA includes a variety of record-keeping and reporting requirements (such as cash and suspicious activity reporting), as well as due diligence/know-your-customer documentation requirements. The Firm has established a global anti-money laundering program in order to comply with BSA requirements.
Regulation by Federal Reserve: The Federal Reserve acts as an “umbrella regulator” and certain of JPMorgan Chase’s subsidiaries are regulated directly by additional authorities based on the particular activities of those subsidiaries. For example, JPMorgan Chase Bank, N.A., and Chase Bank USA, N.A., are regulated by the OCC. See “Other supervision and regulation” on pages 7–8 for a further description of the regulatory supervision to which the Firm’s subsidiaries are subject.
Holding company as source of strength for bank subsidiaries: JPMorgan Chase & Co. is required to serve as a source of financial strength for its depository institution subsidiaries and to commit resources to support those subsidiaries.
Restrictions on transactions with affiliates: The bank subsidiaries of JPMorgan Chase are subject to certain restrictions imposed by federal law on extensions of credit to, and certain other transactions with, the Firm and certain other affiliates, and on investments in stock or securities of JPMorgan Chase and those affiliates. These restrictions prevent JPMorgan Chase and other affiliates from borrowing from a bank subsidiary unless the loans are secured in specified amounts and are subject to certain other limits. For more information, see Note 27 on page 316. Effective in 2012, the Dodd-Frank Act extended such restrictions to derivatives and securities lending transactions. In addition, the Dodd-Frank Act’s Volcker Rule imposes similar restrictions on transactions between banking entities, such as JPMorgan Chase and its subsidiaries, and hedge funds or private equity funds for which the banking entity serves as the investment manager, investment advisor or sponsor.

CFPB and other consumer regulations: The activities of JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A. as consumer lenders also are subject to regulation under various U.S. federal laws, including the Truth-in-Lending, Equal Credit Opportunity, Fair Credit Reporting, Fair Debt Collection Practice, Electronic Funds Transfer and CARD acts, as well as various state laws. These statutes impose requirements on consumer loan origination and collection practices.
The CFPB issued final regulations regarding mortgages, which became effective January 10, 2014, and which will prohibit mortgage servicers from beginning foreclosure proceedings until a mortgage loan is 120 days delinquent. During this period, the borrower may apply for a loan modification or other option and the servicer cannot begin foreclosure until the application has been addressed. The CFPB issued another final regulation which became effective January 10, 2014, imposing an “ability to repay” requirement for residential mortgage loans. A creditor (or its assignee) will be liable to the borrower for damages if the creditor fails to make a “good faith and reasonable determination of a borrower’s reasonable ability to repay as of consummation.” Borrowers can sue the creditor or assignee for up to three years after closing, and can raise an ability to repay claim against the servicer as a set off at any point during the loan’s life if in foreclosure. A “Qualified Mortgage” as defined in the regulation is generally protected from such suits.
On April 22, 2013, the OCC issued guidance regarding the obligation of servicers to track loans scheduled for foreclosure sale within 60 days and to confirm certain information prior to proceeding with the scheduled sale. The Firm has adopted procedures designed to effect compliance with this guidance.
On March 21, 2013, the CFPB issued a bulletin regarding “Indirect Auto Lending and Compliance with the Equal Credit Opportunity Act,” in which it declared that a purchaser of automobile loans (“indirect lender”) from automobile dealers may be liable for Equal Credit Opportunity Act violations based on dealer specific and portfolio wide

disparities, on a prohibited basis, that result from allowing dealers to mark up the interest rate offered to consumers by indirect lenders and allowing the dealers a share of the increased revenue. The bulletin imposes significant dealer education and monitoring requirements on these indirect lenders if they continue allowing discretionary dealer mark-ups. Alternatively, the bulletin indicates that a flat fee arrangement would be acceptable. The Firm has adopted a dealer education and monitoring program to address the concerns raised in the bulletin.

Other supervision and regulation: The Firm's banks and certain of its nonbank subsidiaries are subject to direct supervision and regulation by various other federal and state authorities (some of which are considered "functional regulators" under the Gramm-Leach-Bliley Act). JPMorgan Chase's national bank subsidiaries, such as JPMorgan Chase Bank, N.A., and Chase Bank USA, N.A., are subject to supervision and regulation by the OCC and, in certain matters, by the Federal Reserve and the FDIC. Supervision and regulation by the responsible regulatory agency generally includes comprehensive annual reviews of all major aspects of the relevant bank's business and condition, stress tests of banks and imposition of periodic reporting requirements and limitations on investments, among other powers.

The Firm conducts securities underwriting, dealing and brokerage activities in the United States through J.P. Morgan Securities LLC and other broker-dealer subsidiaries, all of which are subject to regulations of the SEC, the Financial Industry Regulatory Authority and the New York Stock Exchange, among others. The Firm conducts similar securities activities outside the United States subject to local regulatory requirements. In the United Kingdom, those activities are conducted by J.P. Morgan Securities plc, which is regulated by the PRA (a subsidiary of the Bank of England which has responsibility for prudential regulation of banks and other systemically important institutions) and the Financial Conduct Authority (which regulates prudential matters for other firms and conduct matters for all participants). JPMorgan Chase mutual funds also are subject to regulation by the SEC. The Firm has subsidiaries that are members of futures exchanges in the United States and abroad and are registered accordingly.

In the United States, two subsidiaries are registered as futures commission merchants, and other subsidiaries are either registered with the CFTC as commodity pool operators and commodity trading advisors or exempt from such registration. These CFTC-registered subsidiaries are also members of the National Futures Association. The Firm's U.S. energy business is subject to regulation by the Federal Energy Regulatory Commission. It is also subject to other extensive and evolving energy, commodities, environmental and other governmental regulation both in the United States and other jurisdictions globally.

Under the Dodd-Frank Act, the CFTC and SEC are the regulators of the Firm's derivatives businesses. JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC, J.P. Morgan Securities plc and J.P. Morgan Ventures Energy Corporation have registered with the CFTC as swap dealers. The Firm expects that JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC and J.P. Morgan Securities plc may also need to register with the SEC as security-based swap dealers.

The types of activities in which the non-U.S. branches of JPMorgan Chase Bank, N.A. and the international subsidiaries of JPMorgan Chase may engage are subject to various restrictions imposed by the Federal Reserve. Those non-U.S. branches and international subsidiaries also are subject to the laws and regulatory authorities of the countries in which they operate.

Under the requirements imposed by the Gramm-Leach-Bliley Act, JPMorgan Chase and its subsidiaries are required periodically to disclose to their retail customers the Firm's policies and practices with respect to the sharing of nonpublic customer information with JPMorgan Chase

affiliates and others, and the confidentiality and security of that information. Under the Gramm-Leach-Bliley Act, retail customers also must be given the opportunity to "opt out" of information-sharing arrangements with non-affiliates, subject to certain exceptions set forth in the Gramm-Leach-Bliley Act.

Significant international regulatory initiatives: The EU has created a European Systemic Risk Board which monitors financial stability, together with a framework of European Supervisory Agencies which oversees the regulation of financial institutions. In addition, the Group of Twenty Finance Ministers and Central Bank Governors ("G-20") formed the FSB. At both G-20 and EU levels, various proposals are under consideration to address risks associated with global financial institutions. Some of the initiatives adopted include increased capital requirements for certain trading instruments or exposures and compensation limits on certain employees located in affected countries.

In the EU, there is an extensive and complex program of proposed regulatory enhancement which reflects, in part, the EU's commitments to policies of the G-20 together with other plans specific to the EU. This program includes EMIR, which will require, among other things, the central clearing of standardized derivatives and which will be phased in by 2015; and MiFID II, which gives effect to the G-20 commitment to on-venue trading of derivatives and also includes requirements for pre- and post-trade transparency and a significant reconfiguration of the regulatory supervision of execution venues.

The EU is also currently considering or executing upon significant revisions to laws covering: depositary activities; credit rating activities; resolution of banks, investment firms and market infrastructures; anti-money-laundering controls; data security and privacy; and corporate governance in financial firms, together with implementation in the EU of the Basel III capital standards.

Following the issuance of the Report of the High Level Expert Group on Reforming the Structure of the EU Banking Sector (the “Liikanen Group”), the EU has proposed legislation providing for a proprietary trading ban and mandatory separation of other trading activities within certain banks, while various EU Member States have separately enacted similar measures. In the U.K., the Independent Commission on Banking (the “Vickers Commission”) proposed certain provisions, which have now been enacted by Parliament and upon which detailed implementing requirements are expected during 2014, that mandate the separation (or “ring-fencing”) of deposit-taking activities from securities trading and other analogous activities within banks, subject to certain exemptions. The legislation includes the supplemental recommendation of the Parliamentary Commission on Banking Standards (the “Tyrie Commission”) that such ring-fences should be “electrified” by the imposition of mandatory forced separation on banking institutions that are deemed to test the limits of the safeguards. Parallel but distinct provisions have been enacted by the French and German governments, and others are under consideration in other countries. Further, the EU is in the process of developing a “Banking Union” institutional and legislative framework, comprising central supervision of systemic institutions by the European Central Bank, and a Single Resolution Mechanism for resolving failing banks alongside the recently-agreed Bank Recovery and Resolution Directive. These measures may separately or taken together have significant implications for the Firm's organizational structure in Europe, as well as its permitted activities and capital deployment in the EU.

Item 1A: RISK FACTORS

The following discussion sets forth the material risk factors that could affect JPMorgan Chase’s financial condition and operations. Readers should not consider any descriptions of such factors to be a complete set of all potential risks that could affect the Firm.

Regulatory Risk

JPMorgan Chase operates within a highly regulated industry, and the Firm’s businesses and results are significantly affected by the laws and regulations to which it is subject.

As a global financial services firm, JPMorgan Chase is subject to extensive and comprehensive regulation under federal and state laws in the United States and the laws of the various jurisdictions outside the United States in which the Firm does business. These laws and regulations significantly affect the way that the Firm does business, and can restrict the scope of the Firm’s existing businesses and limit the Firm’s ability to expand its product offerings or to pursue acquisitions, or can make its products and services more expensive for clients and customers.

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. Significant and comprehensive new legislation and regulations affecting the financial services industry have been adopted or proposed in recent years, both in the United States and globally, most notably the Dodd-Frank Act in the United States. Certain key regulations such as the Volcker Rule and the U.S. implementation of the Basel III capital standards have now been adopted, and the Firm continues to make appropriate adjustments to its business and operations, legal entity structure and capital and liquidity management policies, procedures and controls to comply with these and other new laws and regulations. However, U.S. and other regulators continue to develop, propose and adopt rules and propose new regulatory initiatives, so the cumulative effect of all of the new legislation and regulations on the Firm’s business and operations remains uncertain. In addition, there can be significant differences in the ways that similar regulatory initiatives affecting the financial services industry are implemented in different countries and regions in which JPMorgan Chase does business. Non-U.S. regulations and

initiatives may be inconsistent or may conflict with current or proposed regulations in the United States, which could create increased compliance and other costs for the Firm and adversely affect its business, operations or profitability. These recent legislative and regulatory developments, as well as future legislative or regulatory actions in the United States and in the other countries in which the Firm operates, could result in a significant loss of revenue for the Firm, impose additional costs on the Firm or otherwise reduce the Firm’s profitability, limit the Firm’s ability to pursue business opportunities in which it might otherwise consider engaging, require the Firm to dispose of or curtail certain businesses, affect the value of assets that the Firm holds, require the Firm to increase its prices and therefore reduce demand for its products, or otherwise adversely affect the Firm’s businesses.

Expanded regulatory oversight of JPMorgan Chase’s businesses will increase the Firm’s compliance costs and risks and may reduce the profitability of those businesses.

In recent years the Firm has entered into several Consent Orders with its banking regulators and settlements with various governmental agencies, including the Consent Orders entered into in April 2011 relating to the Firm’s residential mortgage servicing, foreclosure and loss mitigation activities; the February 2012 global settlement with federal and state government agencies relating to the servicing and origination of mortgages; the Consent Orders entered into in January 2013 relating to the Firm’s Bank Secrecy Act/Anti-Money Laundering policies, procedures and controls and to Chief Investment Office risk management and control functions as well as trading activities; the Consent Orders entered into 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 the Financial Crimes Enforcement Network ("FinCEN") relating to Bernard L. Madoff Investment Securities LLC and the Firm's AML compliance program; and the February 2014 settlement entered into with several federal government agencies relating to the Firm’s participation in certain federal mortgage insurance programs. These Consent Orders and settlements require the Firm, among other things, to remediate specified deficiencies in certain controls and operational processes; in some cases, to engage internal or external personnel to review past transactions or to monitor the extent to which cited lapses have been addressed; and to furnish its regulators with periodic reports concerning the Firm's progress in meeting the requirements of the orders and settlements. The Firm has also paid significant fines and penalties or provided monetary and other relief in connection with many of these actions and settlements.

The Firm is devoting substantial resources to satisfying the requirements of these Consent Orders and settlements, including comprehensive enhancements to its procedures and controls, the expansion of risk and control functions within each line of business, investments in technology and the hiring of significant numbers of additional risk, control and compliance personnel, all of which has increased the Firm's operational and compliance costs. In addition to these enforcement actions, the Firm is experiencing heightened regulatory oversight of its compliance with applicable laws and regulations, particularly with respect to its consumer businesses. The Firm expects that such regulatory scrutiny will continue, and that regulators will continue to take formal enforcement action, rather than taking informal supervisory actions, more frequently than they have done historically.

If the Firm fails to successfully address the requirements of the Consent Orders, the Deferred Prosecution Agreement and the other regulatory settlements and enforcement actions to which it is subject, or more generally, to effectively enhance its risk and control procedures and processes to meet heightened expectations by its regulators, it may continue to face a greater number or wider scope of investigations, enforcement actions and litigation, thereby increasing its costs associated with responding to or defending such actions, and it could be required to enter into further orders and settlements, pay additional fines, penalties or judgments, or accept material regulatory restrictions on its businesses, which could adversely affect the Firm's operations and, in turn, its financial results. In addition, further regulatory inquiries, investigations and actions, as well as any additional legislative or regulatory developments affecting the Firm's businesses, and any required changes to the Firm's business operations resulting from these developments, could result in significant loss of revenue, limit the products or services the Firm offers, require the Firm to increase its prices and therefore reduce demand for its products, impose additional compliance costs on the Firm, cause harm to the Firm's reputation or otherwise adversely affect the Firm's businesses.

Under the Firm's resolution plan required to be submitted by the Dodd-Frank Act resolution provisions, holders of the Firm's debt obligations are at clear risk of loss in any resolution proceedings.

In October 2013, JPMorgan Chase submitted to the Federal Reserve and the FDIC its annual update to its plan for resolution of the Firm. The Firm's resolution plan includes strategies to resolve the Firm under the Bankruptcy Code, and also recommends to the FDIC and the Federal Reserve

the Firm's proposed optimal strategy to resolve the Firm under the special resolution procedure provided in Title II of the Dodd-Frank Act ("Title II").

The Firm's recommendation for its optimal Title II strategy would involve a "single point of entry" recapitalization model in which the FDIC would use its power to create a "bridge entity" for JPMorgan Chase, transfer the systemically important and viable parts of the Firm's business, principally the stock of JPMorgan Chase & Co.'s main operating subsidiaries and any intercompany claims against such subsidiaries, to the bridge entity, recapitalize those businesses by contributing some or all of such intercompany claims to the capital of such subsidiaries, and by exchanging debt claims against JPMorgan Chase & Co. for equity in the bridge entity. If the Firm were to be resolved under this strategy, no assurance can be given that the value of the stock of the bridge entity distributed to the holders of debt obligations of JPMorgan Chase & Co. would be sufficient to repay or satisfy all or part of the principal amount of, and interest on, the debt obligations for which such stock was exchanged.

Market Risk

JPMorgan Chase's results of operations have been, and may continue to be, adversely affected by U.S. and international financial market and economic conditions.

JPMorgan Chase's businesses are materially affected by economic and market conditions, including the liquidity of the global financial markets; the level and volatility of debt and equity prices, interest rates and currency and commodities prices; investor sentiment; events that reduce confidence in the financial markets; inflation and unemployment; the availability and cost of capital and credit; the economic effects of natural disasters, several weather conditions, acts of war or terrorism; monetary policies and actions taken by the Federal Reserve and other central banks and the health of U.S. or international economies.

In the Firm’s wholesale businesses, the above-mentioned factors can affect transactions involving the Firm’s underwriting and advisory businesses; the realization of cash returns from its private equity business; the volume of transactions that the Firm executes for its customers and, therefore, the revenue that the Firm receives from commissions and spreads; and the willingness of financial sponsors or other investors to participate in loan syndications or underwritings managed by the Firm.

The Firm generally maintains extensive market-making positions in the fixed income, currency, commodities and equity markets to facilitate client demand and provide liquidity to clients. The Firm may have market-making positions that lack pricing transparency or liquidity. The revenue derived from these positions is affected by many factors, including the Firm’s success in effectively hedging its market and other risks, volatility in interest rates and equity, debt and commodities markets, credit spreads, and availability of liquidity in the capital markets, all of which are affected by economic and market conditions. The Firm anticipates that revenue relating to its market-making and private equity businesses will continue to experience volatility, which will affect pricing or the ability to realize returns from such activities, and that this could materially adversely affect the Firm’s earnings.

The fees that the Firm earns for managing third-party assets are also dependent upon general economic conditions. For example, a higher level of U.S. or non-U.S. interest rates or a downturn in securities markets could affect the valuations of the third-party assets that the Firm manages or holds in custody, which, in turn, could affect the Firm’s revenue. Macroeconomic or market concerns may also prompt outflows from the Firm’s funds or accounts.

Changes in interest rates will affect the level of assets and liabilities held on the Firm’s balance sheet and the revenue that the Firm earns from net interest income. A low interest rate environment or a flat or inverted yield curve may adversely affect certain of the Firm’s businesses by compressing net interest margins, reducing the amounts that the Firm earns on its investment securities portfolio, or reducing the value of its mortgage servicing rights (“MSR”) asset, thereby reducing the Firm’s net interest income and other revenues.

The Firm’s consumer businesses are particularly affected by domestic economic conditions, including U.S. interest rates; the rate of unemployment; housing prices; the level of consumer confidence; changes in consumer spending; and the number of personal bankruptcies. If the current positive trends in the U.S. economy are not sustained, this could diminish demand for the products and services of the Firm’s consumer businesses, or increase the cost to provide such products and services. In addition, adverse economic conditions, such as declines in home prices or persistent high levels of unemployment, could lead to an increase in mortgage, credit card and other loan delinquencies and higher net charge-offs, which can reduce the Firm’s earnings.

Widening of credit spreads makes it more expensive for the Firm to borrow on both a secured and unsecured basis. Credit spreads widen or narrow not only in response to Firm-specific events and circumstances, but also as a result of general economic and geopolitical events and conditions. Changes in the Firm’s credit spreads will impact, positively or negatively, the Firm’s earnings on liabilities that are recorded at fair value.

Finally, adverse economic and financial market conditions in specific countries or regions can have significant adverse effects on the Firm’s business, results of operations, financial condition and liquidity. For example, during the recent Eurozone debt crisis, concerns about the possibility of one or more sovereign debt defaults, significant bank failures or defaults and/or the exit of one or more countries from the European Monetary Union resulted in, among other things, declines in market liquidity, a contraction of

available credit, and diminished economic growth and business confidence in the Eurozone. There are continuing concerns as to the ultimate financial effectiveness of the assistance measures taken to date, and the extent to which the austerity measures may exacerbate high unemployment and test the social and political stability of weaker economies in the Eurozone. The Firm’s business and results of operations can be adversely affected both by localized economic crises in parts of the world where the Firm does business or when regional economic turmoil causes deterioration of global economic conditions.

Credit Risk

The financial condition of JPMorgan Chase’s customers, clients and counterparties, including other financial institutions, could adversely affect the Firm.

Financial services institutions are interrelated as a result of market-making, trading, clearing, counterparty or other relationships. The Firm routinely executes transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds, investment managers and other institutional clients. Many of these transactions expose the Firm to credit risk and, in some cases, disputes and litigation in the event of a default by the counterparty or client.

The Firm is a market leader in providing clearing and custodial services, and also acts as a clearing and custody bank in the securities and repurchase transaction market, including the U.S. tri-party repurchase transaction market. Many of these services expose the Firm to credit risk in the event of a default by the counterparty or client, a central counterparty (“CCP”) or another market participant.

As part of providing clearing services, the Firm is a member of a number of CCPs, and may be required to pay a portion of the losses incurred by such organizations as a result of the default of other members. As a clearing member, the Firm is also exposed to the risk of non-performance by its clients, which it seeks to mitigate through the maintenance of adequate collateral. In its role as custodian bank in the securities and repurchase transaction market, the Firm can be exposed to intra-day credit risk of its clients. If a client to whom the Firm provides such services becomes bankrupt or insolvent, the Firm may become involved in disputes and litigation with various parties, including one or more CCP's, the client's bankruptcy estate and other creditors, or involved in regulatory investigations. All of such events can increase the Firm's operational and litigation costs and may result in losses if any collateral received by the Firm declines in value.

During periods of market stress or illiquidity, the Firm's credit risk also may be further increased when the Firm cannot realize the fair value of the collateral held by it or when collateral is liquidated at prices that are not sufficient to recover the full amount of the loan, derivative or other exposure due to the Firm. Further, disputes with obligors as to the valuation of collateral significantly increase in times of market stress and illiquidity. Periods of illiquidity could produce losses if the Firm is unable to realize the fair value of collateral or manage declines in the value of collateral.

Concentration of credit and market risk could increase the potential for significant losses.

JPMorgan Chase has exposure to increased levels of risk when 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. As a result, the Firm regularly monitors various segments of its portfolio exposures to assess potential concentration risks. The Firm's efforts to diversify or hedge its credit portfolio against concentration risks may not be successful.

In addition, disruptions in the liquidity or transparency of the financial markets may result in the Firm's inability to sell, syndicate or realize the value of its positions, thereby leading to increased concentrations. The inability to reduce the Firm's positions may not only increase the market and credit risks associated with such positions, but also increase the level of risk-weighted assets on the Firm's balance sheet, thereby increasing its capital requirements and funding costs, all of which could adversely affect the operations and profitability of the Firm's businesses.

Liquidity Risk

If JPMorgan Chase does not effectively manage its liquidity, its business could suffer.

JPMorgan Chase's liquidity is critical to its ability to operate its businesses. Some potential conditions that could impair the Firm's liquidity include markets that become illiquid or are otherwise experiencing disruption, unforeseen cash or capital requirements (including, among others, commitments that may be triggered to special purpose entities ("SPEs") or other entities), difficulty in selling or inability to sell assets, unforeseen outflows of cash or collateral, and lack of market or customer confidence in the Firm or financial markets in general. These conditions may be caused by events over which the Firm has little or no control. The widespread crisis in investor confidence and resulting liquidity crisis experienced in 2008 and into early 2009 increased the Firm's cost of funding and limited its access to some of its traditional sources of liquidity (such as securitized debt offerings backed by mortgages, credit card receivables and other assets) during that time, and there is no assurance that these conditions could not occur in the future.

If the Firm's access to stable and low cost sources of funding, such as bank deposits, are reduced, the Firm may need to raise alternative funding which may be more expensive or of limited availability.

As a holding company, JPMorgan Chase & Co. relies on the earnings of its subsidiaries for its cash flow and,

consequently, its ability to pay dividends and satisfy its debt and other obligations. These payments by subsidiaries may take the form of dividends, loans or other payments. Several of JPMorgan Chase & Co.'s principal subsidiaries are subject to dividend distribution or capital adequacy requirements or other regulatory restrictions on their ability to provide such payments. Limitations in the payments that JPMorgan Chase & Co. receives from its subsidiaries could reduce its liquidity position.

Some regulators have proposed legislation or regulations requiring large banks to incorporate a separate subsidiary in countries in which they operate, and to maintain independent capital and liquidity for such subsidiaries. If adopted, these requirements could hinder the Firm's ability to efficiently manage its funding and liquidity in a centralized manner.

Reductions in the Firm's credit ratings may adversely affect its liquidity and cost of funding, as well as the value of debt obligations issued by the Firm.

JPMorgan Chase & Co. and certain of its subsidiaries, including JPMorgan Chase Bank, N.A., are currently rated by credit rating agencies. In 2013, Moody's downgraded its ratings of JPMorgan Chase & Co. and several other bank holding companies based on Moody's reassessment of its assumptions relating to implicit government support for such companies. In addition, as of year-end 2013, S&P had JPMorgan Chase & Co. on "negative" outlook, indicating the possibility of a downgrade in ratings. Although the Firm closely monitors and manages factors influencing its credit ratings, there is no assurance that such ratings will not be lowered in the future. Furthermore, the 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. There is no assurance that any such downgrades from rating agencies, if they affected the Firm's credit ratings, would not occur at times of broader market instability when the Firm's options for responding to

events may be more limited and general investor confidence is low.
Further, a reduction in the Firm's credit ratings could reduce the Firm's access to debt markets, materially increase the cost of issuing debt, trigger additional collateral or funding requirements, and decrease the number of investors and counterparties willing or permitted, contractually or otherwise, to do business with or lend to the Firm, thereby curtailing the Firm's business operations and reducing its profitability. In addition, any such reduction in credit ratings may increase the credit spreads charged by the market for taking credit risk on JPMorgan Chase & Co. and its subsidiaries and, as a result, could adversely affect the value of debt obligations that they have issued or may issue in the future.

Legal Risk

JPMorgan Chase faces significant legal risks, both from regulatory investigations and proceedings and from private actions brought against the Firm.

JPMorgan Chase is named as a defendant or is otherwise involved in various legal proceedings, including class actions and other litigation or disputes with third parties. Actions currently pending against the Firm may result in judgments, settlements, fines, penalties or other results adverse to the Firm, which could materially adversely affect the Firm's business, financial condition or results of operations, or cause serious reputational harm to the Firm. As a participant in the financial services industry, it is likely that the Firm will continue to experience a high level of litigation related to its businesses and operations.

In addition, and as noted above, the Firm's businesses and operations are also subject to heightened regulatory oversight and scrutiny, which may lead to additional regulatory investigations or enforcement actions. As the regulators and other government agencies continue to examine the operations of the Firm and its bank subsidiaries, there is no assurance that additional consent orders or other enforcement actions will not be issued by them in the future. These and other initiatives from federal and state officials may subject the Firm to further judgments, settlements, fines or penalties, or cause the Firm to be required to restructure its operations and activities, all of which could lead to reputational issues, or higher operational costs, thereby reducing the Firm's revenue.

Business and Operational Risks

JPMorgan Chase's operations are subject to risk of loss from unfavorable economic, monetary and political developments in the United States and around the world.

JPMorgan Chase's businesses and earnings are affected by the fiscal and other policies that are adopted by various U.S. and non-U.S. regulatory authorities and agencies. The Federal Reserve regulates the supply of money and credit in the United States and its policies determine in large part the cost of funds for lending and investing in the United States and the return earned on those loans and investments. Changes in Federal Reserve policies (as well as the fiscal and monetary policies of non-U.S. central banks or regulatory authorities and agencies) are beyond the Firm's control and, consequently, the impact of changes in these policies on the Firm's activities and results of operations is difficult to predict.

The Firm's businesses and revenue are also subject to risks inherent in investing and market-making in securities of companies worldwide. These risks include, among others, risk of loss from unfavorable political, legal or other developments, including social or political instability, in the countries in which such companies operate, as well as the other risks and considerations as described further below.

Several of the Firm's businesses engage in transactions with, or trade in obligations of, U.S. and non-U.S. governmental entities, including national, state, provincial, municipal and local authorities. These activities can expose the Firm to enhanced sovereign, credit-related, operational and reputational risks, including the risks that a governmental entity may default on or restructure its obligations or may claim that actions taken by government officials were beyond the legal authority of those officials, which could adversely affect the Firm's financial condition and results of operations.

Further, various countries in which the Firm operates or invests, or in which the Firm may do so in the future, have in the past experienced severe economic disruptions particular to those countries or regions. In some cases, concerns regarding the fiscal condition of one or more countries can lead to "market contagion" to other countries in the same region or beyond the region. Accordingly, it is possible that economic disruptions in certain countries, even in countries in which the Firm does not conduct business or have operations, will adversely affect the Firm.

JPMorgan Chase's international strategy may be hindered by local political, social and economic factors, and will be subject to additional compliance costs and risks.

JPMorgan Chase has expanded and plans to continue to grow its international wholesale businesses in Europe/Middle East/Africa ("EMEA"), Asia/Pacific and Latin America/Caribbean over time. As part of its international strategy, the Firm seeks to provide a wider range of financial services to its clients that conduct business in those regions.

Some of the countries in which JPMorgan Chase conducts its wholesale businesses have economies or markets that are less developed and more volatile, and may have legal and regulatory regimes that are less established or predictable, than the United States and other developed markets in which the Firm currently operates. Some of these countries have in the past experienced severe economic disruptions, including extreme currency fluctuations, high inflation, or low or negative growth, among other negative conditions, or have imposed restrictive monetary policies such as currency exchange controls and other laws and restrictions that adversely affect the local and regional business environment. In addition, these countries have historically been more susceptible to unfavorable political, social or economic developments which have in the past resulted in, and may in the future lead to, social unrest, general strikes and demonstrations, outbreaks of hostilities, overthrow of incumbent governments, terrorist attacks or other forms of internal discord, all of which can adversely affect the Firm’s operations or investments in such countries. Political, social or economic disruption or dislocation in certain countries or regions in which the Firm conducts its wholesale businesses can hinder the growth and profitability of those operations, and there can be no assurance that the Firm will be able to successfully execute its international strategy.

Less developed legal and regulatory systems in certain countries can also have adverse consequences on the Firm's operations in those countries, including, among others, the absence of a statutory or regulatory basis or guidance for engaging in specific types of business or transactions, or the inconsistent application or interpretation of existing laws and regulations; uncertainty as to the enforceability of contractual obligations; difficulty in competing in economies in which the government controls or protects all or a portion of the local economy or specific businesses, or where graft or corruption may be pervasive; and the threat of arbitrary regulatory investigations, civil litigations or criminal prosecutions.

Revenue from international operations and trading in non-U.S. securities and other obligations may be subject to negative fluctuations as a result of the above considerations, as well as due to governmental actions including expropriation, nationalization, confiscation of assets, price controls, capital controls, exchange controls, and changes in laws and regulations. The impact of these fluctuations could be accentuated as some trading markets are smaller, less liquid and more volatile than larger markets. Also, any of the above-mentioned events or circumstances in one country can, and has in the past, affected the Firm's operations and investments in another country or countries, including the Firm's operations in the United States. As a result, any such unfavorable conditions or developments could have an adverse impact on the Firm's business and results of operations.

Conducting business in countries with less developed legal and regulatory regimes often requires the Firm to devote significant additional resources to understanding, and monitoring changes in, local laws and regulations, as well as structuring its operations to comply with local laws and regulations and implementing and administering related internal policies and procedures. There can be no assurance that the Firm will always be successful in its efforts to conduct its business in compliance with laws and regulations in countries with less predictable legal and regulatory systems. In addition, the Firm can also incur higher costs, and face greater compliance risks, in structuring its operations outside the United States to comply with U.S. anti-corruption and anti-money laundering laws and regulations.

JPMorgan Chase's commodities activities are subject to extensive regulation, potential catastrophic events and environmental risks and regulation that may expose the Firm to significant cost and liability.

JPMorgan Chase engages in the storage, transportation, marketing or trading of several commodities, including metals, agricultural products, crude oil, oil products, natural gas, electric power, emission credits, coal, freight, and related products and indices. The Firm is also engaged in power generation and has invested in companies engaged in wind energy and in sourcing, developing and trading emission reduction credits. As a result of all of these activities, the Firm is subject to extensive and evolving energy, commodities, environmental, and other governmental laws and regulations. The Firm expects laws and regulations affecting its commodities activities to expand in scope and complexity, and to restrict some of the Firm's activities, which could result in lower revenues from the Firm's commodities activities. In addition, the Firm may incur substantial costs in complying with current or future laws and regulations, and the failure to comply with these laws and regulations may result in substantial civil and criminal fines and penalties. Furthermore, liability may be incurred without regard to fault under certain environmental laws and regulations for remediation of contaminations.

The Firm's commodities activities also further expose the Firm to the risk of unforeseen and catastrophic events, including natural disasters, leaks, spills, explosions, release of toxic substances, fires, accidents on land and at sea, wars, and terrorist attacks that could result in personal injuries, loss of life, property damage, damage to the Firm's reputation and suspension of operations. The Firm's commodities activities are also subject to disruptions, many of which are outside of the Firm's control, from the breakdown or failure of power generation equipment, transmission lines or other equipment or processes, and the contractual failure of performance by third-party suppliers or service providers, including the failure to obtain and deliver raw materials necessary for the operation of power generation facilities. The Firm's actions to mitigate its risks related to the above-mentioned considerations may not prove adequate to address every contingency. In addition, insurance covering some of these risks may not be available, and the proceeds, if any, from insurance recovery may not be adequate to cover liabilities with respect to particular incidents. As a result, the Firm's financial condition and results of operations may be adversely affected by such events.

JPMorgan Chase relies on the integrity of its operating systems and employees, and those of third parties, and certain failures of such systems or misconduct by such employees could materially adversely affect the Firm's operations. JPMorgan Chase's businesses are dependent on the Firm's ability to process, record and monitor a large number of complex transactions. If the Firm's financial, accounting, or other data processing systems fail or have other significant shortcomings, the Firm could be materially adversely affected. The Firm is similarly dependent on its employees. The Firm could be materially adversely affected if one or more of its employees causes a significant operational breakdown or failure, either as a result of human error or where an individual purposefully sabotages or fraudulently manipulates the Firm's operations or systems. In addition, as the Firm changes processes or introduces new products and services, the Firm may not fully appreciate or identify new operational risks that may arise from such changes. Any of these occurrences could diminish the Firm's ability to operate one or more of its businesses, or result in potential liability to clients, increased operating expenses, higher litigation costs (including fines and sanctions), reputational damage, regulatory intervention or weaker competitive standing, any of which could materially and adversely affect the Firm.

Third parties with which the Firm does business, as well as retailers and other third parties with which the Firm's customers do business, can also be sources of operational risk to the Firm, including with respect to security breaches affecting such parties and breakdowns or failures of the systems or misconduct by the employees of such parties. Incidents of these types may require the Firm to take steps to protect the integrity of its own operational systems or to safeguard confidential information of the Firm or its customers, thereby increasing the Firm's operational costs and potentially diminish customer satisfaction.

If personal, confidential or proprietary information of customers or clients in the Firm's possession were to be mishandled or misused, the Firm could suffer significant regulatory consequences, reputational damage and financial loss. Such mishandling or misuse could include circumstances where, for example, such information was erroneously provided to parties who are not permitted to have the information, either through the fault of the Firm's systems, employees, or counterparties, or where such information was intercepted or otherwise inappropriately taken by third parties.

The Firm may be subject to disruptions of its operating systems arising from events that are wholly or partially beyond the Firm's control, which may include, for example, security breaches (as discussed further below); electrical or telecommunications outages; failures of computer servers or other damage to the Firm's property or assets; natural disasters or severe weather conditions; health emergencies or pandemics; or events arising from local or larger scale political events, including terrorist acts. JPMorgan Chase maintains a global resiliency and crisis management program that is intended to ensure that the Firm has the ability to recover its critical business functions and supporting assets, including staff, technology and facilities, in the event of a business interruption. While the Firm believes that its current resiliency plans are both sufficient and adequate, there can be no assurance that such plans will fully mitigate all potential business continuity risks to the Firm. Any failures or disruptions of the Firm's systems or operations could give rise to losses in service to customers and clients, adversely affect the Firm's business and results of operations by subjecting the Firm to losses or liability, or require the Firm to expend significant resources to correct the failure or disruption, as well as by exposing the Firm to litigation, regulatory fines or penalties or losses not covered by insurance.

A breach in the security of JPMorgan Chase's systems could disrupt its businesses, result in the disclosure of confidential information, damage its reputation and create significant financial and legal exposure for the Firm.

Although JPMorgan Chase devotes significant resources to maintain and regularly upgrade its systems and processes that are designed to protect the security of the Firm's computer systems, software, networks and other technology assets and the confidentiality, integrity and availability of information belonging to the Firm and its customers, there is no assurance that all of the Firm's security measures will provide absolute security. JPMorgan Chase and other financial services institutions and companies engaged in data processing have reported breaches in the security of their websites or other systems, some of which have involved sophisticated and targeted attacks intended to obtain unauthorized access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage, often through the introduction of computer viruses or malware, cyberattacks and other means. In particular, the Firm has experienced several significant distributed denial-of-service attacks from technically sophisticated and well-resourced third parties which were intended to disrupt online banking services, as well as data breaches due to cyberattacks which, in certain instances, have resulted in unauthorized access to customer data. Despite the Firm's efforts to ensure the integrity of its systems, it is possible that the Firm may not be able to anticipate or to implement effective preventive measures against all security breaches of these types, especially because the techniques used change frequently or are not recognized until launched, and because cyberattacks can originate from a wide variety of sources, including third parties outside the Firm such as persons who are involved with organized crime or associated with external service providers or who may be linked to terrorist organizations or hostile foreign governments. Those parties may also attempt to fraudulently induce employees, customers or other users of the Firm's systems to disclose sensitive information in order to gain access to the Firm's data or that of its customers or clients.

These risks may increase in the future as the Firm continues to increase its mobile-payment and other internet-based product offerings and expands its internal usage of web-based products and applications.

A successful penetration or circumvention of the security of the Firm's systems could cause serious negative consequences for the Firm, including significant disruption of the Firm's operations, misappropriation of confidential information of the Firm or that of its customers, or damage to computers or systems of the Firm and those of its customers and counterparties, and could result in violations of applicable privacy and other laws, financial loss to the Firm or to its customers, loss of confidence in the Firm's security measures, customer dissatisfaction, significant litigation exposure, and harm to the Firm's reputation, all of which could have a material adverse effect on the Firm.

Risk Management

JPMorgan Chase's framework for managing risks and its risk management procedures and practices may not be effective in identifying and mitigating every risk to the Firm, thereby resulting in losses.

JPMorgan Chase's risk management framework seeks to mitigate risk and loss to the Firm. The Firm has established processes and procedures intended to identify, measure, monitor, report and analyze the types of risk to which the Firm is subject. However, as with any risk management framework, there are inherent limitations to the Firm's risk management strategies because there may exist, or develop in the future, risks that the Firm has not appropriately anticipated or identified. Any lapse in the Firm's risk management framework and governance structure or other inadequacies in the design or implementation of the Firm's risk management framework, governance, procedures or practices could, individually or in the aggregate, cause unexpected losses for the Firm, materially and adversely affect the Firm's financial condition and results of operations, require significant resources to remediate any risk management deficiency, attract heightened regulatory scrutiny, expose the Firm to regulatory investigations or legal proceedings, subject the Firm to fines, penalties or judgments, harm the Firm's reputation, or otherwise cause a decline in investor confidence.

The Firm's products, including loans, leases, lending commitments, derivatives, trading account assets and assets held-for-sale, as well as cash management and clearing activities, expose the Firm to credit risk. As one of the nation's largest lenders, the Firm has exposures arising from its many different products and counterparties, and the credit quality of the Firm's exposures can have a significant impact on its earnings. The Firm establishes allowances for probable credit losses inherent in its credit exposure, including unfunded lending commitments. The Firm also employs stress testing and other techniques to determine the capital and liquidity necessary to protect the Firm in the event of adverse economic or market events. These processes are critical to the Firm's financial results and condition, and require difficult, subjective and complex judgments, including forecasts of how economic conditions might impair the ability of the Firm's borrowers and counterparties to repay their loans or other obligations. As is the case with any such assessments, there is always the possibility that the Firm will fail to identify the proper factors or that the Firm will fail to accurately estimate the impact of factors that it identifies.

JPMorgan Chase's market-making businesses may expose the Firm to unexpected market, credit and operational risks that could cause the Firm to suffer unexpected losses. Severe declines in asset values, unanticipated credit events, or unforeseen circumstances that may cause previously uncorrelated factors to become correlated (and vice versa)

may create losses resulting from risks not appropriately taken into account in the development, structuring or pricing of a financial instrument such as a derivative. Certain of the Firm's derivative transactions require the physical settlement by delivery of securities, commodities or obligations that the Firm does not own; if the Firm is unable to obtain such securities, commodities or obligations within the required timeframe for delivery, this could cause the Firm to forfeit payments otherwise due to it and could result in settlement delays, which could damage the Firm's reputation and ability to transact future business. In addition, in situations where trades are not settled or confirmed on a timely basis, the Firm may be subject to heightened credit and operational risk, and in the event of a default, the Firm may be exposed to market and operational losses. In particular, disputes regarding the terms or the settlement procedures of derivative contracts could arise, which could force the Firm to incur unexpected costs, including transaction, legal and litigation costs, and impair the Firm's ability to manage effectively its risk exposure from these products.

In a difficult or less liquid market environment, the Firm's risk management strategies may not be effective because other market participants may be attempting to use the same or similar strategies to deal with the challenging market conditions. In such circumstances, it may be difficult for the Firm to reduce its risk positions due to the activity of such other market participants.

Many of the Firm's risk management strategies or techniques have a basis in historical market behavior, and all such strategies and techniques are based to some degree on management's subjective judgment. For example, many models used by the Firm are based on assumptions regarding correlations among prices of various asset classes or other market indicators. In times of market stress, or in the event of other unforeseen circumstances, previously uncorrelated indicators may become correlated, or conversely, previously correlated indicators may make unrelated movements. These sudden market movements or unanticipated or unidentified market or economic movements have in some circumstances limited and could again limit the effectiveness of the Firm's risk management strategies, causing the Firm to incur losses.

Many of the models used by the Firm are subject to review not only by the Firm's Model Risk function but also by the Firm's regulators in order that the Firm may utilize such models in connection with the Firm's calculations of market risk risk-weighted assets ("RWA") and credit risk RWA under the Advanced Approach of Basel III. The Firm may be subject to higher capital charges, which could adversely affect its financial results or limit its ability to expand its businesses, if such models do not receive approval by its regulators. In addition, there is no assurance that the amount of capital that the Firm holds with respect to operational risk, as derived from its operational risk capital model required under the Basel III capital standards, will

not be required to increase, which may have the effect of reducing the Firm's profitability.
In addition, the Firm must comply with enhanced standards for the assessment and management of risks associated with vendors and other third parties that provide services to the Firm. These requirements apply to the Firm both under general guidance issued by the banking regulators and, more specifically, under the Consent Order entered into by the Firm relating to collections litigation practices. The Firm has incurred and expects to incur additional costs and expenses in connection with its initiatives to address the risks associated with oversight of its third party relationships. Failure by the Firm to appropriately assess and manage third party relationships, especially those involving significant banking functions, shared services or other critical activities, could result in potential liability to clients and customers, fines, penalties or judgments imposed by the Firm's regulators, increased operating expenses and harm to the Firm's reputation, any of which could materially and adversely affect the Firm.
Lapses in disclosure controls and procedures or internal control over financial reporting could materially and adversely affect the Firm's operations, profitability or reputation.
There can be no assurance that the Firm's disclosure controls and procedures will be effective in every circumstance or that a material weakness or significant deficiency in internal control over financial reporting could not occur again. Any such lapses or deficiencies may materially and adversely affect the Firm's business and results of operations or financial condition, restrict its ability to access the capital markets, require the Firm to expend significant resources to correct the lapses or deficiencies, expose the Firm to regulatory or legal proceedings, subject it to fines, penalties or judgments, harm the Firm's reputation, or otherwise cause a decline in investor confidence.
Other Risks
The financial services industry is highly competitive, and JPMorgan Chase's inability to compete successfully may adversely affect its results of operations.
JPMorgan Chase operates in a highly competitive environment and the Firm expects competitive conditions to continue to intensify as the financial services industry produces better-capitalized and more geographically diverse companies that are capable of offering a wider array of financial products and services at more competitive prices. Competitors include other banks, brokerage firms, investment banking companies, merchant banks, hedge funds, commodity trading companies, private equity firms, insurance companies, mutual fund companies, investment managers, credit card companies, mortgage banking companies, trust companies, securities processing companies, automobile financing companies, leasing

companies, e-commerce and other Internet-based companies, and a variety of other financial services and advisory companies. Technological advances and the growth of e-commerce have made it possible for non-depository institutions to offer products and services that traditionally were banking products, and for financial institutions and other companies to provide electronic and Internet-based financial solutions, including electronic securities trading. The Firm's businesses generally compete on the basis of the quality and variety of the Firm's products and services, transaction execution, innovation, reputation and price. Ongoing or increased competition in any one or all of these areas may put downward pressure on prices for the Firm's products and services or may cause the Firm to lose market share. Increased competition also may require the Firm to make additional capital investments in its businesses in order to remain competitive. These investments may increase expense or may require the Firm to extend more of its capital on behalf of clients in order to execute larger, more competitive transactions. The Firm cannot provide assurance that the significant competition in the financial services industry will not materially adversely affect its future results of operations.
Competitors of the Firm's non-U.S. wholesale businesses are typically subject to different, and in some cases, less stringent, legislative and regulatory regimes. For example, the regulatory objectives underlying several provisions of the Dodd-Frank Act, including the prohibition on proprietary trading under the Volcker Rule and the derivatives "push-out" rules, have not been embraced by governments and regulatory agencies outside the United States and may not be implemented into law in most countries. The more restrictive laws and regulations applicable to U.S. financial services institutions, such as JPMorgan Chase, can put the Firm at a competitive disadvantage to its non-U.S. competitors, including prohibiting the Firm from engaging in certain transactions, making the Firm's pricing of certain transactions more expensive for clients or adversely affecting the Firm's cost structure for providing certain products,

all of which can reduce the revenue and profitability of the Firm's wholesale businesses.

JPMorgan Chase's ability to attract and retain qualified employees is critical to the success of its business, and failure to do so may materially adversely affect the Firm's performance.

JPMorgan Chase's employees are the Firm's most important resource, and in many areas of the financial services industry, competition for qualified personnel is intense. The imposition on the Firm or its employees of restrictions on executive compensation may adversely affect the Firm's ability to attract and retain qualified senior management and employees. If the Firm is unable to continue to retain and attract qualified employees, the Firm's performance, including its competitive position, could be materially adversely affected.

Part I

JPMorgan Chase's financial statements are based in part on assumptions and estimates which, if incorrect, could cause unexpected losses in the future.

Pursuant to accounting principles generally accepted in the United States, JPMorgan Chase is required to use certain assumptions and estimates in preparing its financial statements, including in determining allowances for credit losses and reserves related to litigation, among other items. Certain of the Firm's financial instruments, including trading assets and liabilities, available-for-sale securities, certain loans, MSRs, private equity investments, structured notes and certain repurchase and resale agreements, among other items, require a determination of their fair value in order to prepare the Firm's financial statements. Where quoted market prices are not available, the Firm may make fair value determinations based on internally developed models or other means which ultimately rely to some degree on management estimation and judgment. In addition, sudden illiquidity in markets or declines in prices of certain loans and securities may make it more difficult to value certain balance sheet items, which may lead to the possibility that such valuations will be subject to further change or adjustment. If assumptions or estimates underlying the Firm's financial statements are incorrect, the Firm may experience material losses.

Damage to JPMorgan Chase's reputation could damage its businesses.

Maintaining trust in JPMorgan Chase is critical to the Firm's ability to attract and maintain customers, investors and employees. Damage to the Firm's reputation can therefore cause significant harm to the Firm's business and prospects. Harm to the Firm's reputation can arise from numerous sources, including, among others, employee misconduct, compliance failures, litigation or regulatory outcomes or governmental investigations. The Firm's reputation could also be harmed by the failure of an affiliate, joint-venturer or merchant banking portfolio company, or a vendor or other third party with which the Firm does business, to comply with laws or regulations. In addition, a failure to deliver appropriate standards of service and quality, or a failure or perceived failure to treat customers and clients fairly, can result in customer dissatisfaction, litigation and heightened regulatory scrutiny, all of which can lead to lost revenue, higher operating costs and harm to the Firm's reputation. Adverse publicity regarding the Firm, whether or not true, may result in harm to the Firm's prospects. Actions by the financial services industry generally or by certain members of or individuals in the industry can also affect the Firm's reputation. For example, the role played by financial services firms in the financial crisis, including concerns that consumers have been treated unfairly by financial institutions, has damaged the reputation of the industry as a whole. Should any of these or other events or factors that can undermine the Firm's reputation occur, there is no assurance that the additional costs and expenses that the Firm may need to incur to address the issues giving

rise to the reputational harm could not adversely affect the Firm's earnings and results of operations.

Management of potential conflicts of interests has become increasingly complex as the Firm continues to expand its business activities through more numerous transactions, obligations and interests with and among the Firm's clients. The failure to adequately address, or the perceived failure to adequately address, conflicts of interest could affect the willingness of clients to deal with the Firm, or give rise to litigation or enforcement actions, as well as cause serious reputational harm to the Firm.

ITEM 1B: UNRESOLVED SEC STAFF COMMENTS

None.

ITEM 2: PROPERTIES

JPMorgan Chase's headquarters is located in New York City at 270 Park Avenue, a 50-story office building owned by JPMorgan Chase. This location contains approximately 1.3 million square feet of space.

In total, JPMorgan Chase owned or leased approximately 11.4 million square feet of commercial office and retail space in New York City at December 31, 2013. JPMorgan Chase and its subsidiaries also own or lease significant administrative and operational facilities in Chicago, Illinois (3.7 million square feet); Houston and Dallas, Texas (3.6 million square feet); Columbus, Ohio (2.8 million square feet); Phoenix, Arizona (1.4 million square feet); Jersey City, New Jersey (1.0 million square feet); as well as owning or leasing 5,630 retail branches in 23 states. At December 31, 2013, the Firm occupied approximately 67.5 million total square feet of space in the United States.

On December 17, 2013, the Firm sold One Chase Manhattan Plaza, a 60-story, 2.2 million square foot office building. Contemporaneously, the Firm entered into a lease back agreement on approximately 1.2 million square feet of space in the building for one year in order to provide time to relocate its employees to other locations, predominantly in New York and New Jersey. Additionally, the Firm entered into long-term lease back agreements ranging from five to ten years for approximately 0.3 million square feet of space, which includes five office floors, portions of the lower level space, and retail branch space on the ground floor.

At December 31, 2013, the Firm also owned or leased approximately 5.4 million square feet of space in Europe, the Middle East and Africa. In the United Kingdom, at December 31, 2013, JPMorgan Chase owned or leased approximately 4.5 million square feet of space, including 1.4 million square feet at 25 Bank Street, the European headquarters of the Corporate & Investment Bank.

In 2008, JPMorgan Chase acquired a 999-year leasehold interest in land at London's Canary Wharf. JPMorgan Chase has a building agreement in place through October 30, 2016, to develop the Canary Wharf site for future use.

JPMorgan Chase and its subsidiaries also occupy offices and other administrative and operational facilities in the Asia/Pacific region, Latin America and Canada under ownership and leasehold agreements aggregating approximately 5.9 million square feet of space at December 31, 2013. This includes leases for administrative and operational facilities in India (2.0 million square feet) and the Philippines (1.0 million square feet).

The properties occupied by JPMorgan Chase are used across all of the Firm’s business segments and for corporate purposes. JPMorgan Chase continues to evaluate its current and projected space requirements and may determine from time to time that certain of its premises and facilities are no longer necessary for its operations. There is no assurance that the Firm will be able to dispose of any such excess premises or that it will not incur charges in connection with such dispositions. Such disposition costs may be material to the Firm’s results of operations in a given period. For a discussion of occupancy expense, see the Consolidated Results of Operations on pages 71–74.

ITEM 3: LEGAL PROCEEDINGS

For a description of the Firm’s material legal proceedings, see Note 31 on pages 326–332.

ITEM 4: MINE SAFETY DISCLOSURES

Not applicable.

Part II

ITEM 5: MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market for registrant's common equity

The outstanding shares of JPMorgan Chase common stock are listed and traded on the New York Stock Exchange, the London Stock Exchange and the Tokyo Stock Exchange. For the quarterly high and low prices of JPMorgan Chase's common stock for the last two years, see the section entitled "Supplementary information – Selected quarterly financial data (unaudited)" on pages 339–340. For a comparison of the cumulative total return for JPMorgan Chase common stock with the comparable total return of the S&P 500 Index, the KBW Bank Index and the S&P Financial Index over the five-year period ended December 31, 2013, see "Five-year stock performance," on page 63.

JPMorgan Chase declared and paid quarterly cash dividends on its common stock in the amount of $0.38 per share for the second, third and fourth quarters of 2013, $0.30 per share for the first quarter of 2013, $0.30 per share for each quarter of 2012 and $0.25 per share for each quarter of 2011.

The common dividend payout ratio, based on reported net income, was 33% for 2013, 23% for 2012 and 22% for 2011. For a discussion of restrictions on dividend payments, see Note 22 and Note 27 on page 309 and page 316, respectively. At January 31, 2014, there were 207,543 holders of record of JPMorgan Chase common stock. For information regarding securities authorized for issuance under the Firm's employee stock-based compensation plans, see Item 12 on page 24.

Repurchases under the common equity repurchase program

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.

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.

Shares repurchased pursuant to the common equity repurchase program during 2013 were as follows.

Year ended December 31, 2013	Total shares of common stock	Average price paid per share	Aggregate repurchases of common	Dollar value of remaining authorized

	repurchased	of common stock[a]	equity (in millions)[a]	repurchase (in millions)[b]
First quarter	53,536,385	$48.16	$2,578	$10,854
Second quarter	23,433,465	50.01	1,172	9,683
Third quarter	13,622,765	54.30	740	8,943
October	2,070,102	52.57	109	8,834
November	1,849,030	54.02	100	8,734
December	1,583,907	56.77	90	8,644
Fourth quarter	5,503,039	54.27	299	8,644
Year-to-date	96,095,654	$49.83	$4,789	$8,644

(a) Excludes commissions cost.

(b) The amount authorized by the Board of Directors excludes commissions cost.

Repurchases under the stock-based incentive plans

Participants in the Firm's stock-based incentive plans may have shares of common stock withheld to cover income taxes. Shares withheld to pay income taxes are repurchased pursuant to the terms of the applicable plan and not under the Firm's repurchase program. Shares repurchased pursuant to these plans during 2013 were as follows.

Year ended December 31, 2013	Total shares of common stock repurchased	Average price paid per share of common stock
First quarter	—	$—
Second quarter	789	50.12
Third quarter	33	52.52
October	—	—
November	—	—
December	—	—
Fourth quarter	—	—
Year-to-date	822	$50.22

ITEM 6: SELECTED FINANCIAL DATA

For five-year selected financial data, see "Five-year summary of consolidated financial highlights (unaudited)" on pages 62–63.

ITEM 7: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management's discussion and analysis of financial condition and results of operations, entitled "Management's discussion and analysis," appears on pages 64–181. Such information should be read in conjunction with the Consolidated Financial Statements and Notes thereto, which appear on pages 184–338.

ITEM 7A: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

For a discussion of the quantitative and qualitative disclosures about market risk, see the Market Risk Management section of Management's discussion and analysis on pages 142–148.

ITEM 8: FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Consolidated Financial Statements, together with the Notes thereto and the report thereon dated February 19, 2014, of PricewaterhouseCoopers LLP, the Firm's independent registered public accounting firm, appear on pages 183–338.

Supplementary financial data for each full quarter within the two years ended December 31, 2013, are included on pages 339–340 in the table entitled "Selected quarterly financial data (unaudited)." Also included is a "Glossary of terms'' on pages 341–345.

ITEM 9: CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Part II

ITEM 9A: CONTROLS AND PROCEDURES

As of the end of the period covered by this report, an evaluation was carried out under the supervision and with the participation of the Firm's management, including its Chairman and Chief Executive Officer and its Chief Financial Officer, of the effectiveness of its disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934). Based on that evaluation, the Chairman and Chief Executive Officer and the Chief Financial Officer concluded that these disclosure controls and procedures were effective. See Exhibits 31.1 and 31.2 for the Certification statements issued by the Chairman and Chief Executive Officer and Chief Financial Officer.

The Firm is committed to maintaining high standards of internal control over financial reporting. Nevertheless, because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, in a firm as large and complex as JPMorgan Chase, lapses or deficiencies in internal controls may occur from time to time, and there can be no assurance that any such deficiencies will not result in significant deficiencies or material weaknesses in internal controls in the future. For further information, see "Management's report on internal control over financial reporting" on page 182. There was no change in the Firm's internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) that occurred during the three months ended December 31, 2013, that has materially affected, or is reasonably likely to materially affect, the Firm's internal control over financial reporting.

ITEM 9B: OTHER INFORMATION

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012, which added Section 13(r) to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), an issuer is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with individuals or entities designated pursuant to certain Executive Orders. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Except as set forth below, as of the date of this report, the Firm is not aware of any other activity, transaction or dealing by any of its affiliates during the year ended December 31, 2013 that requires disclosure under Section 219.

Carlson Wagonlit Travel ("CWT"), a business travel management firm in which JPMorgan Chase has invested through its merchant banking activities, may be deemed to be an affiliate of the Firm, as that term is defined in Exchange Act Rule 12b-2. CWT has informed the Firm that, during the year ended December 31, 2013, it booked approximately 15 flights (of the approximately 60 million transactions it booked in 2013) to Iran on Iran Air for passengers, including employees of foreign governments and non-governmental organizations. All of such flights originated outside of the United States from countries that permit travel to Iran, and none of such passengers were persons designated under Executive Orders 13224 or 13382 or were employees of foreign governments that are targets of U.S. sanctions. CWT and the Firm believe that this activity is permissible pursuant to certain exemptions from U.S. sanctions for travel-related transactions under the International Emergency Economic Powers Act, as amended. CWT had approximately $10,000 in gross revenues attributable to these transactions. CWT has informed the Firm that it intends to continue to engage in this activity so long as such activity is permitted under U.S. law.

Part III

ITEM 10: DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Executive officers of the registrant

Name	Age (at December 31, 2013)	Positions and offices
James Dimon	57	Chairman of the Board, Chief Executive Officer and President.
Ashley Bacon	44	Chief Risk Officer since June 2013. He had been Deputy Chief Risk Officer since June 2012, prior to which he had been Global Head of Market Risk for the Investment Bank (now part of Corporate & Investment Bank).
Michael J. Cavanagh	47	Co-Chief Executive Officer of the Corporate & Investment Bank since July 2012. He had been Chief Executive Officer of Treasury & Securities Services (now part of Corporate & Investment Bank) from June 2010 until July 2012, prior to which he had been Chief Financial Officer.
Stephen M. Cutler	52	General Counsel.
John L. Donnelly	57	Head of Human Resources since January 2009.
Mary Callahan Erdoes	46	Chief Executive Officer of Asset Management since September 2009.
Marianne Lake	44	Chief Financial Officer since January 1, 2013, prior to which she had been Chief Financial Officer of Consumer & Community Banking since 2009. She previously had served as Global Controller of the Investment Bank (now part of Corporate & Investment Bank) from 2007 to 2009.
Douglas B. Petno	48	Chief Executive Officer of Commercial Banking since January 2012. He had been Chief Operating Officer of Commercial Banking since October 2010, prior to which he had been Global Head of Natural Resources in the Investment Bank (now part of Corporate & Investment Bank).
Daniel E. Pinto	51	Co-Chief Executive Officer of the Corporate & Investment Bank since July 2012 and Chief Executive Officer of Europe, the Middle East and Africa since June 2011. He had been head or co-head of the Global Fixed Income business from November 2009 until July 2012. He was Global Head of Emerging Markets from 2006 until 2009, and was also responsible for the Global Credit Trading & Syndicate business from 2008 until 2009.
Gordon A. Smith	55	Chief Executive Officer of Consumer & Community Banking since December 2012 prior to which he had been Co-Chief Executive Officer since July 2012. He had been Chief Executive Officer of Card Services since 2007 and of the Auto Finance and Student Lending businesses since 2011.
Matthew E. Zames	43	Chief Operating Officer since April 2013 and head of Mortgage Banking Capital Markets since January 2012. He had been Co-Chief Operating Officer from July 2012 until April 2013. He had been Chief Investment Officer from May until September 2012, co-head of the Global Fixed Income business from November 2009 until May 2012 and co-head of Mortgage Banking Capital Markets from July 2011 until January 2012, prior to which he had served in a number of senior Investment Banking Fixed Income management roles.

Unless otherwise noted, during the five fiscal years ended December 31, 2013, all of JPMorgan Chase's above-named executive officers have continuously held senior-level positions with JPMorgan Chase. There are no family relationships among the foregoing executive officers. Information to be provided in Items 10, 11, 12, 13 and 14 of Form 10-K and not otherwise included herein is incorporated by reference to the Firm's definitive proxy statement for its 2014 Annual Meeting of Stockholders to be held on May 20, 2014, which will be filed with the SEC within 120 days of the end of the Firm's fiscal year ended December 31, 2013.

Part III

ITEM 11: EXECUTIVE COMPENSATION

See Item 10.

ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

For security ownership of certain beneficial owners and management, see Item 10.

The following table details the total number of shares available for issuance under JPMorgan Chase's employee stock-based incentive plans (including shares available for issuance to nonemployee directors). The Firm is not authorized to grant stock-based incentive awards to nonemployees, other than to nonemployee directors.

December 31, 2013	Number of shares to be issued upon exercise of outstanding options/SARs	Weighted-average exercise price of outstanding options/SARs	Number of shares remaining available for future issuance under stock compensation plans
Plan category			
Employee stock-based incentive plans approved by shareholders	86,006,791	$ 44.30	266,462,906 [a]
Employee stock-based incentive plans not approved by shareholders	1,068,572	39.96	—
Total	87,075,363	$ 44.24	266,462,906

(a) Represents future shares available under the shareholder-approved Long-Term Incentive Plan, as amended and restated effective May 17, 2011.

All future shares will be issued under the shareholder-approved Long-Term Incentive Plan, as amended and restated effective May 17, 2011. For further discussion, see Note 10 on pages 247–248.

ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

See Item 10.

ITEM 14: PRINCIPAL ACCOUNTING FEES AND SERVICES

See Item 10.

Part IV

ITEM 15: EXHIBITS, FINANCIAL STATEMENT SCHEDULES

Exhibits, financial statement schedules

1	Financial statements The Consolidated Financial Statements, the Notes thereto and the report of the Independent Registered Public Accounting Firm thereon listed in Item 8 are set forth commencing on page 183.
2	Financial statement schedules
3	Exhibits
3.1	Restated Certificate of Incorporation of JPMorgan Chase & Co., effective April 5, 2006 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed April 7, 2006).
3.2	Amendment to the Restated Certificate of Incorporation of JPMorgan Chase & Co., effective June 7, 2013 (incorporated by reference to Appendix F to the Proxy Statement on Schedule 14A of JPMorgan Chase & Co. (File No. 1-5805) filed April 10, 2013).
3.3	Certificate of Designations for Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series I (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed April 24, 2008).
3.4	Certificate of Designations for 5.50% Non-Cumulative Preferred Stock, Series O (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed August 27, 2012).
3.5	Certificate of Designations for 5.45% Non-Cumulative Preferred Stock, Series P (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed February 5, 2013).
3.6	Certificate of Designations for Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series Q (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed April 23, 2013).
3.7	Certificate of Designations for Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series R (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed July 29, 2013).
3.8	Certificate of Designations for Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series S (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed January 22, 2014).
3.9	Certificate of Designations for 6.70% Non-Cumulative Preferred Stock, Series T (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed January 30, 2014).

3.10	By-laws of JPMorgan Chase & Co., effective June 7, 2013 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed June 10, 2013).
4.1	Indenture, dated as of October 21, 2010, between JPMorgan Chase & Co. and Deutsche Bank Trust Company Americas, as Trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No.1-5805) filed October 21, 2010).
4.2	Indenture, dated as of October 21, 2010, between JPMorgan Chase & Co. and U.S. Bank Trust National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No.1-5805) filed October 21, 2010).
4.3	Form of Subordinated Indenture between JPMorgan Chase & Co. and U.S. Bank Trust National Association, as Trustee (incorporated by reference to Exhibit 4.13 to the Registration Statement on Form S-3 of JPMorgan Chase & Co. (File No. 333-191692) filed October 11, 2013).
4.4	Indenture, dated as of May 25, 2001, between JPMorgan Chase & Co. and Bankers Trust Company (succeeded by Deutsche Bank Trust Company Americas), as Trustee (incorporated by reference to Exhibit 4(a)(1) to the Registration Statement on Form S-3 of JPMorgan Chase & Co. (File No. 333-52826) filed June 13, 2001).
4.5	Form of Deposit Agreement (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-3 of JPMorgan Chase & Co. (File No. 333-191692) filed October 11, 2013).
4.6	Form of Warrant to purchase common stock (incorporated by reference to Exhibit 4.2 to the Form 8-A of JPMorgan Chase & Co. (File No. 1-5805) filed December 11, 2009).

Other instruments defining the rights of holders of long-term debt securities of JPMorgan Chase & Co. and its subsidiaries are omitted pursuant to Section (b)(4)(iii)(A) of Item 601 of Regulation S-K. JPMorgan Chase & Co. agrees to furnish copies of these instruments to the SEC upon request.

Part IV

10.1	Deferred Compensation Plan for Non-Employee Directors of JPMorgan Chase & Co., as amended and restated July 2001 and as of December 31, 2004 (incorporated by reference to Exhibit 10.1 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2007).[a]
10.2	2005 Deferred Compensation Plan for Non-Employee Directors of JPMorgan Chase & Co., effective as of January 1, 2005 (incorporated by reference to Exhibit 10.2 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2007).[a]
10.3	Post-Retirement Compensation Plan for Non-Employee Directors of The Chase Manhattan Corporation, as amended and restated, effective May 21, 1996 (incorporated by reference to Exhibit 10.3 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.4	2005 Deferred Compensation Program of JPMorgan Chase & Co., restated effective as of December 31, 2008 (incorporated by reference to Exhibit 10.4 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.5	JPMorgan Chase & Co. Long-Term Incentive Plan as amended and restated effective May 17, 2011 (incorporated by reference to Appendix C of the Schedule 14A of JPMorgan Chase & Co. (File No. 1-5805) filed April 7, 2011).[a]
10.6	Key Executive Performance Plan of JPMorgan Chase & Co., as amended and restated effective January 1, 2009 (incorporated by reference to Appendix D of the Schedule 14A of JPMorgan Chase & Co. (File No. 1-5805) filed March 31, 2008).[a]
10.7	Excess Retirement Plan of JPMorgan Chase & Co., restated and amended as of December 31, 2008, as amended (incorporated by reference to Exhibit 10.7 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2009).[a]
10.8	1995 Stock Incentive Plan of J.P. Morgan & Co. Incorporated and Affiliated Companies, as amended, dated December 11, 1996 (incorporated by reference to Exhibit 10.8 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.9	Executive Retirement Plan of JPMorgan Chase & Co., as amended and restated December 31, 2008 (incorporated by reference to Exhibit 10.9 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.10	Summary of Bank One Corporation Director Deferred Compensation Plan (incorporated by reference to Exhibit 10.19 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2005).[a]
10.11	Bank One Corporation Stock Performance Plan, as amended and restated effective February 20, 2001 (incorporated by reference to Exhibit 10.12 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]

10.12	Bank One Corporation Supplemental Savings and Investment Plan, as amended and restated effective December 31, 2008 (incorporated by reference to Exhibit 10.13 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.13	Revised and Restated Banc One Corporation 1989 Stock Incentive Plan, effective January 18, 1989 (incorporated by reference to Exhibit 10.14 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.14	Banc One Corporation Revised and Restated 1995 Stock Incentive Plan, effective April 17, 1995 (incorporated by reference to Exhibit 10.15 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]
10.15	Form of JPMorgan Chase & Co. Long-Term Incentive Plan Award Agreement of January 22, 2008 stock appreciation rights (incorporated by reference to Exhibit 10.25 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2007).[a]
10.16	Form of JPMorgan Chase & Co. Long-Term Incentive Plan Award Agreement of January 22, 2008 stock appreciation rights for James Dimon (incorporated by reference to Exhibit 10.27 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2007).[a]
10.17	Form of JPMorgan Chase & Co. Long-Term Incentive Plan Terms and Conditions for stock appreciation rights, dated as of January 20, 2009 (incorporated by reference to Exhibit 10.20 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).[a]

10.18	Form of JPMorgan Chase & Co. Long-Term Incentive Plan Terms and Conditions for Operating Committee member stock appreciation rights, dated as of January 20, 2009 (incorporated by reference to Exhibit 10.21 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2008).(a)
10.19	Form of JPMorgan Chase & Co. Long-Term Incentive Plan Terms and Conditions for Operating Committee member stock appreciation rights, dated as of February 3, 2010 (incorporated by reference to Exhibit 10.23 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2009).(a)
10.20	Forms of JPMorgan Chase & Co. Long-Term Incentive Plan Terms and Conditions for stock appreciation rights and restricted stock units, dated as of January 18, 2012 (incorporated by reference to Exhibit 10.25 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2011).(a)
10.21	Forms of JPMorgan Chase & Co. Long-Term Incentive Plan Terms and Conditions for stock appreciation rights and restricted stock units for Operating Committee members, dated as of January 17, 2013 (incorporated by reference to Exhibit 10.23 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2012).(a)
10.22	Form of JPMorgan Chase & Co. Performance-Based Incentive Compensation Plan, effective as of January 1, 2006, as amended (incorporated by reference to Exhibit 10.27 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2009).(a)
10.23	Deferred Prosecution Agreement dated January 6, 2014 between the United States Attorney's Office for the Southern District of New York and JPMorgan Chase Bank, N.A. (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K of JPMorgan Chase & Co. (File No. 1-5805) filed January 7, 2014).
12.1	Computation of ratio of earnings to fixed charges.(b)
12.2	Computation of ratio of earnings to fixed charges and preferred stock dividend requirements.(b)
21	List of subsidiaries of JPMorgan Chase & Co.(b)
22.1	Annual Report on Form 11-K of The JPMorgan Chase 401(k) Savings Plan for the year ended December 31, 2013 (to be filed pursuant to Rule 15d-21 under the Securities Exchange Act of 1934).
23	Consent of independent registered public accounting firm.(b)
31.1	Certification.(b)
31.2	Certification.(b)
32	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.(c)

101.INS	XBRL Instance Document.(b)(d)
101.SCH	XBRL Taxonomy Extension Schema Document.(b)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.(b)
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.(b)
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.(b)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.(b)

(a) This exhibit is a management contract or compensatory plan or arrangement.
(b) Filed herewith.
(c) Furnished herewith. This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.
(d) Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in the Firm’s Annual Report on Form 10-K for the year ended December 31, 2013, formatted in XBRL (eXtensible Business Reporting Language) interactive data files: (i) the Consolidated statements of income for the years ended December 31, 2013, 2012 and 2011, (ii) the Consolidated statements of comprehensive income for the years ended December 31, 2013, 2012 and 2011, (iii) the Consolidated balance sheets as of December 31, 2013 and 2012, (iv) the Consolidated statements of changes in stockholders’ equity for the years ended December 31, 2013, 2012 and 2011, (v) the Consolidated statements of cash flows for the years ended December 31, 2013, 2012 and 2011, and (vi) the Notes to consolidated financial statements.

Pages 28–60 not used

Table of contents

Financial:

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

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.

Management's discussion and analysis

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.

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.

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 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.

Management's discussion and analysis

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.

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, 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 commer-cial 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 commit-ments 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,	2013					2012
(in millions)	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.

Management's discussion and analysis

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.

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,	Total net revenue			Total noninterest expense			Pre-provision profit/(loss)		
(in millions)	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,	Provision for credit losses			Net income/(loss)			Return on equity		
(in millions, except ratios)	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.

Management's discussion and analysis

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 charges-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.

Management's discussion and analysis

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 Liquid[SM] 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 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]	2.95 x	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	

Management's discussion and analysis

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)	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.

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.

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

$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	

(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.

(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 Market Share	Rankings	2012 Market Share	Rankings	2011 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.

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.

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.

2013	2012	2011

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

Management's discussion and analysis

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 1st and 2nd 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.

Management's discussion and analysis

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 Director's.

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
	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
Risks managed on an LOB aligned basis	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, 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 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.

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	Credit exposure		Nonperforming[(c)(d)(e)]	
(in millions)	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,	2013	2012

(in millions, except ratios)		
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

(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) 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.

(c) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.

(d) 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").

(e) At December 31, 2013 and 2012, total nonaccrual loans represented 1.16% and 1.48%, respectively, of total loans.

(f) 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.

(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 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.

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

	2013				2012			
December 31, (in millions, except ratios)	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

	2013		2012	
December 31, (in millions)	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

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.

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,	Credit exposure		Nonperforming[d]	
(in millions)	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	Maturity profile[e]				Ratings profile			
					Investment-grade	Noninvestment-grade		
(in millions, except ratios)	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	Total	AAA/Aaa to BBB-/Baa3	BB+/Ba1 & below	Total	Total % of IG
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	Maturity profile[e]				Ratings profile			
					Investment-grade	Noninvestment-grade		
(in millions, except ratios)	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	Total	AAA/Aaa to BBB-/Baa3	BB+/Ba1 & below	Total	Total % of IG
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
	164,327	261,261	9,226	434,814	347,316	87,498	434,814	80

Lending-related commitments								
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 quality 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.

			Noninvestment-grade[e]			Selected metrics			
As of or for the year ended December 31, 2013 (in millions)	Credit exposure[d]	Investment-grade	Noncriticized	Criticized performing	Criticized nonperforming	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
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)	Credit exposure[d]	Investment-grade	Noninvestment-grade[e] Noncriticized	Criticized performing	Criticized nonperforming	Selected metrics 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
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

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.

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	2013			2012		
December 31, (in millions, except ratios)	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

	Notional amount of protection purchased and sold [(a)]	
December 31, (in millions)	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.

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

	2013				2012			
Year ended December 31, (in millions, except ratios)	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:								
	$288,449	$127,465	$308,263	$724,177	$292,620	$127,993	$306,222	$726,835

Retained loans, end of period								
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,	Provision for loan losses			Provision for lending-related commitments			Total provision for credit losses		
(in millions)	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	Mortgage Banking • 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	Treasury and CIO • 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,	2013			2012			At December 31,	
(in millions)	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.

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.

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.

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

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, 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)

	Instantaneous change in rates[a]			
(in millions)	+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 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 tranched 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 tranched 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.

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 tranched 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	Trading			Portfolio hedging		
(in billions)	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. Tranched 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 tranched 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.

Management's discussion and analysis

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.

	Year ended December 31, 2013		
(in billions)	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 rolloffs, 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 risked-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	Yearly average		
Year ended December 31, (in billions)	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			Year ended December 31,	
As of or for the period ended December 31,			Average	
(in millions)	2013	2012	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,	2013	2012	Average	
(in millions)			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,	Issuance		Maturities/Redemptions	
(in millions)	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

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.

	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A. Chase Bank USA, N.A.			J.P. Morgan Securities LLC		
December 31, 2013	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.

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

Report of independent registered public accounting firm

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.

February 19, 2014

PricewaterhouseCoopers LLP 300 Madison Avenue New York, NY 10017

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.

Notes to consolidated financial 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

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
Noninterest revenue	Note 7	Page 234
Interest income and interest expense	Note 8	Page 236
Pension and other postretirement employee benefit plans	Note 9	Page 237
Employee stock-based incentives	Note 10	Page 247
Securities	Note 12	Page 249
Securities financing activities	Note 13	Page 255
Loans	Note 14	Page 258
Allowance for credit losses	Note 15	Page 284
Variable interest entities	Note 16	Page 288
Goodwill and other intangible assets	Note 17	Page 299
Premises and equipment	Note 18	Page 305
Long-term debt	Note 21	Page 306
Income taxes	Note 26	Page 313
Off–balance sheet lending-related financial instruments, guarantees and other commitments	Note 29	Page 318
Litigation	Note 31	Page 326

Notes to consolidated financial statements

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.

Notes to consolidated financial statements

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	Predominantly level 3

	• 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.	
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: Mortgage- and asset-backed securities specific inputs: • Collateral characteristics • Deal-specific payment and loss allocations • Current market assumptions related to yield, prepayment speed, conditional default rates and loss severity Collateralized loan obligations ("CLOs"), specific inputs: • 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: Structured credit derivatives specific inputs include: • 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	Level 2 or 3

Certain long-dated equity option specific inputs include:

- Long-dated equity volatilities

Certain interest rate and FX exotic options specific inputs include:

- 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

Certain commodity derivatives specific inputs include:

- Commodity volatility
- Forward commodity price

Adjustments to reflect counterparty credit quality (credit valuation adjustments or "CVA"), the Firms own creditworthiness (debit valuation adjustments or "DVA"), and FVA to incorporate the impact of funding see page 212 of this Note.

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	Private equity direct investments	Level 3
	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	
	Public investments held in the Private Equity portfolio • Valued using observable market prices less adjustments for relevant restrictions, where applicable	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)	Level 1
	• 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 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	Level 2 or 3

this Note.

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

	Fair value hierarchy				
December 31, 2013 (in millions)	Level 1	Level 2	Level 3	Netting adjustments	Total fair value
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 Level 1	Level 2	Level 3	Netting adjustments	Total fair value
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.

Notes to consolidated financial statements

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
			Yield	1	% -	40%	10%
	5,843	Market comparables	Price	3	-	122	95
Net interest rate derivatives	2,379	Option pricing	Interest rate correlation	(75	)% -	95%	
			Interest rate spread volatility	0	% -	60%	
Net credit derivatives[b][c]	95	Discounted cash flows	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%
	487	Market comparables	Price	0	-	114	88
Mortgage servicing rights ("MSRs")	9,614	Discounted cash flows	Refer to Note 17 on pages 299–304 of this Annual Report.				
Private equity direct investments	4,872	Market comparables	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%	

1,055	Discounted cash flows	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.

Notes to consolidated financial statements

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

Year ended December 31, 2013 (in millions)	Fair value measurements using significant unobservable inputs							
	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 (c)	1,065	(191)		(1,306)	—	1,931	(21) (c)
Mortgage servicing rights	7,614	1,612 (e)	2,215	(725)		(1,102)	—	9,614	1,612 (e)
Other assets:									
Private equity investments	7,181	645 (c)	673	(1,137)		(687)	(201)	6,474	262 (c)
All other	4,258	98 (f)	272	(730)		(722)	—	3,176	53 (f)

Year ended December 31, 2013 (in millions)	Fair value measurements using significant unobservable inputs: 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) (c)	$ —	$—	$ 1,248	$ (222)	$ (672)	$2,255	$ (88) (c)
Other borrowed funds	1,619	(177) (c)	—	—	7,108	(6,845)	369	2,074	291 (c)
Trading liabilities – debt and equity instruments	205	(83) (c)	(2,418)	2,594	—	(54)	(131)	113	(100) (c)
Accounts payable and other liabilities	36	(2) (f)	—	—	—	(9)	—	25	(2) (f)
Beneficial interests issued by consolidated VIEs	925	174 (c)	—	—	353	(212)	—	1,240	167 (c)
Long-term debt	8,476	(435) (c)	—	—	6,830	(4,362)	(501)	10,008	(85) (c)

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)

Year ended December 31, 2012 (in millions)	Fair value measurements using significant unobservable inputs: 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

Year ended December 31, 2011 (in millions)	Fair value measurements using significant unobservable inputs							
	Fair value at January 1, 2011	Total realized/unrealized gains/(losses)	Purchases[g]	Sales	Settlements	Transfers into and/or out of level 3[h]	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)

Year ended December 31, 2011 (in millions)	Fair value measurements using significant unobservable inputs: Fair value at January 1, 2011	Total realized/unrealized (gains)/losses	Purchases(g)	Sales	Issuances	Settlements	Transfers into and/or out of level 3(h)	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 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.

	December 31, 2013					December 31, 2012				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value[a]	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value[a]	Level 1	Level 2	Level 3	Total estimated fair value
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.

	2013			2012			2011		
December 31, (in millions)	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.

December 31, (in millions)	2013 Contractual principal outstanding	2013 Fair value	2013 Fair value over/(under) contractual principal outstanding	2012 Contractual principal outstanding	2012 Fair value	2012 Fair value over/(under) contractual principal outstanding
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.

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.

	December 31, 2013				December 31, 2012			
(in millions)	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.

	2013				2012			
		On-balance sheet				On-balance sheet		
December 31, (in millions)	Credit exposure	Loans	Derivatives	Off-balance sheet[b]	Credit exposure	Loans	Derivatives	Off-balance sheet[b]
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
	25,068	7,504	273	17,291	25,597	7,901	429	17,267

Retail & Consumer Services								
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.

Notes to consolidated financial statements

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.

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.

	Notional amounts[c]	
December 31, (in billions)	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)]

December 31, 2013 (in millions)	Gross derivative receivables				Gross derivative payables			
	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

December 31, 2012 (in millions)	Gross derivative receivables				Gross derivative payables			
	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.

	2013			2012		
December 31, (in millions)	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.

	2013			2012		
December 31, (in millions)	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 Net derivative receivables	Collateral not nettable on the Consolidated balance sheets	Net exposure	2012 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 Net derivative payables	Collateral not nettable on the Consolidated balance sheets	Net amount[(c)]	2012 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

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 Single-notch downgrade	2013 Two-notch downgrade	2012 Single-notch downgrade	2012 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.

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2013 (in millions)	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

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2012 (in millions)	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)

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2011 (in millions)	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.

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2013 (in millions)	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)

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2012 (in millions)	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

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2011 (in millions)	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.

	Gains/(losses) recorded in income and other comprehensive income/(loss)					
	2013		2012		2011	
Year ended December 31, (in millions)	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.

	Derivatives gains/(losses) recorded in income		
Year ended December 31, (in millions)	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.

Notes to consolidated financial statements

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

(a) Includes a pretax gain of $665 million for the year ended December 31, 2012, reflecting the recovery on a Bear Stearns-related subordinated loan.

(b) 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.

(c) 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.

(d) 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.

(e) 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.

(f) 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 MSRs; 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 MSRs are reported in mortgage fees and related income. Net interest income from mortgage loans is recorded in interest income. For a further discussion of MSRs, 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.

Notes to consolidated financial statements

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.

	Defined benefit pension plans					
As of or for the year ended December 31,	U.S.		Non-U.S.		OPEB plans[(d)]	
(in millions)	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.

	Defined benefit pension plans					
December 31,	U.S.		Non-U.S.		OPEB plans	
(in millions)	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.

	Pension plans								
	U.S.			Non-U.S.			OPEB plans		
Year ended December 31, (in millions)	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.

Notes to consolidated financial statements

The estimated pretax amounts that will be amortized from AOCI into net periodic benefit cost in 2014 are as follows.

	Defined benefit pension plans		OPEB plans	
(in millions)	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.

	U.S.			Non-U.S.		
Year ended December 31,	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

	U.S.		Non-U.S.	
December 31,	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

	U.S.			Non-U.S.		
Year ended December 31,	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 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.

	Defined benefit pension plans								
	U.S.			Non-U.S.			OPEB plans[c]		
	Target	% of plan assets		Target	% of plan assets		Target	% of plan assets	
December 31,	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

	U.S. defined benefit pension plans				Non-U.S. defined benefit pension plans[i]		
December 31, 2013 (in millions)	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)

Notes to consolidated financial statements

December 31, 2012 (in millions)	U.S. defined benefit pension plans Level 1	Level 2	Level 3	Total fair value	Non-U.S. defined benefit pension plans[i] 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				