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)	2012	2011	2010	2009	2008[b]
Selected income statement data					
Total net revenue	$ 97,031	$ 97,234	$ 102,694	$ 100,434	$ 67,252
Total noninterest expense	64,729	62,911	61,196	52,352	43,500
Pre-provision profit	32,302	34,323	41,498	48,082	23,752
Provision for credit losses	3,385	7,574	16,639	32,015	19,445
Provision for credit losses - accounting conformity[a]	–	–	–	–	1,534
Income before income tax expense/(benefit) and extraordinary gain	28,917	26,749	24,859	16,067	2,773
Income tax expense/(benefit)	7,633	7,773	7,489	4,415	(926)
Income before extraordinary gain	21,284	18,976	17,370	11,652	3,699
Extraordinary gain[b]	–	–	–	76	1,906
Net income	$ 21,284	$ 18,976	$ 17,370	$ 11,728	$ 5,605
Per common share data					
Basic earnings					
Income before extraordinary gain	$ 5.22	$ 4.50	$ 3.98	$ 2.25	$ 0.81
Net income	5.22	4.50	3.98	2.27	1.35
Diluted earnings[c]					
Income before extraordinary gain	$ 5.20	$ 4.48	$ 3.96	$ 2.24	$ 0.81
Net income	5.20	4.48	3.96	2.26	1.35
Cash dividends declared per share	1.20	1.00	0.20	0.20	1.52
Book value per share	51.27	46.59	43.04	39.88	36.15
Tangible book value per share[d]	38.75	33.69	30.18	27.09	22.52
Common shares outstanding					
Average: Basic	3,809.4	3,900.4	3,956.3	3,862.8	3,501.1
Diluted	3,822.2	3,920.3	3,976.9	3,879.7	3,521.8
Common shares at period-end	3,804.0	3,772.7	3,910.3	3,942.0	3,732.8
Share price[e]					
High	$ 46.49	$ 48.36	$ 48.20	$ 47.47	$ 50.63
Low	30.83	27.85	35.16	14.96	19.69
Close	43.97	33.25	42.42	41.67	31.53
Market capitalization	167,260	125,442	165,875	164,261	117,695
Selected ratios					
Return on common equity (“ROE”)[c]					
Income before extraordinary gain	11%	11%	10%	6%	2%
Net income	11	11	10	6	4
Return on tangible common equity (“ROTCE”)[c][d]					
Income before extraordinary gain	15	15	15	10	4
Net income	15	15	15	10	6
Return on assets (“ROA”)					
Income before extraordinary gain	0.94	0.86	0.85	0.58	0.21
Net income	0.94	0.86	0.85	0.58	0.31
Return on risk-weighted assets[f]					
Income before extraordinary gain	1.65	1.58	1.50	0.95	0.32
Net income	1.65	1.58	1.50	0.95	0.49
Overhead ratio	67	65	60	52	65
Deposits-to-loans ratio	163	156	134	148	135
Tier 1 capital ratio[g]	12.6	12.3	12.1	11.1	10.9
Total capital ratio	15.3	15.4	15.5	14.8	14.8
Tier 1 leverage ratio	7.1	6.8	7.0	6.9	6.9
Tier 1 common capital ratio[h]	11.0	10.1	9.8	8.8	7.0
Selected balance sheet data (period-end)[g]					
Trading assets	$ 450,028	$ 443,963	$ 489,892	$ 411,128	$ 509,983
Securities	371,152	364,793	316,336	360,390	205,943
Loans	733,796	723,720	692,927	633,458	744,898
Total assets	2,359,141	2,265,792	2,117,605	2,031,989	2,175,052
Deposits	1,193,593	1,127,806	930,369	938,367	1,009,277
Long-term debt	249,024	256,775	270,653	289,165	302,959
Common stockholders’ equity	195,011	175,773	168,306	157,213	134,945
Total stockholders’ equity	204,069	183,573	176,106	165,365	166,884
Headcount	258,965	260,157	239,831	222,316	224,961
Credit quality metrics					
Allowance for credit losses	$ 22,604	$ 28,282	$ 32,983	$ 32,541	$ 23,823
Allowance for loan losses to total retained loans	3.02%	3.84%	4.71%	5.04%	3.18%
Allowance for loan losses to retained loans excluding purchased credit-impaired loans[i]	2.43	3.35	4.46	5.51	3.62
Nonperforming assets	$ 11,734	$ 11,315	$ 16,682	$ 19,948	$ 12,780
Net charge-offs	9,063	12,237	23,673	22,965	9,835
Net charge-off rate	1.26%	1.78%	3.39%	3.42%	1.73%

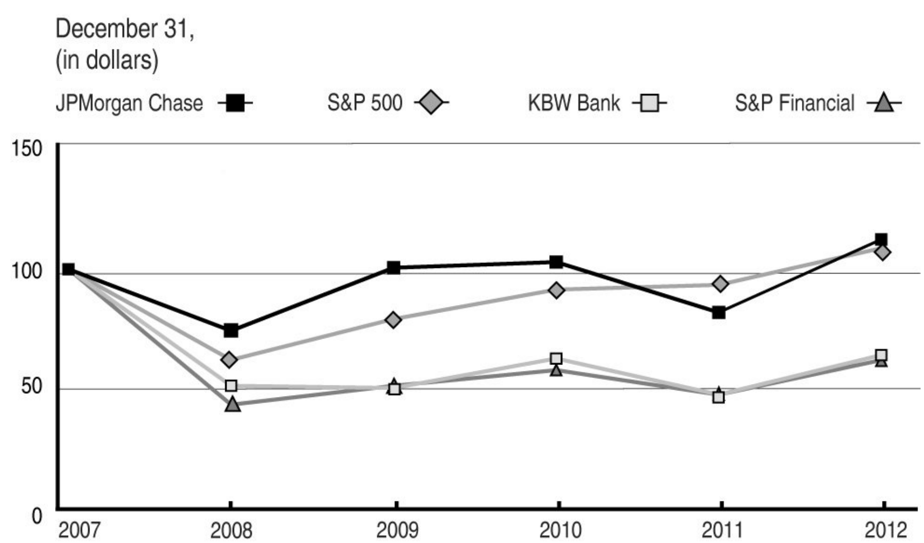
(a) Results for 2008 included a conforming loan loss provision related to the acquisition of Washington Mutual Bank's ("Washington Mutual") banking operations.
(b) On September 25, 2008, JPMorgan Chase acquired the banking operations of Washington Mutual. The acquisition resulted in negative goodwill, and accordingly, the Firm recorded an extraordinary gain. A preliminary gain of $1.9 billion was recognized at December 31, 2008. The final total extraordinary gain that resulted from the Washington Mutual transaction was $2.0 billion.
(c) The calculation of 2009 earnings per share ("EPS") and net income applicable to common equity includes a one-time, noncash reduction of $1.1 billion, or $0.27 per share, resulting from repayment of U.S. Troubled Asset Relief Program ("TARP") preferred capital in the second quarter of 2009. Excluding this reduction, the adjusted ROE and ROTCE were 7% and 11%, respectively, for 2009. The Firm views the adjusted ROE and ROTCE, both non-GAAP financial measures, as meaningful because they enable the comparability to prior periods.
(d) Tangible book value per share and ROTCE are non-GAAP financial measures. Tangible book value per share represents the Firm's tangible common equity divided by period-end common shares. ROTCE measures the Firm's annualized earnings as a percentage of tangible common equity. For further discussion of these measures, see Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 76–77 of this Annual Report.
(e) 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.
(f) Return on Basel I risk-weighted assets is the annualized earnings of the Firm divided by its average risk-weighted assets.
(g) Effective January 1, 2010, the Firm adopted accounting guidance that amended the accounting for the transfer of financial assets and the consolidation of variable interest entities ("VIEs"). Upon adoption of the guidance, the Firm consolidated its Firm-sponsored credit card securitization trusts, Firm-administered multi-seller conduits and certain other consumer loan securitization entities, primarily mortgage-related, adding $87.7 billion and $92.2 billion of assets and liabilities, respectively, and decreasing stockholders' equity and the Tier 1 capital ratio by $4.5 billion and 34 basis points, respectively. The reduction to stockholders' equity was driven by the establishment of an allowance for loan losses of $7.5 billion (pretax) primarily related to receivables held in credit card securitization trusts that were consolidated at the adoption date.
(h) Basel I Tier 1 common capital ratio ("Tier 1 common ratio") is Tier 1 common capital ("Tier 1 common") divided by risk-weighted assets. The Firm uses Tier 1 common capital along with the other capital measures to assess and monitor its capital position. For further discussion of the Tier 1 common capital ratio, see Regulatory capital on pages 117–120 of this Annual Report.
(i) Excludes the impact of residential real estate purchased credit-impaired ("PCI") loans. For further discussion, see Allowance for credit losses on pages 159–162 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 80 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, 2007, in JPMorgan Chase common stock and in each of the above indices. The comparison assumes that all dividends are reinvested.

December 31, (in dollars)	2007	2008	2009	2010	2011	**2012**
JPMorgan Chase	$ 100.00	$ 74.87	$ 100.59	$ 102.91	$ 82.36	$ **112.15**
KBW Bank Index	100.00	52.45	51.53	63.56	48.83	**64.97**
S&P Financial Index	100.00	44.73	52.44	58.82	48.81	**62.92**
S&P 500 Index	100.00	63.00	79.68	91.68	93.61	**108.59**



This section of JPMorgan Chase's Annual Report for the year ended December 31, 2012 ("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 333–335 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 185 of this Annual Report) and in JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2012 ("2012 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 $204.1 billion in stockholders' equity as of December 31, 2012. 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.

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

Commercial Banking

Commercial Banking ("CB") delivers extensive industry knowledge, local expertise and dedicated service to U.S. and U.S. multinational clients, including corporations, municipalities, financial institutions and non-profit entities with annual revenue generally ranging from $20 million to $2 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 $2.1 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 trust and estate, loans, mortgages and deposits. The majority of AM's client assets are in actively managed portfolios.

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 capital, liquidity, credit, market, and country risks, and the critical accounting estimates affecting the Firm and its various lines of business, this Annual Report should be read in its entirety.

Economic environment

The Eurozone crisis was center stage the beginning of the year, with social stresses and fears of breakup of the Euro. However, strong stands by Eurozone states and the European Central Bank ("ECB") helped stabilize the Eurozone later in the year. The ECB's Outright Monetary Transactions ("OMT") program showed its commitment to provide a safety net for European nations. Eurozone member states also took crucial steps toward further fiscal integration by handing over power to the ECB to regulate the largest banks in the Euro area and by passing more budgetary authority to the European Union. Despite the easing of the crisis, the economies of many of the European Union member countries stalled in 2012.

Asia's developing economies continued to expand in 2012, although growth was significantly slower than the previous year, reducing global inflationary pressures.

In the U.S., the economy grew at a modest pace and the unemployment rate declined to a four year low of 7.8% by the end of 2012 as U.S. labor market conditions continued to improve. The U.S. housing market turned the corner during 2012 as the sector continued to show signs of improvement: excess inventories were reduced, prices began to rise and home affordability improved in most areas of the country as household incomes stabilized and mortgage rates declined to historic lows. Homebuilder confidence improved to the highest level in six years and housing starts increased to the highest level in four years during 2012. At the same time, inflation remained below the Board of Governors of the Federal Reserve System's (the "Federal Reserve") 2% long-run goal.

The Federal Reserve maintained the target range for the federal funds rate at zero to one quarter percent and tied the interest rate forecasts to the evolution of the economy, in particular inflation and unemployment rates. Additionally, the Federal Reserve announced a new asset purchase program that would be open-ended and is intended to speed up the pace of the U.S. economic recovery and produce sustained improvement in the labor market.

Financial markets reacted favorably when the U.S. Congress reached an agreement to resolve the so-called "fiscal cliff" by passing the American Taxpayer Relief Act of 2012. This Act made permanent most of the tax cuts initiated in 2001 and 2003 and allowed the tax rate on the top income bracket, which was increased to $450,000 annually for joint tax filers, to revert to 39.6% from 35.0%. Spending and debt ceiling issues were postponed into 2013.

Going into 2013, the U.S. economy is likely to be affected by the continuing uncertainty about Europe's financial crisis, the Federal Reserve's monetary policy, and the ongoing fiscal debate over the U.S. debt limit, government spending and taxes.

Financial performance of JPMorgan Chase

Year ended December 31, (in millions, except per share data and ratios)	2012	2011	Change
Selected income statement data			
Total net revenue	**$ 97,031**	$ 97,234	— %
Total noninterest expense	**64,729**	62,911	3
Pre-provision profit	**32,302**	34,323	(6)
Provision for credit losses	**3,385**	7,574	(55)
Net income	**21,284**	18,976	12
Diluted earnings per share	**5.20**	4.48	16
Return on common equity	**11%**	11%	
Capital ratios			
Tier 1 capital	**12.6**	12.3	
Tier 1 common	**11.0**	10.1	

Business overview

JPMorgan Chase reported full-year 2012 record net income of $21.3 billion, or $5.20 per share, on net revenue of $97.0 billion. Net income increased by $2.3 billion, or 12%, compared with net income of $19.0 billion, or $4.48 per share, in 2011. ROE for both 2012 and 2011 was 11%.

The increase in net income in 2012 was driven by a lower provision for credit losses, partially offset by higher noninterest expense. Net revenue was flat compared with 2011 as lower principal transactions revenue and lower net interest income were offset by higher mortgage fees and related income, higher other income, and higher securities gains. Principal transactions revenue for 2012 included losses from the synthetic credit portfolio. The increase in noninterest expense was driven by higher compensation expense.

The decline in the provision for credit losses reflected a lower consumer provision as net charge-offs decreased and the related allowance for credit losses was reduced by $5.5 billion in 2012. The decline in the consumer allowance reflected improved delinquency trends and reduced estimated losses in the real estate and credit card loan portfolios. The wholesale credit environment remained favorable throughout 2012. Firmwide, net charge-offs were $9.1 billion for the year, down $3.2 billion, or 26%, from 2011, and nonperforming assets at year-end were $11.7 billion, up $419 million, or 4%. The current year included the effect of regulatory guidance implemented during 2012, which resulted in the Firm reporting an additional $3.0 billion of nonperforming loans at December 31, 2012 (see Consumer, excluding credit card on pages 140–148 of this Annual Report for further information). Before the impact of these reporting changes, nonperforming assets would have been $8.7 billion at December 31, 2012. The total firmwide allowance for credit losses was $22.6 billion, resulting in a loan loss coverage ratio of 2.43% of total loans, excluding the purchased credit-impaired portfolio.

The Firm's 2012 results reflected strong underlying performance across virtually all its businesses, with strong lending and deposit growth. Consumer & Business Banking within Consumer & Community Banking added 106 branches and increased deposits by 11% in 2012. Business Banking loans increased to a record $18.9 billion, up 7% compared with 2011. Mortgage Banking reported strong production revenue driven by strong originations growth. In Card, Merchant Services & Auto, credit card sales volume (excluding Commercial Card) was up 11% for the year. The Corporate & Investment Bank maintained its #1 ranking in Global Investment Banking Fees and reported record assets under custody of $18.8 trillion at December 31, 2012. Commercial Banking reported record net revenue of $6.8 billion and record net income of $2.6 billion in 2012. Commercial Banking loans increased to a record $128.2 billion, a 14% increase compared with the prior year. Asset Management reported record revenue in 2012 and achieved its fifteenth consecutive quarter of positive net long-term client flows into assets under management. Asset Management also increased loan balances to a record $80.2 billion at December 31, 2012.

JPMorgan Chase ended the year with a Basel I Tier 1 common ratio of 11.0%, compared with 10.1% at year-end 2011. The Firm estimated that its Basel III Tier 1 common ratio was approximately 8.7% at December 31, 2012, taking into account the impact of final Basel 2.5 rules and the proposals set forth in the Federal Reserve's Notice of Proposed Rulemaking ("NPR"). Total deposits increased to $1.2 trillion, up 6% from the prior year. Total stockholders' equity at December 31, 2012, was $204.1 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 117–120 of this Annual Report.)

During 2012, the Firm worked to help its customers, corporate clients and the communities in which it does business. The Firm provided credit and raised capital of more than $1.8 trillion for its clients during 2012; this included $20 billion lent to small businesses and $85 billion for nearly 1,500 non-profit and government entities, including states, municipalities, hospitals and universities. The Firm also originated more than 920,000 mortgages, and provided credit cards to approximately 6.7 million people. Since the beginning of 2009, the Firm has offered nearly 1.4 million mortgage modifications and of these approximately 610,000 have achieved permanent modifications.

In addition, despite the damage and disruption at many of its branches and facilities caused by Superstorm Sandy at the end of October 2012, the Firm continued to assist customers, clients and borrowers in the affected areas. The Firm continued to dispense cash through ATMs, loan money, provide liquidity to customers, and settle trades, and it waived a number of checking account and loan fees, including late payment fees, for the benefit of its customers.

Consumer & Community Banking net income increased compared to the prior year, reflecting higher net revenue and lower provision for credit losses, partially offset by higher noninterest expense. Net revenue increased, driven by higher noninterest revenue. Net interest income decreased, driven by lower deposit margins and lower loan balances due to net portfolio runoff, largely offset by the impact of higher deposit balances. Noninterest revenue increased, 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 in 2012 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 lower estimated losses in the mortgage loan and credit card portfolios. The prior-year provision reflected a $4.2 billion reduction in the allowance for loan losses. Noninterest expense increased in 2012 compared with the prior year, driven by higher production expense reflecting higher volumes, investments in sales force and partially offset by lower marketing expense in Card. Return on equity for the year was 25% on $43.0 billion of average allocated capital.

Corporate & Investment Bank net income increased in 2012 compared with the prior year, reflecting slightly higher net revenue, lower noninterest expense and a larger benefit from the provision for credit losses. Net revenue for 2012 included a $930 million loss from debit valuation adjustments ("DVA") on structured notes and derivative liabilities resulting from the tightening of the Firm's credit spreads. The prior year net revenue included a $1.4 billion gain from DVA. The provision for credit losses was a larger benefit in 2012 compared with the prior year. The current-year benefit reflected recoveries and a net reduction in the allowance for credit losses both related to the restructuring of certain nonperforming loans, current credit trends and other portfolio activity. Noninterest expense was down slightly driven by lower compensation expense. Return on equity for the year was 18%, or 19% excluding DVA (a non-GAAP financial measure), on $47.5 billion of average allocated capital.

Commercial Banking reported record net income for 2012, reflecting 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, driven by higher net interest income and higher noninterest revenue. Net interest income increased, driven by growth in loan and liability balances, partially offset by spread compression on loan and liability products. Noninterest revenue increased compared with the prior year, largely driven by increased investment banking revenue. Noninterest expense increased, primarily reflecting higher headcount-related expense. Return on equity for the year was 28% on $9.5 billion of average allocated capital.

Asset Management net income increased in 2012, driven by higher net revenue. Net revenue increased, driven by net inflows to products with higher margins and higher net interest income resulting from higher loan and deposit balances. Noninterest expense was flat compared with the prior year. Return on equity for the year was 24% on $7.0 billion of average allocated capital.

Corporate/Private Equity reported a net loss in 2012, compared with net income in the prior year driven by losses in Treasury and Chief Investment Office ("CIO"). Treasury and CIO net revenue included $5.8 billion of principal transactions losses from the synthetic credit portfolio in CIO during the first six months of 2012 and $449 million of losses during the third quarter of 2012 on the retained index credit derivative positions. During the third quarter, CIO effectively closed out the index credit derivative positions that were retained following the transfer of the remainder of the synthetic credit portfolio to CIB on July 2, 2012. Treasury and CIO net revenue also included securities gains of $2.0 billion for the year. The current-year net revenue also included $888 million of extinguishment gains related to the redemption of trust preferred securities. Net interest income was negative in 2012, and significantly lower than the prior year, primarily reflecting the impact of lower portfolio yields and higher deposit balances across the Firm.

Other Corporate reported a net loss in 2012. Noninterest revenue included a benefit of $1.1 billion as a result of the Washington Mutual bankruptcy settlement and a $665 million gain for the recovery on a Bear Stearns-related subordinated loan. Noninterest expense included an expense of $3.7 billion for additional litigation reserves, predominantly for mortgage-related matters. The prior year included expense of $3.2 billion for additional litigation reserves.

Note: The Firm uses a single U.S.-based, blended marginal tax rate of 38% ("the marginal rate") to report the estimated after-tax effects of each significant item affecting net income. This rate represents the weighted-average marginal tax rate for the U.S. consolidated tax group. The Firm uses this single marginal rate to reflect the tax effects of all significant items because (a) it simplifies the presentation and analysis for management and investors; (b) it has proved to be a reasonable estimate of the marginal tax effects; and (c) often there is uncertainty at the time a significant item is disclosed regarding its ultimate tax outcome.

2013 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 185 of this Annual Report and the Risk Factors section on pages 8–21 of the 2012 Form 10-K.

JPMorgan Chase's outlook for the full year 2013 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 linked factors will affect the performance of the Firm and its lines of business.

In the Consumer & Business Banking business within CCB, the Firm estimates that, given the current low interest rate environment, continued deposit spread compression could negatively impact annual net income by approximately $400 million in 2013. This decline may be offset by the impact of deposit balance growth, although the exact extent of any such deposit growth cannot be determined at this time.

In the Mortgage Banking business within CCB, management expects to continue to incur elevated default- and foreclosure-related costs, including additional costs associated with the Firm's mortgage servicing processes, particularly its loan modification and foreclosure procedures. In addition, management believes that the high production margins experienced in recent quarters likely peaked in 2012 and will decline over time. Management also expects there will be continued elevated levels of repurchases of mortgages previously sold, predominantly to U.S. government-sponsored entities ("GSEs"). However, based on current trends and estimates, management believes that the existing mortgage repurchase liability is sufficient to cover such losses.

For Real Estate Portfolios within Mortgage Banking, management believes that total quarterly net charge-offs may be approximately $550 million, subject to economic conditions. If the positive credit trends in the residential real estate portfolio continue or accelerate and economic uncertainty declines, the related allowance for loan losses may be reduced over time. Given management's current estimate of portfolio runoff levels, the residential real estate portfolio is expected to decline by approximately 10% to 15% in 2013 from year-end 2012 levels. The run-off in the residential real estate portfolio can be expected to reduce annual net interest income by approximately $600 million in 2013. Over time, the reduction in net interest income should be offset by an improvement in credit costs and lower expenses.

In Card Services within CCB, the Firm expects that, if current positive credit trends continue, the card- related allowance for loan losses could be reduced by up to $1 billion over the course of 2013.

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 issues.

For Treasury and CIO, within the Corporate/Private Equity segment, management expects a quarterly net loss of approximately $300 million with that amount likely to vary driven by the implied yield curve and management decisions related to the positioning of the investment securities portfolio.

For Other Corporate, within the Corporate/Private Equity segment, management expects quarterly net income, excluding material litigation expense and significant items, if any, to be approximately $100 million, but this amount is also likely to vary each quarter.

Management expects the Firm's net interest income to be generally flat during 2013, as modest pressure on the net yield on interest-earning assets is expected to be generally offset by anticipated growth in interest-earning assets.

The Firm continues to focus on expense discipline and is targeting expense for 2013 to be approximately $1 billion lower than in 2012 (not taking into account, for such purposes, any expenses in each year related to corporate litigation and foreclosure-related matters).

CIO synthetic credit portfolio

On August 9, 2012, the Firm restated its previously-filed interim financial statements for the quarterly period ended March 31, 2012. The restatement related to valuations of certain positions in the synthetic credit portfolio of the Firm's CIO. The restatement had the effect of reducing the Firm's reported net income for the three months ended March 31, 2012, by $459 million. The restatement had no impact on any of the Firm's Consolidated Financial Statements as of June 30, 2012, and December 31, 2011, or for the three and six months ended June 30, 2012 and 2011. For more information about the restatement and the related valuation matter, see the Firm's Form 10-Q for the quarter ended June 30, 2012, filed on August 9, 2012.

Management also determined that a material weakness existed in the Firm's internal control over financial reporting at March 31, 2012. Management has taken steps to remediate the material weakness, including enhancing management supervision of valuation matters. These remedial steps were substantially implemented by June 30, 2012; however, in accordance with the Firm's internal control compliance program, the material weakness designation could not be closed until the remedial processes were operational for a period of time and successfully tested. The testing was successfully completed during the third quarter of 2012 and the control deficiency was closed at September 30, 2012. For additional information concerning the remedial changes in, and related testing of, the Firm's internal control over financial reporting, see Part I, Item 4: Controls and Procedures in the Firm's Form 10-Q for the quarter ended September 30, 2012, filed on November 8, 2012.

On July 2, 2012, the majority of the synthetic credit portfolio was transferred from the CIO to the Firm's CIB, which has the expertise, trading platforms and market franchise to manage these positions to maximize their economic value. An aggregate position of approximately $12 billion notional was retained in CIO. By the end of the third quarter of 2012, CIO effectively closed out the index credit derivative positions that had been retained by it following the transfer. CIO incurred losses of $5.8 billion from the synthetic credit portfolio for the six months ended June 30, 2012, and losses of $449 million from the retained index credit derivative positions for the three months ended September 30, 2012, which were recorded in the principal transactions revenue line item of the income statement. CIB continues to actively manage and reduce the risks in the remaining synthetic credit portfolio that had been transferred to it on July 2, 2012. This portion of the portfolio experienced modest losses in each of the two quarters of 2012 following the transfer; these losses were included in Fixed Income Markets Revenue for CIB (and also recorded in the principal transactions revenue).

On January 16, 2013, the Firm announced that the Firm's Management Task Force and the independent Review Committee of the Firm's Board of Directors (the "Board Review Committee") had each concluded their reviews relating to the 2012 losses by the CIO and had released their respective reports. The Board Review Committee's Report sets forth recommendations relating to the Board's oversight of the Firm's risk management processes, all of which have been approved by the full Board of Directors and have been, or are in the process of being, implemented.

The Management Task Force Report, in addition to summarizing the key events and setting forth its observations regarding the losses incurred in CIO's synthetic credit portfolio, describes the broad range of remedial measures taken by the Firm to respond to the lessons it has learned from the CIO events, including:

- revamping the governance, mandate and reporting and control processes of CIO;
- implementing numerous risk management changes, including improvements in model governance and market risk; and
- effecting a series of changes to the Risk function's governance, organizational structure and interaction with the Board.

The Board of Directors formed the Board Review Committee in May 2012 to oversee the scope and work of the Management Task Force review, assess the Firm's risk management processes related to the issues raised in the Management Task Force review, and to report to the Board of Directors on the Review Committee's findings and recommendations. In performing these tasks, the Board Review Committee, with the assistance of its own counsel and expert advisor, conducted an independent review, including analyzing the voluminous documentary record and conducting interviews of Board members and numerous current and former employees of the Firm. Based on its review, the Board Review Committee concurred in the substance of the Management Task Force Report. The Management Task Force Report and the Board Review Committee Report set out facts that in their view were the most relevant for their respective purposes. Others (including regulators conducting their own investigations) may have a different view of the facts, or may focus on other facts, and may also draw different conclusions regarding the facts and issues.

The Board Review Committee Report recommends a number of enhancements to the Board's own practices to strengthen its oversight of the Firm's risk management processes. The Board Review Committee noted that some of its recommendations were already being followed by the Board or the Risk Policy Committee or have recently been put into effect.

The Board Review Committee's recommendations include:

- better focused and clearer reporting of presentations to the Board's Risk Policy Committee, with particular emphasis on the key risks for each line of business, identification of significant future changes to the business and its risk profile, and adequacy of staffing, technology and other resources;
- clarifying to management the Board's expectations regarding the capabilities, stature, and independence of the Firm's risk management personnel;
- more systematic reporting to the Risk Policy Committee on significant model risk, model approval and model governance, on setting of significant risk limits and responses to significant limit excessions, and with respect to regulatory matters requiring attention;
- further clarification of the Risk Policy Committee's role and responsibilities, and more coordination of matters presented to the Risk Policy Committee and the Audit Committee;
- concurrence by the Risk Policy Committee in the hiring or firing of the Chief Risk Officer and that it be consulted with respect to the setting of such Chief Risk Officer's compensation; and
- staff with appropriate risk expertise be added to the Firm's Internal Audit function and that Internal Audit more systematically include the risk management function in its audits.

The Board of Directors will continue to oversee the Firm's remediation efforts to ensure they are fully implemented.

Also, on January 14, 2013, the Firm and JPMorgan Chase Bank, N.A., entered into Consent Orders with, respectively, the Board of Governors of the Federal Reserve System and the Office of the Comptroller of the Currency ("the OCC") that relate to risk management, model governance and other control functions related to CIO and certain other trading activities at the Firm. Many of the actions required by the Consent Orders are consistent with those recommended by the Management Task Force and the Board Review Committee and, as such, a number of them have been, or are in the process of being, implemented. The Firm is committed to the full remediation of all issues identified in the Consent Orders.

The CIO synthetic credit portfolio losses have resulted in litigation against the Firm, as well as heightened regulatory scrutiny and may lead to additional regulatory or legal proceedings, in addition to the consent orders noted above. Such regulatory and legal proceedings may expose the Firm to fines, penalties, judgments or losses, harm the Firm's reputation or otherwise cause a decline in investor confidence. For a description of the regulatory and legal developments relating to the CIO matters described above, see Note 31 on pages 316–325 of this Annual Report.

Regulatory developments

JPMorgan Chase is subject to regulation under state and federal laws in the U.S., 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 regulation and supervision, and such changes could have a significant impact on how the Firm conducts business. For example, under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), U.S. federal banking and other regulatory agencies are instructed to conduct approximately 285 rulemakings and 130 studies and reports. These agencies include the Federal Reserve, the Office of the Comptroller of the Currency (the "OCC"), the Federal Deposit Insurance Corporation (the "FDIC"), the Commodity Futures Trading Commission, the U.S. Securities and Exchange Commission (the "SEC") and the Bureau of Consumer Financial Protection (the "CFPB"). 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.

During 2012, for example, the Firm submitted to the Federal Reserve and the FDIC its "resolution plan" in the event of a material distress or failure, registered several of its subsidiaries with the CFTC as swap dealers, and continued its planning and implementation efforts with respect to new regulations affecting its derivatives, trading and money market mutual funds businesses. The Firm also faces regulatory initiatives relating to its structure, including push-out of certain derivatives activities from its subsidiary banks under Section 716 of the Dodd-Frank Act, a proposed requirement from the U.K. Financial Services Authority (the "FSA") requiring the Firm to either obtain equal treatment for the U.K. depositors of its U.S. bank who makes deposits in the U.K., or "subsidiarize" in the U.K., and various other proposed U.K. and EU initiatives that could affect its ability to allocate capital and liquidity efficiently among its global operations. Additional efforts are underway to comply with the higher capital requirements of the new Basel Accords (both the "Basel 2.5" requirements effective January 1, 2013 as well as the additional capital requirements of "Basel III"). The Firm is also preparing to comply with Basel III's new liquidity measures -- the "liquidity coverage ratio" ("LCR") and the "net stable funding ratio" ("NSFR") - which require the Firm to hold specified types of "high quality" liquid assets to meet assumed levels of cash outflows following a stress event. Management's current objective is for the Firm to reach, by the end of 2013, an estimated Basel III Tier I common ratio of 9.5% (including the impact of the Basel 2.5 rules and the estimated impact of the other applicable requirements set forth in the Federal Reserve's Advanced NPR issued in June 2012). The Firm is currently targeting reaching a 100% LCR, based on its current understanding of these requirements, by the end of 2013.

Furthermore, the Firm is experiencing heightened scrutiny by its regulators of its compliance with new and existing regulations, including those issued under the Bank Secrecy Act, the Unfair and Deceptive Acts or Practices laws, the Real Estate Settlement Procedures Act ("RESPA"), the Truth in Lending Act, laws governing the Firm's consumer collections practices and the laws administered by the Office of Foreign Control, among others. The Firm is also under scrutiny by its supervisors with respect to its controls and operational processes, such as those relating to model development, review, governance and approvals. On January 14, 2013, the Firm and three of its subsidiary banks, including JPMorgan Chase Bank, N.A. entered into Consent Orders with the Federal Reserve and the OCC relating principally to the Firm's and such banks' BSA/AML policies and procedures. Also on January 14, 2013, the Firm and JPMorgan Chase Bank, N.A. entered into Consent Orders arising out of their reviews of the Firm's Chief Investment Office. These latter Consent Orders relate to risk management, model governance and other control functions related to CIO and certain other trading activities at the Firm. The Firm expects that its banking supervisors will in the future continue to take more formal enforcement actions against the Firm rather than issuing informal supervisory actions or criticisms.

While the effect of the changes in law and the heightened scrutiny of its regulators is likely to result in additional costs, the Firm cannot, given the current status of regulatory and supervisory developments, quantify the possible effects on its business and operations of all the significant changes that are currently underway. For further discussion of regulatory developments, see Supervision and regulation on pages 1–8 and Risk factors on pages 8–21.

On January 7, 2013, the Firm submitted its capital plan to the Federal Reserve under the Federal Reserve's 2013 Comprehensive Capital Analysis and Review ("CCAR") process. The Firm's plan relates to the last three quarters of 2013 and the first quarter of 2014 (that is, the 2013 CCAR capital plan relates to dividends to be declared commencing in June 2013 and payable in July 2013, and to common equity repurchases and other capital actions commencing April 1, 2013). The Firm expects to receive the Federal Reserve's final response to its plan no later than March 14, 2013. With respect to the Firm's 2012 CCAR capital plan, the Firm expects that its Board of Directors will declare the regular quarterly common stock dividend of $0.30 per share for the 2013 first quarter at its Board meeting to be held on March 19, 2013. In addition, pursuant to a non-objection received from the Federal Reserve on November 5, 2012 with respect to the 2012 capital plan it resubmitted in August 2012, the Firm is authorized to repurchase up to $3.0 billion of common equity in the first quarter of 2013. The timing and exact amount of any common equity to be repurchased under the program will depend on various factors, including market conditions; the Firm's capital position; organic and other investment opportunities, and legal and regulatory considerations, among other factors. For more information, see Capital management on pages 116–122.

Business events

Superstorm Sandy

On October 29, 2012, the mid-Atlantic and Northeast regions of the U.S. were affected by Superstorm Sandy, which caused major flooding and wind damage and resulted in major disruptions to individuals and businesses and significant damage to homes and communities in the affected regions. Despite the damage and disruption to many of its branches and facilities, the Firm has been assisting its customers, clients and borrowers in the affected areas. The Firm has continued to dispense cash via ATMs and branches, loan money, provide liquidity to customers, and settle trades, and it waived a number of checking account and loan fees, including late payment fees. Superstorm Sandy did not have a material impact on the 2012 financial results of the Firm and the Firm does not anticipate total losses due to the storm will be material.

Subsequent events

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 and the Board of Governors of the Federal Reserve System providing for the termination of the independent foreclosure review programs (the "Independent Foreclosure Review"). Under this settlement, the Firm will make a cash payment of $753 million into a settlement fund for distribution to qualified borrowers. The Firm has also committed an additional $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. 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.

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, 2012. 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 178–182 of this Annual Report.

Revenue

Year ended December 31, (in millions)	2012	2011	2010
Investment banking fees	$ 5,808	$ 5,911	$ 6,190
Principal transactions	5,536	10,005	10,894
Lending- and deposit-related fees	6,196	6,458	6,340
Asset management, administration and commissions	13,868	14,094	13,499
Securities gains	2,110	1,593	2,965
Mortgage fees and related income	8,687	2,721	3,870
Card income	5,658	6,158	5,891
Other income[a]	4,258	2,605	2,044
Noninterest revenue	52,121	49,545	51,693
Net interest income	44,910	47,689	51,001
Total net revenue	$ 97,031	$ 97,234	$ 102,694

(a) Included operating lease income of $1.3 billion, $1.2 billion and $971 million for the years ended December 31, 2012, 2011 and 2010, respectively.

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 in CCB and higher other income in Corporate/Private Equity.

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. For additional information on investment banking fees, which are primarily recorded in CIB, see CIB segment results pages 92–95 and Note 7 on pages 228–229 of this Annual Report.

Principal transactions revenue, which consists of revenue primarily from the Firm's market-making and private equity investing activities, 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 each of the third and fourth quarters 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. For additional information on principal transactions revenue, see CIB and Corporate/Private Equity segment results on pages 92–95 and 102–104, respectively, and Note 7 on pages 228–229 of this Annual Report.

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. For additional information on lending- and deposit-related fees, which are mostly recorded in CCB, CIB and CB, see the segment results for CCB on pages 80–91, CIB on pages 92–95 and CB on pages 96–98 of this Annual Report.

Asset management, administration and commissions revenue decreased from 2011. The decrease was 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 branch sales of investment products. For additional information on these fees and commissions, see the segment discussions for CIB on pages 92–95, CCB on pages 80–91, AM on pages 99–101, and Note 7 on pages 228–229 of this Annual Report.

Securities gains increased, compared with the 2011 level, reflecting the results of repositioning the CIO available-for-sale ("AFS") securities portfolio. For additional information on securities gains, which are mostly recorded in the Firm's Corporate/Private Equity segment, see the Corporate/Private Equity segment discussion on pages 102–104, and Note 12 on pages 244–248 of this Annual Report.

Mortgage fees and related income increased significantly in 2012 compared with 2011. The increase resulted from higher production revenue, reflecting 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 also 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. For additional information on mortgage fees and related income, which is recorded predominantly in CCB, see CCB's Mortgage Production and Mortgage Servicing discussion on pages 85–87, and Note 17 on pages 291–295 of this Annual Report.

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. For additional information on credit card income, see the CCB segment results on pages 80–91 of this Annual Report.

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 trust preferred securities ("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.

2011 compared with 2010

Total net revenue for 2011 was $97.2 billion, a decrease of $5.5 billion, or 5%, from 2010. Results for 2011 were driven by lower net interest income in several businesses, lower securities gains in Corporate/Private Equity, lower mortgage fees and related income in CCB, and lower principal transactions revenue in Corporate/Private Equity. These declines were partially offset by higher asset management fees, largely in AM.

Investment banking fees decreased from 2010, predominantly due to declines in equity and debt underwriting fees. The impact from lower industry-wide volumes in the second half of 2011 more than offset the Firm's record level of debt underwriting fees in the first six months of the year. Advisory fees increased for the year, reflecting higher industry-wide completed M&A volumes relative to the 2010 level.

Principal transactions revenue decreased compared with 2010. This was driven by lower trading revenue and lower private equity gains. Trading revenue included a $1.4 billion gain from DVA on structured notes and derivative liabilities, resulting from the widening of the Firm's credit spreads; this was partially offset by a $769 million loss, net of hedges, from CVA on derivative assets in CIB's credit portfolio, due to the widening of credit spreads related to the Firm's counterparties. The prior year included a $509 million gain from DVA, partially offset by a $403 million loss, net of hedges, from CVA. Excluding DVA and CVA, lower trading revenue reflected the impact of challenging market conditions on Corporate and CIB during the second half of 2011. Lower private equity gains were primarily due to net write-downs on privately-held investments and the absence of prior-year gains from sales in the Private Equity portfolio.

Lending- and deposit-related fees increased modestly in 2011 compared with the prior year. The increase was primarily driven by the introduction of a new checking account product offering by CCB in the first quarter of 2011, and the subsequent conversion of certain existing accounts into the new product. The increase was offset partly by the impact of regulatory and policy changes affecting nonsufficient fund/overdraft fees in CCB.

Asset management, administration and commissions revenue increased from 2010, reflecting higher asset management fees in AM and CCB, driven by net inflows to products with higher margins and the effect of higher market levels; and higher administration fees in CIB, reflecting net inflows of assets under custody.

Securities gains decreased, compared with the 2010 level, primarily due to the repositioning of the AFS portfolio in response to changes in the current market environment and to rebalancing exposures.

Mortgage fees and related income decreased in 2011 compared with 2010, reflecting a MSR risk management loss of $1.6 billion for 2011, compared with income of $1.1 billion for 2010, largely offset by lower repurchase losses in 2011. The $1.6 billion loss was driven by a $7.1 billion loss due to a decrease in the fair value of the mortgage servicing rights ("MSR") asset, which was predominantly offset by a $5.6 billion gain on the derivatives used to hedge the MSR asset. For additional information on repurchase losses, see the Mortgage repurchase liability discussion on pages 111–115 and Note 29 on pages 308–315 of this Annual Report.

Card income increased during 2011, largely reflecting higher net interchange income associated with higher customer transaction volume on credit and debit cards, as well as lower partner revenue-sharing due to the impact of the Kohl's portfolio sale. These increases were partially offset by lower revenue from fee-based products, as well as the impact of the Durbin Amendment.

Other income increased in 2011, driven by valuation adjustments on certain assets and incremental revenue from recent acquisitions in CIB, and higher auto operating lease income in CCB, resulting from growth in lease volume.

Also contributing to the increase was a gain on the sale of an investment in AM.

Net interest income decreased in 2011 compared with the prior year, driven by lower average loan balances and yields in CCB, reflecting the expected runoff of credit card balances and residential real estate loans; lower fees on credit card receivables, reflecting the impact of legislative changes; higher average interest-bearing deposit balances and related yields; and lower yields on securities, reflecting portfolio repositioning in anticipation of an increasing interest rate environment. The decrease was offset partially by lower revenue reversals associated with lower credit card charge-offs, and higher trading asset balances. The Firm's average interest-earning assets were $1.8 trillion for the 2011 full year, and the net yield on those assets, on a FTE basis, was 2.74%, a decrease of 32 basis points from 2010. For further information on the impact of the legislative changes on the Consolidated Statements of Income, see CCB discussion on credit card legislation on page 89 of this Annual Report.

Provision for credit losses

Year ended December 31, (in millions)	2012	2011	2010
Consumer, excluding credit card	**$ 302**	$ 4,672	$ 9,452
Credit card	**3,444**	2,925	8,037
Total consumer	**3,746**	7,597	17,489
Wholesale	**(361)**	(23)	(850)
Total provision for credit losses	**$ 3,385**	$ 7,574	$ 16,639

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. For a more detailed discussion of the loan portfolio and the allowance for credit losses, see the segment discussions for CCB on pages 80–91, CIB on pages 92–95 and CB on pages 96–98, and Allowance For Credit Losses on pages 159–162 of this Annual Report.

2011 compared with 2010

The provision for credit losses declined by $9.1 billion from 2010. The consumer, excluding credit card, provision was down, reflecting improved delinquency and charge-off trends across most portfolios, partially offset by an increase of $770 million, reflecting additional impairment of the Washington Mutual PCI loans portfolio. The credit card provision was down, driven primarily by improved delinquency trends and net credit losses. The benefit from the wholesale provision was lower in 2011 than in 2010, primarily reflecting loan growth and other portfolio activity.

Noninterest expense

Year ended December 31, (in millions)	2012	2011	2010
Compensation expense	**$30,585**	$29,037	$28,124
Noncompensation expense:			
Occupancy	**3,925**	3,895	3,681
Technology, communications and equipment	**5,224**	4,947	4,684
Professional and outside services	**7,429**	7,482	6,767
Marketing	**2,577**	3,143	2,446
Other[(a)(b)]	**14,032**	13,559	14,558
Amortization of intangibles	**957**	848	936
Total noncompensation expense	**34,144**	33,874	33,072
Total noninterest expense	**$64,729**	$62,911	$61,196

(a) Included litigation expense of $5.0 billion, $4.9 billion and $7.4 billion for the years ended December 31, 2012, 2011 and 2010, respectively.
(b) Included FDIC-related expense of $1.7 billion, $1.5 billion and $899 million for the years ended December 31, 2012, 2011 and 2010, respectively.

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 litigation expense in Corporate/Private Equity. These increases were partially offset by lower litigation expense in AM and CCB (including the Independent Foreclosure Review settlement) and lower marketing expense in CCB. For a further discussion of litigation expense, see Note 31 on pages 316–325 of this Annual Report. For a discussion of amortization of intangibles, refer to Note 17 on pages 291–295 of this Annual Report.

2011 compared with 2010

Total noninterest expense for 2011 was $62.9 billion, up by $1.7 billion, or 3%, from 2010. Both compensation and noncompensation expense contributed to the increase.

Compensation expense increased from the prior year, due to investments in branch and mortgage production sales and support staff in CCB and increased headcount in AM, largely offset by lower performance-based compensation expense and the absence of the 2010 U.K. Bank Payroll Tax in CIB.

The increase in noncompensation expense in 2011 was due to elevated foreclosure- and default-related costs in CCB, including $1.7 billion of expense for fees and assessments, as well as other costs of foreclosure-related matters, higher marketing expense in CCB, higher FDIC assessments across businesses, non-client-related litigation expense in AM, and the impact of continued investments in the businesses, including new branches in CCB. These were offset partially by lower litigation expense in 2011 in Corporate and CIB. Effective April 1, 2011, the FDIC changed its methodology for calculating the deposit insurance assessment rate for large banks. The new rule changed the assessment base from insured deposits to average consolidated total assets less average tangible equity, and changed the assessment rate calculation.

Income tax expense

Year ended December 31, (in millions, except rate)	**2012**	2011	2010
Income before income tax expense	**$28,917**	$26,749	$24,859
Income tax expense	**7,633**	7,773	7,489
Effective tax rate	**26.4%**	29.1%	30.1%

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. For additional information on income taxes, see Critical Accounting Estimates Used by the Firm on pages 178–182 and Note 26 on pages 303–305 of this Annual Report.

2011 compared with 2010

The decrease in the effective tax rate compared with the prior year was predominantly the result of tax benefits associated with U.S. state and local income taxes. This was partially offset by higher reported pretax income and changes in the proportion of income subject to U.S. federal tax. In addition, the current year included tax benefits associated with the disposition of certain investments; the prior year included tax benefits associated with the resolution of tax audits.

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 188–192 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.

	2012			2011			2010		
Year ended December 31, (in millions, except ratios)	Reported Results	Fully tax-equivalent adjustments[a]	Managed basis	Reported Results	Fully tax-equivalent adjustments[a]	Managed basis	Reported Results	Fully tax-equivalent adjustments[a]	Managed basis
Other income	$ 4,258	$ 2,116	$ 6,374	$ 2,605	$ 2,003	$ 4,608	$ 2,044	$ 1,745	$ 3,789
Total noninterest revenue	52,121	2,116	54,237	49,545	2,003	51,548	51,693	1,745	53,438
Net interest income	44,910	743	45,653	47,689	530	48,219	51,001	403	51,404
Total net revenue	97,031	2,859	99,890	97,234	2,533	99,767	102,694	2,148	104,842
Pre-provision profit	32,302	2,859	35,161	34,323	2,533	36,856	41,498	2,148	43,646
Income before income tax expense	28,917	2,859	31,776	26,749	2,533	29,282	24,859	2,148	27,007
Income tax expense	7,633	2,859	10,492	7,773	2,533	10,306	7,489	2,148	9,637
Overhead ratio	67%	NM	65%	65%	NM	63%	60%	NM	58%

(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 analysts and investors, in assessing the Firm's use of equity. For additional information on Tier 1 common under Basel I and III, see Regulatory capital on pages 117–120 of this Annual Report. All of the aforementioned measures are useful to the Firm, as well as analysts and investors, in facilitating comparison of the Firm with competitors.

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

The table below reflects the formulas used to calculate both the following U.S. GAAP and non-GAAP measures.

Return on common equity
Net income* / Average common stockholders' equity

Return on tangible common equity[a]
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

(a) The Firm uses ROTCE, a non-GAAP financial measure, to evaluate its use of equity and to facilitate comparisons with competitors. Refer to the following table for the calculation of average tangible common equity.

Average tangible common equity

Year ended December 31, (in millions)	2012	2011	2010
Common stockholders' equity	**$ 184,352**	$ 173,266	$ 161,520
Less: Goodwill	**48,176**	48,632	48,618
Less: Certain identifiable intangible assets	**2,833**	3,632	4,178
Add: Deferred tax liabilities[(a)]	**2,754**	2,635	2,587
Tangible common equity	**$ 136,097**	$ 123,637	$ 111,311

(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 JPMorgan Chase's 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 table below presents an analysis of core net interest income, core average interest-earning assets, and the core net interest yield on core average interest-earning assets, on a managed basis. Each of these amounts is a non-GAAP financial measure due to the exclusion of CIB's market-based net interest income and the related assets. Management believes the exclusion of CIB's market-based activities 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[(a)]

Year ended December 31, (in millions, except rates)	2012	2011	2010
Net interest income - managed basis[(b)(c)]	**$ 45,653**	$ 48,219	$ 51,404
Less: Market-based net interest income	**5,787**	7,329	7,112
Core net interest income[(b)]	**$ 39,866**	$ 40,890	$ 44,292
Average interest-earning assets	**$ 1,842,417**	$ 1,761,355	$ 1,677,521
Less: Average market-based earning assets	**499,339**	519,655	470,927
Core average interest-earning assets	**$ 1,343,078**	$ 1,241,700	$ 1,206,594
Net interest yield on interest-earning assets - managed basis	**2.48%**	2.74%	3.06%
Net interest yield on market-based activity	**1.16**	1.41	1.51
Core net interest yield on core average interest-earning assets	**2.97%**	3.29%	3.67%

(a) Includes core lending, investing and deposit-raising activities on a managed basis across CCB, CIB, CB, AM, Corporate/Private Equity; excludes the market-based activities within the CIB.

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

(c) 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 76.

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, 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 as well as lower customer loan rates, higher financing costs associated with mortgage-backed securities, limited reinvestment opportunities, and was slightly offset by lower customer deposit rates.

2011 compared with 2010

Core net interest income decreased by $3.4 billion to $40.9 billion for 2011. The decrease was primarily driven by lower loan levels and yields in CCB compared with 2010 levels. Core average interest-earning assets increased by $35.1 billion in 2011 to $1,241.7 billion. The increase was driven by higher levels of deposits with banks and securities borrowed due to wholesale and retail client deposit growth. The core net interest yield decreased by 38 basis points in 2011 driven by lower loan yields and higher deposit balances, and lower yields on investment securities due to portfolio mix and lower long-term interest rates.

Other financial measures

The Firm also discloses the allowance for loan losses to total retained loans, excluding residential real estate purchased credit-impaired loans. For a further discussion of this credit metric, see Allowance for Credit Losses on pages 159–162 of this Annual Report.

BUSINESS SEGMENT RESULTS

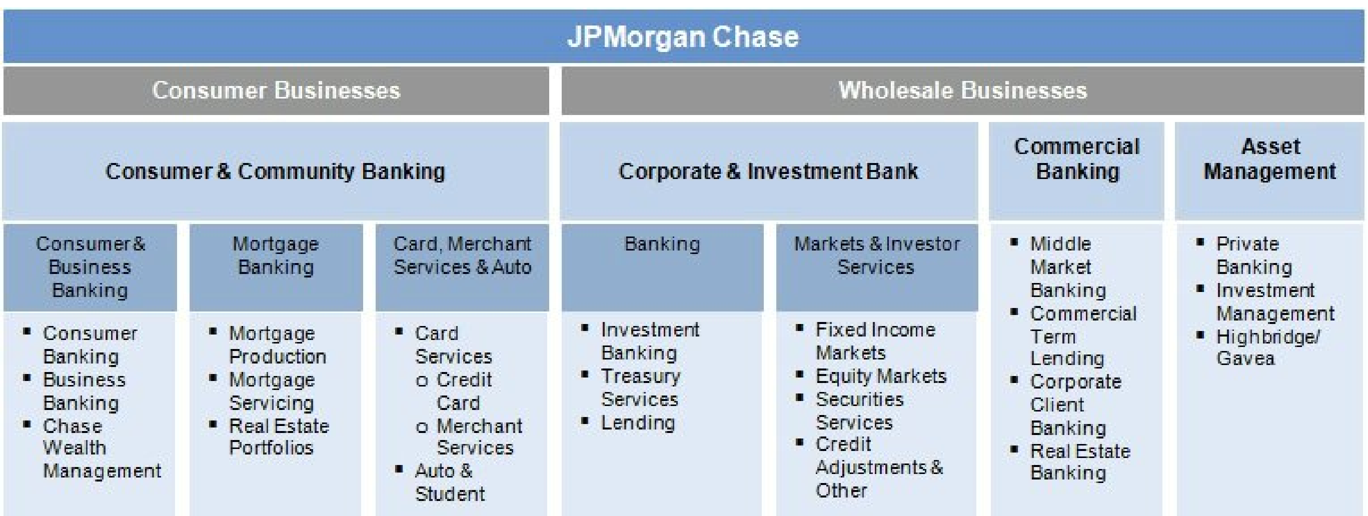
The Firm is managed on a line of business basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset Management. In addition, there is a Corporate/Private Equity segment.

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 76–77 of this Annual Report.

Business segment changes
Commencing with the fourth quarter of 2012, the Firm's business segments have been reorganized as follows:

Retail Financial Services and Card Services & Auto ("Card") business segments were combined to form one business segment called Consumer & Community Banking ("CCB"), and Investment Bank and Treasury & Securities Services business segments were combined to form one business segment called Corporate & Investment Bank ("CIB"). Commercial Banking ("CB") and Asset Management ("AM") were not affected by the aforementioned changes. A technology function supporting online and mobile banking was transferred from Corporate/Private Equity to the CCB business segment. This transfer did not materially affect the results of either the CCB business segment or Corporate/Private Equity.

The business segment information that follows has been revised to reflect the business reorganization retroactive to January 1, 2010.



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 segments may be permitted to retain certain interest rate exposures subject to management approval.

Capital allocation

Each business segment is allocated capital, taking into consideration the capital the business segment would require if it were operating independently, incorporating sufficient capital to address regulatory capital requirements (including Basel III Tier 1 common capital requirements), economic risk measures and capital levels for similarly rated peers. The amount of capital assigned to each business is referred to as equity. Effective January 1, 2012, the Firm revised the capital allocated to certain businesses, reflecting additional refinement of each segment's estimated Basel III Tier 1 common capital requirements and balance sheet trends. For a further discussion of capital allocation, including refinements to the capital allocations that became effective on January 1, 2013, see Capital Management – Line of business equity on page 121 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 one-time 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			Noninterest expense			Pre-provision profit		
(in millions)	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Consumer & Community Banking	**$ 49,945**	$ 45,687	$ 48,927	**$ 28,790**	$ 27,544	$ 23,706	**$ 21,155**	$ 18,143	$ 25,221
Corporate & Investment Bank	**34,326**	33,984	33,477	**21,850**	21,979	22,869	**12,476**	12,005	10,608
Commercial Banking	**6,825**	6,418	6,040	**2,389**	2,278	2,199	**4,436**	4,140	3,841
Asset Management	**9,946**	9,543	8,984	**7,104**	7,002	6,112	**2,842**	2,541	2,872
Corporate/Private Equity	**(1,152)**	4,135	7,414	**4,596**	4,108	6,310	**(5,748)**	27	1,104
Total	**$ 99,890**	$ 99,767	$ 104,842	**$ 64,729**	$ 62,911	$ 61,196	**$ 35,161**	$ 36,856	$ 43,646

Year ended December 31,	Provision for credit losses			Net income/(loss)			Return on equity		
(in millions, except ratios)	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Consumer & Community Banking	**$ 3,774**	$ 7,620	$ 17,489	**$ 10,611**	$ 6,202	$ 4,578	**25%**	15%	11%
Corporate & Investment Bank	**(479)**	(285)	(1,247)	**8,406**	7,993	7,718	**18**	17	17
Commercial Banking	**41**	208	297	**2,646**	2,367	2,084	**28**	30	26
Asset Management	**86**	67	86	**1,703**	1,592	1,710	**24**	25	26
Corporate/Private Equity	**(37)**	(36)	14	**(2,082)**	822	1,280	**NM**	NM	NM
Total	**$ 3,385**	$ 7,574	$ 16,639	**$ 21,284**	$ 18,976	$ 17,370	**11%**	11%	10%

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

Year ended December 31, (in millions, except ratios)	2012	2011	2010
Revenue			
Lending- and deposit-related fees	**$ 3,121**	$ 3,219	$ 3,117
Asset management, administration and commissions	**2,092**	2,044	1,831
Mortgage fees and related income	**8,680**	2,714	3,855
Card income	**5,446**	6,152	5,469
All other income	**1,456**	1,177	1,241
Noninterest revenue	**20,795**	15,306	15,513
Net interest income	**29,150**	30,381	33,414
Total net revenue	**49,945**	45,687	48,927
Provision for credit losses	**3,774**	7,620	17,489
Noninterest expense			
Compensation expense	**11,231**	9,971	8,804
Noncompensation expense	**16,784**	16,934	14,159
Amortization of intangibles	**775**	639	743
Total noninterest expense	**28,790**	27,544	23,706
Income before income tax expense	**17,381**	10,523	7,732
Income tax expense	**6,770**	4,321	3,154
Net income	**$ 10,611**	$ 6,202	$ 4,578
Financial ratios			
Return on common equity	**25%**	15%	11%
Overhead ratio	**58**	60	48

2012 compared with 2011

Consumer & Community Banking net income was $10.6 billion, up 71% 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 $29.2 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 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 138–149 of this Annual Report.

Noninterest expense was $28.8 billion, an increase of $1.2 billion, or 5%, 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.

2011 compared with 2010

Consumer & Community Banking net income was $6.2 billion, up 35% when compared with the prior year. The increase was driven by lower provision for credit losses, largely offset by higher noninterest expense and lower net revenue.

Net revenue was $45.7 billion, down $3.2 billion, or 7%, compared with the prior year. Net interest income was $30.4 billion, down $3.0 billion, or 9%, reflecting the impact of lower loan balances, the impact of legislative changes in Card and a decreased level of fees in Card, largely offset by lower revenue reversals associated with lower net charge-offs in Card. Noninterest revenue was $15.3 billion, down $207 million, or 1%, driven by lower mortgage fees and related income, largely offset by the transfer of the Commercial Card business to Card from CIB in the first quarter of 2011 and higher net interchange income in Card.

The provision for credit losses was $7.6 billion, a decrease of $9.9 billion from the prior year. The current year provision included a $4.2 billion net reduction in the allowance for loan losses due to improved delinquency trends and lower estimated losses primarily in Card. The prior year provision reflected a reduction in the allowance for loan losses of $4.3 billion due to lower estimated losses primarily in Card.

Noninterest expense was $27.5 billion, up $3.8 billion, or 16%, from the prior year driven by elevated foreclosure- and default-related costs, including $1.7 billion for fees and assessments, as well as other costs of foreclosure-related matters during 2011, compared with $350 million in 2010 in Mortgage Banking, as well as higher marketing expense in Card.

Selected metrics

As of or for the year ended December 31, (in millions, except headcount and ratios)	2012	2011	2010
Selected balance sheet data (period-end)			
Total assets	$ 463,608	$ 483,307	$ 508,775
Loans:			
Loans retained	402,963	425,581	452,249
Loans held-for-sale and loans at fair value[(a)]	18,801	12,796	17,015
Total loans	421,764	438,377	469,264
Deposits	438,484	397,825	371,861
Equity	43,000	41,000	43,000
Selected balance sheet data (average)			
Total assets	$ 464,197	$ 487,923	$ 527,101
Loans:			
Loans retained	408,559	429,975	475,549
Loans held-for-sale and loans at fair value[(a)]	18,006	17,187	16,663
Total loans	426,565	447,162	492,212
Deposits	413,911	382,678	363,645
Equity	43,000	41,000	43,000
Headcount	159,467	161,443	143,226

Selected metrics

As of or for the year ended December 31, (in millions, except headcount and ratios)	2012	2011	2010
Credit data and quality statistics			
Net charge-offs[(b)]	$ 9,280	$ 11,815	$ 21,943
Nonaccrual loans:			
Nonaccrual loans retained	9,114	7,354	8,770
Nonaccrual loans held-for-sale and loans at fair value	39	103	145
Total nonaccrual loans[(c)(d)(e)(f)]	9,153	7,457	8,915
Nonperforming assets[(c)(d)(e)(f)]	9,830	8,292	10,268
Allowance for loan losses	17,752	23,256	27,487
Net charge-off rate[(b)(g)]	2.27%	2.75%	4.61%
Net charge-off rate, excluding PCI loans[(b)(g)]	2.68	3.27	5.50
Allowance for loan losses to period-end loans retained	4.41	5.46	6.08
Allowance for loan losses to period-end loans retained, excluding PCI loans[(h)]	3.51	4.87	5.94
Allowance for loan losses to nonaccrual loans retained, excluding credit card[(c)(f)(h)]	72	143	131
Nonaccrual loans to total period-end loans, excluding credit card[(f)]	3.12	2.44	2.69
Nonaccrual loans to total period-end loans, excluding credit card and PCI loans[(c)(f)]	3.91	3.10	3.44
Business metrics			
Number of:			
Branches	5,614	5,508	5,268
ATMs	18,699	17,235	16,145
Active online customers (in thousands)	31,114	29,749	28,708
Active mobile customers (in thousands)	12,359	8,203	4,873

(a) 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.
(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. 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 138–149 of this Annual Report.
(c) Excludes PCI loans. Because the Firm is recognizing interest income on each pool of PCI loans, they are all considered to be performing.
(d) Certain mortgages originated with the intent to sell are classified as trading assets on the Consolidated Balance Sheets.
(e) At December 31, 2012, 2011 and 2010, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of $10.6 billion, $11.5 billion, and $9.4 billion, respectively, that are 90 or more days past due; (2) real estate owned insured by U.S. government agencies of $1.6 billion, $954 million, and $1.9 billion, respectively; and (3) student loans insured by U.S. government agencies under the Federal Family Education Loan Program ("FFELP") of $525 million, $551 million, and $625 million, respectively, that are 90 or more days past due. These amounts were excluded from nonaccrual loans as reimbursement of insured amounts is proceeding normally.
(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 138–149 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 $5.7 billion at December 31, 2012 and 2011, and $4.9 billion at December 31, 2010 was recorded for PCI loans; these amounts were also excluded from the applicable ratios.

Consumer & Business Banking

Selected income statement data

Year ended December 31, (in millions, except ratios)	2012	2011	2010
Revenue			
Lending- and deposit-related fees	$ 3,068	$ 3,160	$ 3,025
Asset management, administration and commissions	1,637	1,559	1,390
Card income	1,353	2,024	1,953
All other income	481	467	484
Noninterest revenue	6,539	7,210	6,852
Net interest income	10,673	10,808	10,884
Total net revenue	17,212	18,018	17,736
Provision for credit losses	311	419	630
Noninterest expense	11,453	11,243	10,762
Income before income tax expense	5,448	6,356	6,344
Net income	$ 3,263	$ 3,796	$ 3,630
Overhead ratio	67%	62%	61%
Overhead ratio, excluding core deposit intangibles[(a)]	65	61	59

(a) 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 $200 million, $238 million, and $276 million for the years ended December 31, 2012, 2011 and 2010, respectively.

2012 compared with 2011

Consumer & Business Banking net income was $3.3 billion, a decrease of $533 million, or 14%, 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 $10.7 billion, down 1% from the prior year, driven by the impact of lower deposit margins, predominantly offset by higher deposit balances. Noninterest revenue was $6.5 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 2% from the prior year, resulting from investment in the sales force and new branch builds.

2011 compared with 2010

Consumer & Business Banking net income was $3.8 billion, an increase of $166 million, or 5%, compared with the prior year. The increase was driven by higher net revenue and lower provision for credit losses, offset by higher noninterest expense.

Net revenue was $18.0 billion, up 2% from the prior year. Net interest income was $10.8 billion, relatively flat compared with the prior year, as the impact from higher deposit balances was predominantly offset by the effect of lower deposit margins. Noninterest revenue was $7.2 billion, up 5% from the prior year, driven by higher investment sales revenue and higher deposit-related fees.

The provision for credit losses was $419 million, compared with $630 million in the prior year. Net charge-offs were $494 million, compared with $730 million in the prior year.

Noninterest expense was $11.2 billion, up 4% from the prior year, resulting from investment in sales force and new branch builds.

Selected metrics

As of or for the year ended December 31, (in millions, except ratios)	2012	2011	2010
Business metrics			
Business banking origination volume	$ 6,542	$ 5,827	$ 4,688
Period-end loans	18,883	17,652	16,812
Period-end deposits:			
Checking	170,322	147,779	131,702
Savings	216,422	191,891	170,604
Time and other	31,752	36,745	45,967
Total period-end deposits	418,496	376,415	348,273
Average loans	18,104	17,121	16,863
Average deposits:			
Checking	153,385	136,579	123,490
Savings	204,449	182,587	166,112
Time and other	34,224	41,576	51,152
Total average deposits	392,058	360,742	340,754
Deposit margin	2.57%	2.82%	3.00%
Average assets	$ 30,987	$ 29,774	$ 29,321

Selected metrics

As of or for the year ended December 31, (in millions, except ratios and where otherwise noted)	2012	2011	2010
Credit data and quality statistics			
Net charge-offs	$ 411	$ 494	$ 730
Net charge-off rate	2.27%	2.89%	4.32%
Allowance for loan losses	$ 698	$ 798	$ 875
Nonperforming assets	488	710	846
Retail branch business metrics			
Investment sales volume	$ 26,036	$ 22,716	$ 23,579
Client investment assets	158,502	137,853	133,114
% managed accounts	29%	24%	20%
Number of:			
Chase Private Client branch locations	1,218	262	16
Personal bankers	23,674	24,308	21,735
Sales specialists	6,076	6,017	4,876
Client advisors	2,963	3,201	3,066
Chase Private Clients	105,700	21,723	4,242
Accounts (in thousands)[(a)]	28,073	26,626	27,252

(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)	2012	2011	2010
Revenue			
Mortgage fees and related income	$ 8,680	$ 2,714	$ 3,855
All other income	475	490	528
Noninterest revenue	9,155	3,204	4,383
Net interest income	4,808	5,324	6,336
Total net revenue	13,963	8,528	10,719
Provision for credit losses	(490)	3,580	8,289
Noninterest expense	9,121	8,256	5,766
Income/(loss) before income tax expense/(benefit)	5,332	(3,308)	(3,336)
Net income/(loss)	$ 3,341	$ (2,138)	$ (1,924)
Overhead ratio	65%	97%	54%

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 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.

2011 compared with 2010

Mortgage Banking reported a net loss of $2.1 billion, compared with a net loss of $1.9 billion in the prior year. The increase in net loss was driven by higher noninterest expense and lower net revenue, offset by lower provision for credit losses.

Net revenue was $8.5 billion, down $2.2 billion, or 20%, compared with the prior year. Net interest income was $5.3 billion, down $1.0 billion, or 16%, from the prior year, resulting from lower loan balances due to portfolio runoff. Noninterest revenue was $3.2 billion, down $1.2 billion, or 27%, from the prior year, driven by lower mortgage fees and related income.

The provision for credit losses was $3.6 billion, down $4.7 billion, or 57% compared with the prior year due to lower estimated losses as delinquency trends and charge-offs continued to improve. The current year provision also included a $230 million net reduction in the allowance for loan losses which reflects a reduction of $1.0 billion in the allowance related to the non-credit-impaired portfolio, as estimated losses in the portfolio have declined, predominantly offset by an increase of $770 million reflecting additional impairment of the Washington Mutual PCI portfolio due to higher-than-expected default frequency relative to modeled lifetime loss estimates. The prior-year provision reflected a higher impairment of the PCI portfolio and higher net charge-offs.

Noninterest expense was $8.3 billion, an increase of $2.5 billion, or 43%, compared with the prior year, driven by elevated foreclosure- and default-related costs in Mortgage Servicing.

Functional results

Year ended December 31, (in millions, except ratios)	2012	2011	2010
Mortgage Production			
Production revenue	**$ 5,783**	$ 3,395	$ 3,440
Production-related net interest & other income	**787**	840	869
Production-related revenue, excluding repurchase losses	**6,570**	4,235	4,309
Production expense[(a)]	**2,747**	1,895	1,613
Income, excluding repurchase losses	**3,823**	2,340	2,696
Repurchase losses	**(272)**	(1,347)	(2,912)
Income/(loss) before income tax expense/(benefit)	**3,551**	993	(216)
Mortgage Servicing			
Loan servicing revenue	**3,772**	4,134	4,575
Servicing-related net interest & other income	**407**	390	433
Servicing-related revenue	**4,179**	4,524	5,008
MSR asset modeled amortization	**(1,222)**	(1,904)	(2,384)
Default servicing expense	**3,707**	3,814	1,747
Core servicing expense	**1,033**	1,031	837
Income/(loss), excluding MSR risk management	**(1,783)**	(2,225)	40
MSR risk management, including related net interest income/(expense)	**616**	(1,572)	1,151
Income/(loss) before income tax expense/(benefit)	**(1,167)**	(3,797)	1,191
Real Estate Portfolios			
Noninterest revenue	**43**	38	115
Net interest income	**4,049**	4,554	5,432
Total net revenue	**4,092**	4,592	5,547
Provision for credit losses	**(509)**	3,575	8,231
Noninterest expense	**1,653**	1,521	1,627
Income/(loss) before income tax expense/(benefit)	**2,948**	(504)	(4,311)
Mortgage Banking income/(loss) before income tax expense/(benefit)	**$ 5,332**	$ (3,308)	$ (3,336)
Mortgage Banking net income/(loss)	**$ 3,341**	$ (2,138)	$ (1,924)
Overhead ratios			
Mortgage Production	**43%**	65%	111%
Mortgage Servicing	**133**	462	68
Real Estate Portfolios	**40**	33	29

(a) Includes credit costs associated with Production.

Selected income statement data

Year ended December 31, (in millions)	2012	2011	2010
Supplemental mortgage fees and related income details			
Net production revenue:			
Production revenue	**$ 5,783**	$ 3,395	$ 3,440
Repurchase losses	**(272)**	(1,347)	(2,912)
Net production revenue	**5,511**	2,048	528
Net mortgage servicing revenue:			
Operating revenue:			
Loan servicing revenue	**3,772**	4,134	4,575
Changes in MSR asset fair value due to modeled amortization	**(1,222)**	(1,904)	(2,384)
Total operating revenue	**2,550**	2,230	2,191
Risk management:			
Changes in MSR asset fair value due to market interest rates	**(587)**	(5,390)	(2,224)
Other changes in MSR asset fair value due to inputs or assumptions in model[(a)]	**(46)**	(1,727)	(44)
Changes in derivative fair value and other	**1,252**	5,553	3,404
Total risk management	**619**	(1,564)	1,136
Total net mortgage servicing revenue	**3,169**	666	3,327
Mortgage fees and related income	**$ 8,680**	$ 2,714	$ 3,855

(a) Represents the aggregate impact of changes in model inputs and assumptions such as costs to service, home prices, mortgage spreads, ancillary income, and assumptions used to derive prepayment speeds, as well as changes to the valuation models themselves.

Net production revenue includes net gains or losses on originations and sales of prime and subprime 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 comprises:

- gross income earned from servicing third-party mortgage loans including stated service fees, excess service fees and other ancillary fees; and
- modeled MSR asset amortization (or time decay).

(b) Risk management comprises:

- changes in MSR asset fair value due to market-based inputs such as interest rates, as well as updates to assumptions used in the MSR valuation model; and
- changes in derivative fair value and other, which represents changes in the fair value of derivative instruments used to offset the impact of changes in interest rates to the MSR valuation model.

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 – Third-party mortgage brokers refer loan application packages to the Firm. The Firm then underwrites and funds the loan. Brokers are independent loan originators that specialize in counseling applicants on available home financing options, but do not provide funding for loans. Chase materially eliminated broker-originated loans in 2008, with the exception of a small number of 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.

Correspondent negotiated transactions ("CNTs") – Mid-to-large-sized mortgage lenders, banks and bank-owned mortgage companies sell servicing to the Firm on an as-originated basis (excluding sales of bulk servicing transactions). These transactions supplement traditional production channels and provide growth opportunities in the servicing portfolio in periods of stable and rising interest rates.

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 111–115 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 291–295 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 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 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 charge-offs, related to regulatory guidance, compared with $3.8 billion in the prior year. See Consumer Credit Portfolio on pages 138–149 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 138–149 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.

2011 compared with 2010

Mortgage Production pretax income was $993 million, compared with a pretax loss of $216 million in the prior year. Production-related revenue, excluding repurchase losses, was $4.2 billion, a decrease of 2% from the prior year, reflecting lower volumes and narrower margins compared with the prior year. Production expense was $1.9 billion, an increase of $282 million, or 17%, reflecting a strategic shift to higher-cost retail originations both through the branch network and direct to the consumer. Repurchase losses were $1.3 billion, compared with prior-year repurchase losses of $2.9 billion, which included a $1.6 billion increase in the repurchase reserve.

Mortgage Servicing reported a pretax loss of $3.8 billion, compared with pretax income of $1.2 billion in the prior year. Mortgage servicing revenue, including amortization was $2.6 billion, or flat compared with the prior year. MSR risk management was a loss of $1.6 billion, compared with income of $1.2 billion in the prior year, driven by refinements to the valuation model and related inputs. Servicing expense was $4.8 billion, an increase of $2.3 billion, driven by $1.7 billion recorded for fees and assessments, and other costs of foreclosure-related matters, as well as higher core and default servicing costs. See Note 17 on pages 291–295 of this Annual Report for further information regarding changes in value of the MSR asset and related hedges.

Real Estate Portfolios reported a pretax loss of $504 million, compared with a pretax loss of $4.3 billion in the prior year. The improvement was driven by lower provision for credit losses, partially offset by lower net revenue. Net revenue was $4.6 billion, down by $955 million, or 17%, from the prior year. The decrease was driven by a decline in net interest income as a result of lower loan balances due to portfolio runoff and narrower loan spreads. The provision for credit losses was $3.6 billion, compared with $8.2 billion in the prior year, reflecting an improvement in charge-off trends and a net reduction of the allowance for loan losses of $230 million. The net change in the allowance reflected a $1.0 billion reduction related to the non-credit-impaired portfolios as estimated losses declined, predominately offset by an increase of $770 million reflecting additional impairment of the Washington Mutual PCI portfolio due to higher-than-expected default frequency relative to modeled lifetime loss estimates. The prior-year provision reflected a higher impairment of the PCI portfolio and higher net charge-offs. See Consumer Credit Portfolio on pages 138–149 of this Annual Report for the net charge-off amounts and rates. Noninterest expense was $1.5 billion, down by $106 million, or 7%, from the prior year, reflecting a decrease in foreclosed asset expense due to temporary delays in foreclosure activity.

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, 2012, 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 to four 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.

To date the impact of the PCI loans on Real Estate Portfolios' net income has been negative. This is largely due to the provision for loan losses recognized subsequent to its acquisition, and the higher level of default and servicing expense associated with the portfolio. Over time, the Firm expects that this portfolio will contribute positively to net income.

For further information, see Note 14, PCI loans, on pages 266–268 of this Annual Report.

Mortgage Production and Servicing

Selected metrics

As of or for the year ended December 31, (in millions, except ratios)	2012	2011	2010
Selected balance sheet data			
Period-end loans:			
Prime mortgage, including option ARMs[(a)]	**$17,290**	$16,891	$14,186
Loans held-for-sale and loans at fair value[(b)]	**18,801**	12,694	14,863
Average loans:			
Prime mortgage, including option ARMs[(a)]	**17,335**	14,580	13,422
Loans held-for-sale and loans at fair value[(b)]	**17,573**	16,354	15,395
Average assets	**59,837**	59,891	57,778
Repurchase liability (period-end)	**2,530**	3,213	3,000
Credit data and quality statistics			
Net charge-offs:			
Prime mortgage, including option ARMs	**19**	5	41
Net charge-off rate:			
Prime mortgage, including option ARMs	**0.11%**	0.03%	0.31%
30+ day delinquency rate[(c)]	**3.05**	3.15	3.44
Nonperforming assets[(d)]	**$ 638**	$ 716	$ 729

(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 111–115 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) At December 31, 2012, 2011 and 2010, excluded mortgage loans insured by U.S. government agencies of $11.8 billion, $12.6 billion, and $10.3 billion, respectively, that are 30 or more days past due. These amounts were excluded as reimbursement of insured amounts is proceeding normally. For further discussion, see Note 14 on pages 250–275 of this Annual Report which summarizes loan delinquency information.
(d) At December 31, 2012, 2011 and 2010, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of $10.6 billion, $11.5 billion, and $9.4 billion, respectively, that are 90 or more days past due; and (2) real estate owned insured by U.S. government agencies of $1.6 billion, $954 million, and $1.9 billion, respectively. These amounts were excluded from nonaccrual loans as reimbursement of insured amounts is proceeding normally. For further discussion, see Note 14 on pages 250–275 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)	2012	2011	2010
Business metrics (in billions)			
Origination volume by channel			
Retail	**$ 101.4**	$ 87.2	$ 68.8
Wholesale[(a)]	**0.3**	0.5	1.3
Correspondent[(a)]	**73.1**	52.1	75.3
CNT (negotiated transactions)	**6.0**	5.8	10.2
Total origination volume	**$ 180.8**	$ 145.6	$ 155.6
Application volume by channel			
Retail	**$ 164.5**	$ 137.2	$ 115.1
Wholesale[(a)]	**0.7**	1.0	2.4
Correspondent[(a)]	**100.5**	66.5	97.3
Total application volume	**$ 265.7**	$ 204.7	$ 214.8
Third-party mortgage loans serviced (period-end)	**$ 859.4**	$ 902.2	$ 967.5
Third-party mortgage loans serviced (average)	**847.0**	937.6	1,037.6
MSR net carrying value (period-end)	**7.6**	7.2	13.6
Ratio of MSR net carrying value (period-end) to third-party mortgage loans serviced (period-end)	**0.88%**	0.80%	1.41%
Ratio of loan servicing-related revenue to third-party mortgage loans serviced (average)	**0.46**	0.44	0.44
MSR revenue multiple[(b)]	**1.91x**	1.82x	3.20x

(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) Represents the ratio of MSR net 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)	2012	2011	2010
Loans, excluding PCI			
Period-end loans owned:			
Home equity	**$ 67,385**	$ 77,800	$ 88,385
Prime mortgage, including option ARMs	**41,316**	44,284	49,768
Subprime mortgage	**8,255**	9,664	11,287
Other	**633**	718	857
Total period-end loans owned	**$117,589**	$132,466	$150,297
Average loans owned:			
Home equity	**$ 72,674**	$ 82,886	$ 94,835
Prime mortgage, including option ARMs	**42,311**	46,971	53,431
Subprime mortgage	**8,947**	10,471	12,729
Other	**675**	773	954
Total average loans owned	**$124,607**	$141,101	$161,949
PCI loans			
Period-end loans owned:			
Home equity	**$ 20,971**	$ 22,697	$ 24,459
Prime mortgage	**13,674**	15,180	17,322
Subprime mortgage	**4,626**	4,976	5,398
Option ARMs	**20,466**	22,693	25,584
Total period-end loans owned	**$ 59,737**	$ 65,546	$ 72,763
Average loans owned:			
Home equity	**$ 21,840**	$ 23,514	$ 25,455
Prime mortgage	**14,400**	16,181	18,526
Subprime mortgage	**4,777**	5,170	5,671
Option ARMs	**21,545**	24,045	27,220
Total average loans owned	**$ 62,562**	$ 68,910	$ 76,872
Total Real Estate Portfolios			
Period-end loans owned:			
Home equity	**$ 88,356**	$100,497	$112,844
Prime mortgage, including option ARMs	**75,456**	82,157	92,674
Subprime mortgage	**12,881**	14,640	16,685
Other	**633**	718	857
Total period-end loans owned	**$177,326**	$198,012	$223,060
Average loans owned:			
Home equity	**$ 94,514**	$106,400	$120,290
Prime mortgage, including option ARMs	**78,256**	87,197	99,177
Subprime mortgage	**13,724**	15,641	18,400
Other	**675**	773	954
Total average loans owned	**$187,169**	$210,011	$238,821
Average assets	**$175,712**	$197,096	$226,961
Home equity origination volume	**1,420**	1,127	1,203

Credit data and quality statistics

As of or for the year ended December 31, (in millions, except ratios)	2012	2011	2010
Net charge-offs, excluding PCI loans[a]			
Home equity	**$ 2,385**	$ 2,472	$ 3,444
Prime mortgage, including option ARMs	**454**	682	1,573
Subprime mortgage	**486**	626	1,374
Other	**16**	25	59
Total net charge-offs	**$ 3,341**	$ 3,805	$ 6,450
Net charge-off rate, excluding PCI loans:[a]			
Home equity	**3.28%**	2.98%	3.63%
Prime mortgage, including option ARMs	**1.07**	1.45	2.95
Subprime mortgage	**5.43**	5.98	10.82
Other	**2.37**	3.23	5.90
Total net charge-off rate, excluding PCI loans	**2.68**	2.70	3.98
Net charge-off rate – reported:[a]			
Home equity	**2.52%**	2.32%	2.86%
Prime mortgage, including option ARMs	**0.58**	0.78	1.59
Subprime mortgage	**3.54**	4.00	7.47
Other	**2.37**	3.23	5.90
Total net charge-off rate – reported	**1.79**	1.81	2.70
30+ day delinquency rate, excluding PCI loans[b]	**5.03%**	5.69%	6.45%
Allowance for loan losses, excluding PCI loans	**$ 4,868**	$ 8,718	$ 9,718
Allowance for PCI loans	**5,711**	5,711	4,941
Allowance for loan losses	**$ 10,579**	$ 14,429	$ 14,659
Nonperforming assets[c][d]	**8,439**	6,638	8,424
Allowance for loan losses to period-end loans retained	**5.97%**	7.29%	6.57%
Allowance for loan losses to period-end loans retained, excluding PCI loans	**4.14**	6.58	6.47

(a) 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 138–149 of this Annual Report.

(b) The delinquency rate for PCI loans was 20.14%, 23.30%, and 28.20% at December 31, 2012, 2011 and 2010, respectively.

(c) Excludes PCI loans. Because the Firm is recognizing interest income on each pool of PCI loans, they are all considered to be performing.

(d) Nonperforming assets at December 31, 2012, included loans based upon regulatory guidance. For further information, see Consumer Credit Portfolio on pages 138–149 of this Annual Report.

Card, Merchant Services & Auto

Selected income statement data

Year ended December 31, (in millions, except ratios)	2012	2011	2010
Revenue			
Card income	$ 4,092	$ 4,127	$ 3,514
All other income	1,009	765	764
Noninterest revenue	5,101	4,892	4,278
Net interest income	13,669	14,249	16,194
Total net revenue	18,770	19,141	20,472
Provision for credit losses	3,953	3,621	8,570
Noninterest expense	8,216	8,045	7,178
Income before income tax expense	6,601	7,475	4,724
Net income	$ 4,007	$ 4,544	$ 2,872
Overhead ratio	44%	42%	35%

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[1] was 3.94%, down from 5.40% in the prior year; and the 30+ day delinquency rate[1] was 2.10%, down from 2.81% in the prior year. The net charge-off rate would have been 3.87% 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.

2011 compared with 2010

Card, Merchant Services & Auto net income was $4.5 billion, compared with $2.9 billion in the prior year. The increase was driven primarily by lower net charge-offs, partially offset by a lower reduction in the allowance for loan losses compared with the prior year.

Net revenue was $19.1 billion, a decrease of $1.3 billion, or 7%, from the prior year. Net interest income was $14.2 billion, down by $1.9 billion, or 12%. The decrease was driven by lower average loan balances, the impact of legislative changes, and a decreased level of fees. These decreases were largely offset by lower revenue reversals associated with lower charge-offs. Noninterest revenue was $4.9 billion, an increase of $614 million, or 14%, from the prior year. The increase was driven by the transfer of the Commercial Card business to Card from CIB in the first quarter of 2011, higher net interchange income, and lower partner revenue-sharing due to the impact of the Kohl's portfolio sale. These increases were partially offset by lower revenue from fee-based products. Excluding the impact of the Commercial Card business, noninterest revenue increased 8%.

The provision for credit losses was $3.6 billion, compared with $8.6 billion in the prior year. The current-year provision reflected lower net charge-offs and an improvement in delinquency rates, as well as a reduction of $3.9 billion to the allowance for loan losses due to lower estimated losses. The prior-year provision included a reduction of $6.2 billion to the allowance for loan losses. The Credit Card net charge-off rate[1] was 5.40%, down from 9.72% in the prior year; and the 30+ day delinquency rate[1] was 2.81%, down from 4.07% in the prior year. The Auto net charge-off rate was 0.32%, down from 0.63% in the prior year.

Noninterest expense was $8.0 billion, an increase of $867 million, or 12%, from the prior year, due to higher marketing expense and the inclusion of the Commercial Card business. Excluding the impact of the Commercial Card business, noninterest expense increased 8%.

In May 2009, the CARD Act was enacted. The changes required by the CARD Act were fully implemented by the end of the fourth quarter of 2010. The total estimated reduction in net income resulting from the CARD Act was approximately $750 million and $300 million in 2011 and 2010, respectively.

[1] The net charge-off and 30+ day delinquency rates presented for credit card loans, which include loans held-for-sale, are non-GAAP financial measures. Management uses this as an additional measure to assess the performance of the portfolio.

Selected metrics

As of or for the year ended December 31, (in millions, except ratios and where otherwise noted)	2012	2011	2010
Selected balance sheet data (period-end)			
Loans:			
Credit Card	**$127,993**	$132,277	$137,676
Auto	**49,913**	47,426	48,367
Student	**11,558**	13,425	14,454
Total loans	**$189,464**	$193,128	$200,497
Selected balance sheet data (average)			
Total assets	**$197,661**	$201,162	$213,041
Loans:			
Credit Card	**125,464**	128,167	144,367
Auto	**48,413**	47,034	47,603
Student	**12,507**	13,986	15,945
Total loans	**$186,384**	$189,187	$207,915
Business metrics			
Credit Card, excluding Commercial Card			
Sales volume (in billions)	**$ 381.1**	$ 343.7	$ 313.0
New accounts opened	**6.7**	8.8	11.3
Open accounts	**64.5**	65.2	90.7
Accounts with sales activity	**30.6**	30.7	39.9
% of accounts acquired online	**51%**	32%	15%
Merchant Services			
Merchant processing volume (in billions)	**$ 655.2**	$ 553.7	$ 469.3
Total transactions (in billions)	**29.5**	24.4	20.5
Auto & Student			
Origination volume (in billions)			
Auto	**$ 23.4**	$ 21.0	$ 23.0
Student	**0.2**	0.3	1.9

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)	2012	2011	2010
Credit data and quality statistics			
Net charge-offs:			
Credit Card	**$ 4,944**	$ 6,925	$ 14,037
Auto[(a)]	**188**	152	298
Student	**377**	434	387
Total net charge-offs	**$ 5,509**	$ 7,511	$ 14,722
Net charge-off rate:			
Credit Card[(b)]	**3.95%**	5.44%	9.73%
Auto[(a)]	**0.39**	0.32	0.63
Student[(c)]	**3.01**	3.10	2.61
Total net charge-off rate	**2.96**	3.99	7.12
Delinquency rates			
30+ day delinquency rate:			
Credit Card[(d)]	**2.10**	2.81	4.14
Auto	**1.25**	1.13	1.22
Student[(e)]	**2.13**	1.78	1.53
Total 30+ day delinquency rate	**1.87**	2.32	3.23
90+ day delinquency rate – Credit Card[(d)]	**1.02**	1.44	2.25
Nonperforming assets[(a)(f)]	**$ 265**	$ 228	$ 269
Allowance for loan losses:			
Credit Card	**$ 5,501**	$ 6,999	$ 11,034
Auto & Student	**954**	1,010	899
Total allowance for loan losses	**$ 6,455**	$ 8,009	$ 11,933
Allowance for loan losses to period-end loans:			
Credit Card[(d)]	**4.30%**	5.30%	8.14%
Auto & Student	**1.55**	1.66	1.43
Total allowance for loan losses to period-end loans	**3.41**	4.15	6.02

(a) Net charge-offs and net charge-off rates for the year ended December 31, 2012, included $53 million of charge-offs related to regulatory guidance. Excluding these 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%. Nonperforming assets at December 31, 2012, included $51 million of loans based upon regulatory guidance.

(b) Average credit card loans included loans held-for-sale of $433 million, $833 million and $148 million for the years ended December 31, 2012, 2011 and 2010, respectively. These amounts are excluded when calculating the net charge-off rate.

(c) Average student loans included loans held-for-sale of $1.1 billion for the year ended December 31, 2010. There were no loans held-for-sale for all other periods. This amount is excluded when calculating the net charge-off rate.

(d) Period-end credit card loans included loans held-for-sale of $102 million and $2.2 billion at December 31, 2011 and 2010, respectively. These amounts are excluded when calculating delinquency rates and the allowance for loan losses to period-end loans. There were no loans held-for-sale at December 31, 2012. No allowance for loan losses was recorded for these loans.

(e) Excluded student loans insured by U.S. government agencies under the FFELP of $894 million, $989 million and $1.1 billion at December 31, 2012, 2011 and 2010, respectively, that are 30 or more days past due. These amounts are excluded as reimbursement of insured amounts is proceeding normally.

(f) Nonperforming assets excluded student loans insured by U.S. government agencies under the FFELP of $525 million, $551 million and $625 million at December 31, 2012, 2011 and 2010, 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)	2012	2011	2010
Revenue			
Noninterest revenue	**$ 3,887**	$ 3,740	$ 3,277
Net interest income	**11,611**	12,084	13,886
Total net revenue	**15,498**	15,824	17,163
Provision for credit losses	**3,444**	2,925	8,037
Noninterest expense	**6,566**	6,544	5,797
Income before income tax expense	**5,488**	6,355	3,329
Net income	**$ 3,344**	$ 3,876	$ 2,074
Percentage of average loans:			
Noninterest revenue	**3.10%**	2.92%	2.27%
Net interest income	**9.25**	9.43	9.62
Total net revenue	**12.35**	12.35	11.89

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)	2012	2011	2010
Revenue			
Investment banking fees	$ 5,769	$ 5,859	$ 6,186
Principal transactions[(a)]	9,510	8,347	8,474
Lending- and deposit-related fees	1,948	2,098	2,075
Asset management, administration and commissions	4,693	4,955	5,110
All other income	1,184	1,264	1,044
Noninterest revenue	23,104	22,523	22,889
Net interest income	11,222	11,461	10,588
Total net revenue[(b)]	34,326	33,984	33,477
Provision for credit losses	(479)	(285)	(1,247)
Noninterest expense			
Compensation expense	11,313	11,654	12,418
Noncompensation expense	10,537	10,325	10,451
Total noninterest expense	21,850	21,979	22,869
Income before income tax expense	12,955	12,290	11,855
Income tax expense	4,549	4,297	4,137
Net income	$ 8,406	$ 7,993	$ 7,718

(a) Included DVA on structured notes and derivative liabilities measured at fair value. DVA gains/(losses) were $(930) million, $1.4 billion and $509 million for the years ended December 31, 2012, 2011 and 2010, 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 $2.0 billion, $1.9 billion and $1.7 billion for the years ended December 31, 2012, 2011 and 2010, respectively.

Selected income statement data

Year ended December 31, (in millions, except ratios)	2012	2011	2010
Financial ratios			
Return on common equity[(a)]	18%	17%	17%
Overhead ratio	64	65	68
Compensation expense as a percentage of total net revenue[(b)]	33	34	37
Revenue by business			
Advisory	$ 1,491	$ 1,792	$ 1,469
Equity underwriting	1,026	1,181	1,589
Debt underwriting	3,252	2,886	3,128
Total investment banking fees	5,769	5,859	6,186
Treasury Services	4,249	3,841	3,698
Lending	1,331	1,054	811
Total Banking	11,349	10,754	10,695
Fixed Income Markets[(c)]	15,412	14,784	14,738
Equity Markets	4,406	4,476	4,582
Securities Services	4,000	3,861	3,683
Credit Adjustments & Other[(d)(e)]	(841)	109	(221)
Total Markets & Investor Services	22,977	23,230	22,782
Total net revenue	$ 34,326	$ 33,984	$ 33,477

(a) Return on equity excluding DVA, a non-GAAP financial measure, was 19%, 15% and 16% for the years ended December 31, 2012, 2011 and 2010, respectively.
(b) Compensation expense as a percentage of total net revenue excluding DVA, a non-GAAP financial measure, was 32%, 36% and 38% for the years ended December 31, 2012, 2011 and 2010, respectively. In addition, compensation expense as a percent of total net revenue for the year ended December 31, 2010, excluding both DVA and the payroll tax expense related to the U.K. Bank Payroll Tax on certain compensation awarded from December 9, 2009, to April 5, 2010, to relevant banking employees, which is a non-GAAP financial measure, was 36%.
(c) Includes results of the synthetic credit portfolio that was transferred from the CIO effective July 2, 2012.
(d) Primarily includes credit portfolio credit valuation adjustments ("CVA") net of associated hedging activities; DVA on structured notes and derivative liabilities; and nonperforming derivative receivable results effective in the first quarter of 2012 and thereafter.
(e) Included DVA on structured notes and derivative liabilities measured at fair value. DVA gains/(losses) were $(930) million, $1.4 billion and $509 million for the years ended December 31, 2012, 2011 and 2010, respectively.

CIB provides several non-GAAP financial measures which exclude the impact of DVA on: net revenue, net income, compensation 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.

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 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.

Net revenue was $34.3 billion, compared with $34.0 billion in the prior year. 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 current-year benefit reflected recoveries and a net reduction in the allowance for credit losses, both related to the restructuring of certain nonperforming loans, current 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 49% 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.

2011 compared with 2010

Net income was $8.0 billion, up 4% compared with the prior year. These results primarily reflected higher net revenue compared with 2010, and lower noninterest expense, largely offset by a reduced benefit from the provision for credit losses. Net revenue included a $1.4 billion gain from DVA on structured notes and derivative liabilities resulting from the widening of the Firm's credit spreads. Excluding the impact of DVA, net revenue was $32.5 billion and net income was $7.1 billion, compared with $33.0 billion and $7.4 billion in the prior year, respectively.

Net revenue was $34.0 billion, compared with $33.5 billion in the prior year. Banking revenues were $10.8 billion, compared with $10.7 billion in the prior year. Investment banking fees were $5.9 billion, down 5% from the prior year; these consisted of debt underwriting fees of $2.9 billion (down 8%), advisory fees of $1.8 billion (up 22%) and equity underwriting fees of $1.2 billion (down 26%). Treasury Services revenue was $3.8 billion compared with $3.7 billion in the prior year driven by higher deposit balances as well as higher trade loan volumes, partially offset by the transfer of the Commercial Card business to Card in the first quarter of 2011. Lending revenue was $1.1 billion, compared with $811 million in the prior year, driven by lower fair value losses on hedges of the retained loan portfolio.

Markets and Investor Services revenue was $23.2 billion compared with $22.8 billion the year prior. Fixed Income Markets revenue was $14.8 billion, compared with $14.7 billion in the prior year, with continued solid client revenue. Equity Markets revenue was $4.5 billion compared with $4.6 billion the prior year on slightly lower performance. Securities Services revenue was $3.9 billion compared with $3.7 billion the prior year driven by higher net interest income due to higher deposit balances and net inflows of assets under custody. Credit Adjustments & Other was a gain of $109 million compared with a loss of $221 million in the prior year.

The provision for credit losses was a benefit of $285 million, compared with a benefit of $1.2 billion in the prior year. The benefit in 2011 reflected a net reduction in the allowance for loan losses largely driven by portfolio activity, partially offset by new loan growth. Net charge-offs were $161 million, compared with $736 million in the prior year.

Noninterest expense was $22.0 billion, down 4% driven primarily by lower compensation expense compared with the prior period which included the impact of the U.K. Bank Payroll Tax. Noncompensation expense was also lower compared with the prior year, which included higher litigation reserves. This decrease was partially offset by additional operating expense related to business growth as well as expenses related to exiting unprofitable business.

Return on equity was 17% on $47.0 billion of average allocated capital.

Selected metrics

As of or for the year ended December 31, (in millions, except headcount)	2012	2011	2010
Selected balance sheet data (period-end)			
Assets	**$ 876,107**	$ 845,095	$ 870,631
Loans:			
Loans retained[(a)]	**109,501**	111,099	80,208
Loans held-for-sale and loans at fair value	**5,749**	3,016	3,851
Total loans	**115,250**	114,115	84,059
Equity	**47,500**	47,000	46,500
Selected balance sheet data (average)			
Assets	**$ 854,670**	$ 868,930	$ 774,295
Trading assets-debt and equity instruments	**312,944**	348,234	309,383
Trading assets-derivative receivables	**74,874**	73,200	70,286
Loans:			
Loans retained[(a)]	**110,100**	91,173	77,620
Loans held-for-sale and loans at fair value	**3,502**	3,221	3,268
Total loans	**113,602**	94,394	80,888
Equity	**47,500**	47,000	46,500
Headcount	**52,151**	53,557	55,142

(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)	2012	2011	2010
Credit data and quality statistics			
Net charge-offs/(recoveries)	**$ (284)**	$ 161	$ 736
Nonperforming assets:			
Nonaccrual loans:			
Nonaccrual loans retained[(a)(b)]	**535**	1,039	3,171
Nonaccrual loans held-for-sale and loans at fair value	**82**	166	460
Total nonaccrual loans	**617**	1,205	3,631
Derivative receivables[(c)]	**239**	293	159
Assets acquired in loan satisfactions	**64**	79	117
Total nonperforming assets	**920**	1,577	3,907
Allowance for credit losses:			
Allowance for loan losses	**1,300**	1,501	1,928
Allowance for lending-related commitments	**473**	467	498
Total allowance for credit losses	**1,773**	1,968	2,426
Net charge-off/(recovery) rate[(a)]	**(0.26)%**	0.18%	0.95%
Allowance for loan losses to period-end loans retained[(a)]	**1.19**	1.35	2.40
Allowance for loan losses to period-end loans retained, excluding trade finance and conduits[(d)]	**2.52**	3.06	4.90
Allowance for loan losses to nonaccrual loans retained[(a)(b)]	**243**	144	61
Nonaccrual loans to total period-end loans	**0.54**	1.06	4.32
Business metrics			
Assets under custody ("AUC") by asset class (period-end) in billions:			
Fixed Income	**$ 11,745**	$ 10,926	$ 10,364
Equity	**5,637**	4,878	4,850
Other[(e)]	**1,453**	1,066	906
Total AUC	**$ 18,835**	$ 16,870	$ 16,120
Client deposits and other third party liabilities (average)[(f)]	**$355,766**	$318,802	$248,451
Trade finance loans (period-end)	**35,783**	36,696	21,156

(a) Loans retained includes credit portfolio loans, trade finance loans, other held-for-investment loans and overdrafts.
(b) Allowance for loan losses of $153 million, $263 million and $1.1 billion were held against these nonaccrual loans at December 31, 2012, 2011 and 2010, respectively.
(c) Prior to 2012, reported amounts had only included defaulted derivatives; effective in the first quarter of 2012, reported amounts included both defaulted derivatives as well as derivatives that have been risk rated as nonperforming.
(d) Management uses allowance for loan losses to period-end loans retained, excluding trade finance and conduits, a non-GAAP financial measure, as a more relevant metric to reflect the allowance coverage of the retained lending portfolio.

(e) Consists of mutual funds, unit investment trusts, currencies, annuities, insurance contracts, options and nonsecurities contracts.
(f) 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,	2012 Market Share	2012 Rankings	2011 Market Share	2011 Rankings	2010 Market Share	2010 Rankings
Global investment banking fees[b]	7.6%	#1	8.1%	#1	7.6%	#1
Debt, equity and equity-related						
Global	7.2	1	6.7	1	7.2	1
U.S.	11.5	1	11.1	1	11.1	1
Syndicated loans						
Global	9.6	1	10.8	1	8.5	2
U.S.	17.6	1	21.2	1	19.1	2
Long-term debt[c]						
Global	7.1	1	6.7	1	7.2	2
U.S.	11.6	1	11.2	1	10.9	2
Equity and equity-related						
Global[d]	7.8	4	6.8	3	7.3	3
U.S.	10.4	5	12.5	1	13.1	2
Announced M&A[e]						
Global	18.5	2	18.3	2	15.9	4
U.S.	21.5	2	26.7	2	21.9	3

(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.

According to Dealogic, the Firm was ranked #1 in Global Investment Banking Fees generated during 2012, based on revenue; #1 in Global Debt, Equity and Equity-related; #1 in Global Syndicated Loans; #1 in Global Long-Term Debt; #4 in Global Equity and Equity-related; and #2 in Global Announced M&A, based on volume.

International metrics

Year ended December 31, (in millions)	2012	2011	2010
Total net revenue[a]			
Europe/Middle East/Africa	$ 10,639	$ 11,102	$ 9,740
Asia/Pacific	4,100	4,589	4,775
Latin America/Caribbean	1,524	1,409	1,154
Total international net revenue	16,263	17,100	15,669
North America	18,063	16,884	17,808
Total net revenue	$ 34,326	$ 33,984	$ 33,477
Loans (period-end)[a]			
Europe/Middle East/Africa	$ 30,266	$ 29,484	$ 21,072
Asia/Pacific	27,193	27,803	18,251
Latin America/Caribbean	10,220	9,692	5,928
Total international loans	67,679	66,979	45,251
North America	41,822	44,120	34,957
Total loans	$ 109,501	$ 111,099	$ 80,208
Client deposits and other third-party liabilities (average)[a][b]			
Europe/Middle East/Africa	$ 127,326	$ 123,920	$ 102,014
Asia/Pacific	51,180	43,524	32,862
Latin America/Caribbean	11,052	12,625	11,558
Total international	$ 189,558	$ 180,069	$ 146,434
North America	166,208	138,733	102,017
Total client deposits and other third-party liabilities	$ 355,766	$ 318,802	$ 248,451
AUC (period-end) (in billions)[a]			
North America	$ 10,504	$ 9,735	$ 9,836
All other regions	8,331	7,135	6,284
Total AUC	$ 18,835	$ 16,870	$ 16,120

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

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 non-profit 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)	2012	2011	2010
Revenue			
Lending- and deposit-related fees	**$ 1,072**	$ 1,081	$ 1,099
Asset management, administration and commissions	**130**	136	144
All other income[(a)]	**1,081**	978	957
Noninterest revenue	**2,283**	2,195	2,200
Net interest income	**4,542**	4,223	3,840
Total net revenue[(b)]	**6,825**	6,418	6,040
Provision for credit losses	**41**	208	297
Noninterest expense			
Compensation expense[(c)]	**1,014**	936	863
Noncompensation expense[(c)]	**1,348**	1,311	1,301
Amortization of intangibles	**27**	31	35
Total noninterest expense	**2,389**	2,278	2,199
Income before income tax expense	**4,395**	3,932	3,544
Income tax expense	**1,749**	1,565	1,460
Net income	**$ 2,646**	$ 2,367	$ 2,084
Revenue by product			
Lending[(d)]	**$ 3,675**	$ 3,455	$ 2,749
Treasury services[(d)]	**2,428**	2,270	2,632
Investment banking	**545**	498	466
Other	**177**	195	193
Total Commercial Banking revenue	**$ 6,825**	$ 6,418	$ 6,040
Investment banking revenue, gross	**$ 1,597**	$ 1,421	$ 1,335
Revenue by client segment			
Middle Market Banking	**$ 3,334**	$ 3,145	$ 3,060
Commercial Term Lending	**1,194**	1,168	1,023
Corporate Client Banking	**1,456**	1,261	1,154
Real Estate Banking	**438**	416	460
Other	**403**	428	343
Total Commercial Banking revenue	**$ 6,825**	$ 6,418	$ 6,040
Financial ratios			
Return on common equity	**28%**	30%	26%
Overhead ratio	**35**	35	36

(a) CB client revenue from investment banking products and commercial card transactions is included in all other income.
(b) Included tax-equivalent adjustments, predominantly due to 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 $381 million, $345 million, and $238 million for the years ended December 31, 2012, 2011 and 2010, 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, 2011, product revenue from commercial card and standby letters of credit transactions was included in lending. For the years ended December 31, 2012 and 2011, the impact of the change was $434 million and $438 million, respectively. For the year ended December 31, 2010, it was reported in treasury services.

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, financial institution and non-profit 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.

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 $3.3 billion, an increase of $189 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 $1.5 billion, an increase of $195 million, or 15%, 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.

2011 compared with 2010

Record net income was $2.4 billion, an increase of $283 million, or 14%, from the prior year. The improvement was driven by higher net revenue and a reduction in the provision for credit losses, partially offset by an increase in noninterest expense.

Net revenue was a record $6.4 billion, up by $378 million, or 6%, compared with the prior year. Net interest income was $4.2 billion, up by $383 million, or 10%, driven by growth in client deposits and loan balances partially offset by spread compression on client deposits. Noninterest revenue was $2.2 billion, flat compared with the prior year.

On a client segment basis, revenue from Middle Market Banking was $3.1 billion, an increase of $85 million, or 3%, from the prior year due to higher client deposits and loan balances, partially offset by spread compression on client deposits and lower lending- and deposit-related fees. Revenue from Commercial Term Lending was $1.2 billion, an increase of $145 million, or 14%, and includes the full year impact of the purchase of a $3.5 billion loan portfolio during the third quarter of 2010. Revenue from Corporate Client Banking was $1.3 billion, an increase of $107 million, or 9% due to growth in client deposits and loan balances and higher lending- and deposit-related fees, partially offset by spread compression on client deposits. Revenue from Real Estate Banking was $416 million, a decrease of $44 million, or 10%, driven by a reduction in loan balances and lower gains on sales of loans and other real estate owned, partially offset by wider loan spreads.

The provision for credit losses was $208 million, compared with $297 million in the prior year. Net charge-offs were $187 million (0.18% net charge-off rate) compared with $909 million (0.94% net charge-off rate) in the prior year. The reduction was largely related to commercial real estate. The allowance for loan losses to period-end loans retained was 2.34%, down from 2.61% in the prior year. Nonaccrual loans were $1.1 billion, down by $947 million, or 47% from the prior year, largely as a result of commercial real estate repayments and loans sales.

Noninterest expense was $2.3 billion, an increase of $79 million, or 4% from the prior year, reflecting higher headcount-related expense.

Selected metrics

As of or for the year ended December 31, (in millions, except headcount and ratios)	2012	2011	2010
Selected balance sheet data (period-end)			
Total assets	$ 181,502	$ 158,040	$ 142,646
Loans:			
Loans retained	126,996	111,162	97,900
Loans held-for-sale and loans at fair value	1,212	840	1,018
Total loans	$ 128,208	$ 112,002	$ 98,918
Equity	9,500	8,000	8,000
Period-end loans by client segment			
Middle Market Banking	$ 50,701	$ 44,437	$ 37,942
Commercial Term Lending	43,512	38,583	37,928
Corporate Client Banking	21,558	16,747	11,678
Real Estate Banking	8,552	8,211	7,591
Other	3,885	4,024	3,779
Total Commercial Banking loans	$ 128,208	$ 112,002	$ 98,918
Selected balance sheet data (average)			
Total assets	$ 165,111	$ 146,230	$ 133,654
Loans:			
Loans retained	119,218	103,462	96,584
Loans held-for-sale and loans at fair value	882	745	422
Total loans	$ 120,100	$ 104,207	$ 97,006
Client deposits and other third-party liabilities[(a)]	195,912	174,729	138,862
Equity	9,500	8,000	8,000
Average loans by client segment			
Middle Market Banking	$ 47,198	$ 40,759	$ 35,059
Commercial Term Lending	40,872	38,107	36,978
Corporate Client Banking	19,383	13,993	11,926
Real Estate Banking	8,562	7,619	9,344
Other	4,085	3,729	3,699
Total Commercial Banking loans	$ 120,100	$ 104,207	$ 97,006
Headcount[(b)]	6,120	5,787	5,126

As of or for the year ended December 31, (in millions, except headcount and ratios)	2012	2011	2010
Credit data and quality statistics			
Net charge-offs	$ 35	$ 187	$ 909
Nonperforming assets			
Nonaccrual loans:			
Nonaccrual loans retained[(c)]	644	1,036	1,964
Nonaccrual loans held-for-sale and loans held at fair value	29	17	36
Total nonaccrual loans	673	1,053	2,000
Assets acquired in loan satisfactions	14	85	197
Total nonperforming assets	687	1,138	2,197
Allowance for credit losses:			
Allowance for loan losses	2,610	2,603	2,552
Allowance for lending-related commitments	183	189	209
Total allowance for credit losses	2,793	2,792	2,761
Net charge-off rate[(d)]	0.03%	0.18%	0.94%
Allowance for loan losses to period-end loans retained	2.06	2.34	2.61
Allowance for loan losses to nonaccrual loans retained[(c)]	405	251	130
Nonaccrual loans to total period-end loans	0.52	0.94	2.02

(a) 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.
(b) 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 96 of this Annual Report.
(c) Allowance for loan losses of $107 million, $176 million and $340 million was held against nonaccrual loans retained at December 31, 2012, 2011 and 2010, respectively.
(d) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off rate.

Asset Management, with client assets of $2.1 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 trust and estate, 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)	2012	2011	2010
Revenue			
Asset management, administration and commissions	$ 7,041	$ 6,748	$ 6,374
All other income	806	1,147	1,111
Noninterest revenue	7,847	7,895	7,485
Net interest income	2,099	1,648	1,499
Total net revenue	9,946	9,543	8,984
Provision for credit losses	86	67	86
Noninterest expense			
Compensation expense	4,405	4,152	3,763
Noncompensation expense	2,608	2,752	2,277
Amortization of intangibles	91	98	72
Total noninterest expense	7,104	7,002	6,112
Income before income tax expense	2,756	2,474	2,786
Income tax expense	1,053	882	1,076
Net income	$ 1,703	$ 1,592	$ 1,710
Revenue by client segment			
Private Banking	$ 5,426	$ 5,116	$ 4,860
Institutional	2,386	2,273	2,180
Retail	2,134	2,154	1,944
Total net revenue	$ 9,946	$ 9,543	$ 8,984
Financial ratios			
Return on common equity	24%	25%	26%
Overhead ratio	71	73	68
Pretax margin ratio	28	26	31

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.

2011 compared with 2010

Net income was $1.6 billion, a decrease of $118 million, or 7%, from the prior year. These results reflected higher noninterest expense, largely offset by higher net revenue and a lower provision for credit losses.

Net revenue was $9.5 billion, an increase of $559 million, or 6%, from the prior year. Noninterest revenue was $7.9 billion, up $410 million, or 5%, due to net inflows to products with higher margins and the effect of higher market levels, partially offset by lower performance fees and lower loan-related revenue. Net interest income was $1.6 billion, up $149 million, or 10%, due to higher deposit and loan balances, partially offset by narrower deposit spreads.

Revenue from Private Banking was $5.1 billion, up 5% from the prior year due to higher deposit and loan balances and higher brokerage revenue, partially offset by narrower deposit spreads and lower loan-related revenue. Revenue from Institutional was $2.3 billion, up 4% due to net inflows to products with higher margins and the effect of higher market levels. Revenue from Retail was $2.2 billion, up 11% due to net inflows to products with higher margins and the effect of higher market levels.

The provision for credit losses was $67 million, compared with $86 million in the prior year.

Noninterest expense was $7.0 billion, an increase of $890 million, or 15%, from the prior year, due to higher headcount-related expense and non-client-related litigation, partially offset by lower performance-based compensation.

Selected metrics

Business metrics

As of or for the year ended December 31, (in millions, except headcount, ranking data, ratios and where otherwise noted)	2012	2011	2010
Number of:			
Client advisors[(a)]	2,821	2,883	2,696
Retirement planning services participants (in thousands)	1,961	1,798	1,580
% of customer assets in 4 & 5 Star Funds[(b)]	47%	43%	49%
% of AUM in 1st and 2nd quartiles:[(c)]			
1 year	67	48	67
3 years	74	72	72
5 years	76	78	80
Selected balance sheet data (period-end)			
Total assets	$ 108,999	$ 86,242	$ 68,997
Loans[(d)]	80,216	57,573	44,084
Equity	7,000	6,500	6,500
Selected balance sheet data (average)			
Total assets	$ 97,447	$ 76,141	$ 65,056
Loans	68,719	50,315	38,948
Deposits	129,208	106,421	86,096
Equity	7,000	6,500	6,500
Headcount	18,480	18,036	16,918
Credit data and quality statistics			
Net charge-offs	$ 64	$ 92	$ 76
Nonaccrual loans	250	317	375
Allowance for credit losses:			
Allowance for loan losses	248	209	267
Allowance for lending-related commitments	5	10	4
Total allowance for credit losses	253	219	271
Net charge-off rate	0.09%	0.18%	0.20%
Allowance for loan losses to period-end loans	0.31	0.36	0.61
Allowance for loan losses to nonaccrual loans	99	66	71
Nonaccrual loans to period-end loans	0.31	0.55	0.85

(a) Effective January 1, 2012, the previously disclosed separate metric for client advisors and JPMorgan Securities brokers were combined into one metric that reflects the number of Private Banking client-facing representatives.
(b) Derived from Morningstar for the U.S., the U.K., Luxembourg, France, Hong Kong and Taiwan; and Nomura for Japan.
(c) 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.
(d) Included $10.9 billion of prime mortgage loans reported in the Consumer, excluding credit card, loan portfolio at December 31, 2012.

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).

Assets under supervision

2012 compared with 2011

Assets under supervision 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.

2011 compared with 2010

Assets under supervision were $1.9 trillion at December 31, 2011, an increase of $81 billion, or 4%, from the prior year. Assets under management were $1.3 trillion, an increase of $38 billion, or 3%. Both increases were due to net inflows to long-term and liquidity products, partially offset by the impact of lower market levels. Custody, brokerage, administration and deposit balances were $585 billion, up by $43 billion, or 8%, due to deposit and custody inflows.

Assets under supervision

December 31, (in billions)	2012	2011	2010
Assets by asset class			
Liquidity	$ 475	$ 515	$ 497
Fixed income	386	336	289
Equity and multi-asset	447	372	404
Alternatives	118	113	108
Total assets under management	1,426	1,336	1,298
Custody/brokerage/administration/deposits	669	585	542
Total assets under supervision	$ 2,095	$ 1,921	$ 1,840
Assets by client segment			
Private Banking	$ 318	$ 291	$ 284
Institutional	741	722	703
Retail	367	323	311
Total assets under management	$ 1,426	$ 1,336	$ 1,298
Private Banking	$ 877	$ 781	$ 731
Institutional	741	723	703
Retail	477	417	406
Total assets under supervision	$ 2,095	$ 1,921	$ 1,840
Mutual fund assets by asset class			
Liquidity	$ 410	$ 458	$ 446
Fixed income	136	107	92
Equity and multi-asset	180	147	169
Alternatives	5	8	7
Total mutual fund assets	$ 731	$ 720	$ 714

Year ended December 31, (in billions)	2012	2011	2010
Assets under management rollforward			
Beginning balance	$ 1,336	$ 1,298	$ 1,249
Net asset flows:			
Liquidity	(43)	18	(89)
Fixed income	30	40	50
Equity, multi-asset and alternatives	30	13	19
Market/performance/other impacts	73	(33)	69
Ending balance, December 31	$ 1,426	$ 1,336	$ 1,298
Assets under supervision rollforward			
Beginning balance	$ 1,921	$ 1,840	$ 1,701
Net asset flows	60	123	28
Market/performance/other impacts	114	(42)	111
Ending balance, December 31	$ 2,095	$ 1,921	$ 1,840

International metrics

Year ended December 31, (in billions, except where otherwise noted)	2012	2011	2010
Total net revenue (in millions)[(a)]			
Europe/Middle East/Africa	$ 1,641	$ 1,704	$ 1,642
Asia/Pacific	967	971	925
Latin America/Caribbean	772	808	541
North America	6,566	6,060	5,876
Total net revenue	$ 9,946	$ 9,543	$ 8,984
Assets under management			
Europe/Middle East/Africa	$ 258	$ 278	$ 282
Asia/Pacific	114	105	111
Latin America/Caribbean	45	34	35
North America	1,009	919	870
Total assets under management	$ 1,426	$ 1,336	$ 1,298
Assets under supervision			
Europe/Middle East/Africa	$ 317	$ 329	$ 331
Asia/Pacific	160	139	147
Latin America/Caribbean	110	89	84
North America	1,508	1,364	1,278
Total assets under supervision	$ 2,095	$ 1,921	$ 1,840

(a) Regional revenue is based on the domicile of the client.

CORPORATE/PRIVATE EQUITY

The Corporate/Private Equity segment comprises Private Equity, Treasury, 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, capital and structural interest rate and foreign exchange risks. The corporate staff units include Central Technology and Operations, Internal Audit, Executive, Finance, Human Resources, Legal & Compliance, Global Real Estate, General Services, Operational Control, Risk Management, and Corporate Responsibility & Public Policy. 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

Year ended December 31, (in millions, except headcount)	2012	2011	2010
Revenue			
Principal transactions	$ (4,268)	$ 1,434	$ 2,208
Securities gains	2,024	1,600	2,898
All other income	2,452	595	245
Noninterest revenue	208	3,629	5,351
Net interest income	(1,360)	506	2,063
Total net revenue[(a)]	(1,152)	4,135	7,414
Provision for credit losses	(37)	(36)	14
Noninterest expense			
Compensation expense	2,622	2,324	2,276
Noncompensation expense[(b)]	7,353	6,693	8,641
Subtotal	9,975	9,017	10,917
Net expense allocated to other businesses	(5,379)	(4,909)	(4,607)
Total noninterest expense	4,596	4,108	6,310
Income before income tax expense/(benefit)	(5,711)	63	1,090
Income tax expense/(benefit)[(c)]	(3,629)	(759)	(190)
Net income	$ (2,082)	$ 822	$ 1,280
Total net revenue			
Private equity	$ 601	$ 836	$ 1,239
Treasury and CIO	(3,064)	3,196	6,642
Other Corporate	1,311	103	(467)
Total net revenue	$ (1,152)	$ 4,135	$ 7,414
Net income			
Private equity	$ 292	$ 391	$ 588
Treasury and CIO	(2,093)	1,349	3,576
Other Corporate	(281)	(918)	(2,884)
Total net income	$ (2,082)	$ 822	$ 1,280
Total assets (period-end)	$ 728,925	$ 693,108	$ 526,556
Headcount	22,747	21,334	19,419

(a) Included tax-equivalent adjustments, predominantly due to tax-exempt income from municipal bond investments of $443 million, $298 million and $226 million for the years ended December 31, 2012, 2011 and 2010, respectively.

(b) Included litigation expense of $3.7 billion, $3.2 billion and $5.7 billion for the years ended December 31, 2012, 2011 and 2010, respectively.

(c) Includes tax benefits recognized upon the resolution of tax audits.

2012 compared with 2011

Net loss was $2.1 billion, compared with a net income of $822 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 $281 million, compared with a net loss of $918 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 $3.9 billion was up $943 million 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.

2011 compared with 2010

Net income was $822 million, compared with $1.3 billion in the prior year.

Private Equity reported net income of $391 million, compared with $588 million in the prior year. Net revenue was $836 million, a decrease of $403 million, primarily related to net write-downs on private investments and the absence of prior year gains on sales. Noninterest expense was $238 million, a decrease of $85 million from the prior year.

Treasury and CIO reported net income of $1.3 billion, compared with net income of $3.6 billion in the prior year. Net revenue was $3.2 billion, including $1.4 billion of security gains. Net interest income in 2011 was lower compared with 2010, primarily driven by repositioning of the investment securities portfolio and lower funding benefits from financing the portfolio.

Other Corporate reported a net loss of $918 million, compared with a net loss of $2.9 billion in the prior year. Net revenue was $103 million, compared with a net loss of $467 million in the prior year. Noninterest expense was $2.9 billion which included $3.2 billion of additional litigation reserves, predominantly for mortgage-related matters. Noninterest expense in the prior year was $5.5 billion which included $5.7 billion of additional litigation reserves.

Treasury and CIO overview

Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding, capital and structural interest rate and foreign exchange risks. 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.

Treasury is responsible for, among other functions, funds transfer pricing. Funds transfer pricing is used to transfer structural interest rate risk and foreign exchange risk of the Firm to Treasury and CIO and allocate interest income and expense to each business based on market rates. CIO, through its management of the investment portfolio, generates net interest income to pay the lines of business market rates. Any variance (whether positive or negative) between amounts generated by CIO through its investment portfolio activities and amounts paid to or received by the lines of business are retained by CIO, and are not reflected in line of business segment results. Treasury and CIO activities operate in support of the overall Firm.

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 investment portfolio. Unrealized gains and losses on securities held in the AFS portfolio are recorded in other comprehensive income. For further information about securities in the AFS portfolio, see Note 3 and Note 12 on pages 196–214 and 244–248, respectively, of this Annual Report. CIO also uses securities that are not classified within the AFS portfolio, as well as derivatives, to meet the Firm's asset-liability management objectives. Securities not classified within the AFS portfolio are recorded in trading assets and liabilities; realized and unrealized gains and losses on such securities are recorded in the principal transactions revenue line in the Consolidated Statements of Income. For further information about securities included in trading assets and liabilities, see Note 3 on pages 196–214 of this Annual Report. Derivatives used by CIO are also classified as trading assets and liabilities. For further information on derivatives, including the classification of realized and unrealized gains and losses, see Note 6 on pages 218–227 of this Annual Report.

CIO's AFS portfolio consists of U.S. and non-U.S. government securities, agency and non-agency mortgage-backed securities, other asset-backed securities and corporate and municipal debt securities. Treasury's AFS portfolio consists of U.S. and non-U.S. government securities and corporate debt securities. At December 31, 2012, the total Treasury and CIO AFS portfolios were $344.1 billion and $21.3 billion, respectively; the average credit rating of the securities comprising the Treasury and CIO AFS portfolios 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 244–248 of this Annual Report for further information on the details of the Firm's AFS portfolio.

For further information on liquidity and funding risk, see Liquidity Risk Management on pages 127–133 of this Annual Report. For information on interest rate, foreign exchange and other risks, and CIO VaR and the Firm's nontrading interest rate-sensitive revenue at risk, see Market Risk Management on pages 163–169 of this Annual Report.

Selected income statement and balance sheet data

As of or for the year ended December 31, (in millions)	2012	2011	2010
Securities gains[(a)]	$ 2,028	$ 1,385	$ 2,897
Investment securities portfolio (average)	358,029	330,885	323,673
Investment securities portfolio (period–end)	365,421	355,605	310,801
Mortgage loans (average)	10,241	13,006	9,004
Mortgage loans (period-end)	7,037	13,375	10,739

(a) Reflects repositioning of the investment securities portfolio.

Private Equity portfolio

Selected income statement and balance sheet data

Year ended December 31, (in millions)	2012	2011	2010
Private equity gains/(losses)			
Realized gains	$ 17	$ 1,842	$ 1,409
Unrealized gains/(losses)[(a)]	639	(1,305)	(302)
Total direct investments	656	537	1,107
Third-party fund investments	134	417	241
Total private equity gains/(losses)[(b)]	$ 790	$ 954	$ 1,348

(a) Unrealized gains/(losses) contain 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)	2012	2011	2010
Publicly held securities			
Carrying value	$ 578	$ 805	$ 875
Cost	350	573	732
Quoted public value	578	896	935
Privately held direct securities			
Carrying value	5,379	4,597	5,882
Cost	6,584	6,793	6,887
Third-party fund investments[(b)]			
Carrying value	2,117	2,283	1,980
Cost	1,963	2,452	2,404
Total private equity portfolio			
Carrying value	$ 8,074	$ 7,685	$ 8,737
Cost	$ 8,897	$ 9,818	$ 10,023

(a) For more information on the Firm's policies regarding the valuation of the private equity portfolio, see Note 3 on pages 196–214 of this Annual Report.
(b) Unfunded commitments to third-party private equity funds were $370 million, $789 million and $1.0 billion at December 31, 2012, 2011 and 2010, respectively.

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. The portfolio represented 5.2% of the Firm's stockholders' equity less goodwill at December 31, 2012, down from 5.7% at December 31, 2011.

2011 compared with 2010

The carrying value of the private equity portfolio at December 31, 2011, was $7.7 billion, down from $8.7 billion at December 31, 2010. The decrease in the portfolio was predominantly driven by sales of investments, partially offset by new investments. The portfolio represented 5.7% of the Firm's stockholders' equity less goodwill at December 31, 2011, down from 6.9% at December 31, 2010.

INTERNATIONAL OPERATIONS

During the years ended December 31, 2012, 2011 and 2010, the Firm recorded approximately $18.5 billion, $24.5 billion and $22.0 billion, respectively, of managed revenue derived from clients, customers and counterparties domiciled outside of North America. Of those amounts, approximately 57%, 66% and 64%, respectively, were derived from Europe/Middle East/Africa ("EMEA"); approximately 30%, 25% and 28%, respectively, from Asia/Pacific; and approximately 13%, 9% and 8%, respectively, from Latin America/Caribbean. For additional information regarding international operations, see Note 32 on page 326 of this Annual Report.

International wholesale activities

The Firm is committed to further expanding its wholesale business activities outside of the United States, and it continues to add additional client-serving bankers, as well as product and sales support personnel, to address the needs of the Firm's clients located in these regions. With a comprehensive and coordinated international business strategy and growth plan, efforts and investments for growth outside of the United States will continue to be accelerated and prioritized.

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 clients, revenue and selected balance-sheet data.

As of or for the year ended December 31,	EMEA			Asia/Pacific			Latin America/Caribbean		
(in millions, except headcount and where otherwise noted)	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Revenue[(a)]	**$ 10,398**	$ 16,141	$ 14,149	**$ 5,590**	$ 5,971	$ 6,082	**$ 2,327**	$ 2,232	$ 1,697
Countries of operation	**33**	33	33	**17**	16	16	**9**	9	8
New offices	**—**	1	6	**2**	2	7	**—**	4	2
Total headcount[(b)]	**15,533**	16,178	16,122	**20,548**	20,172	19,153	**1,436**	1,378	1,201
Front-office headcount	**5,917**	5,993	5,872	**4,195**	4,253	4,168	**644**	569	486
Significant clients[(c)]	**992**	938	900	**492**	479	451	**164**	140	126
Deposits (average)[(d)]	**$ 169,693**	$ 168,882	$ 142,859	**$ 57,329**	$ 57,684	$ 53,268	**$ 4,823**	$ 5,318	$ 6,263
Loans (period-end)[(e)]	**40,760**	36,637	27,934	**30,287**	31,119	20,552	**30,322**	25,141	16,480
Assets under management (in billions)	**258**	278	282	**114**	105	111	**45**	34	35
Assets under supervision (in billions)	**317**	329	331	**160**	139	147	**110**	89	84
Assets under custody (in billions)	**6,502**	5,430	4,810	**1,577**	1,426	1,321	**252**	279	153

Note: International wholesale operations is comprised of CIB, AM, CB and Treasury and CIO, and prior-period amounts have been revised to conform with current allocation methodologies.

(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) Total headcount includes all employees, including those in service centers, located in the region.
(c) 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).
(d) Deposits are based on the location from which the client relationship is managed.
(e) Loans outstanding are based predominantly on the domicile of the borrower and exclude loans held-for-sale and loans carried at fair value.

BALANCE SHEET ANALYSIS

Selected Consolidated Balance Sheets data

December 31, (in millions)	2012	2011
Assets		
Cash and due from banks	$ 53,723	$ 59,602
Deposits with banks	121,814	85,279
Federal funds sold and securities purchased under resale agreements	296,296	235,314
Securities borrowed	119,017	142,462
Trading assets:		
Debt and equity instruments	375,045	351,486
Derivative receivables	74,983	92,477
Securities	371,152	364,793
Loans	733,796	723,720
Allowance for loan losses	(21,936)	(27,609)
Loans, net of allowance for loan losses	711,860	696,111
Accrued interest and accounts receivable	60,933	61,478
Premises and equipment	14,519	14,041
Goodwill	48,175	48,188
Mortgage servicing rights	7,614	7,223
Other intangible assets	2,235	3,207
Other assets	101,775	104,131
Total assets	$2,359,141	$2,265,792
Liabilities		
Deposits	$1,193,593	$1,127,806
Federal funds purchased and securities loaned or sold under repurchase agreements	240,103	213,532
Commercial paper	55,367	51,631
Other borrowed funds	26,636	21,908
Trading liabilities:		
Debt and equity instruments	61,262	66,718
Derivative payables	70,656	74,977
Accounts payable and other liabilities	195,240	202,895
Beneficial interests issued by consolidated VIEs	63,191	65,977
Long-term debt	249,024	256,775
Total liabilities	2,155,072	2,082,219
Stockholders' equity	204,069	183,573
Total liabilities and stockholders' equity	$2,359,141	$2,265,792

Consolidated Balance Sheets overview

JPMorgan Chase's total assets increased 4% and total liabilities increased 3% from December 31, 2011. The increase in total assets was predominantly due to higher securities purchased under resale agreements and deposits with banks, reflecting the deployment of the Firm's excess cash. The increase in total liabilities was predominantly due to higher deposits, reflecting a higher level of consumer and wholesale balances; and higher securities sold under repurchase agreements associated with financing the Firm's assets. The increase in stockholders' equity was predominantly due to net income.

The following paragraphs provide a description of specific line captions on the Consolidated Balance Sheets. For the line captions that had significant changes from December 31, 2011, a discussion of the changes is also included.

Cash and due from banks and deposits with banks
The Firm uses these instruments as part of its cash and liquidity management activities. The net increase reflected the placement of the Firm's excess funds with various central banks, primarily Federal Reserve Banks. For additional information, refer to the Liquidity Risk Management discussion on pages 127–133 of this Annual Report.

Federal funds sold and securities purchased under resale agreements; and securities borrowed
The Firm uses these instruments to support its client-driven market-making and risk management activities and to manage its cash positions. In particular, securities purchased under resale agreements and securities borrowed are used to provide funding or liquidity to clients through short-term purchases and borrowings of their securities by the Firm. The increase in securities purchased under resale agreements was due primarily to deployment of the Firm's excess cash by Treasury; the decrease in securities borrowed reflects a shift in deployment of excess cash to resale agreements as well as lower client activity in CIB.

Trading assets and liabilities – debt and equity instruments
Debt and equity trading instruments are used primarily for client-driven market-making activities. These instruments consist predominantly of fixed income securities, including government and corporate debt; equity securities, including convertible securities; loans, including prime mortgages and other loans warehoused by CCB and CIB for sale or securitization purposes and accounted for at fair value; and physical commodities inventories generally carried at the lower of cost or market (market approximates fair value). The increase in trading assets in 2012 was driven by client-driven market-making activity in CIB, which resulted in higher levels of non-U.S. government debt securities, partially offset by a decrease in physical commodities inventories. For additional information, refer to Note 3 on pages 196–214 of this Annual Report.

Trading assets and liabilities – derivative receivables and payables
The Firm uses derivative instruments predominantly for market-making activities. Derivatives enable customers and the Firm to manage their exposure to fluctuations in interest rates, currencies and other markets. The Firm also uses derivative instruments to manage its credit exposure.

Derivative receivables decreased primarily related to the decline in the U.S. dollar, and tightening of credit spreads;

these changes resulted in reductions to interest rate, credit derivative, and foreign exchange balances.

Derivative payables decreased primarily related to the decline in the U.S. dollar, and tightening of credit spreads; these changes resulted in reductions to interest rate, and credit derivative balances. For additional information, refer to Derivative contracts on pages 156–159, and Note 3 and Note 6 on pages 196–214 and 218–227, respectively, of this Annual Report.

Securities

Substantially all of the securities portfolio is classified as AFS and used primarily to manage the Firm's exposure to interest rate movements and to invest cash resulting from excess liquidity. Securities increased largely due to reinvestment and repositioning of the CIO AFS portfolio, which increased the levels of non-U.S. government debt and residential mortgage-backed securities ("MBS") as well as obligations of U.S. states and municipalities; the increase was mainly offset by decreases in corporate debt securities and U.S. government agency-issued MBS. For additional information related to securities, refer to the discussion in the Corporate/Private Equity segment on pages 102–104, and Note 3 and Note 12 on pages 196–214 and 244–248, respectively, of this Annual Report.

Loans and allowance for loan losses

The Firm provides loans to a variety of customers, ranging from large corporate and institutional clients, to individual customers and small businesses. Loan balances increased throughout 2012 due to higher levels of wholesale loans, primarily in CB and AM, partially offset by lower balances of consumer loans. The increase in wholesale loans was driven by higher wholesale activity across most of the Firm's regions and businesses. The decline in consumer, excluding credit card, loans was predominantly due to mortgage-related paydowns, portfolio run-off, and net charge-offs. The decline in credit card loans was due to higher repayment rates.

The allowance for loan losses decreased across all portfolio segments, but the most significant portion of the reduction occurred in the consumer allowances, predominantly related to the continuing trend of improved delinquencies across most portfolios, notably non-PCI residential real estate and credit card. The wholesale allowance also decreased, driven by recoveries, the restructuring of certain nonperforming loans, current credit trends and other portfolio activity.

For a more detailed discussion of the loan portfolio and the allowance for loan losses, refer to Credit Risk Management on pages 134–162, and Notes 3, 4, 14 and 15 on pages 196–214, 214–216, 250–275 and 276–279, respectively, of this Annual Report.

Premises and Equipment

The Firm's premises and equipment consist of land, buildings, leasehold improvements, furniture and fixtures, hardware and software, and other equipment. The increase in premises and equipment was largely due to retail branch expansion in the U.S. and other investments in facilities globally.

Mortgage servicing rights

MSRs represent the fair value of net cash flows expected to be received for performing specified mortgage-servicing activities for third parties. The increase in the MSR asset was predominantly due to originations and purchases, partially offset by dispositions and amortization. These net additions were partially offset by changes due to market interest rates and, to a lesser extent, other changes in valuation due to inputs and assumptions. For additional information on MSRs, see Note 17 on pages 291–295 of this Annual Report.

Other assets

Other assets consist of private equity and other instruments, cash collateral pledged, corporate- and bank-owned life insurance policies, assets acquired in loan satisfactions (including real estate owned), and all other assets. Other assets remained relatively flat compared to the prior year.

Deposits

Deposits represent a liability to both retail and wholesale customers related to non-brokerage accounts held on their behalf. Deposits provide a stable and consistent source of funding for the Firm. The increase in deposits was due to growth in both consumer and wholesale deposits. Consumer deposit balances increased throughout the year, largely driven by a focus on sales activity, lower attrition due to initiatives to improve customer experience and the impact of network expansion. The increase in wholesale client balances was due to higher client operating balances in CIB; a higher level of seasonal inflows at year-end in both CIB and AM; and in AM, clients realizing capital gains in anticipation of changes in U.S. tax rates; these increases were partially offset by lower balances related to changes in FDIC insurance coverage. For more information on deposits, refer to the CCB and AM segment discussions on pages 80–91 and 99–101, respectively; the Liquidity Risk Management discussion on pages 127–133; and Notes 3 and 19 on pages 196–214 and 296, respectively, of this Annual Report. For more information on wholesale client deposits, refer to the CB and CIB segment discussions on pages 96–98 and 92–95, respectively, of this Annual Report.

Federal funds purchased and securities loaned or sold under repurchase agreements

The Firm uses these instruments as part of its liquidity management activities and to support its client-driven market-making activities. In particular, federal funds purchased and securities loaned or sold under repurchase agreements are used by the Firm as short-term funding sources and to provide securities to clients for their short-term liquidity purposes. The increase was due to higher secured financing of the Firm's assets. For additional information on the Firm's Liquidity Risk Management, see pages 127–133 of this Annual Report.

Commercial paper and other borrowed funds

The Firm uses commercial paper and other borrowed funds in its liquidity management activities to meet short-term funding needs, and in connection with a CIB liquidity management product, whereby clients choose to sweep their deposits into commercial paper. Commercial paper increased due to higher commercial paper issuance from wholesale funding markets to meet short-term funding needs, partially offset by a decline in the volume of liability balances related to CIB's liquidity management product. Other borrowed funds increased due to higher secured short-term borrowings and unsecured 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 127–133 of this Annual Report.

Accounts payable and other liabilities

Accounts payable and other liabilities consist of payables to customers; payables to brokers, dealers and clearing organizations; payables from failed securities purchases; income taxes payable; accrued expense, including interest-bearing liabilities; and all other liabilities, including litigation reserves and obligations to return securities received as collateral. Accounts payable and other liabilities decreased predominantly due to lower CIB client balances, partially offset by increases in income taxes payables and litigation reserves related to mortgage foreclosure-related matters. For additional information on the Firm's accounts payable and other liabilities, see Note 20 on page 296 of this Annual Report.

Beneficial interests issued by consolidated VIEs

Beneficial interests issued by consolidated VIEs represent interest-bearing beneficial-interest liabilities, which decreased primarily due to credit card maturities and a reduction in outstanding conduit commercial paper held by third parties, partially offset by new credit card issuances and new consolidated municipal bond vehicles. For additional information on Firm-sponsored VIEs and loan securitization trusts, see Off–Balance Sheet Arrangements, and Note 16 on pages 280–291 of this Annual Report.

Long-term debt

The Firm uses long-term debt (including TruPS and long-term FHLB advances) to provide cost-effective and diversified sources of funds and as critical components of the Firm's liquidity and capital management activities. Long-term debt decreased, primarily due to the redemption of TruPS. For additional information on the Firm's long-term debt activities, see the Liquidity Risk Management discussion on pages 127–133 of this Annual Report.

Stockholders' equity

Total stockholders' equity increased, predominantly due to net income; a net increase in AOCI driven by net unrealized market value increases on AFS securities, predominantly non-U.S. residential MBS and corporate debt securities, and obligations of U.S. states and municipalities, partially offset by realized gains; issuances and commitments to issue under the Firm's employee stock-based compensation plans; and the issuance of preferred stock. The increase was partially offset by the repurchases of common equity, and the declaration of cash dividends on common and preferred stock.

JPMorgan Chase 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 280–291 for further information on these types of SPEs.

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

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

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

For certain liquidity commitments to SPEs, JPMorgan Chase Bank, N.A., could be required to provide funding if its short-term credit rating were downgraded below specific levels, primarily "P-1", "A-1" and "F1" for Moody's, Standard & Poor's and Fitch, respectively. These liquidity commitments support the issuance of asset-backed commercial paper by both Firm-administered consolidated and third-party sponsored nonconsolidated SPEs. In the event of such a short-term credit rating downgrade, JPMorgan Chase Bank, N.A., absent other solutions, would be required to provide funding to the SPE, if the commercial paper could not be reissued as it matured. The aggregate amounts of commercial paper outstanding, issued by both Firm-administered and third-party sponsored SPEs, that are held by third parties as of December 31, 2012 and 2011, was $18.1 billion and $19.7 billion, respectively. The aggregate amounts of commercial paper outstanding could increase in future periods should clients of the Firm-administered consolidated or third-party sponsored nonconsolidated SPEs draw down on certain unfunded lending-related commitments. These unfunded lending-related commitments were $10.9 billion and $11.0 billion at December 31, 2012 and 2011, 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 284–285 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 280–291 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 commitments and guarantees and the Firm's accounting for them, see Lending-related commitments on page 156, and Note 29 (including a table that presents, as of December 31, 2012, the amounts, by contractual maturity, of off–balance sheet lending-related financial instruments, guarantees and other commitments) on pages 308–315, of this Annual Report. For a discussion of loan repurchase liabilities, see Mortgage repurchase liability on pages 111–115 and Note 29 on pages 308–315, respectively, of this Annual Report.

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 accompanying table summarizes, by remaining maturity, JPMorgan Chase's significant contractual cash obligations at December 31, 2012. 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. 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 111–115 of this Annual Report. For further discussion of other obligations, see the Notes to Consolidated Financial Statements in this Annual Report.

Contractual cash obligations

By remaining maturity at December 31, (in millions)	2012					2011
	2013	2014-2015	2016-2017	After 2017	**Total**	Total
On-balance sheet obligations						
Deposits[a]	$ 1,175,886	$ 7,440	$ 5,434	$ 3,016	$ 1,191,776	$ 1,125,470
Federal funds purchased and securities loaned or sold under repurchase agreements	236,875	1,464	500	1,264	240,103	213,532
Commercial paper	55,367	—	—	—	55,367	51,631
Other borrowed funds[a]	15,357		—	—	15,357	12,450
Beneficial interests issued by consolidated VIEs[a]	40,071	11,310	4,710	5,930	62,021	65,977
Long-term debt[a]	26,256	63,515	57,998	83,454	231,223	236,905
Other[b]	1,120	1,025	915	2,647	5,707	6,032
Total on-balance sheet obligations	1,550,932	84,754	69,557	96,311	1,801,554	1,711,997
Off-balance sheet obligations						
Unsettled reverse repurchase and securities borrowing agreements[c]	34,871	—	—	—	34,871	39,939
Contractual interest payments[d]	7,703	11,137	8,195	29,245	56,280	76,418
Operating leases[e]	1,788	3,282	2,749	6,536	14,355	15,014
Equity investment commitments[f]	449	6	2	1,452	1,909	2,290
Contractual purchases and capital expenditures	1,232	634	382	497	2,745	2,660
Obligations under affinity and co-brand programs	980	1,924	1,336	66	4,306	5,393
Other	32	2	—	—	34	284
Total off-balance sheet obligations	47,055	16,985	12,664	37,796	114,500	141,998
Total contractual cash obligations	$ 1,597,987	$ 101,739	$ 82,221	$ 134,107	$ 1,916,054	$ 1,853,995

(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 deferred annuity contracts, pension and postretirement obligations and insurance liabilities.
(c) For further information, refer to unsettled reverse repurchase and securities borrowing agreements in Note 29 on page 312 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 $1.7 billion and $1.5 billion at December 31, 2012 and 2011, respectively.
(f) At December 31, 2012 and 2011, included unfunded commitments of $370 million and $789 million, respectively, to third-party private equity funds that are generally valued as discussed in Note 3 on pages 196–214 of this Annual Report; and $1.5 billion and $1.5 billion of unfunded commitments, respectively, to other equity investments.

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. For transactions with the GSEs, these representations relate to type of collateral, underwriting standards, validity of certain borrower representations made in connection with the loan, primary mortgage insurance being in force for any mortgage loan with a loan-to-value ("LTV") ratio greater than 80% at the loan's origination date, and the use of the GSEs' standard legal documentation. The Firm may be, and has been, required to repurchase loans and/or indemnify the GSEs 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 related third party.

To date, the repurchase demands the Firm has received from the GSEs primarily relate to loans originated from 2005 to 2008. Repurchases resulting from demands against pre-2005 and post-2008 vintages have not been significant; the Firm attributes this to the comparatively favorable credit performance of these vintages and to the enhanced underwriting and loan qualification standards implemented progressively during 2007 and 2008. From 2005 to 2008, excluding Washington Mutual, the principal amount of loans sold to the GSEs subject to certain representations and warranties for which the Firm may be liable was approximately $380 billion (this amount has not been adjusted for subsequent activity, such as borrower repayments of principal or repurchases completed to date). See the discussion below for information concerning the process the Firm uses to evaluate repurchase demands for breaches of representations and warranties, and the Firm's estimate of probable losses related to such exposure.

From 2005 to 2008, Washington Mutual sold approximately $150 billion principal amount of loans to the GSEs subject to certain representations and warranties. Subsequent to the Firm's acquisition of certain assets and liabilities of Washington Mutual from the FDIC in September 2008, the Firm resolved and/or limited certain current and future repurchase demands for loans sold to the GSEs by Washington Mutual, although it remains the Firm's position that such obligations remain with the FDIC receivership. As of December 31, 2012, the Firm believes that it has no remaining exposure related to loans sold by Washington Mutual to the GSEs.

The Firm also sells loans in securitization transactions with Ginnie Mae; these loans are typically insured or guaranteed by another government agency. The Firm, in its role as servicer, may elect, but is typically not required, to repurchase delinquent loans securitized by Ginnie Mae, including those that have been sold back to Ginnie Mae subsequent to modification. Because principal amounts due under the terms of these repurchased loans continue to be insured and the reimbursement of insured amounts continues to proceed normally, the Firm has not recorded any mortgage repurchase liability related to these loans. However, the Civil Division of the United States Attorney's Office for the Southern District of New York is conducting an investigation concerning the Firm's compliance with the requirements of the Federal Housing Administration's Direct Endorsement Program. The Firm is cooperating in that investigation.

From 2005 to 2008, the Firm and certain acquired entities made certain loan level representations and warranties in connection with approximately $450 billion of residential mortgage loans that were sold or deposited into private-label securitizations. While the terms of the securitization transactions vary, they generally differ from loan sales to the GSEs in that, among other things: (i) in order to direct the trustee to investigate potential claims, the security holders must make a formal request for the trustee to do so, and typically, this requires agreement of the holders of a specified percentage of the outstanding securities; (ii) generally, the mortgage loans are not required to meet all GSE eligibility criteria; and (iii) in many cases, the party demanding repurchase is required to demonstrate that a loan-level breach of a representation or warranty has materially and adversely affected the value of the loan. Of the $450 billion originally sold or deposited (including $165 billion by Washington Mutual, as to which the Firm maintains that certain of the repurchase obligations remain with the FDIC receivership), approximately $197 billion of principal has been repaid (including $72 billion related to Washington Mutual). In addition, approximately $118 billion of the principal amount of such loans has been liquidated (including $43 billion related to Washington Mutual), with an average loss severity of 60%. Accordingly, the remaining outstanding principal balance of these loans (including Washington Mutual) was, as of December 31, 2012, approximately $135 billion, of which $39 billion was 60 days or more past due. The remaining outstanding principal balance of loans related to Washington Mutual was approximately $50 billion, of which $14 billion were 60 days or more past due.

There have been generalized allegations, as well as specific demands, that the Firm repurchase loans sold or deposited into private-label securitizations (including claims from insurers that have guaranteed certain obligations of the securitization trusts). Although the Firm encourages parties to use the contractual repurchase process established in the governing agreements, these private-label repurchase claims have generally manifested themselves through threatened or pending litigation. Accordingly, the liability related to repurchase demands associated with all of the private-label securitizations described above is separately evaluated by the Firm in establishing its litigation reserves. For additional information regarding litigation, see Note 31 on pages 316–325 of this Annual Report.

Repurchase demand process - GSEs

The Firm first becomes aware that a GSE is evaluating a particular loan for repurchase when the Firm receives a file request from the GSE. Upon completing its review, the GSE may submit a repurchase demand to the Firm; historically, most file requests have not resulted in repurchase demands.

The primary reasons for repurchase demands from the GSEs relate to alleged misrepresentations primarily arising from: (i) credit quality and/or undisclosed debt of the borrower; (ii) income level and/or employment status of the borrower; and (iii) appraised value of collateral. Ineligibility of the borrower for the particular product, mortgage insurance rescissions and missing documentation are other reasons for repurchase demands. The successful rescission of mortgage insurance typically results in a violation of representations and warranties made to the GSEs and, therefore, has been a significant cause of repurchase demands from the GSEs. The Firm actively reviews all rescission notices from mortgage insurers and contests them when appropriate.

As soon as practicable after receiving a repurchase demand from a GSE, the Firm evaluates the request and takes appropriate actions based on the nature of the repurchase demand. Loan-level appeals with the GSEs are typical and the Firm seeks to resolve the repurchase demand (i.e., either repurchase the loan or have the repurchase demand rescinded) within three to four months of the date of receipt. In many cases, the Firm ultimately is not required to repurchase a loan because it is able to resolve the purported defect. Although repurchase demands may be made until the loan is paid in full, the majority of repurchase demands from the GSEs have historically related to loans that became delinquent in the first 24 months following origination. More recently, the Firm has observed an increase in repurchase demands from the GSEs with respect to loans to borrowers who have made more than 24 months of payments before defaulting.

When the Firm accepts a repurchase demand from one of the GSEs, the Firm may either (i) repurchase the loan or the underlying collateral from the GSE at the unpaid principal balance of the loan plus accrued interest, or (ii) reimburse the GSE for its realized loss on a liquidated property (a "make-whole" payment).

Estimated mortgage repurchase liability

To estimate the Firm's mortgage repurchase liability arising from breaches of representations and warranties, the Firm considers the following factors, which are predominantly based on the Firm's historical repurchase experience with the GSEs:

(i) the level of outstanding unresolved repurchase demands,
(ii) estimated probable future repurchase demands, considering information about file requests, delinquent and liquidated loans, resolved and unresolved mortgage insurance rescission notices and the Firm's historical experience,
(iii) the potential ability of the Firm to cure the defects identified in the repurchase demands ("cure rate"),
(iv) the estimated severity of loss upon repurchase of the loan or collateral, make-whole settlement, or indemnification,
(v) the Firm's potential ability to recover its losses from third-party originators, and
(vi) the terms of agreements with certain mortgage insurers and other parties.

Based on these factors, the Firm has recognized a mortgage repurchase liability of $2.8 billion and $3.6 billion as of December 31, 2012 and 2011, respectively. The Firm's mortgage repurchase liability is intended to cover repurchase losses associated with all loans previously sold in connection with loan sale and securitization transactions with the GSEs, regardless of when those losses occur or how they are ultimately resolved (e.g., repurchase, make-whole payment). While uncertainties continue to exist with respect to both GSE behavior and the economic environment, the Firm believes that the model inputs and assumptions that it uses to estimate its mortgage repurchase liability are becoming increasingly seasoned and stable. Based on these model inputs, which take into account all available information, and also considering projections regarding future uncertainty, including the GSEs' current behavior, the Firm has become increasingly confident in its ability to estimate reliably its mortgage repurchase liability. For these reasons, the Firm believes that its mortgage repurchase liability at December 31, 2012, is sufficient to cover probable future repurchase losses arising from loan sale and securitization transactions with the GSEs.

The following table provides information about outstanding repurchase demands and unresolved mortgage insurance rescission notices, excluding those related to Washington Mutual, by counterparty type, at each of the past five quarter-end dates. The table includes repurchase demands received from the GSEs as well as repurchase demands that have been presented to the Firm by trustees who assert authority to present such claims under the terms of the underlying sale or securitization agreement (but excludes repurchase demands asserted in or in connection with pending repurchase litigation). However, all mortgage repurchase demands associated with private-label securitizations (however asserted) are evaluated by the Firm in establishing its litigation reserves and are not considered in the Firm's mortgage repurchase liability.

Outstanding repurchase demands and unresolved mortgage insurance rescission notices by counterparty type

(in millions)	Dec 31, 2012	Sep 30, 2012	Jun 30, 2012	Mar 31, 2012	Dec 31, 2011
GSEs	$ **1,166**	$ 1,533	$ 1,646	$ 1,868	$ 1,682
Mortgage insurers	**1,014**	1,036	1,004	1,000	1,034
Other[(a)]	**887**	1,697	981	756	663
Overlapping population[(b)]	**(86)**	(150)	(125)	(116)	(113)
Total	$ **2,981**	$ 4,116	$ 3,506	$ 3,508	$ 3,266

(a) The decrease from September 30, 2012 predominantly relates to repurchase demands from private-label securitizations that had been presented in this table as of September 30, 2012 but that subsequently became subject to repurchase litigation in the fourth quarter of 2012; such repurchase demands are excluded from this table.
(b) Because the GSEs and others may make repurchase demands based on mortgage insurance rescission notices that remain unresolved, certain loans may be subject to both an unresolved mortgage insurance rescission notice and an outstanding repurchase demand.

The following tables provide information about repurchase demands and mortgage insurance rescission notices received by loan origination vintage, excluding those related to Washington Mutual, for the past five quarters. The Firm expects repurchase demands to remain at elevated levels or to increase if there is a significant increase in private-label repurchase demands outside of pending repurchase litigation. Additionally, repurchase demands from the GSEs may continue to fluctuate from period to period. The Firm considers future repurchase demands, including this potential volatility, in estimating its mortgage repurchase liability.

Quarterly mortgage repurchase demands received by loan origination vintage[(a)]

(in millions)	Dec 31, 2012	Sep 30, 2012	Jun 30, 2012	Mar 31, 2012	Dec 31, 2011
Pre-2005	$ **42**	$ 33	$ 28	$ 41	$ 39
2005	**42**	103	65	95	55
2006	**292**	963	506	375	315
2007	**241**	371	420	645	804
2008	**114**	196	311	361	291
Post-2008	**87**	124	191	124	81
Total repurchase demands received	$ **818**	$ 1,790	$ 1,521	$ 1,641	$ 1,585

(a) All mortgage repurchase demands associated with private-label securitizations are separately evaluated by the Firm in establishing its litigation reserves. This table excludes repurchase demands asserted in or in connection with pending repurchase litigation.

Quarterly mortgage insurance rescission notices received by loan origination vintage[(a)]

(in millions)	Dec 31, 2012	Sep 30, 2012	Jun 30, 2012	Mar 31, 2012	Dec 31, 2011
Pre-2005	$ **6**	$ 6	$ 9	$ 13	$ 4
2005	**18**	14	13	19	12
2006	**35**	46	26	36	19
2007	**83**	139	121	78	48
2008	**26**	37	51	32	26
Post-2008	**7**	8	6	4	2
Total mortgage insurance rescissions received[(a)]	$ **175**	$ 250	$ 226	$ 182	$ 111

(a) Mortgage insurance rescissions typically result in a repurchase demand from the GSEs. This table includes mortgage insurance rescission notices for which the GSEs also have issued a repurchase demand.

Since the beginning of 2011, the Firm's cumulative cure rate (excluding loans originated by Washington Mutual) has been approximately 60%. A significant portion of repurchase demands now relate to loans with a longer pay history, which historically have had higher cure rates. Repurchases that have resulted from mortgage insurance rescissions are reflected in the Firm's overall cure rate. While the actual cure rate may vary from quarter to quarter, the Firm expects that the cumulative cure rate will remain in the 55-65% range for the foreseeable future.

The Firm has not observed a direct relationship between the type of defect that allegedly causes the breach of representations and warranties and the severity of the realized loss. Therefore, the loss severity assumption is estimated using the Firm's historical experience and projections regarding changes in home prices. Actual principal loss severities on finalized repurchases and "make-whole" settlements to date (excluding loans originated by Washington Mutual) currently average approximately 50%, but may vary from quarter to quarter based on the characteristics of the underlying loans and changes in home prices.

When a loan was originated by a third-party originator, the Firm typically has the right to seek a recovery of related repurchase losses from the third-party originator. Estimated and actual third-party recovery rates may vary from quarter to quarter based upon the underlying mix of third-party originators (e.g., active, inactive, out-of-business originators) from which recoveries are being sought.

The Firm has entered into agreements with two mortgage insurers to resolve their claims on certain portfolios for which the Firm is a servicer. These two agreements cover and have resolved approximately one-third of the Firm's total mortgage insurance rescission risk exposure, both in terms of the unpaid principal balance of serviced loans covered by mortgage insurance and the amount of mortgage insurance coverage. The impact of these agreements is reflected in the mortgage repurchase liability and the outstanding mortgage insurance rescission notices as of December 31, 2012, disclosed on the prior page. The Firm has considered its remaining unresolved mortgage insurance rescission risk exposure in estimating the mortgage repurchase liability as of December 31, 2012.

Substantially all of the estimates and assumptions underlying the Firm's established methodology for computing its recorded mortgage repurchase liability – including the amount of probable future demands from the GSEs (based on both historical experience and the Firm's expectations about the GSEs' future behavior), the ability of the Firm to cure identified defects, the severity of loss upon repurchase or foreclosure and recoveries from third parties – require application of a significant level of management judgment. While the Firm uses the best information available to it in estimating its mortgage repurchase liability, this estimate is inherently uncertain and imprecise.

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

Summary of changes in mortgage repurchase liability[(a)]

Year ended December 31, (in millions)	2012	2011	2010
Repurchase liability at beginning of period	$ 3,557	$ 3,285	$ 1,705
Realized losses[(b)]	(1,158)	(1,263)	(1,423)
Provision for repurchase losses[(c)]	412	1,535	3,003
Repurchase liability at end of period	$ 2,811	$ 3,557	3,285

(a) All mortgage repurchase demands associated with private-label securitizations are separately evaluated by the Firm in establishing its litigation reserves.
(b) Includes principal losses and accrued interest on repurchased loans, "make-whole" settlements, settlements with claimants, and certain related expense. Make-whole settlements were $524 million, $640 million and $632 million, for the years ended December 31, 2012, 2011 and 2010, respectively.
(c) Includes $112 million, $52 million and $47 million of provision related to new loan sales for the years ended December 31, 2012, 2011 and 2010, respectively.

The following table summarizes the unpaid principal balance of certain repurchases during the periods indicated.

Unpaid principal balance of mortgage loan repurchases[(a)]

Year ended December 31, (in millions)	2012	2011	2010
Ginnie Mae[(b)]	$ 5,539	$ 5,981	$ 8,717
GSEs[(c)]	1,204	1,208	1,498
Other[(c)(d)]	209	126	275
Total	$ 6,952	$ 7,315	$ 10,490

(a) This table includes: (i) repurchases of mortgage loans due to breaches of representations and warranties, and (ii) loans repurchased from Ginnie Mae loan pools as described in (b) below. This table does not include mortgage insurance rescissions; while the rescission of mortgage insurance typically results in a repurchase demand from the GSEs, the mortgage insurers themselves do not present repurchase demands to the Firm. This table also excludes mortgage loan repurchases associated with repurchase demands asserted in or in connection with pending litigation.
(b) In substantially all cases, these repurchases represent the Firm's voluntary repurchase of certain delinquent loans from loan pools as permitted by Ginnie Mae guidelines (i.e., they do not result from repurchase demands due to breaches of representations and warranties). The Firm typically elects to repurchase these delinquent loans as it continues to service them and/or manage the foreclosure process in accordance with applicable requirements of Ginnie Mae, the Federal Housing Administration ("FHA"), Rural Housing Services ("RHS") and/or the U.S. Department of Veterans Affairs ("VA").
(c) Nonaccrual loans held-for-investment included $465 million, $477 million and $354 million at December 31, 2012, 2011 and 2010, respectively, of loans repurchased as a result of breaches of representations and warranties.
(d) Represents loans repurchased from parties other than the GSEs, excluding those repurchased in connection with pending repurchase litigation.

For additional information regarding the mortgage repurchase liability, see Note 29 on pages 308–315 of this Annual Report.

The Firm also faces a variety of exposures resulting from repurchase demands and litigation arising out of its various roles as issuer and/or sponsor of mortgage-backed securities ("MBS") offerings in private-label securitizations. For further information, see Note 31 on pages 316–325 of this Annual Report.

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 strength. 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; and
- Build and invest in businesses, even in a highly stressed environment.

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 frequent firmwide and LOB processes for ongoing monitoring and active management of its capital position.

Capital governance

The Firm's senior management recognizes the importance of a capital management function that supports strategic decision-making. The Firm has established the Regulatory Capital Management Office ("RCMO") which is responsible for measuring, monitoring and reporting the Firm's capital and related risks. The RCMO is an integral component of the Firm's overall capital governance framework and 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's Risk Policy Committee assesses the capital adequacy assessment process and its components. This review encompasses evaluating 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 123–126 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 described above. The Firm submitted its 2012 capital plan on January 9, 2012, and received notice of the Federal Reserve's non-objection on March 13, 2012. The Firm increased the quarterly dividend on its common equity to $0.30 per share commencing in the first quarter of 2012, and during 2012 repurchased (on a trade-date basis) 31 million shares of common stock and 18 million warrants for $1.3 billion and $238 million, respectively. Following the voluntary cessation of its common equity repurchase program in May 2012, the Firm resubmitted its capital plan to the Federal Reserve under the 2012 CCAR process in August 2012. Pursuant to a non-objection received from the Federal Reserve on November 5, 2012, with respect to the resubmitted capital plan, the Firm is authorized to repurchase up to $3.0 billion of common equity in the first quarter of 2013. The timing and exact amount of any common equity to be repurchased under the program will depend on various factors, including market conditions; the Firm's capital position; organic and other investment opportunities; and legal and regulatory considerations, among other factors.

On January 7, 2013, the Firm submitted its capital plan to the Federal Reserve under the Federal Reserve's 2013 CCAR process. The Firm's plan relates to the last three quarters of 2013 and the first quarter of 2014 (that is, the 2013 CCAR capital plan relates to dividends to be declared commencing in June 2013, and to common equity repurchases and other capital actions commencing April 1, 2013). The Firm expects to receive the Federal Reserve's response to its plan no later than March 14, 2013. The Firm expects that its Board of Directors will declare the regular quarterly common stock dividend of $0.30 per share for the 2013 first quarter at its Board meeting to be held on March 19, 2013. For additional information on the Firm's capital actions, see Capital actions on page 122, and Notes 22 and 23 on pages 300 and 300–301, respectively, of this Annual Report.

Capital Disciplines

The Firm assesses capital based on:

- *Regulatory capital requirements*
- *Economic risk capital assessment*
- *Line of business equity attribution*

Regulatory capital is the capital required to be held by the Firm pursuant to the standards stipulated by U.S. bank regulatory agencies. Regulatory capital is the primary measure used to assess capital adequacy at JPMorgan Chase, as regulatory capital measures are the basis upon which the Federal Reserve objects or does not object to the Firm's planned capital actions as set forth in the Firm's CCAR submission.

Economic risk capital is assessed by evaluating the underlying risks of JPMorgan Chase's business activities using internal risk evaluation methods. These methods result in capital allocations for both individual and aggregated LOB transactions and can be grouped into four main categories:

- Credit risk
- Market risk
- Operational risk
- Private equity risk

These internal calculations result in the capital needed to cover JPMorgan Chase's business activities in the event of unexpected losses.

In determining line of business equity the Firm evaluates the amount of capital the line of business would require if it were operating independently, incorporating sufficient capital to address regulatory capital requirements (including Basel III Tier 1 common capital requirements as discussed below), economic risk measures and capital levels for similarly rated peers.

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.

Basel

The minimum risk-based capital requirements adopted by the U.S. federal banking agencies follow the Capital Accord ("Basel I") of the Basel Committee on Banking Supervision ("Basel Committee"). In 2004, the Basel Committee published a revision to the Capital 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 organizations. U.S. banking regulators published a final Basel II rule in December 2007, which requires JPMorgan Chase to implement Basel II at the holding company level, as well as at certain of its key U.S. bank subsidiaries.

Prior to full implementation of the Basel II framework, JPMorgan Chase is required to complete a qualification period of at least four consecutive quarters during which it needs to demonstrate that it meets the requirements of the rule to the satisfaction of its U.S. banking regulators. JPMorgan Chase is currently in the qualification period and expects to be in compliance with all relevant Basel II rules within the established timelines. In addition, the Firm has adopted, and will continue to adopt, based on various established timelines, Basel II rules in certain non-U.S. jurisdictions, as required.

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. The Federal Reserve employs a minimum 5% Tier 1 common ratio standard for CCAR purposes, in addition to the other minimum capital requirements under Basel I.

The following table presents the regulatory capital, assets and risk-based capital ratios for JPMorgan Chase at December 31, 2012 and 2011, under Basel I. As of December 31, 2012 and 2011, JPMorgan Chase and all of its banking subsidiaries were well-capitalized and each met all capital requirements to which it was subject.

Risk-based capital ratios

December 31,	2012	2011
Capital ratios		
Tier 1 capital	**12.6%**	12.3%
Total capital	**15.3**	15.4
Tier 1 leverage	**7.1**	6.8
Tier 1 common[(a)]	**11.0**	10.1

(a) The Tier 1 common ratio is Tier 1 common capital divided by RWA.

At December 31, 2012 and 2011, JPMorgan Chase maintained Tier 1 and Total capital ratios in excess of the well-capitalized standards established by the Federal Reserve, as indicated in the above tables. In addition, at December 31, 2012 and 2011, the Firm's Tier 1 common ratio was significantly above the 5% CCAR standard. For more information, see Note 28 on pages 306–308 of this Annual Report.

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)	2012	2011
Total stockholders' equity	**$ 204,069**	$ 183,573
Less: Preferred stock	**9,058**	7,800
Common stockholders' equity	**195,011**	175,773
Effect of certain items in accumulated other comprehensive income/(loss) excluded from Tier 1 common	**(4,198)**	(970)
Less: Goodwill[(a)]	**45,663**	45,873
Fair value DVA on structured notes and derivative liabilities related to the Firm's credit quality	**1,577**	2,150
Investments in certain subsidiaries and other	**920**	993
Other intangible assets[(a)]	**2,311**	2,871
Tier 1 common	**140,342**	122,916
Preferred stock	**9,058**	7,800
Qualifying hybrid securities and noncontrolling interests[(b)]	**10,608**	19,668
Adjustment for investments in certain subsidiaries and other	**(6)**	–
Total Tier 1 capital	**160,002**	150,384
Long-term debt and other instruments qualifying as Tier 2	**18,061**	22,275
Qualifying allowance for credit losses	**15,995**	15,504
Adjustment for investments in certain subsidiaries and other	**(22)**	(75)
Total Tier 2 capital	**34,034**	37,704
Total qualifying capital	**$ 194,036**	$ 188,088
Risk-weighted assets	**$ 1,270,378**	$ 1,221,198
Total adjusted average assets	**$ 2,243,242**	$ 2,202,087

(a) Goodwill and other intangible assets are net of any associated deferred tax liabilities.
(b) Primarily includes trust preferred securities of certain business trusts.

The following table presents the changes in Tier 1 common, Tier 1 capital and Tier 2 capital for the year ended December 31, 2012.

Capital rollforward

Year ended December 31, (in millions)	2012
Tier 1 common at December 31, 2011	$ 122,916
Net income	21,284
Dividends declared	(5,376)
Net issuance of treasury stock	1,153
Changes in capital surplus	(998)
Effect of certain items in accumulated other comprehensive income/(loss) excluded from Tier 1 common	(69)
Qualifying non-controlling minority interests in consolidated subsidiaries	309
DVA on structured notes and derivative liabilities	573
Goodwill and other nonqualifying intangibles (net of deferred tax liabilities)	770
Other	(220)
Increase in Tier 1 common	17,426
Tier 1 common at December 31, 2012	$ 140,342
Tier 1 capital at December 31, 2011	$ 150,384
Change in Tier 1 common	17,426
Issuance of noncumulative perpetual preferred stock	1,258
Net redemption of qualifying trust preferred securities	(9,369)
Other	303
Increase in Tier 1 capital	9,618
Tier 1 capital at December 31, 2012	$ 160,002
Tier 2 capital at December 31, 2011	$ 37,704
Change in long-term debt and other instruments qualifying as Tier 2	(4,214)
Change in allowance for credit losses	491
Other	53
Decrease in Tier 2 capital	(3,670)
Tier 2 capital at December 31, 2012	$ 34,034
Total capital at December 31, 2012	$ 194,036

Risk-weighted assets were $1,270 billion at December 31, 2012, an increase of $49 billion from December 31, 2011. In addition to the growth in the Firm's assets, the increase in risk-weighted assets also reflected an adjustment to reflect regulatory guidance regarding a limited number of market risk models used for certain positions held by the Firm during the first half of 2012, including the synthetic credit portfolio. In the fourth quarter of 2012, the adjustment to RWA decreased substantially as a result of regulatory approval of certain market risk models and a reduction in related positions.

In June 2012, U.S. federal banking agencies published final rules that went into effect on January 1, 2013, that provide for additional capital requirements for trading positions and securitizations ("Basel 2.5"). It is currently estimated that implementation of these rules could result in approximately a 100 basis point decrease from the Firm's Basel I Tier 1 common ratio at December 31, 2012 (all other factors being constant).

In June 2012, U.S. federal banking agencies also published a Notice for Proposed Rulemaking ("NPR") for implementing further revisions to the Capital Accord in the U.S. (such further revisions are commonly referred to as "Basel III"). Basel III revised Basel II by, among other things, narrowing the definition of capital, and increasing capital requirements for specific exposures. Basel III also includes higher capital ratio requirements and provides that the Tier 1 common capital requirement will be increased to 7%, comprised of a minimum ratio of 4.5% plus a 2.5% capital conservation buffer. Implementation of the 7% Tier 1 common capital requirement is required by January 1, 2019.

In addition, global systemically important banks ("GSIBs") will 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 2012, the Financial Stability Board ("FSB") indicated that it would require the Firm, as well as three other banks, to hold the additional 2.5% of Tier 1 common; the requirement will be phased in beginning in 2016. The Basel Committee also stated it intended to require certain GSIBs to hold an additional 1% of Tier 1 common under certain circumstances, to act as a disincentive for the GSIB from taking actions that would further increase its systemic importance. Currently, no GSIB (including the Firm) is required to hold this additional 1% of Tier 1 common.

In addition, pursuant to the requirements of the Dodd-Frank Act, U.S. federal banking agencies have proposed certain permanent Basel I floors under Basel II and Basel III capital calculations.

The following table presents a comparison of the Firm's Tier 1 common under Basel I rules to its estimated Tier 1 common under Basel III rules, along with the Firm's estimated risk-weighted assets. Tier 1 common under Basel III includes additional adjustments and deductions not included in Basel I Tier 1 common, such as the inclusion of AOCI related to AFS securities and defined benefit pension and other postretirement employee benefit ("OPEB") plans.

The Firm estimates that its Tier 1 common ratio under Basel III rules would be 8.7% as of December 31, 2012. 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 as a key measure to assess the Firm's capital position and to compare the Firm's capital to that of other financial services companies.

December 31, 2012 (in millions, except ratios)		
Tier 1 common under Basel I rules	$	140,342
Adjustments related to AOCI for AFS securities and defined benefit pension and OPEB plans		4,077
All other adjustments		(453)
Estimated Tier 1 common under Basel III rules	$	143,966
Estimated risk-weighted assets under Basel III rules[(a)]	$	1,647,903
Estimated Tier 1 common ratio under Basel III rules[(b)]		8.7%

(a) Key differences in the calculation of risk-weighted assets between Basel I and Basel III 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; (2) Basel III market risk RWA reflects the new capital requirements related to trading assets and securitizations, which include incremental capital requirements for stress VaR, correlation trading, and re-securitization positions; and (3) Basel III includes RWA for operational risk, whereas Basel I does not. The actual impact on the Firm's capital ratios upon implementation could differ depending on final implementation guidance from the regulators, as well as regulatory approval of certain of the Firm's internal risk models.
(b) The Tier 1 common ratio is Tier 1 common divided by RWA.

The Firm's estimate of its Tier 1 common ratio under Basel III reflects its current understanding of the Basel III rules based on information currently published by the Basel Committee and U.S. federal banking agencies and on the application of such rules to its businesses as currently conducted; it excludes the impact of any changes the Firm may make in the future to its businesses as a result of implementing the Basel III rules, possible enhancements to certain market risk models, and any further implementation guidance from the regulators.

The Basel III capital requirements are subject to prolonged transition periods. The transition period for banks to meet the Tier 1 common requirement under Basel III was originally scheduled to begin in 2013, with full implementation on January 1, 2019. In November 2012, the U.S. federal banking agencies announced a delay in the implementation dates for the Basel III capital requirements. The additional capital requirements for GSIBs will be phased in starting January 1, 2016, with full implementation on January 1, 2019. Management's current objective is for the Firm to reach, by the end of 2013, an estimated Basel III Tier I common ratio of 9.5%.

Additional information regarding the Firm's capital ratios and the federal regulatory capital standards to which it is subject is presented in Supervision and regulation on pages 1–8 of the 2012 Form 10-K, and Note 28 on pages 306–308 of this Annual Report.

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, 2012, JPMorgan Securities' net capital, as defined by the Net Capital Rule, was $13.5 billion, exceeding the minimum requirement by

$12.0 billion, and JPMorgan Clearing's net capital was $6.6 billion, exceeding the minimum requirement by $5.0 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 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, 2012, 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 regulated by the U.K. Financial Services Authority ("FSA"). At December 31, 2012, it had total capital of $20.8 billion, or a Total capital ratio of 15.5% which exceeded the 8% well-capitalized standard applicable to it under Basel 2.5.

Economic risk capital

JPMorgan Chase assesses its capital adequacy relative to the risks underlying its business activities using internal risk-assessment methodologies. The Firm measures economic capital primarily based on four risk factors: credit, market, operational and private equity risk.

	Yearly Average		
Year ended December 31, (in billions)	**2012**	2011	2010
Credit risk	**$ 46.6**	$ 48.2	$ 49.7
Market risk	**17.5**	14.5	15.1
Operational risk	**15.9**	8.5	7.4
Private equity risk	**6.0**	6.9	6.2
Economic risk capital	**86.0**	78.1	78.4
Goodwill	**48.2**	48.6	48.6
Other[(a)]	**50.2**	46.6	34.5
Total common stockholders' equity	**$ 184.4**	$ 173.3	$ 161.5

(a) Reflects additional capital required, in the Firm's view, to meet its regulatory and debt rating objectives.

Credit risk capital

Credit risk capital is estimated separately for the wholesale businesses (CIB, CB and AM) and consumer business (CCB).

Credit risk capital for the wholesale credit portfolio is defined in terms of unexpected credit losses, both from defaults and from declines in the value of the portfolio due to credit deterioration, measured over a one-year period at a confidence level consistent with an "AA" credit rating standard. Unexpected losses are losses in excess of those for which the allowance for credit losses is maintained. The capital methodology is based on several principal drivers of credit risk: exposure at default (or loan-equivalent amount), default likelihood, credit spreads, loss severity and portfolio correlation.

Credit risk capital for the consumer portfolio is based on product and other relevant risk segmentation. Actual segment-level default and severity experience are used to estimate unexpected losses for a one-year horizon at a confidence level consistent with an "AA" credit rating standard. The decrease in credit risk capital in 2012 was driven by consumer portfolio runoff and continued model enhancements to better estimate future stress credit losses in the consumer portfolio. See Credit Risk Management on pages 134–135 of this Annual Report for more information about these credit risk measures.

Market risk capital

The Firm calculates market risk capital guided by the principle that capital should reflect the risk of loss in the value of the portfolios and financial instruments caused by adverse movements in market variables, such as interest and foreign exchange rates, credit spreads, and securities and commodities prices, taking into account the liquidity of the financial instruments. Results from daily VaR, weekly stress tests, issuer credit spreads and default risk calculations, as well as other factors, are used to determine appropriate capital levels. Market risk capital is allocated to each business segment based on its risk assessment. The increase in market risk capital in 2012 was driven by increased risk in the synthetic credit portfolio. See Market Risk Management on pages 163–169 of this Annual Report for more information about these market risk measures.

Operational risk capital

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, human factors or external events. The operational risk capital model is based on actual losses and potential scenario-based losses, with adjustments to the capital calculation to reflect changes in the quality of the control environment. The increase in operational risk capital in 2012 was primarily due to continued model enhancements to better capture large historical loss events, including mortgage-related litigation costs. The increases that occurred during 2012 will be fully reflected in average operational risk capital in 2013. See Operational Risk Management on pages 175–176 of this Annual Report for more information about operational risk.

Private equity risk capital

Capital is allocated to privately- and publicly-held securities, third-party fund investments, and commitments in the private equity portfolio, within the Corporate/Private Equity segment, to cover the potential loss associated with a decline in equity markets and related asset devaluations. In addition to negative market fluctuations, potential losses in private equity investment portfolios can be magnified by liquidity risk.

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

In determining line of business equity the Firm evaluates the amount of capital the line of business would require if it were operating independently, incorporating sufficient capital to address regulatory capital requirements (including Basel III Tier 1 common capital requirements as discussed below), economic risk measures and capital levels for similarly rated peers. 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.

Line of business equity	Yearly Average		
Year ended December 31, (in billions)	**2012**	2011	2010
Consumer & Community Banking	**$ 43.0**	$ 41.0	$ 43.0
Corporate & Investment Bank	**47.5**	47.0	46.5
Commercial Banking	**9.5**	8.0	8.0
Asset Management	**7.0**	6.5	6.5
Corporate/Private Equity	**77.4**	70.8	57.5
Total common stockholders' equity	**$ 184.4**	$ 173.3	$ 161.5

Effective January 1, 2012, the Firm revised the capital allocated to each of its businesses, reflecting additional refinement of each segment's Basel III Tier 1 common capital requirements.

In addition, 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 is largely driven by the most current regulatory guidance on Basel 2.5 and Basel III requirements (including the NPR), principally for CIB and CIO, and by anticipated business growth.

Line of business equity	January 1,	December 31,	
(in billions)	**2013[(a)]**	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	**70.0**	88.0	73.3
Total common stockholders' equity	**$ 195.0**	$ 195.0	$ 175.8

(a) Reflects refined capital allocations effective January 1, 2013 as discussed above.

The Firm 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, and further refinements may be implemented in future periods.

Capital actions

Issuance of preferred stock

On August 27, 2012, the Firm issued $1.3 billion of fixed-rate noncumulative perpetual preferred stock. For additional information on the Firm's preferred stock, see Note 22 on page 300 of this Annual Report.

Dividends

JPMorgan Chase declared quarterly cash dividends on its common stock in the amount of $0.05 per share for each quarter of 2010.

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. 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 return to a payout ratio of approximately 30% of normalized earnings over time.

For information regarding dividend restrictions, see Note 22 and Note 27 on pages 300 and 306, respectively, of this Annual Report.

The following table shows the common dividend payout ratio based on reported net income.

Year ended December 31,	**2012**	2011	2010
Common dividend payout ratio	**23%**	22%	5%

Common equity repurchases

On March 18, 2011, the Board of Directors approved a $15.0 billion common equity (i.e., common stock and warrants) repurchase program, of which $8.95 billion was authorized for repurchase in 2011. On March 13, 2012, the Board of Directors authorized a new $15.0 billion common equity repurchase program, of which up to $12.0 billion was approved for repurchase in 2012 and up to an additional $3.0 billion was approved through the end of the first quarter of 2013. Following the voluntary cessation of its common equity repurchase program in May 2012, the Firm resubmitted its capital plan to the Federal Reserve under the 2012 CCAR process in August 2012. Pursuant to a non-objection received from the Federal Reserve on November 5, 2012, with respect to the resubmitted capital plan, the Firm is authorized to repurchase up to $3.0 billion of common equity in the first quarter of 2013. The timing and exact amount of any common equity to be repurchased under the program will depend on various factors, including market conditions; the Firm's capital position; organic and other investment opportunities; and legal and regulatory considerations, among other factors.

During 2012, 2011 and 2010, the Firm repurchased (on a trade-date basis) 31 million, 229 million, and 78 million shares of common stock, for $1.3 billion, $8.8 billion and $3.0 billion, respectively. During 2012 and 2011, the Firm repurchased 18 million and 10 million warrants (originally issued to the U.S. Treasury in 2008 pursuant to its Capital Purchase Program), for $238 million and $122 million, respectively. The Firm did not repurchase any of the warrants during 2010.

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 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 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 22–23 of JPMorgan Chase's 2012 Form 10-K and 2013 Business Outlook, on pages 68–69 of this Annual Report.

Risk is an inherent part of JPMorgan Chase's business activities. The Firm's risk management framework and governance structure are intended to provide comprehensive controls and ongoing management of the major risks inherent in its business activities. The Firm employs a holistic approach to risk management intended to ensure the broad spectrum of risk types are considered in managing its business activities. The Firm's risk management framework is intended to create a culture of risk awareness and personal responsibility throughout the Firm where collaboration, discussion, escalation and sharing of information are encouraged.

The Firm's overall risk appetite is established in the context of the Firm's capital, earnings power, and diversified business model. The Firm employs a formalized risk appetite framework to integrate the Firm's objectives with return targets, risk controls and capital management. The Firm's Chief Executive Officer ("CEO") is responsible for setting the overall firmwide risk appetite. The lines of business CEOs, Chief Risk Officers ("CROs") and Corporate/ Private Equity senior management are responsible for setting the risk appetite for their respective lines of business or risk limits, within the Firm's limits, and these risk limits are subject to approval by the CEO and firmwide Chief Risk Officer ("CRO") or the Deputy CRO. The Risk Policy Committee of the Firm's Board of Directors approves the risk appetite policy on behalf of the entire Board of Directors.

Risk governance

The Firm's risk governance structure is based on the principle that each line of business is responsible for managing the risks inherent in its business, albeit with appropriate corporate oversight. Each line of business risk committee is responsible for decisions regarding the business' risk strategy, policies as appropriate and controls. There are nine major risk types identified arising out of the business activities of the Firm: liquidity risk, credit risk, market risk, interest rate risk, country risk, principal risk, operational risk, legal risk, fiduciary risk and reputation risk.

Overlaying line of business risk management are corporate functions with risk management-related responsibilities: Risk Management, Treasury and CIO, the Regulatory Capital Management Office ("RCMO") the Firmwide Oversight and Control Group, Legal and Compliance and the Firmwide Valuation Governance Forum.

Risk Management reports independently of the lines of business to provide oversight of firmwide risk management and controls, and is viewed as a partner in achieving appropriate business risk and reward objectives. Risk Management coordinates and communicates with each line of business through the line of business risk committees and CROs to manage risk. The Risk Management function is headed by the Firm's Chief Risk Officer, who is a member of the Firm's Operating Committee and who reports to the Chief Executive Officer and is accountable to the Board of Directors, primarily through the Board's Risk Policy Committee. The Chief Risk Officer is also a member of the line of business risk committees. Within the Firm's Risk Management function are units responsible for credit risk, market risk, country risk, principal risk, model risk and development, reputational risk and operational risk framework, as well as risk reporting and risk policy. Risk Management is supported by risk technology and operations functions that are responsible for building the information technology infrastructure used to monitor and manage risk.

The Risk Management organization maintains a Risk Operating Committee and the Risk Management Business Control Committees. The Risk Operating Committee focuses on risk management, including setting risk management priorities, escalation of risk issues, talent and resourcing, and other issues brought to its attention by line of business CEOs, CROs and cross-line of business risk officers (e.g., Country Risk, Market Risk and Model Risk). This committee meets bi-weekly and is led by the CRO or deputy-CRO. There are three business control committees within the Risk Management function (Wholesale Risk Business Control Committee, Consumer Risk Business Control Committee and the Corporate Risk Business Control Committee) which meet at least quarterly and focus on the control environment, including outstanding action plans, audit status, operational risk statistics (such as losses, risk indicators, etc.), compliance with critical control programs, and risk technology.

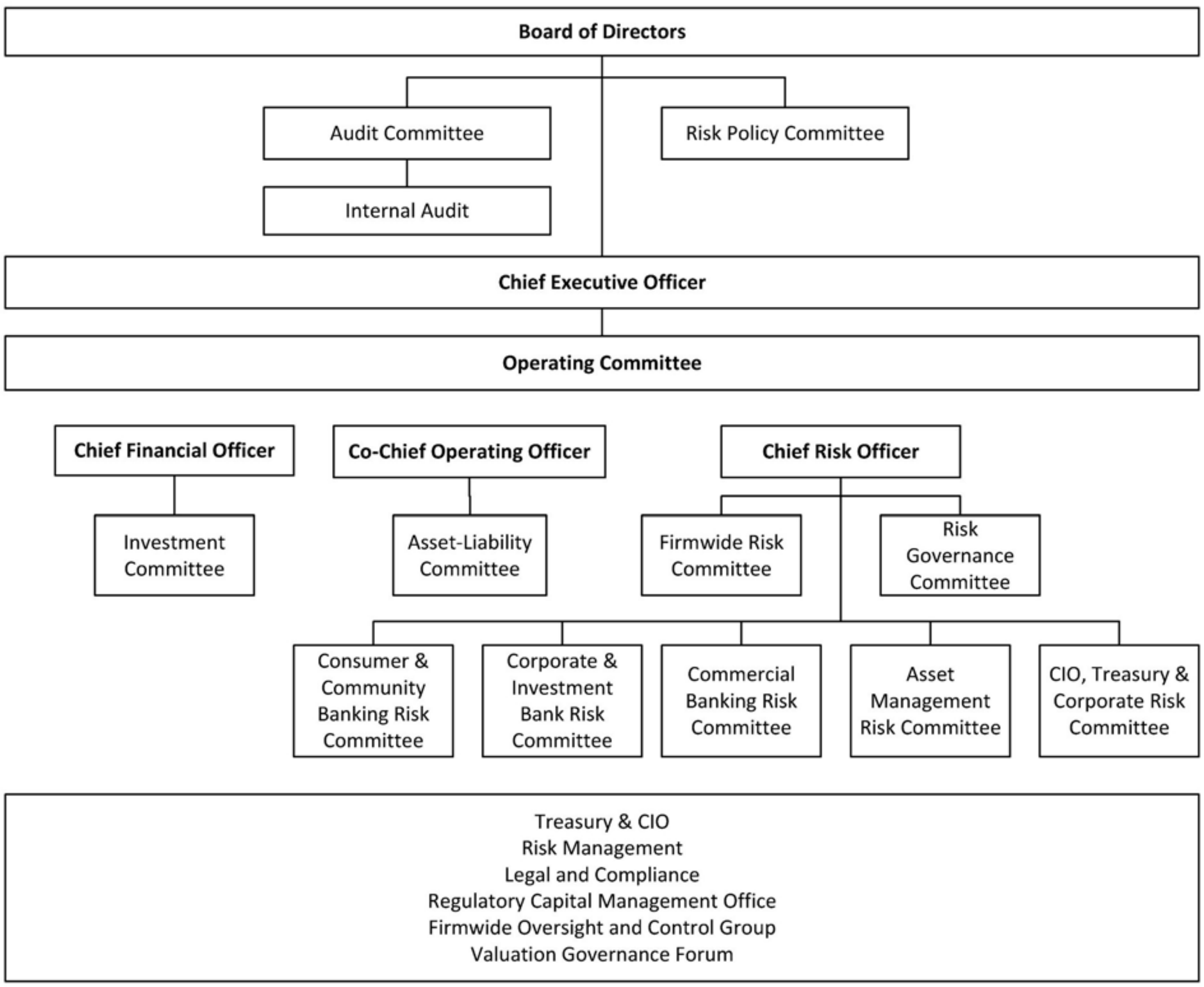
The Model Risk and Development unit, within the Risk Management function, provides oversight of the firmwide Model Risk policy, guidance with respect to a model's appropriate usage and conducts independent reviews of models.

Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding, capital and structural interest rate and foreign exchange risks. RCMO is responsible for measuring, monitoring, and reporting the Firm's capital and related risks.

Legal and Compliance has oversight for legal risk. In January 2013, the Compliance function was moved to report to the Firm's co-COOs in order to better align the function, which is a critical component of how the Firm manages its risk, with the Firm's Oversight and Control function. Compliance will continue to work closely with Legal, given their complementary missions. The Firm's Oversight and Control group is dedicated to enhancing the Firm's control framework, and to looking within and across the lines of business and the Corporate functions (including CIO) to identify and remediate control issues.

In addition, the Firm has a firm-wide 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 CIB, MB, and certain corporate functions including Treasury and CIO.

In addition to the risk committees of the lines of business and the above-referenced risk management functions, the Firm also has numerous management level committees focused on measuring, monitoring and managing risk. All of these committees are accountable to the CEO and Operating Committee. The membership of these committees is composed of senior management of the Firm; membership varies across the committees and is based on the objectives of the individual committee. Typically membership includes representatives of the lines of business, CIO, Treasury, Risk Management, Finance, Legal and Compliance and other senior executives. The committees meet regularly to discuss a broad range of topics including, for example, current market conditions and other external events, risk exposures, and risk concentrations to ensure that the effects of risk issues are considered broadly across the Firm's businesses.



The Board of Directors exercises its oversight of the Firm's risk management principally through the Board's Risk Policy Committee and Audit Committee.

The Board's Risk Policy Committee oversees senior management risk-related responsibilities, including reviewing management policies and performance against these policies and related benchmarks. The Board's Risk Policy Committee also reviews firm level market risk limits at least annually. The CROs for each line of business and the heads of Country Risk, Market Risk, Model Risk and the Wholesale Chief Credit Officer meet with the Board's Risk Policy Committee on a regular basis. In addition, in conjunction with the Firm's capital assessment process, the CEO or Chief Risk Officer is responsible for notifying the Risk Policy Committee of any results which are projected to exceed line of business or firmwide risk appetite tolerances. The CEO or CRO is required to notify the Chairman of the Board's Risk Policy Committee if certain firmwide limits are modified or exceeded.

The Audit Committee is responsible for 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 controls that is relied upon to provide reasonable assurance of compliance with the Firm's operational risk management processes. 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 of the Board of Directors and administratively to the CEO. Internal Audit conducts regular 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.

Among the Firm's management level committees that are primarily responsible for certain risk-related functions are:

The Asset-Liability Committee, chaired by the Corporate Treasurer, monitors the Firm's overall interest rate risk and 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), nontrading interest rate-sensitive revenue-at-risk, overall interest rate position, funding requirements and strategy, and the Firm's securitization programs (and any required liquidity support by the Firm of such programs).

The Firmwide Risk Committee is co-chaired by the Firm's CEO and CRO or Deputy CRO. *The Risk Governance Committee* is chaired by the Firm's CRO and Deputy CRO. These committees meet monthly to review cross-line of business issues such as risk appetite, certain business activity and aggregate risk measures, risk policy, risk methodology regulatory capital and other regulatory issues, as referred by line of business risk committees. The Risk Governance Committee is also responsible for ensuring that line of business and firmwide risk reporting and compliance with risk appetite levels are monitored, in conjunction with the Firm's capital assessment process. Each line of business risk committee meets at least on a monthly basis and is co-chaired by the line of business CRO and CEO or equivalent. Each line of business risk committee is also attended by individuals from outside the line of business. It is the responsibility of committee members of the line of business risk committees to escalate line of business risk topics to the Firmwide Risk Committee as appropriate.

In addition to the above, there is the Investment Committee, chaired by the Firm's Chief Financial Officer that meets on an as needed basis and oversees global merger and acquisition activities undertaken by JPMorgan Chase for its own account that fall outside the scope of the Firm's private equity and other principal finance activities.

Risk monitoring and control

The Firm's ability to properly identify, measure, monitor and report risk is critical to both its soundness and profitability.

- Risk identification: The Firm's exposure to risk through its daily business dealings, including lending and capital markets activities and operational services, is identified and aggregated through the Firm's risk management infrastructure. There are nine major risk types identified in the business activities of the Firm: liquidity risk, credit risk, market risk, interest rate risk, country risk, private equity risk, operational risk, legal and fiduciary risk, and reputation risk.
- Risk measurement: The Firm measures risk using a variety of methodologies, including calculating probable loss, unexpected loss and value-at-risk, and by conducting stress tests and making comparisons to external benchmarks. Measurement models and related assumptions are subject to internal model review, empirical validation and benchmarking with the goal of ensuring that the Firm's risk estimates are reasonable and reflective of the risk of the underlying positions.
- Risk monitoring/control: The Firm's risk management policies and procedures incorporate risk mitigation strategies and include approval limits by customer, product, industry, country and business. These limits are monitored on a daily, weekly and monthly basis, as appropriate.
- Risk reporting: The Firm reports risk exposures on both a line of business and a consolidated basis. This information is reported to management on a daily, weekly and monthly basis, as appropriate.

Model risk

The Firm uses risk management models, including Value-at-Risk ("VaR") and stress models, 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, for example in 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 the models are responsible for the development, implementation and testing of 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, the model owners maintain a robust operating environment and monitor and evaluate the performance of models on an ongoing basis. Model owners enhance models in response to changes in the portfolios and for changes in product and market developments, as well as improvements in available modeling techniques and systems capabilities, and submit such enhancements to the Model Risk function for review.

The Model Risk function comprises the Model Review Group and the Model Governance Group and reports to the 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. The model reviews conducted by the Model Risk function consider a number of factors about the model's suitability for valuation or risk management of a particular product, or other purposes. The factors considered include the assigned model tier, whether the model accurately reflects the characteristics of the instruments 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 significant models, as well as material changes to existing models, are reviewed and approved by the Model Risk function prior to implementation into the operating environment. The Model Risk function performs an annual Firmwide model risk assessment where developments in the product or market are considered in determining whether models need to be reviewed and approved again.

In the event that the Model Risk function does not approve a significant model, escalation to senior management is required and the model owner is required to remediate the model within a time period as 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 in the interim. The actions taken will depend on the model that is disapproved and may include, for example, limitation of trading activity. The Firm may also implement other appropriate risk measurement tools in place to augment the model that is subject to remediation.

Exceptions to the Firm's model risk policy may be granted by the Model Risk function to allow a significant model to be used prior to review or approval. Such exceptions have been applied in limited circumstances, and where this is the case, compensating controls similar to those described above have been put in place.

For a summary of valuations based on models, see Critical Accounting Estimates Used by the Firm on pages 180–181 and Note 3 on pages 196–214 of this Annual Report.

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 and 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 actively manage liquidity for the Firm as a whole, monitor exposures and identify constraints on the transfer of liquidity 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 and funding and capital strategies 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. For further discussion of the risk committees, see Risk Management on pages 123–126 of this Annual Report.

Management considers the Firm's liquidity position to be strong as of December 31, 2012, 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" held by the Firm during an acute stress, in relation to the estimated net cash outflows within the 30-day period; 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 1-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 stages to reach 100% on January 1, 2019. The Firm is currently targeting to attain a 100% LCR, based on its current understanding of the requirements, by the end of 2013. The NSFR is scheduled to become effective in 2018.

Funding

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. Access to funding markets is executed regionally through hubs in New York, London, Hong Kong and other locations which enables the Firm to observe and respond effectively to local market dynamics and client needs. The Firm manages and monitors its use of wholesale funding markets to maximize market access, optimize funding cost and ensure diversification of its funding profile across geographic regions, tenors, currencies, product types and counterparties, using key metrics including short-term unsecured funding as a percentage of total liabilities, and in relation to high-quality assets, and counterparty concentration.

Sources of funds

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, 2012, the Firm's deposits-to-loans ratio was 163%, compared with 156% at December 31, 2011.

As of December 31, 2012, total deposits for the Firm were $1,193.6 billion, compared with $1,127.8 billion at December 31, 2011 (55% and 54% of total liabilities at December 31, 2012 and 2011, respectively). The increase in deposits was predominantly due to growth in retail and wholesale deposits. For further information, see Balance Sheet Analysis on pages 106–108 of this Annual Report.

The Firm typically experiences higher customer deposit inflows at period-ends. Therefore, average deposit balances are more representative of deposit trends. The table below summarizes, by line of business, average deposits for the year ended December 31, 2012 and 2011, respectively.

Deposits	December 31,		Year ended December 31, Average	
(in millions)	**2012**	2011	**2012**	2011
Consumer & Community Banking	**$ 438,484**	$ 397,825	**$ 413,911**	$ 382,678
Corporate & Investment Bank	**385,560**	362,384	**353,048**	317,213
Commercial Banking	**198,383**	196,366	**181,805**	157,899
Asset Management	**144,579**	127,464	**129,208**	106,421
Corporate/ Private Equity	**26,587**	43,767	**27,911**	47,779
Total Firm	**$1,193,593**	$1,127,806	**$1,105,883**	$1,011,990

A significant portion of the Firm's deposits are retail deposits (37% and 35% at December 31, 2012 and 2011, 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 balance trends, see the discussion of the results for the Firm's business segments and the Balance Sheet Analysis on pages 80–104 and 106–108, respectively, of this Annual Report.

Short-term funding

Short-term unsecured funding sources include federal funds and Eurodollars purchased; certificates of deposit; time deposits; commercial paper; and other borrowed funds that generally have maturities of one year or less.

The Firm's reliance on short-term unsecured funding sources is limited. A significant portion of the total commercial paper liabilities, approximately 72% as of December 31, 2012, as shown in the table below, were originated from deposits that customers choose to sweep into commercial paper liabilities as a cash management program offered by CIB and are not sourced from wholesale funding markets.

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 generally mature between one day and three months, 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 increase in the balance at December 31, 2012, compared with the balance at December 31, 2011 was predominantly because of higher secured financing of the Firm's assets. 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.

At December 31, 2012, the balance of total unsecured and secured other borrowed funds increased, compared with the balance at December 31, 2011. The increase was primarily driven by an increase in term federal funds purchased and in CIB structured notes. The average balance for the year ended December 31, 2012, decreased from the prior year, predominantly driven by maturities of short-term unsecured bank notes and other unsecured borrowings, and other secured short-term borrowings.

For additional information, see the Balance Sheet Analysis on pages 106–108 and Note 13 on page 249 of this Annual Report. The following table summarizes by source select short-term unsecured and secured funding as of December 31, 2012 and 2011, and average balances for the year ended December 31, 2012 and 2011, respectively.

Select Short-term funding (in millions)	December 31, 2012	December 31, 2011	Year ended December 31, Average 2012	Year ended December 31, Average 2011
Commercial paper:				
Wholesale funding	**$ 15,589**	$ 4,245	**$ 14,302**	$ 6,119
Client cash management	**39,778**	47,386	**36,478**	36,534
Total commercial paper	**$ 55,367**	$ 51,631	**$ 50,780**	$ 42,653
Other borrowed funds	**$ 26,636**	$ 21,908	**$ 24,174**	$ 30,943
Securities loaned or sold under agreements to repurchase:				
Securities sold under agreements to repurchase	**$ 212,278**	$ 191,649	**$ 219,625**	$ 228,514
Securities loaned	**23,125**	14,214	**20,763**	19,438
Total securities loaned or sold under agreements to repurchase[(a)(b)(c)]	**$ 235,403**	$ 205,863	**$ 240,388**	$ 247,952

(a) Excludes federal funds purchased.
(b) Excludes long-term structured repurchase agreements of $3.3 billion and $6.1 billion as of December 31, 2012 and 2011, respectively, and average balance of $7.0 billion and $4.6 billion for the years ended December 31, 2012 and 2011, respectively.
(c) Excludes long-term securities loaned of $457 million as of December 31, 2012, and average balance of $113 million for the year ended December 31, 2012. There were no long-term securities loaned as of December 31, 2011.

Long-term funding and issuance

Long-term funding provides additional sources of stable funding and liquidity for the Firm. 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, 2012 and 2011, respectively. For additional information, see Note 21 on pages 297–299 of this Annual Report.

Long-term unsecured funding

Year ended December 31, (in millions)	2012	2011
Issuance		
Senior notes issued in the U.S. market	$ 15,695	$ 29,043
Senior notes issued in non-U.S. markets	8,341	5,173
Total senior notes	24,036	34,216
Trust preferred securities	–	–
Subordinated debt	–	–
Structured notes	15,525	14,761
Total long-term unsecured funding – issuance	$ 39,561	$ 48,977
Maturities/redemptions		
Total senior notes	$ 40,484	$ 36,773
Trust preferred securities	9,482	101
Subordinated debt	1,045	2,912
Structured notes	20,183	18,692
Total long-term unsecured funding – maturities/redemptions	$ 71,194	$ 58,478

Following the Federal Reserve's announcement on June 7, 2012, of proposed rules which will implement the phase-out of Tier 1 capital treatment for trust preferred securities, the Firm announced on June 11, 2012, that it would redeem approximately $9.0 billion of trust preferred securities pursuant to redemption provisions relating to the occurrence of a "Capital Treatment Event" (as defined in the documents governing those securities). The redemption was completed on July 12, 2012.

The Firm raises secured long-term funding through securitization of consumer credit card loans, residential mortgages, auto loans and student loans, as well as through advances from the FHLBs, all of which 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, 2012 and 2011.

Long-term secured funding

Year ended December 31,	Issuance		Maturities/Redemptions	
(in millions)	2012	2011	2012	2011
Credit card securitization	$ 10,800	$ 1,775	$ 13,187	$ 13,556
Other securitizations[(a)]	–	–	487	478
FHLB advances	35,350	4,000	11,124	9,155
Total long-term secured funding	$ 46,150	$ 5,775	$ 24,798	$ 23,189

(a) Other securitizations includes securitizations of residential mortgages, auto loans 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 above. For further description of the client-driven loan securitizations, see Note 16 on pages 280–291 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 therefore 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 and affiliates 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 as advances 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 bank subsidiaries as well as the Firm's principal U.S. and U.K. broker-dealer 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.

Global Liquidity Reserve

The Global Liquidity Reserve includes cash on deposit at central banks, and cash proceeds reasonably expected to be received in secured financings of unencumbered high-quality securities (such as sovereign debt, government-guaranteed corporate debt, U.S. government agency debt, and agency MBS) that are available to the Firm on a consolidated basis. The liquidity amount estimated to be realized from secured financings is based on management's current judgment and assessment of the Firm's ability to quickly raise funds from secured financings.

The Global Liquidity Reserve also includes the Firm's 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 considered as a source of available liquidity, the Firm does not view borrowing capacity at the Federal Reserve Bank discount window and various other central banks as a primary source of funding.

As of December 31, 2012, the Global Liquidity Reserve was estimated to be approximately $491 billion, compared with approximately $379 billion at December 31, 2011. The Global Liquidity Reserve fluctuates due to changes in deposits, the Firm's purchase and investment activities and general market conditions.

In addition to the Global Liquidity Reserve, the Firm has significant amounts of marketable securities such as corporate debt and equity securities available to raise liquidity, if required.

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 as required. Stress scenarios are produced for the parent holding company and the Firm's major bank subsidiaries as well as the Firm's principal U.S. and U.K. broker-dealer subsidiaries. In addition, separate regional liquidity stress testing is performed.

Liquidity stress tests assume all of the Firm's contractual obligations are met and also 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 reflect 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 situations. It sets out a list of indicators and metrics that are reviewed on a daily basis to identify the emergence of increased risks or vulnerabilities in the Firm's liquidity position. The CFP identifies 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 109, and Credit risk, liquidity risk and credit-related contingent features in Note 5 on pages 224–225, of this Annual Report.

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.

The credit ratings of the parent holding company and certain of the Firm's significant operating subsidiaries as of December 31, 2012, were as follows.

	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A. Chase Bank USA, N.A.			J.P. Morgan Securities LLC		
December 31, 2012	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	A2	P-1	Negative	Aa3	P-1	Stable	A1	P-1	Stable
Standard & Poor's	A	A-1	Negative	A+	A-1	Negative	A+	A-1	Negative
Fitch Ratings	A+	F1	Stable	A+	F1	Stable	A+	F1	Stable

On June 21, 2012, Moody's downgraded the long-term ratings of the Firm and affirmed all its short-term ratings. The outlook for the parent holding company was left on negative reflecting Moody's view that government support for U.S. bank holding company creditors is becoming less certain and less predictable. Such ratings actions concluded Moody's review of 17 banks and securities firms with global capital markets operations, including the Firm, as a result of which all of these institutions were downgraded by various degrees.

Following the disclosure by the Firm, on May 10, 2012, of losses from the synthetic credit portfolio held by CIO, Fitch downgraded the Firm and placed all parent and subsidiary long-term ratings on Ratings Watch Negative. At that time, S&P also revised its outlook on the ratings of the Firm from Stable to Negative. Subsequently, on October 10, 2012, Fitch revised the outlook to Stable and affirmed the Firm's ratings.

The above-mentioned rating actions did not have a material adverse impact on the Firm's cost of funds and its ability to fund itself. Further downgrades of the Firm's long-term ratings by one notch or two notches could result in a 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 the Firm's liquidity risk and stress testing metrics). The Firm believes it maintains sufficient liquidity to withstand any 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.

Rating agencies continue to evaluate various ratings factors, such as regulatory reforms, rating uplift assumptions surrounding government support, and economic uncertainty and sovereign creditworthiness, and their potential impact on ratings of financial institutions. 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 changed in the future.

Cash flows

For the years ended December 31, 2012, 2011 and 2010, cash and due from banks decreased $5.9 billion, and increased by $32.0 billion and $1.4 billion, respectively. The following discussion highlights the major activities and transactions that affected JPMorgan Chase's cash flows during 2012, 2011 and 2010, 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, 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 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 over the prior-year period.

For the year ended December 31, 2011, net cash provided by operating activities was $95.9 billion. 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. Partially offsetting these cash proceeds was an increase in securities borrowed, predominantly in Corporate due to higher excess cash positions at year-end. Net cash generated from operating activities was higher than net income largely as a result of adjustments for noncash items such as the provision for credit losses, depreciation and amortization, and stock-based compensation. Additionally, cash provided by proceeds from sales and paydowns of loans originated or purchased with an initial intent to sell was higher than cash used to acquire such loans, and also reflected a higher level of activity over the prior-year period.

For the year ended December 31, 2010, net cash used by operating activities was $3.8 billion, mainly driven by an increase primarily in trading assets – debt and equity instruments; principally due to improved market activity primarily in equity securities, foreign debt and physical commodities, partially offset by an increase in trading liabilities due to higher levels of positions taken to facilitate customer-driven activity. Net cash was provided by net income and from adjustments for non-cash items such as the provision for credit losses, depreciation and amortization and stock-based compensation. Additionally, proceeds from sales and paydowns of loans originated or purchased with an initial intent to sell were higher than cash used to acquire such loans.

Cash flows from investing activities

The Firm's investing activities predominantly include loans originated to be held for investment, the AFS securities portfolio and other short-term interest-earning assets. 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 run-off, 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 run-off, and in credit card loans, due to higher repayment rates, run-off of the Washington Mutual portfolio and the Firm's sale of the Kohl's portfolio.

For the year ended December 31, 2010, net cash of $54.0 billion was provided by investing activities. This resulted from a decrease in deposits with banks largely due to a decline in deposits placed with the Federal Reserve Bank and lower interbank lending as market stress eased since the end of 2009; net proceeds from sales and maturities of AFS securities used in the Firm's interest rate risk management activities in Corporate; and a net decrease in the credit card loan portfolio, driven by the expected runoff of the Washington Mutual portfolio, a decline in lower-yielding promotional credit card balances, continued runoff of loan balances in the consumer, excluding credit card portfolio, primarily related to residential real estate, and repayments and loan sales in the wholesale portfolio, primarily in CIB and CB; the decrease was partially offset by higher originations across the wholesale and consumer businesses. Partially offsetting these cash proceeds was an increase in securities purchased under resale agreements, predominantly due to higher financing volume in CIB; and cash used for business acquisitions, primarily RBS Sempra.

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, 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 (for additional information, see Balance Sheet Analysis on pages 106–108 of this Annual Report); 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 TruPS, 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 FHLB advances; and for repurchases of common stock and warrants, and payments of cash dividends on common and preferred stock.

In 2010, net cash used in financing activities was $49.2 billion. This resulted from net repayments of long-term borrowings as new issuances were more than offset by payments primarily reflecting a decline in beneficial interests issued by consolidated VIEs due to maturities related to Firm-sponsored credit card securitization trusts; a decline in deposits associated with wholesale funding activities due to the Firm's lower funding needs; lower deposit levels in CIB, offset partially by net inflows from existing customers and new business in AM, CB and CCB; a decline in commercial paper and other borrowed funds due to lower funding requirements; payments of cash dividends; and repurchases of common stock. Cash was generated as a result of an increase in securities sold under repurchase agreements largely as a result of an increase in activity levels in CIB partially offset by a decrease in Corporate reflecting repositioning activities.

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 real estate, credit card, auto, business banking and student lending businesses, with a primary focus of serving the prime segment of the consumer market. 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. 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 functions:

- 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

The Firm is exposed to credit risk through its lending, capital markets activities and operating services businesses. 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 amount of exposure should the obligor or the counterparty default, the probability of default and the loss severity given a default event.

Based on these factors and related market-based inputs, the Firm estimates probable and unexpected credit losses for the consumer and wholesale portfolios. Probable credit losses inherent in the Firm's loan portfolio and related commitments are reflected in the allowance for credit losses. These losses are estimated using statistical analyses and other factors as described in Note 15 on pages 276–279 of this Annual Report. However, probable losses are not the sole indicators of risk. Unexpected losses are reflected in the allocation of credit risk capital and represent the potential volatility of actual losses relative to the amount of probable losses inherent in the portfolio. The methodologies used to measure probable and unexpected credit losses depends 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, probable and unexpected credit losses are based on statistical analysis of credit losses over discrete periods of time. Probable credit losses inherent in the portfolio 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. Estimated probable and unexpected credit losses also consider 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, probable and unexpected credit losses 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 consistently across the businesses. These scenarios are articulated in terms of macroeconomic factors, which may lead to 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.

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 and 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 for potential problems, as certain of these trends can be improved 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 being 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 further discussion of consumer loans, see Note 14 on pages 250–275 of this Annual Report.

Wholesale credit risk is monitored regularly at an aggregate portfolio, industry and individual counterparty basis 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. For further discussion of Risk monitoring and control, see page 125 of this Annual Report.

CREDIT PORTFOLIO

2012 Credit Risk Overview

The credit environment in 2012 continued to improve, but concerns persisted around the European financial crisis and the U.S. fiscal situation. 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 did see a minimal increase in delinquencies in the fourth quarter as a result of Superstorm Sandy but currently does not anticipate losses to be material. At the same time, 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 2011 and contributed to the Firm's reduction in the allowance for credit losses. The current year included the effect of regulatory guidance implemented during 2012 which resulted in the Firm reporting an additional $3.0 billion of nonaccrual loans at December 31, 2012 (see page 146 in this Annual Report for further information). Excluding the impact of the reporting changes noted above, nonperforming loans would have decreased from 2011.

The credit performance of the consumer portfolio across the entire product spectrum has improved, with lower levels of delinquent loans and charge-offs. Weak overall economic conditions continued to have a negative impact on the number of real estate loans charged off, while continued weak housing prices have resulted in an elevated severity of loss recognized on these defaulted loans. The Firm has taken proactive steps to assist homeowners most in need of financial assistance throughout the economic downturn. For further discussion of the consumer credit environment and consumer loans, see Consumer Credit Portfolio on pages 138–149 and Note 14 on pages 250–275 of this Annual Report.

The wholesale credit environment remained favorable throughout 2012. The rise in commercial client activity resulted in an increase in credit exposure across most businesses, regions and products. Underwriting guidelines across all areas of lending continue to remain a key point of focus, consistent with evolving market conditions and the Firm's risk management activities. The wholesale portfolio continues to be 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, nonperforming assets and charge-offs decreased from the higher levels experienced in 2011, including a reduction in nonaccrual loans by 40%. As a result, the ratio of nonaccrual loans to total loans, the net charge-off rate and the allowance for loan loss coverage ratio all declined. For further discussion of wholesale loans, see Note 14 on pages 250–275 of this Annual Report.

The following table presents JPMorgan Chase's credit portfolio as of December 31, 2012 and 2011. Total credit exposure was $1.9 trillion at December 31, 2012, an increase of $51.1 billion from December 31, 2011, primarily reflecting an increase in the wholesale portfolio of $70.9 billion, partially offset by a decrease in the consumer portfolio of $19.8 billion. For further information on the changes in the credit portfolio, see Consumer Credit Portfolio on pages 138–149, and Wholesale Credit Portfolio on pages 150–159, of this Annual Report.

In the following table, 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. The Firm also records certain loans accounted for at fair value in trading assets. For further information regarding these loans see Note 3 on pages 196–214 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 250–275 and 218–227, respectively, of this Annual Report.

Total credit portfolio

December 31, 2012	Credit exposure		Nonperforming[b][c][d][e][f]	
(in millions)	**2012**	2011	**2012**	2011
Loans retained	**$ 726,835**	$ 718,997	**$ 10,609**	$ 9,810
Loans held-for-sale	**4,406**	2,626	**18**	110
Loans at fair value	**2,555**	2,097	**93**	73
Total loans – reported	**733,796**	723,720	**10,720**	9,993
Derivative receivables	**74,983**	92,477	**239**	297
Receivables from customers and other	**23,761**	17,561	**—**	—
Total credit-related assets	**832,540**	833,758	**10,959**	10,290
Assets acquired in loan satisfactions				
Real estate owned	**NA**	NA	**738**	975
Other	**NA**	NA	**37**	50
Total assets acquired in loan satisfactions	**NA**	NA	**775**	1,025
Total assets	**832,540**	833,758	**11,734**	11,315
Lending-related commitments	**1,027,988**	975,662	**355**	865
Total credit portfolio	**$1,860,528**	$1,809,420	**$ 12,089**	$ 12,180
Credit Portfolio Management derivatives notional, net[a]	**$ (27,447)**	$ (26,240)	**$ (25)**	$ (38)
Liquid securities and other cash collateral held against derivatives	**(13,658)**	(21,807)	**NA**	NA

Year ended December 31, (in millions, except ratios)	**2012**	2011
Net charge-offs[g]	**$ 9,063**	$ 12,237
Average retained loans		
Loans – reported	**717,035**	688,181
Loans – reported, excluding residential real estate PCI loans	**654,454**	619,227
Net charge-off rates[g]		
Loans – reported	**1.26%**	1.78%
Loans – reported, excluding PCI	**1.38**	1.98

(a) 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 158–159 and Note 6 on pages 218–227 of this Annual Report.

(b) Nonperforming includes nonaccrual loans, nonperforming derivatives, commitments that are risk rated as nonaccrual, real estate owned and other commercial and personal property.

(c) At December 31, 2012 and 2011, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of $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 $1.6 billion and $954 million, respectively; and (3) student loans insured by U.S. government agencies under the FFELP of $525 million and $551 million, respectively, that are 90 or more days past due. These amounts were excluded from nonaccrual loans as reimbursement of insured amounts is proceeding normally. 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").

(d) Excludes PCI loans. Because the Firm is recognizing interest income on each pool of PCI loans, they are all considered to be performing.

(e) At December 31, 2012 and 2011, total nonaccrual loans represented 1.46% and 1.38%, respectively, of total loans. At December 31, 2012, included $1.8 billion of Chapter 7 loans and $1.2 billion of performing junior liens that are subordinate to senior liens that are 90 days or more past due. For more information, see Consumer Credit Portfolio on pages 138–149 of this Annual Report.

(f) Prior to the first quarter of 2012, reported amounts had only included defaulted derivatives; effective in the first quarter of 2012, reported amounts in all periods include both defaulted derivatives as well as derivatives that have been risk rated as nonperforming.

(g) 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 138–149 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 primary focus is on serving the prime segment of the consumer credit market. For further information on consumer loans, see Note 14 on pages 250–275 of this Annual Report.

A substantial portion of the consumer loans acquired in the Washington Mutual transaction were identified as 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 250–275 of this Annual Report.

The credit performance of the consumer portfolio improved as the economy continued to slowly expand during 2012, resulting in a reduction in estimated credit losses, particularly in the residential real estate and credit card portfolios. However, high unemployment relative to the historical norm and weak housing prices continue to negatively impact the number of residential real estate loans being charged off and the severity of loss recognized on these loans. Early-stage residential real estate delinquencies (30–89 days delinquent), excluding government guaranteed loans, declined during the first half of the year, but increased during the second half of the year primarily due to seasonal impacts and the effect of Superstorm Sandy. 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. In addition to these elevated levels of delinquencies, high unemployment and weak housing prices, 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) continue to contribute to uncertainty regarding overall residential real estate portfolio performance and have been considered in estimating the allowance for loan losses.

The following table presents consumer credit-related information held by CCB as well as residential real estate loans reported 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 250–275 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][h]		Net charge-offs[i]		Average annual net charge-off rate[i][j]	
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011
Consumer, excluding credit card								
Loans, excluding PCI loans and loans held-for-sale								
Home equity – senior lien	**$ 19,385**	$ 21,765	**$ 931**	$ 495	**$ 279**	$ 284	**1.33%**	1.20%
Home equity – junior lien	**48,000**	56,035	**2,277**	792	**2,106**	2,188	**4.07**	3.69
Prime mortgage, including option ARMs	**76,256**	76,196	**3,445**	3,462	**487**	708	**0.64**	0.95
Subprime mortgage	**8,255**	9,664	**1,807**	1,781	**486**	626	**5.43**	5.98
Auto[a]	**49,913**	47,426	**163**	118	**188**	152	**0.39**	0.32
Business banking	**18,883**	17,652	**481**	694	**411**	494	**2.27**	2.89
Student and other	**12,191**	14,143	**70**	69	**340**	420	**2.58**	2.85
Total loans, excluding PCI loans and loans held-for-sale	**232,883**	242,881	**9,174**	7,411	**4,297**	4,872	**1.81**	1.97
Loans – PCI[b]								
Home equity	**20,971**	22,697	**NA**	NA	**NA**	NA	**NA**	NA
Prime mortgage	**13,674**	15,180	**NA**	NA	**NA**	NA	**NA**	NA
Subprime mortgage	**4,626**	4,976	**NA**	NA	**NA**	NA	**NA**	NA
Option ARMs	**20,466**	22,693	**NA**	NA	**NA**	NA	**NA**	NA
Total loans – PCI	**59,737**	65,546	**NA**	NA	**NA**	NA	**NA**	NA
Total loans – retained	**292,620**	308,427	**9,174**	7,411	**4,297**	4,872	**1.43**	1.54
Loans held-for-sale	**—**	—	**—**	—	**—**	—	**—**	—
Total consumer, excluding credit card loans	**292,620**	308,427	**9,174**	7,411	**4,297**	4,872	**1.43**	1.54
Lending-related commitments								
Home equity – senior lien[c]	**15,180**	16,542						
Home equity – junior lien[c]	**21,796**	26,408						
Prime mortgage	**4,107**	1,500						
Subprime mortgage	**—**	—						
Auto	**7,185**	6,694						
Business banking	**11,092**	10,299						
Student and other	**796**	864						
Total lending-related commitments	**60,156**	62,307						
Receivables from customers[d]	**113**	100						
Total consumer exposure, excluding credit card	**352,889**	370,834						
Credit Card								
Loans retained[e]	**127,993**	132,175	**1**	1	**4,944**	6,925	**3.95**	5.44
Loans held-for-sale	**—**	102	**—**	—	**—**	—	**—**	—
Total credit card loans	**127,993**	132,277	**1**	1	**4,944**	6,925	**3.95**	5.44
Lending-related commitments[c]	**533,018**	530,616						
Total credit card exposure	**661,011**	662,893						
Total consumer credit portfolio	**$ 1,013,900**	$ 1,033,727	**$ 9,175**	$ 7,412	**$ 9,241**	$ 11,797	**2.17%**	2.66%
Memo: Total consumer credit portfolio, excluding PCI	**$ 954,163**	$ 968,181	**$ 9,175**	$ 7,412	**$ 9,241**	$ 11,797	**2.55%**	3.15%

(a) At December 31, 2012 and 2011, excluded operating lease-related assets of $4.7 billion and $4.4 billion, respectively.
(b) Charge-offs are not recorded on PCI loans until actual losses exceed estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. To date, no charge-offs have been recorded for these loans.
(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, 2012 and 2011, nonaccrual loans excluded: (1) mortgage loans insured by U.S. government agencies of $10.6 billion and $11.5 billion, respectively, that are 90 or more days past due; and (2) student loans insured by U.S. government agencies under the FFELP of $525 million and $551 million, respectively, that are 90 or more days past due. These amounts were excluded from nonaccrual loans as reimbursement of insured amounts is proceeding normally. 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. Because the Firm is recognizing interest income on each pool of PCI loans, they are all considered to be performing.
(h) At December 31, 2012, included $1.8 billion of Chapter 7 loans as well as $1.2 billion of performing junior liens that are subordinate to senior liens that are 90 days or more past due. See Consumer Credit Portfolio on pages 138–149 of this Annual Report for further details.
(i) Charge-offs and net charge-off rates for the year ended December 31, 2012, included net charge-offs of Chapter 7 loans 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 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 138–149 of this Annual Report for further details.
(j) Average consumer loans held-for-sale were $433 million and $924 million, respectively, for the years ended December 31, 2012 and 2011. These amounts were excluded when calculating net charge-off rates.

Consumer, excluding credit card

At December 31, 2012, the Firm reported, in accordance with regulatory guidance, $1.7 billion of residential real estate and auto loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual troubled debt restructurings ("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. Prior to September 30, 2012, the Firm's policy was to charge down to net realizable value loans to borrowers who had filed for bankruptcy when such loans became 60 days past due, and report such loans as nonaccrual at that time. However, the Firm did not previously report loans discharged under Chapter 7 bankruptcy as TDRs unless otherwise modified under one of the Firm's loss mitigation programs. Prior periods have not been restated for this policy change.

Based upon regulatory guidance, 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. The prior year was also not restated for this policy change. The classification of certain of these higher-risk junior lien loans as nonaccrual did not have an impact on the allowance for loan losses as the Firm had previously considered the risk characteristics of this portfolio in estimating its allowance for loan losses. This regulatory policy change had a minimal impact on the Firm's net interest income during the year ended December 31, 2012, because predominantly all of the reclassified junior lien loans are currently making payments, and it is the Firm's policy to recognize these cash interest payments received as interest income.

For more information regarding the impact of these changes to nonaccrual loans and net charge-offs, see the Nonaccrual loans section on page 146 of this Annual Report and the Consumer Credit Portfolio table on page 139 of this Annual Report.

Portfolio analysis

Consumer loan balances declined during the year ended December 31, 2012, due to paydowns and charge-offs. Credit performance has improved across most portfolios but residential real estate charge-offs and delinquent loans remain above normal 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 250–275 of this Annual Report.

Home equity: Home equity loans at December 31, 2012, were $67.4 billion, compared with $77.8 billion at December 31, 2011. The decrease in this portfolio primarily reflected loan paydowns and charge-offs. Early-stage delinquencies showed improvement from December 31, 2011, for both senior and junior lien home equity loans, while net charge-offs for the year ended December 31, 2012, which include Chapter 7 loan charge-offs, decreased from the prior year. Senior lien and junior lien nonaccrual loans increased $890 million in 2012 due to the inclusion of Chapter 7 loans. Junior lien nonaccrual loans also increased from December 31, 2011, due to the addition of $1.2 billion of performing junior liens that are subordinate to senior liens that are 90 days or more past due based upon regulatory guidance issued during the first quarter of 2012.

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. Predominantly all HELOCs in the PCI portfolio beyond the revolving period have been modified into fixed-rate amortizing 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 experiencing financial difficulty or when the collateral does not support the loan amount. The majority of the HELOCs contain terms that do not require a fully-amortizing payment until 2015 or later. Certain factors, such as future developments in both unemployment and home prices, could have a significant impact on the performance of these loans. 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 credit losses and the Firm's account management practices are appropriate given the portfolio's risk profile.

At December 31, 2012, the Firm estimated that its home equity portfolio contained approximately $3.1 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 $3.7 billion at December 31, 2011. 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, loan level credit bureau data, which typically provides the delinquency status of the senior lien, as well as information from a database maintained by one of the bank regulatory agencies. 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

(in billions)	December 31, 2012
Junior liens subordinate to:	
Modified current senior lien	$ 1.1
Senior lien 30 – 89 days delinquent	0.9
Senior lien 90 days or more delinquent	1.1 [(a)]
Total current high risk junior liens	**$ 3.1**

(a) Junior liens subordinate to senior liens that are 90 days or more past due are classified as nonaccrual loans. Excludes approximately $100 million of junior liens that are performing but not current, which were placed on nonaccrual in accordance with the regulatory guidance.

Of the estimated $3.1 billion of high-risk junior liens at December 31, 2012, the Firm owns approximately 5% and services approximately 30% 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, 2012, including prime, subprime and loans held-for-sale, were $84.5 billion, compared with $85.9 billion at December 31, 2011. Balances declined due to paydowns and the charge-off or liquidation of delinquent loans, partially offset by new prime mortgage originations. Net charge-offs decreased from the prior year as a result of improvement in delinquencies, but remained elevated.

Prime mortgages, including option adjustable-rate mortgages ("ARMs"), were $76.3 billion at December 31, 2012, compared with $76.2 billion at December 31, 2011. These loans were largely unchanged as increases related to prime mortgage originations and government insured loans that the Firm repurchased were largely offset by charge-off or liquidation of delinquent loans and paydowns of option ARM loans. Excluding loans insured by U.S. government agencies, both early-stage and late-stage delinquencies showed improvement during the year ended December 31, 2012, but early-stage delinquent loans increased during the second half of the year due primarily to seasonal factors and the impact of Superstorm Sandy. Nonaccrual loans decreased from the prior year (notwithstanding the inclusion of Chapter 7 loans), but remained elevated as a result of ongoing foreclosure processing delays. Net charge-offs declined year-over-year but remained elevated.

Option ARM loans, which are included in the prime mortgage portfolio, were $6.5 billion and $7.4 billion and represented 9% and 10% of the prime mortgage portfolio at December 31, 2012 and 2011, respectively. The decrease in option ARM loans resulted from portfolio run-off. As of December 31, 2012, approximately 6% of option ARM borrowers were delinquent, 2% were making interest-only or negatively amortizing payments, and 92% were making amortizing payments (such payments are not necessarily fully amortizing). Approximately 84% of borrowers within the portfolio are subject to risk of payment shock due to future payment recast, as only a limited number of these loans have been modified. The cumulative amount of unpaid interest added to the unpaid principal balance due to negative amortization of option ARMs was not material at either December 31, 2012, or 2011. The Firm estimates the following balances of option ARM loans will undergo a payment recast that results in a payment increase: $523 million in 2013, $709 million in 2014 and $724 million in 2015. Default rates generally increase when payment recast results in a payment increase. However, 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. Accordingly, the Firm expects substantially lower losses on this portfolio when compared with the PCI option ARM portfolio. To date, losses realized on option ARM loans that have undergone payment recast have been immaterial and consistent with the Firm's expectations. The option ARM portfolio was acquired by the Firm as part of the Washington Mutual transaction.

Subprime mortgages at December 31, 2012, were $8.3 billion, compared with $9.7 billion at December 31, 2011. The decrease was due to portfolio run-off and the charge-off or liquidation of delinquent loans. Both early-stage and late-stage delinquencies have improved from December 31, 2011, but remain at elevated levels. Early-stage delinquencies increased during the second half of the year due primarily to seasonal factors and the impact of Superstorm Sandy. Nonaccrual loans increased due to the inclusion of Chapter 7 loans, while net charge-offs declined.

Auto: Auto loans at December 31, 2012, were $49.9 billion, compared with $47.4 billion at December 31, 2011. Loan balances increased due to new originations, partially offset by paydowns and payoffs. Delinquent loans increased compared with December 31, 2011; nonaccrual loans increased due to the inclusion of Chapter 7 loans. Net charge-offs also increased for the year ended December 31, 2012, compared with the prior year as a result of charge-offs of the Chapter 7 loans. Excluding the net charge-offs of the Chapter 7 loans, net charge-offs remained 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, 2012, were $18.9 billion, compared with $17.7 billion at December 31, 2011. The increase was due to growth in new loan origination volumes. These loans primarily include loans that are collateralized, often with personal loan guarantees, and may also include Small Business Administration guarantees. Delinquent loans and nonaccrual loans showed improvement from December 31, 2011. Net charge-offs declined for the year ended December 31, 2012, compared with the same period in the prior year.

Student and other: Student and other loans at December 31, 2012, were $12.2 billion, compared with $14.1 billion at December 31, 2011. The decrease was primarily due to paydowns and charge-offs of student loans. Other loans primarily include other secured and unsecured consumer loans. Nonaccrual loans were flat compared with December 31, 2011 while charge-offs decreased for the year ended December 31, 2012, compared with the prior year.

Purchased credit-impaired loans: PCI loans at December 31, 2012, were $59.7 billion, compared with $65.5 billion at December 31, 2011. This portfolio represents loans acquired in the Washington Mutual transaction, which were recorded at fair value at the time of acquisition.

During the year ended December 31, 2012, no additional impairment or reserve release was recognized in connection with the Firm's review of the PCI portfolios' expected cash flows. At both December 31, 2012 and 2011, the allowance for loan losses for the home equity, prime mortgage, option ARM and subprime mortgage PCI portfolios was $1.9 billion, $1.9 billion, $1.5 billion and $380 million, respectively.

As of December 31, 2012, approximately 27% of the option ARM PCI loans were delinquent and 48% had 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; in addition, substantially all of these 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 estimates of expected cash flows for the PCI portfolio. The cumulative amount of unpaid interest added to the unpaid principal balance of the option ARM PCI pool was $879 million and $1.1 billion at December 31, 2012, and December 31, 2011, respectively. The Firm estimates the following balances of option ARM PCI loans will undergo a payment recast that results in a payment increase: $283 million in 2013, $449 million in 2014 and $778 million in 2015.

The following table provides a summary of lifetime principal loss estimates included in both the nonaccretable difference and the allowance for loan losses. Lifetime principal loss estimates were relatively unchanged from December 31, 2011, to December 31, 2012. Principal charge-offs will not be recorded on these pools until the nonaccretable difference has been fully depleted.

Summary of lifetime principal loss estimates

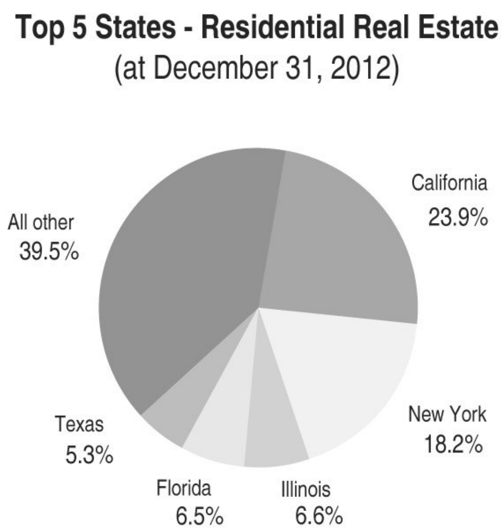
December 31, (in billions)	Lifetime loss estimates[a]		LTD liquidation losses[b]	
	2012	2011	**2012**	2011
Home equity	**$ 14.9**	$ 14.9	**$ 11.5**	$ 10.4
Prime mortgage	**4.2**	4.6	**2.9**	2.3
Subprime mortgage	**3.6**	3.8	**2.2**	1.7
Option ARMs	**11.3**	11.5	**8.0**	6.6
Total	**$ 34.0**	$ 34.8	**$ 24.6**	$ 21.0

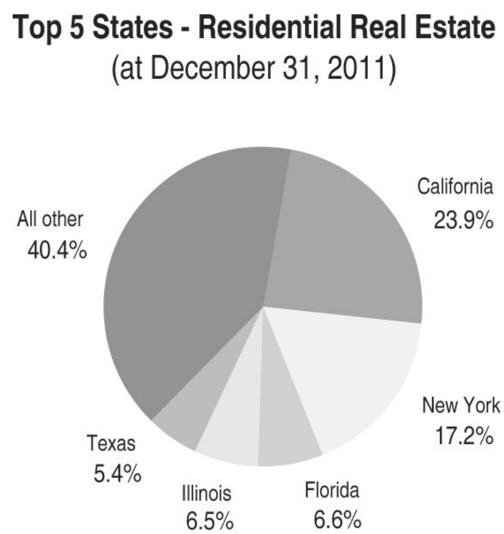
(a) Includes the original nonaccretable difference established in purchase accounting of $30.5 billion for principal losses only plus additional principal losses recognized subsequent to acquisition through the provision and allowance for loan losses. The remaining nonaccretable difference for principal losses only was $5.8 billion and $9.4 billion at December 31, 2012 and 2011, respectively.

(b) Life-to-date ("LTD") liquidation losses represent realization of loss upon loan resolution.

Geographic composition of residential real estate loans

At both December 31, 2012 and 2011, California had the greatest concentration of residential real estate loans with 24% of the total retained residential real estate loan portfolio, excluding mortgage loans insured by U.S. government agencies and PCI loans. Of the total retained residential real estate loan portfolio, excluding mortgage loans insured by U.S. government agencies and PCI loans, $74.1 billion, or 54%, were concentrated in California, New York, Arizona, Florida and Michigan at December 31, 2012, compared with $79.5 billion, or 54%, at December 31, 2011. The unpaid principal balance of PCI loans concentrated in these five states represented 72% of total PCI loans at both December 31, 2012 and 2011.





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 81% at December 31, 2012, compared with 83% at December 31, 2011. Excluding mortgage loans insured by U.S. government agencies and PCI loans, 20% of the retained portfolio had a current estimated LTV ratio greater than 100%, and 8% of the retained portfolio had a current estimated LTV ratio greater than 125% at December 31, 2012, compared with 24% and 10%, respectively, at December 31, 2011. 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.

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

	2012				2011			
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	$ 22,343	111% (b)	$ 19,063	95%	$ 25,064	117% (b)	$ 20,789	97%
Prime mortgage	13,884	104	11,745	88	16,060	110	13,251	91
Subprime mortgage	6,326	107	4,246	72	7,229	115	4,596	73
Option ARMs	22,591	101	18,972	85	26,139	109	21,199	89

(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 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 of $1.9 billion for home equity, $1.9 billion for prime mortgage, $1.5 billion for option ARMs, and $380 million for subprime mortgage at both December 31, 2012 and 2011.

The current estimated average LTV ratios were 110% and 125% for California and Florida PCI loans, respectively, at December 31, 2012, compared with 117% and 140%, respectively, at December 31, 2011. Pressure on housing prices in California and Florida have contributed negatively to both the current estimated average LTV ratio and the ratio of net carrying value to current estimated collateral value for loans in the PCI portfolio. Of the PCI portfolio, 55% had a current estimated LTV ratio greater than 100%, and 24% had a current LTV ratio of greater than 125% at December 31, 2012, compared with 62% and 31%, respectively, at December 31, 2011.

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 250–275 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 1.4 million mortgage modifications have been offered to borrowers and approximately 622,000 have been approved since the beginning of 2009. Of these, approximately 610,000 have achieved permanent modification as of December 31, 2012. Of the remaining modifications offered, 16% are in a trial period or still being reviewed for a modification, while 84% 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 260–262 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 25% for senior lien home equity, 20% for junior lien home equity, 14% for prime mortgages including option ARMs, and 24% 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 22% for home equity, 16% for prime mortgages, 13% for option ARMs and 28% for subprime mortgages. The favorable performance of the 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, 2012.

The following table presents information as of December 31, 2012 and 2011, 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 TDRs. For further information on TDRs for the years ended December 31, 2012 and 2011, see Note 14 on pages 250–275 of this Annual Report.

Modified residential real estate loans

December 31, (in millions)	2012 On–balance sheet loans	2012 Nonaccrual on–balance sheet loans[e]	2011 On–balance sheet loans	2011 Nonaccrual on–balance sheet loans[e]
Modified residential real estate loans, excluding PCI loans[a][b][c]				
Home equity – senior lien	**$ 1,092**	**$ 607**	$ 335	$ 77
Home equity – junior lien	**1,223**	**599**	657	159
Prime mortgage, including option ARMs	**7,118**	**1,888**	4,877	922
Subprime mortgage	**3,812**	**1,308**	3,219	832
Total modified residential real estate loans, excluding PCI loans	**$ 13,245**	**$ 4,402**	$ 9,088	$ 1,990
Modified PCI loans[d]				
Home equity	**$ 2,302**	**NA**	$ 1,044	NA
Prime mortgage	**7,228**	**NA**	5,418	NA
Subprime mortgage	**4,430**	**NA**	3,982	NA
Option ARMs	**14,031**	**NA**	13,568	NA
Total modified PCI loans	**$ 27,991**	**NA**	$ 24,012	NA

(a) Amounts represent the carrying value of modified residential real estate loans.
(b) At December 31, 2012 and 2011, $7.5 billion and $4.3 billion, respectively, of loans permanently 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 280–291 of this Annual Report.
(c) At December 31, 2012, included $1.6 billion of Chapter 7 loans, consisting of $450 million of senior lien home equity loans, $448 million of junior lien home equity loans, $465 million of prime, including option ARMs, and $245 million of subprime mortgages. Certain of these loans were previously reported as nonaccrual loans (e.g. based upon the delinquency status of the loan). See Consumer Credit Portfolio on pages 138–149 of this Annual Report for further details.
(d) Amounts represent the unpaid principal balance of modified PCI loans.
(e) As of December 31, 2012 and 2011, nonaccrual loans included $2.9 billion and $886 million, 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 250–275 of this Annual Report.

Nonperforming assets

The following table presents information as of December 31, 2012 and 2011, about consumer, excluding credit card, nonperforming assets.

Nonperforming assets[a] December 31, (in millions)	2012	2011
Nonaccrual loans[b]		
Home equity – senior lien	$ 931	$ 495
Home equity – junior lien	2,277	792
Prime mortgage, including option ARMs	3,445	3,462
Subprime mortgage	1,807	1,781
Auto	163	118
Business banking	481	694
Student and other	70	69
Total nonaccrual loans	9,174	7,411
Assets acquired in loan satisfactions		
Real estate owned	647	802
Other	37	44
Total assets acquired in loan satisfactions	684	846
Total nonperforming assets	$ 9,858	$ 8,257

(a) At December 31, 2012 and 2011, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of $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 $1.6 billion and $954 million, respectively; and (3) student loans insured by U.S. government agencies under the FFELP of $525 million and $551 million, respectively, that are 90 or more days past due. These amounts were excluded as reimbursement of insured amounts is proceeding normally.

(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: Total consumer, excluding credit card, nonaccrual loans were $9.2 billion at December 31, 2012, compared with $7.4 billion at December 31, 2011.

Excluding the combined impacts of the Chapter 7 loans and the performing junior lien home equity loans discussed below, total consumer, excluding credit card, nonaccrual loans would have been $6.2 billion at December 31, 2012, compared with $7.4 billion at December 31, 2011. In addition to the combined impacts of the Chapter 7 loans and the performing junior lien home equity loans, elongated foreclosure processing timelines continue to result in elevated levels of nonaccrual loans in the residential real estate portfolios.

Nonaccrual loans in the residential real estate portfolio totaled $8.5 billion at December 31, 2012, of which 42% were greater than 150 days past due, compared with nonaccrual residential real estate loans of $6.5 billion at December 31, 2011, of which 69% 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 52% and 50% to estimated net realizable value of the collateral at December 31, 2012 and 2011, respectively.

At December 31, 2012, consumer, excluding credit card, nonaccrual loans included $1.8 billion of Chapter 7 loans, consisting of $450 million of senior lien home equity, $440 million of junior lien home equity, $500 million of prime mortgage, including option ARMs, $357 million of subprime mortgages and $51 million of auto loans. Because the Chapter 7 loans are accounted for as collateral-dependent loans and reported at the net realizable value of the collateral, these loans did not require an additional allowance for loan losses. Certain of these individual loans had previously been reported as performing TDRs (e.g., those loans that had been previously modified under one of the Firm's loss mitigation programs and that subsequently made at least six payments under the modified payment terms).

At December 31, 2012, nonaccrual loans in the residential real estate portfolio also included $1.2 billion of performing junior lien home equity loans that are subordinate to senior liens that are 90 days or more past due. For more information on the change in reporting of these junior liens, see the home equity portfolio analysis discussion on pages 140–141 of this Annual Report.

Modified loans have contributed to an elevated level of nonaccrual loans, since the Firm's policy requires modified loans that are on nonaccrual status to remain on nonaccrual status until payment is reasonably assured and the borrower has made a minimum of six payments under the modified terms. At December 31, 2012 and 2011, modified residential real estate loans of $4.4 billion and $2.0 billion, respectively, were classified as nonaccrual loans.

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 transaction with the borrower. REO assets, excluding those insured by U.S. government agencies, decreased by $155 million from $802 million at December 31, 2011, to $647 million at December 31, 2012.

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. It is the Firm's goal that foreclosure in these situations be a last resort, and accordingly, the Firm has made, and continues to make, significant efforts to help borrowers stay in their homes. Since the third quarter of 2010, the Firm has prevented two foreclosures for every foreclosure completed; foreclosure-prevention methods include loan modification, short sales and other means.

The Firm has a well-defined foreclosure prevention process when a borrower fails to pay on his or her loan. The Firm attempts to contact the borrower multiple times and in various ways in an effort to pursue home retention or other options other than foreclosure. In addition, 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. The delinquency period for the average borrower at the time of foreclosure over the last year has been approximately 25 months.

The high volume of delinquent and defaulted mortgages experienced by the Firm has placed a significant amount of stress on the Firm's servicing operations. The Firm has entered into a global settlement with certain federal and state agencies and Consent Orders with its banking regulators with respect to various mortgage servicing, loss mitigation and foreclosure process-related matters as further discussed below. The GSEs also impose compensatory fees on its 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 is continuing to incur, compensatory fees, which are reported in default servicing expense. To address its underlying mortgage servicing, loss mitigation and foreclosure process issues, the Firm has made, and is continuing to make, significant changes to its mortgage operations, which will enable it to comply with the Consent Orders and the global settlement and enhance its ability to comply with the foreclosure timetables mandated by the GSEs.

Global settlement with federal and state agencies: 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, 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, which became effective on April 5, 2012, required the Firm to, among other things: (i) make cash payments of approximately $1.1 billion, a portion of which will be set aside for payments to borrowers ("Cash Settlement Payment"); (ii) provide approximately $500 million of refinancing relief to certain "underwater" borrowers whose loans are owned and serviced by the Firm ("Refi Program"); and (iii) provide approximately $3.7 billion of additional relief for certain borrowers, including reductions of principal on first and second liens, payments to assist with short sales, deficiency balance waivers on past foreclosures and short sales, and forbearance assistance for unemployed homeowners ("Consumer Relief Program"). The Cash Settlement Payment was made on April 13, 2012.

The purpose of the Refi Program was to allow eligible borrowers who were current on their Firm-owned mortgage loans to refinance those loans and take advantage of the current low interest rate environment. Borrowers who were eligible for the Refi Program were those who were unable to refinance their mortgage loans under standard refinancing programs because they had no equity or, in many cases, negative equity in their homes. Initial interest rates on loans refinanced under the Refi Program were lower than the borrowers' interest rates prior to the refinancings and were capped at the greater of 100 basis points over Freddie Mac's then-current Primary Mortgage Market Survey Rate or 5.25%. Under the Refi Program, the interest rate on each refinanced loan could have been reduced either for the remaining life of the loan or for five years. The Firm reduced the interest rates on loans that it refinanced under the Refi Program for the remaining lives of those loans. In substance, these refinancings were more similar to loan modifications than traditional refinancings. All refinancings required under the Refi Program were completed as of December 31, 2012.

The first and second lien loan modifications provided for in the Consumer Relief Program will typically involve principal reductions for borrowers who have negative equity in their homes and who are experiencing financial difficulty. These loan modifications are primarily expected to be executed under the terms of either MHA (e.g., HAMP, 2MP) or one of the Firm's proprietary modification programs. The Firm began to provide relief to borrowers under the Consumer Relief Program in the first quarter of 2012.

If the Firm does not meet certain targets set forth in the global settlement agreement for providing either refinancings under the Refi Program or other borrower relief under the Consumer Relief Program within certain prescribed time periods, the Firm must instead make additional cash payments. In general, 75% of the targets must be met within two years of the date of the global settlement and 100% must be achieved within three years of that date. The Firm filed its first quarterly report concerning its compliance with the global settlement with the Office of Mortgage Settlement Oversight in November 2012. The report included information regarding the refinancings completed under the Refi Program and relief provided to borrowers under the Consumer Relief Program, as well as credits earned by the Firm under the global settlement as a result of such actions. The Firm expects to substantially complete its obligations under the Consumer Relief Program in the first half of 2013.

The global settlement also requires the Firm to adhere to certain enhanced mortgage servicing standards. The servicing standards include, among other items, the following enhancements to the Firm's servicing of loans: a pre-foreclosure notice to all borrowers, which will include account information, holder status, and loss mitigation steps taken; enhancements to payment application and collections processes; strengthening procedures for filings in bankruptcy proceedings; deploying specific restrictions on the "dual track" of foreclosure and loss mitigation; standardizing the process for appeal of loss mitigation denials; and implementing certain restrictions on fees, including the waiver of certain fees while a borrower's loss mitigation application is being evaluated. The Firm has made significant progress in implementing the prescribed servicing standards.

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 the GSEs, among other items.

The Firm has accounted for all refinancings performed under the Refi Program and expects to account for all first and second lien loans modified under the Consumer Relief Program as TDRs. The expected impact of the Consumer Relief Program has been considered in the Firm's allowance for loan losses. For additional information, see Allowance for Credit Losses on pages 159–162 of this Annual Report.

On February 9, 2012, the Firm also 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, as discussed further below. The Firm's payment obligations under those agreements will be deemed satisfied by the Firm's payments and provisions of relief under the global settlement.

For further information on the global settlement, see Critical Accounting Estimates Used by the Firm on pages 178–182, Note 2 on pages 195–196 and Note 14 on pages 250–275 of this Annual Report.

Consent Orders: During the second quarter of 2011, the Firm entered into Consent Orders ("Orders") with banking regulators relating to its residential mortgage servicing, foreclosure and loss-mitigation activities. In the Orders, the regulators have mandated significant changes to the Firm's servicing and default business and outlined requirements to implement these changes. The Firm submitted comprehensive action plans to the regulators, which set forth the steps necessary to ensure the Firm's residential mortgage servicing, foreclosure and loss-mitigation activities are conducted in accordance with the requirements of the Orders. The plans were approved and the Firm has implemented a number of corrective actions and made significant progress with respect to the following:

- Established an independent Compliance Committee which meets regularly and monitors progress against the Orders.
- Launched a new Customer Assistance Specialist organization for borrowers to facilitate the single point of contact initiative and ensure effective coordination and communication related to foreclosure, loss-mitigation and loan modification.
- Enhanced its approach to oversight over third-party vendors for foreclosure or other related functions.
- Standardized the processes for maintaining appropriate controls and oversight of the Firm's activities with respect to the Mortgage Electronic Registration system ("MERS") and compliance with MERSCORP's membership rules, terms and conditions.
- Strengthened its compliance program so as to ensure mortgage-servicing and foreclosure operations, including loss-mitigation and loan modification, comply with all applicable legal requirements.
- Enhanced management information systems for loan modification, loss-mitigation and foreclosure activities.
- Developed a comprehensive assessment of risks in servicing operations including, but not limited to, operational, transaction, legal and reputational risks.
- Made technological enhancements to automate and streamline processes for the Firm's document management, training, skills assessment and payment processing initiatives.
- Deployed an internal validation process to monitor progress under the comprehensive action plans.

In addition, pursuant to the Orders, the Firm is required to enhance oversight of its mortgage servicing activities, including oversight by compliance, management and audit personnel and, accordingly, has made and continues to make changes in its organization structure, control oversight and customer service practices.

Pursuant to the Orders, the Firm had retained an independent consultant to conduct a review of its residential foreclosure actions during the period from January 1, 2009, through December 31, 2010 (including foreclosure actions brought in respect of loans being serviced), and to remediate any errors or deficiencies identified by the independent consultant.

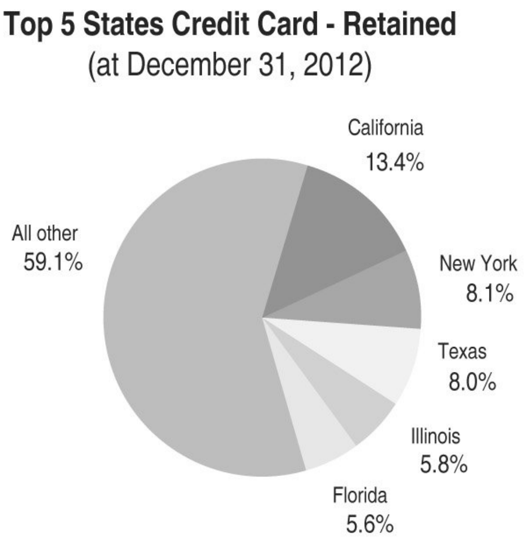
On January 7, 2013, the Firm announced that it and a number of other financial institutions entered into a settlement agreement with the OCC and the Federal Reserve providing for the termination of such Independent Foreclosure Review programs. As a result of this settlement, the independent consultant will no longer be conducting a look-back review of residential foreclosure actions. The Firm will make a cash payment of $753 million into a settlement fund for distribution to qualified borrowers. The Firm has also committed an additional $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 Consumer Relief Program of the global settlement. 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.

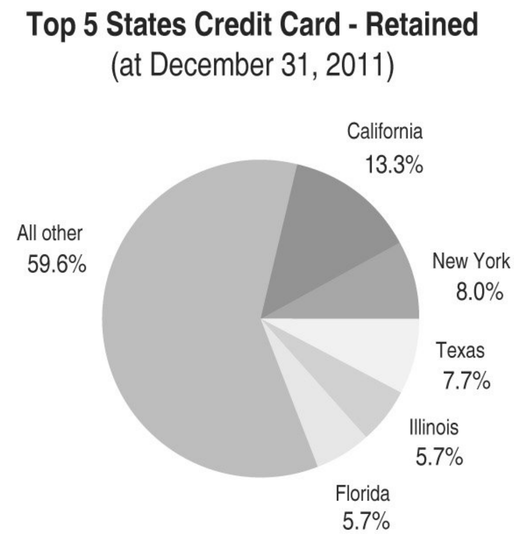
Credit Card

Total credit card loans were $128.0 billion at December 31, 2012, a decrease of $4.3 billion from December 31, 2011. The decrease in outstanding loans was primarily due to higher repayment rates.

For the retained credit card portfolio, the 30+ day delinquency rate decreased to 2.10% at December 31, 2012, from 2.81% at December 31, 2011. For the years ended December 31, 2012 and 2011, the net charge-off rates were 3.95% and 5.44% respectively. Charge-offs have improved as a result of lower 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, 2012 and 2011. Loan concentration for the top five states of California, New York, Texas, Florida and Illinois consisted of $52.3 billion in receivables, or 41% of the retained loan portfolio, at December 31, 2012, compared with $53.6 billion, or 40%, at December 31, 2011.

Geographic composition of Credit Card loans





Modifications of credit card loans

At December 31, 2012 and 2011, the Firm had $4.8 billion and $7.2 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, 2011, was attributable to a reduction in new modifications as well as ongoing payments and charge-offs on previously modified credit card loans. In the second quarter of 2012, the Firm revised its policy for recognizing charge-offs on restructured loans that do not comply with their modified payment terms. Commencing June 30, 2012 these loans are now charged-off when they are 120 days past due rather than 180 days past due.

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 250–275 of this Annual Report.

WHOLESALE CREDIT PORTFOLIO

As of December 31, 2012, wholesale exposure (CIB, CB and AM) increased by $70.9 billion from December 31, 2011, primarily driven by increases of $52.1 billion in lending-related commitments and $30.2 billion in loans due to increased client activity across most regions and most businesses. The increase in loans was due to growth in CB and AM. These increases were partially offset by a $17.5 billion decrease in derivative receivables, primarily related to the decline in the U.S. dollar, and tightening of credit spreads; these changes resulted in reductions to interest rate, credit derivative, and foreign exchange balances.

Wholesale credit portfolio

December 31,	Credit exposure		Nonperforming[(c)(d)]	
(in millions)	**2012**	2011	**2012**	2011
Loans retained	**$306,222**	$278,395	**$ 1,434**	$ 2,398
Loans held-for-sale	**4,406**	2,524	**18**	110
Loans at fair value	**2,555**	2,097	**93**	73
Loans – reported	**313,183**	283,016	**1,545**	2,581
Derivative receivables	**74,983**	92,477	**239**	297
Receivables from customers and other[(a)]	**23,648**	17,461	**—**	—
Total wholesale credit-related assets	**411,814**	392,954	**1,784**	2,878
Lending-related commitments	**434,814**	382,739	**355**	865
Total wholesale credit exposure	**$846,628**	$775,693	**$ 2,139**	$ 3,743
Credit Portfolio Management derivatives notional, net[(b)]	**$ (27,447)**	$ (26,240)	**$ (25)**	$ (38)
Liquid securities and other cash collateral held against derivatives	**(13,658)**	(21,807)	**NA**	NA

(a) 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.
(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 158–159, and Note 6 on pages 218–227 of this Annual Report.
(c) Excludes assets acquired in loan satisfactions.
(d) Prior to the first quarter of 2012, reported amounts had only included defaulted derivatives; effective in the first quarter of 2012, reported amounts in all periods include both defaulted derivatives as well as derivatives that have been risk rated as nonperforming.

The following table presents summaries of the maturity and ratings profiles of the wholesale credit portfolio as of December 31, 2012 and 2011. 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

	Maturity profile[e]				Ratings profile			
December 31, 2012 (in millions, except ratios)	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	**Total**	Investment-grade AAA/Aaa to BBB-/Baa3	Noninvestment-grade 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				(13,658)			(13,658)	
Total derivative receivables, net of all collateral	13,336	25,055	22,934	61,325	50,406	10,919	61,325	82
Lending-related commitments	164,327	261,261	9,226	434,814	347,316	87,498	434,814	80
Subtotal	292,890	403,989	105,482	802,361	612,168	190,193	802,361	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				$ 832,970			$ 832,970	
Credit Portfolio Management derivatives net notional by counterparty ratings profile[b][c]	$ (1,579)	$ (16,475)	$ (9,393)	$ (27,447)	$ (27,507)	$ 60	$ (27,447)	100%
Credit Portfolio Management derivatives net notional by reference entity ratings profile[b][d]					$ (24,622)	$ (2,825)	$ (27,447)	90%

	Maturity profile[e]				Ratings profile			
December 31, 2011 (in millions, except ratios)	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	**Total**	Investment-grade AAA/Aaa to BBB-/Baa3	Noninvestment-grade BB+/Ba1 & below	**Total**	Total % of IG
Loans retained	$ 113,222	$ 101,959	$ 63,214	$ 278,395	$ 196,998	$ 81,397	$ 278,395	71%
Derivative receivables				92,477			92,477	
Less: Liquid securities and other cash collateral held against derivatives				(21,807)			(21,807)	
Total derivative receivables, net of all collateral	8,243	29,910	32,517	70,670	57,637	13,033	70,670	82
Lending-related commitments	139,978	233,396	9,365	382,739	310,107	72,632	382,739	81
Subtotal	261,443	365,265	105,096	731,804	564,742	167,062	731,804	77
Loans held-for-sale and loans at fair value[a]				4,621			4,621	
Receivables from customers and other				17,461			17,461	
Total exposure – net of liquid securities and other cash collateral held against derivatives				$ 753,886			$ 753,886	
Credit Portfolio Management derivatives net notional by counterparty ratings profile[b][c]	$ (2,034)	$ (16,450)	$ (7,756)	$ (26,240)	$ (26,300)	$ 60	$ (26,240)	100%
Credit Portfolio Management derivatives net notional by reference entity ratings profile[b][d]					$ (22,159)	$ (4,081)	$ (26,240)	84%

(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 each derivative counterparty and the ratings profile shown is based on the ratings of those counterparties. The counterparties to these positions are predominately investment-grade banks and finance companies.
(d) 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.
(e) The maturity profiles of retained loans and lending-related commitments are based on the remaining contractual maturity. The maturity profiles of derivative receivables are based on the maturity profile of average exposure. For further discussion of average exposure, see Derivative receivables on pages 156–159 of this Annual Report.

Wholesale credit exposure – selected industry exposures

The Firm focuses on the management and diversification of its industry exposures, with particular attention paid to industries with actual or potential credit concerns. As of September 30, 2012, the Firm revised its definition of the criticized component of the wholesale portfolio to align with the banking regulators' definition of criticized exposures, which consist of the special mention, substandard and doubtful categories. Prior periods have been reclassified to conform with the current presentation. The reclassification resulted in an increase in the level of reported criticized exposure by $4.5 billion as of December 31, 2011, which did not result in material changes to the Firm's underlying risk ratings or the amount of nonaccrual loans. Accordingly, this reclassification did not result in material changes to the Firm's allowance for credit losses or additional provision for credit losses. Furthermore, this change had no effect on reported net interest income with respect to the affected loans. The total criticized component of the portfolio, excluding loans held-for-sale and loans at fair value, decreased by 23% to $15.6 billion at December 31, 2012, from $20.3 billion at December 31, 2011, primarily due to repayments.

Below are summaries of the top 25 industry exposures as of December 31, 2012 and 2011. For additional information on industry concentrations, see Note 5 on page 217 of this Annual Report.

As of or for the year ended **December 31, 2012** (in millions)	Credit exposure[c]	Investment-grade	Noninvestment-grade[d][f] Noncriticized	Criticized performing	Criticized nonperforming	Selected metrics: 30 days or more past due and accruing loans	Net charge-offs/ (recoveries)	Credit derivative hedges[e]	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)	$ (507)
Banks & Finance Cos	73,318	55,805	16,928	578	7	20	(34)	(3,524)	(5,983)
Healthcare	48,487	41,146	6,761	569	11	38	9	(238)	(450)
Oil & Gas	42,563	31,258	11,012	270	23	9	–	(155)	(101)
State & Municipal Govt[b]	41,821	40,562	1,093	52	114	28	2	(186)	(218)
Consumer Products	32,778	21,428	10,473	868	9	2	(16)	(275)	(12)
Asset Managers	31,474	26,283	4,987	204	–	46	–	–	(2,667)
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)
Central Govt	21,223	20,678	484	61	–	–	–	(11,620)	(1,154)
Metals/Mining	20,958	12,912	7,608	406	32	8	(1)	(409)	(124)
Transportation	19,827	15,128	4,353	283	63	5	2	(82)	(1)
Machinery & Equipment Mfg	18,504	10,228	7,827	444	5	–	2	(23)	–
Technology	18,488	12,089	5,683	696	20	–	1	(226)	–
Media	16,007	7,473	7,754	517	263	2	(218)	(93)	–
Insurance	14,446	12,156	2,119	171	–	2	(2)	(143)	(1,654)
Business Services	13,577	7,172	6,132	232	41	9	23	(10)	–
Building Materials/Construction	12,377	5,690	5,892	791	4	8	1	(114)	–
Telecom Services	12,239	7,792	3,244	1,200	3	5	1	(229)	–
Chemicals/Plastics	11,591	7,234	4,172	169	16	18	2	(55)	(74)
Automotive	11,511	6,447	4,963	101	–	–	–	(530)	–
Leisure	7,748	3,160	3,724	551	313	–	(13)	(63)	(24)
Agriculture/Paper Mfg	7,729	5,029	2,657	42	1	5	–	–	–
Aerospace/Defense	6,702	5,518	1,150	33	1	–	–	(141)	–
Securities Firms & Exchanges	5,756	4,096	1,612	46	2	–	–	(171)	(179)
All other	195,567	174,264	20,562	384	357	1,478	5	(8,767)	(141)
Subtotal	$ 816,019	$ 624,668	$ 175,713	$ 13,610	$ 2,028	$ 2,096	$ (178)	$ (27,447)	$ (13,658)
Loans held-for-sale and loans at fair value	6,961								
Receivables from customers and other	23,648								
Total	$ 846,628								

As of or for the year ended December 31, 2011 (in millions)	Credit exposure[c]	Investment-grade	Noninvestment-grade[d][f] Noncriticized	Criticized performing	Criticized nonperforming	Selected metrics: 30 days or more past due and accruing loans	Net charge-offs/ (recoveries)	Credit derivative hedges[e]	Liquid securities and other cash collateral held against derivative receivables
Top 25 industries[a]									
Real Estate	$ 67,594	$ 40,921	$ 19,947	$ 5,732	$ 994	$ 411	$ 256	$ (97)	$ (359)
Banks & Finance Cos	71,440	59,115	11,744	555	26	20	(211)	(3,053)	(9,585)
Healthcare	42,247	35,146	6,816	228	57	166	–	(304)	(320)
Oil & Gas	35,437	24,957	10,178	274	28	3	–	(119)	(88)
State & Municipal Govt[b]	41,930	40,565	1,122	113	130	23	–	(185)	(147)
Consumer Products	29,637	19,728	9,040	832	37	3	13	(272)	(50)
Asset Managers	33,465	28,834	4,201	429	1	24	–	–	(4,807)
Utilities	28,650	23,557	4,412	174	507	–	76	(105)	(359)
Retail & Consumer Services	22,891	14,567	7,446	778	100	15	1	(96)	(1)
Central Govt	17,138	16,524	488	126	–	–	–	(9,796)	(813)
Metals/Mining	15,254	8,716	6,339	198	1	6	(19)	(423)	–
Transportation	16,305	12,061	3,930	256	58	6	17	(178)	–
Machinery & Equipment Mfg	16,498	9,014	7,236	238	10	1	(1)	(19)	–
Technology	17,898	12,494	4,985	417	2	–	4	(191)	–
Media	11,909	6,853	3,729	866	461	1	18	(188)	–
Insurance	13,092	9,425	2,852	802	13	–	–	(552)	(454)
Business Services	12,408	7,093	5,012	264	39	17	22	(20)	(2)
Building Materials/Construction	11,770	5,175	5,335	1,256	4	6	(4)	(213)	–
Telecom Services	11,552	8,502	2,493	546	11	2	5	(390)	–
Chemicals/Plastics	11,728	7,867	3,700	146	15	–	–	(95)	(20)
Automotive	9,910	5,699	4,123	88	–	9	(11)	(819)	–
Leisure	5,650	3,051	1,680	530	389	1	1	(81)	(26)
Agriculture/Paper Mfg	7,594	4,888	2,540	166	–	9	–	–	–
Aerospace/Defense	8,560	7,646	845	69	–	7	–	(208)	–
Securities Firms & Exchanges	12,394	10,799	1,571	23	1	10	73	(395)	(3,738)
All other	180,660	161,546	16,785	1,653	676	1,099	200	(8,441)	(1,038)
Subtotal	$ 753,611	$ 584,743	$ 148,549	$ 16,759	$ 3,560	$ 1,839	$ 440	$ (26,240)	$ (21,807)
Loans held-for-sale and loans at fair value	4,621								
Receivables from customers and other	17,461								
Total	$ 775,693								

(a) The industry rankings presented in the table as of December 31, 2011, are based on the industry rankings of the corresponding exposures at December 31, 2012, not actual rankings of such exposures at December 31, 2011.

(b) In addition to the credit risk exposure to states and municipal governments (both U.S. and non-U.S.) at December 31, 2012 and 2011, noted above, the Firm held $18.2 billion and $16.7 billion, respectively, of trading securities and $21.7 billion and $16.5 billion, respectively, of AFS securities issued by U.S. state and municipal governments. For further information, see Note 3 and Note 12 on pages 196–214 and 244–248, respectively, of this Annual Report.

(c) 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".

(d) As of December 31, 2012, exposures deemed criticized correspond to special mention, substandard and doubtful categories as defined by bank regulatory agencies. Prior periods have been reclassified to conform with the current presentation.

(e) 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.

(f) Prior to the first quarter of 2012, reported amounts had only included defaulted derivatives; effective in the first quarter of 2012, reported amounts in all periods include both defaulted derivatives as well as derivatives that have been risk rated as nonperforming.

Presented below is a discussion of several industries to which the Firm has significant exposure, as well as industries the Firm 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 $8.6 billion or 13%, in 2012 to $76.2 billion. The increase was primarily driven by CB. The credit quality of this industry improved as the investment-grade portion of the exposures to this industry increased by 22% from 2011, while the criticized portion declined by 32% from 2011, primarily as a result of repayments and loan sales. The ratio of nonaccrual retained loans to total retained loans decreased to 0.86% at December 31, 2012 from 1.62% at December 31, 2011 in line with the decrease in real estate criticized exposure. For further information on commercial real estate loans, see Note 14 on pages 250–275 of this Annual Report.

- **Banks and finance companies:** Exposure to this industry increased by $1.9 billion or 3%, and criticized exposure decreased by 0.7%, compared with 2011. At December 31, 2012, 76% of the portfolio is rated investment-grade.

- **State and municipal governments:** Exposure to this industry decreased by $109 million in 2012 to $41.8 billion. Lending-related commitments comprise approximately 69% of the exposure to this sector, generally in the form of bond and commercial paper liquidity and standby letter of credit commitments. The credit quality of the portfolio remains high as 97% of the portfolio was rated investment-grade, which was unchanged from 2011. Criticized exposure was less than 0.40% of this industry's exposure. The non-U.S. portion of this industry was less than 4% of the total. The Firm continues to actively monitor and manage this exposure in light of the challenging environment faced by state and municipal governments. For further discussion of commitments for bond liquidity and standby letters of credit, see Note 29 on pages 308–315 of this Annual Report.

- **All other:** All other at December 31, 2012 (excluding loans held-for-sale and loans at fair value), included $195.6 billion of credit exposure. Concentrations of exposures include: (1) Individuals, Private Education & Civic Organizations, which were 57% of this category and (2) SPEs which were 28% of this category. Each of these categories has high credit quality, and approximately 90% of each of these categories were rated investment-grade. SPEs provide secured financing (generally backed by receivables, loans or bonds with a diverse group of obligors); the lending in this category was all secured and well-structured. For further discussion of SPEs, see Note 1 on pages 193–194 and Note 16 on pages 280–291 of this Annual Report. The remaining exposure within this category is well-diversified, with no category being more than 7% of its total.

The following tables present the geographic distribution of wholesale credit exposure including nonperforming assets and past due loans as of December 31, 2012 and 2011. The geographic distribution of the wholesale portfolio is determined based predominantly on the domicile (legal residence) of the borrower. For further information on Country Risk Management, see pages 170–173 of this Annual Report.

	Credit exposure				Nonperforming					
December 31, 2012 (in millions)	Loans	Lending-related commitments	Derivative receivables	Total credit exposure	Nonaccrual loans[(a)]	Derivatives	Lending-related commitments	Total non-performing credit exposure	Assets acquired in loan satisfactions	30 days or more past due and accruing loans
Europe/Middle East/Africa	**$ 40,760**	**$ 75,706**	**$ 35,561**	**$ 152,027**	**$ 13**	**$ 8**	**$ 15**	**$ 36**	**$ 9**	**$ 131**
Asia/Pacific	**30,287**	**22,919**	**10,557**	**63,763**	**13**	**—**	**—**	**13**	**—**	**18**
Latin America/Caribbean	**30,322**	**26,438**	**4,889**	**61,649**	**67**	**—**	**4**	**71**	**—**	**640**
Other North America	**2,987**	**7,653**	**1,418**	**12,058**	**—**	**—**	**—**	**—**	**—**	**14**
Total non-U.S.	**104,356**	**132,716**	**52,425**	**289,497**	**93**	**8**	**19**	**120**	**9**	**803**
Total U.S.	**201,866**	**302,098**	**22,558**	**526,522**	**1,341**	**231**	**336**	**1,908**	**82**	**1,293**
Loans held-for-sale and loans at fair value	**6,961**	**—**	**—**	**6,961**	**111**	**NA**	**—**	**111**	**NA**	**—**
Receivables from customers and other	**—**	**—**	**—**	**23,648**	**—**	**NA**	**NA**	**—**	**NA**	**—**
Total	**$ 313,183**	**$ 434,814**	**$ 74,983**	**$ 846,628**	**$ 1,545**	**$ 239**	**$ 355**	**$ 2,139**	**$ 91**	**$ 2,096**

	Credit exposure				Nonperforming					
December 31, 2011 (in millions)	Loans	Lending-related commitments	Derivative receivables	Total credit exposure	Nonaccrual loans[(a)]	Derivatives[(b)]	Lending-related commitments	Total non-performing credit exposure	Assets acquired in loan satisfactions	30 days or more past due and Accruing loans
Europe/Middle East/Africa	$ 36,637	$ 60,681	$ 43,204	$ 140,522	$ 44	$ 14	$ 25	$ 83	$ —	$ 68
Asia/Pacific	31,119	17,194	10,943	59,256	1	42	—	43	—	6
Latin America/Caribbean	25,141	20,859	5,316	51,316	386	—	15	401	3	222
Other North America	2,267	6,680	1,488	10,435	3	—	1	4	—	—
Total non-U.S.	95,164	105,414	60,951	261,529	434	56	41	531	3	296
Total U.S.	183,231	277,325	31,526	492,082	1,964	241	824	3,029	176	1,543
Loans held-for-sale and loans at fair value	4,621	—	—	4,621	183	NA	—	183	NA	—
Receivables from customers and other	—	—	—	17,461	—	NA	NA	—	NA	—
Total	$ 283,016	$ 382,739	$ 92,477	$ 775,693	$ 2,581	$ 297	$ 865	$ 3,743	$ 179	$ 1,839

(a) At December 31, 2012 and 2011, the Firm held an allowance for loan losses of $310 million and $496 million, respectively, related to nonaccrual retained loans resulting in allowance coverage ratios of 22% and 21%, respectively. Wholesale nonaccrual loans represented 0.49% and 0.91% of total wholesale loans at December 31, 2012 and 2011, respectively.

(b) Prior to the first quarter of 2012, reported amounts had only included defaulted derivatives; effective in the first quarter of 2012, reported amounts in all periods include both defaulted derivatives as well as derivatives that have been risk rated as nonperforming.

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 250–275 of this Annual Report.

The Firm actively manages wholesale credit exposure. One way of managing credit risk is through sales of loans and lending-related commitments. During 2012 and 2011, the Firm sold $8.4 billion and $5.2 billion, respectively, of loans and commitments. These sale activities are not related to the Firm's securitization activities. For further discussion of securitization activity, see Liquidity Risk Management and Note 16 on pages 127–133 and 280–291 respectively, of this Annual Report.

The following table presents the change in the nonaccrual loan portfolio for the years ended December 31, 2012 and 2011. Nonaccrual wholesale loans decreased by $1.0 billion from December 31, 2011, primarily reflecting paydowns.

Wholesale nonaccrual loan activity

Year ended December 31, (in millions)	**2012**	2011
Beginning balance	**$ 2,581**	$ 6,006
Additions	**1,748**	2,519
Reductions:		
Paydowns and other	**1,784**	2,841
Gross charge-offs	**335**	907
Returned to performing status	**240**	807
Sales	**425**	1,389
Total reductions	**2,784**	5,944
Net additions/(reductions)	**(1,036)**	(3,425)
Ending balance	**$ 1,545**	$ 2,581

The following table presents net charge-offs/recoveries, which are defined as gross charge-offs less recoveries, for the years ended December 31, 2012 and 2011. 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)	2012	2011
Loans – reported		
Average loans retained	$ 291,980	$ 245,111
Gross charge-Offs	346	916
Gross recoveries	(524)	(476)
Net charge-offs/(recoveries)	(178)	440
Net charge-off/(recovery) rate	(0.06)%	0.18%

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 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 credit risk 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 $223.7 billion and $206.5 billion as of December 31, 2012 and 2011, respectively.

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. For further discussion of derivative contracts, see Note 5 and Note 6 on page 217 and pages 218–227, respectively, of this Annual Report.

The following table summarizes the net derivative receivables for the periods presented.

Derivative receivables

	Derivative receivables	
December 31, (in millions)	2012	2011
Interest rate	$ 39,205	$ 46,369
Credit derivatives	1,735	6,684
Foreign exchange	14,142	17,890
Equity	9,266	6,793
Commodity	10,635	14,741
Total, net of cash collateral	74,983	92,477
Liquid securities and other cash collateral held against derivative receivables	(13,658)	(21,807)
Total, net of all collateral	$ 61,325	$ 70,670

Derivative receivables reported on the Consolidated Balance Sheets were $75.0 billion and $92.5 billion at December 31, 2012 and 2011, respectively. These amounts represent the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements, cash collateral held by the Firm and the CVA. 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 of $13.7 billion and $21.8 billion at December 31, 2012 and 2011, respectively, that may be used as security when the fair value of the client's exposure is in the Firm's favor, as shown in the table above.

In addition to the collateral described in the preceding paragraph, the Firm also holds additional collateral (including cash, U.S. government and agency securities, and other G7 government bonds) 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, 2012 and 2011, the Firm held $22.6 billion and $17.6 billion, respectively, of this additional collateral. The derivative receivables, 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 218–227 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.

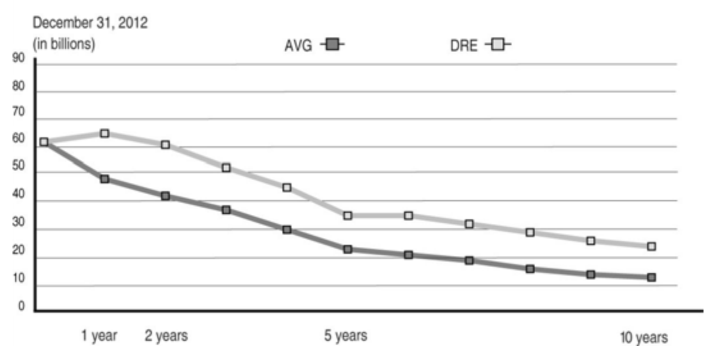
Peak exposure to a counterparty is an extreme measure of exposure calculated at a 97.5% confidence level. DRE exposure is a measure that expresses the risk of derivative exposure on a basis intended to be equivalent to the risk of loan exposures. The measurement is done by equating the unexpected loss 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 $42.3 billion and $53.6 billion at December 31, 2012 and 2011, respectively, compared with derivative receivables, net of all collateral, of $61.3 billion and $70.7 billion at December 31, 2012 and 2011, respectively.

The fair value of the Firm's derivative receivables incorporates an adjustment, the CVA, to reflect the credit quality of counterparties. The CVA is based on the Firm's AVG to a counterparty and the counterparty's credit spread in the credit derivatives market. The primary components of changes in CVA are credit spreads, new deal activity or unwinds, and changes in the underlying market environment. The Firm believes that active risk management is essential to controlling the dynamic credit risk in the derivatives portfolio. In addition, the Firm's risk management process takes into consideration the potential impact of wrong-way risk, which is broadly defined as the potential for increased correlation between the Firm's exposure to a counterparty (AVG) and the counterparty's credit quality. Many factors may influence the nature and magnitude of these correlations over time. To the extent that these correlations are identified, the Firm may adjust the CVA associated with that counterparty's AVG. The Firm risk manages exposure to changes in CVA by entering into credit derivative transactions, as well as interest rate, foreign exchange, equity and commodity derivative transactions.

The accompanying graph shows exposure profiles to derivatives over the next 10 years as calculated by the DRE and AVG metrics. The two measures generally show that exposure will decline after the first year, if no new trades are added to the portfolio.

Exposure profile of derivatives measures



The following table summarizes the ratings profile by derivative counterparty of the Firm's derivative receivables, including credit derivatives, net of other liquid securities collateral, for the dates indicated.

Ratings profile of derivative receivables

Rating equivalent	2012		2011	
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	$ 20,040	33%	$ 25,100	35%
A+/A1 to A-/A3	12,169	20	22,942	32
BBB+/Baa1 to BBB-/Baa3	18,197	29	9,595	14
BB+/Ba1 to B-/B3	9,636	16	10,545	15
CCC+/Caa1 and below	1,283	2	2,488	4
Total	$ 61,325	100%	$ 70,670	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 88% as of December 31, 2012, unchanged compared with December 31, 2011.

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) when the reference entity suffers a credit event. If no credit event has occurred, the protection seller makes no payments to the protection purchaser.

For a more detailed description of credit derivatives, see Credit derivatives in Note 6 on pages 218–227 of this Annual Report.

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.

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 ("Credit Portfolio Management" activities). Information on Credit Portfolio Management activities is provided in the table below.

In addition, the Firm 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 226–227 of this Annual Report.

Credit Portfolio Management activities

Credit Portfolio Management derivatives

December 31, (in millions)	Notional amount of protection purchased and sold (a) 2012	2011
Credit derivatives used to manage:		
Loans and lending-related commitments	**$ 2,166**	$ 3,488
Derivative receivables	**25,347**	22,883
Total net protection purchased	**27,513**	26,371
Total net protection sold	**66**	131
Credit Portfolio Management derivatives net notional	**$ 27,447**	$ 26,240

(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. In addition, 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 maturity of the Firm's CDS protection (which in some cases may be shorter than the Firm's exposures), 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).

The fair value related to the Firm's credit derivatives used for managing credit exposure, as well as the fair value related to the CVA (which reflects the credit quality of derivatives counterparty exposure), are included in the gains and losses realized on credit derivatives disclosed in the table below. 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)	2012	2011	2010
Hedges of loans and lending-related commitments	**$ (163)**	$ (32)	$ (279)
CVA and hedges of CVA	**127**	(769)	(403)
Net gains/(losses)	**$ (36)**	$ (801)	$ (682)

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, 2012 and 2011, the Firm's CRA loan portfolio was approximately $16 billion and $15 billion, respectively. At December 31, 2012 and 2011, 62% and 63%, respectively, of the CRA portfolio were residential mortgage loans; 18% and 17%, respectively, were business banking loans; 13% and 14%, respectively, were commercial real estate loans; and 7% and 6%, respectively, were other loans. CRA nonaccrual loans were 4% and 6%, respectively, of the Firm's total nonaccrual loans. For the years ended December 31, 2012 and 2011, net charge-offs in the CRA portfolio were 3% of the Firm's net charge-offs in both years.

ALLOWANCE FOR CREDIT LOSSES

JPMorgan Chase's allowance for loan losses covers the consumer, including credit card, portfolio segments (primarily scored); and wholesale (risk-rated) portfolio. 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, excluding credit card, lending-related commitments.

The allowance for loan losses includes an asset-specific component, a formula-based component, and a component related to PCI loans. The asset-specific component and the PCI loan component are generally based on an estimate of cash flows expected to be collected from specifically identified impaired or PCI loans. The formula-based component is based on a statistical calculation to provide for probable principal losses inherent in the remaining loan portfolios. Within the formula-based component, management applies judgment within an established framework to adjust the results of applying its statistical loss calculation. The determination of the appropriate adjustment is based on management's view of uncertainties that have occurred but are not yet reflected in the statistical calculation and that relate to current macroeconomic and political conditions, the quality of underwriting standards, and other relevant internal and external factors affecting the credit quality of the portfolio. For a further discussion of the components of the allowance for credit losses, see Critical Accounting Estimates Used by the Firm on pages 178–182 and Note 15 on pages 276–279 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, 2012, JPMorgan Chase deemed the allowance for credit losses to be appropriate (i.e., sufficient to absorb probable credit losses inherent in the portfolio).

The allowance for credit losses was $22.6 billion at December 31, 2012, a decrease of $5.7 billion from $28.3 billion at December 31, 2011.

The consumer, excluding credit card, allowance for loan losses decreased $4.0 billion from December 31, 2011, predominantly due to a reduction in the allowance for the non-PCI residential real estate portfolio, reflecting the continuing trend of improving delinquencies and nonaccrual loans (excluding the impact of Chapter 7 loans and junior liens that are subordinate to senior liens that are 90 days or more past due, which have been included in nonaccrual loans beginning in 2012), which resulted in a lower level of estimated losses based on the Firm's base statistical loss calculation. The allowance also included a $488 million reduction attributable to a refinement of the loss estimates associated with the Firm's compliance with its obligations under the global settlement, which reflected changes in implementation strategies adopted in the second quarter of 2012. The adjustment to the base statistical loss calculation that underlies the formula-based component of the allowance for credit losses for the consumer, excluding credit card, portfolio segment has declined over the past two years, predominantly because specific risks covered by this adjustment were subsequently incorporated into either the base statistical loss calculation or asset-specific reserves during that same time period.

The credit card allowance for loan losses decreased by $1.5 billion since December 31, 2011, due to reductions in both the asset-specific allowance and the 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 season and continue to perform. In addition, effective June 30, 2012, the Firm changed its policy for recognizing charge-offs on restructured loans that do not comply with their modified payment terms based upon guidance received from the banking regulators; this policy change resulted in an acceleration of charge-offs against the asset-specific allowance. For the year ended December 31, 2012, the reduction in the formula-based allowance was primarily driven by the continuing trend of improving delinquencies and bankruptcies (which resulted in a lower level of estimated losses based on the Firm's statistical loss calculation) and by lower levels of credit card outstandings. The adjustment to the base statistical loss calculation that underlies the formula-based component of the allowance for credit losses for the credit card portfolio segment has increased somewhat over the past two years, primarily to consider current macroeconomic conditions (including relatively high unemployment rates).

The wholesale allowance for loan losses decreased by $173 million since December 31, 2011. The decrease was driven by recoveries, the restructuring of certain nonperforming loans and other portfolio activity, as well as continued improvements in the wholesale credit environment as evidenced by lower charge-offs, non-accrual assets and downgrade activity. The resulting decrease has been partially offset by an increase in the adjustment to the base statistical loss calculation in order to reflect inherent credit losses that have not been captured by current credit metrics and greater levels of uncertainty, due to the low level of criticized assets and limited downgrade activity in the portfolio.

For additional information about the credit quality of the Firm's loan portfolios, see Consumer Credit Portfolio on pages 138–149, Wholesale Credit Portfolio on pages 150–159, and Note 14 on pages 250–275 of this Annual Report.

The allowance for lending-related commitments for both the consumer, excluding credit card, and wholesale portfolios, which is reported in other liabilities, was $668 million and $673 million at December 31, 2012 and 2011, respectively.

The credit ratios in the following table are based on retained loan balances, which exclude loans held-for-sale and loans accounted for at fair value.

Summary of changes in the allowance for credit losses

Year ended December 31, (in millions, except ratios)	2012				2011			
	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,	$ 16,294	$ 6,999	$ 4,316	$ 27,609	$ 16,471	$ 11,034	$ 4,761	$ 32,266
Gross charge-offs	4,805 (d)	5,755	346	10,906	5,419	8,168	916	14,503
Gross recoveries	(508)	(811)	(524)	(1,843)	(547)	(1,243)	(476)	(2,266)
Net charge-offs/(recoveries)	4,297 (d)	4,944	(178)	9,063	4,872	6,925	440	12,237
Provision for loan losses	302	3,444	(359)	3,387	4,670	2,925	17	7,612
Other	(7)	2	8	3	25	(35)	(22)	(32)
Ending balance at December 31,	$ 12,292	$ 5,501	$ 4,143	$ 21,936	$ 16,294	$ 6,999	$ 4,316	$ 27,609
Impairment methodology								
Asset-specific[(a)]	$ 729	$ 1,681	$ 319	$ 2,729	$ 828	$ 2,727	$ 516	$ 4,071
Formula-based	5,852	3,820	3,824	13,496	9,755	4,272	3,800	17,827
PCI	5,711	–	–	5,711	5,711	–	–	5,711
Total allowance for loan losses	$ 12,292	$ 5,501	$ 4,143	$ 21,936	$ 16,294	$ 6,999	$ 4,316	$ 27,609
Allowance for lending-related commitments								
Beginning balance at January 1,	$ 7	$ –	$ 666	$ 673	$ 6	$ –	$ 711	$ 717
Provision for lending-related commitments	–	–	(2)	(2)	2	–	(40)	(38)
Other	–	–	(3)	(3)	(1)	–	(5)	(6)
Ending balance at December 31,	$ 7	$ –	$ 661	$ 668	$ 7	$ –	$ 666	$ 673
Impairment methodology								
Asset-specific	$ –	$ –	$ 97	$ 97	$ –	$ –	$ 150	$ 150
Formula-based	7	–	564	571	7	–	516	523
Total allowance for lending-related commitments	$ 7	$ –	$ 661	$ 668	$ 7	$ –	$ 666	$ 673
Total allowance for credit losses	$ 12,299	$ 5,501	$ 4,804	$ 22,604	$ 16,301	$ 6,999	$ 4,982	$ 28,282
Memo:								
Retained loans, end of period	$ 292,620	$ 127,993	$306,222	$ 726,835	$ 308,427	$ 132,175	$ 278,395	$ 718,997
Retained loans, average	300,024	125,031	291,980	717,035	315,736	127,334	245,111	688,181
PCI loans, end of period	59,737	–	19	59,756	65,546	–	21	65,567
Credit ratios								
Allowance for loan losses to retained loans	4.20%	4.30%	1.35 %	3.02%	5.28%	5.30%	1.55%	3.84%
Allowance for loan losses to retained nonaccrual loans[(b)]	134	NM	289	207	220	NM	180	281
Allowance for loan losses to retained nonaccrual loans excluding credit card	134	NM	289	155	220	NM	180	210
Net charge-off/(recovery) rates[(c)]	1.43 (d)	3.95	(0.06)	1.26	1.54	5.44	0.18	1.78
Credit ratios, excluding residential real estate PCI loans								
Allowance for loan losses to retained loans	2.83	4.30	1.35	2.43	4.36	5.30	1.55	3.35
Allowance for loan losses to retained nonaccrual loans[(b)]	72	NM	289	153	143	NM	180	223
Allowance for loan losses to retained nonaccrual loans excluding credit card[(b)]	72	NM	289	101	143	NM	180	152
Net charge-off/(recovery) rates[(c)]	1.81% (d)	3.95%	(0.06)%	1.38%	1.97%	5.44%	0.18%	1.98%

(a) Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR.
(b) The Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.
(c) Charge-offs are not recorded on PCI loans until actual losses exceed estimated losses recorded as purchase accounting adjustments at the time of acquisition.
(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 138–149 of this Annual Report for further details.

Provision for credit losses

For the year ended December 31, 2012, the provision for credit losses was $3.4 billion, down by 55% from 2011.

The consumer, excluding credit card, provision for credit losses was $302 million in 2012, compared with $4.7 billion in 2011, reflecting reductions in the allowance for loan losses due primarily to lower estimated losses in the non-PCI residential real estate portfolio as delinquency trends improved. These reductions were partially offset by the impact of charge-offs of Chapter 7 loans.

The credit card provision for credit losses was $3.4 billion in 2012, compared with $2.9 billion in 2011, reflecting a smaller current year reduction in the allowance for loan losses compared with the prior year, partially offset by lower net charge-offs in 2012.

In 2012 the wholesale provision for credit losses was a benefit of $361 million, compared with a benefit of $23 million in 2011. The current year period provision reflected recoveries, the restructuring of certain nonperforming loans, current credit trends and other portfolio activity. For further information on the provision for credit losses, see the Consolidated Results of Operations on pages 72–75 of this Annual Report.

Year ended December 31,	Provision for loan losses			Provision for lending-related commitments			Total provision for credit losses		
(in millions)	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Consumer, excluding credit card	**$ 302**	$ 4,670	$ 9,458	**$ —**	$ 2	$ (6)	**$ 302**	$ 4,672	$ 9,452
Credit card	**3,444**	2,925	8,037	**—**	—	—	**3,444**	2,925	8,037
Wholesale	**(359)**	17	(673)	**(2)**	(40)	(177)	**(361)**	(23)	(850)
Total provision for credit losses	**$ 3,387**	$ 7,612	$ 16,822	**$ (2)**	$ (38)	$ (183)	**$ 3,385**	$ 7,574	$ 16,639

Market risk is the exposure to an adverse change in the market value of portfolios and financial instruments caused by a change in their market prices.

Market risk management

Market Risk is an independent risk management function that works in close partnership with the lines of business, including 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 Chief Risk Officer.

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 ensures that all material market risks are appropriately identified, measured, monitored and managed in accordance with the risk policy framework set out by Market Risk. The Firm's market risks arise primarily from the activities in CIB, Mortgage Production and Mortgage Servicing in CCB, and CIO in Corporate/Private Equity.

CIB makes markets in products across fixed income, foreign exchange, equities and commodities markets. This activity gives rise to market risk and may lead to a potential decline in net income as a result of changes in market prices and rates. In addition, CIB's credit portfolio exposes the Firm to market risks related to credit valuation adjustments ("CVA"), hedges of CVA and the fair value of hedges of the retained loan portfolio. 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; DVA is not included in VaR.

The Firm's Mortgage Production and Mortgage Servicing businesses includes the Firm's mortgage pipeline and warehouse loans, MSRs and all related hedges. These activities give rise to 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.

Corporate/Private Equity comprises Private Equity, Treasury and CIO. Treasury and CIO are predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding, capital and structural interest rate and foreign exchange risks. 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.

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:

- Value-at-risk ("VaR")
- Economic-value stress testing
- Nonstatistical risk measures
- Loss advisories
- Profit and loss drawdowns
- Risk identification for large exposures ("RIFLEs")
- Nontrading interest rate-sensitive revenue-at-risk stress testing

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.

The Firm has one overarching VaR model framework 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. 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 losses greater than that predicted by VaR estimates five times in every 100 trading days.

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 for different products 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 a more timely (i.e., daily) data and consistent source for valuation and therefore it is not practical to use the 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.

The Firm uses VaR as a statistical risk management tool for assessing risk under normal market conditions consistent with the day-to-day risk decisions made by the lines of business. VaR is not used to estimate the impact of stressed market conditions or to manage any impact from potential stress events. The Firm uses economic-value stress testing and other techniques to capture and manage market risk arising under stressed scenarios, as described further below.

Because VaR is based on historical data, it is an imperfect measure of market risk exposure and potential losses. For example, differences between current and historical market price volatility may result in fewer or greater VaR exceptions than the number indicated by the historical simulation. The VaR measurement also does not provide an estimate of the extent to which losses may exceed VaR results. 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 in addition to VaR to monitor and manage its market risk positions.

Separately, the Firm calculates a daily aggregated VaR in accordance with regulatory rules, which is used to derive the Firm's regulatory VaR based capital requirements. 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 positions as defined by the banking regulators' Basel I "Market Risk Rule", which are different than positions included in the Firm's internal risk management VaR. Certain positions are not included in the Firm's internal risk management VaR, while the Firm's internal risk management VaR includes some positions, such as CVA and its related credit hedges that are not included in Regulatory VaR. For further information, see Capital Management on pages 116–122 of this Annual Report. Effective in the first quarter of 2013, the Firm will implement regulatory VaR for positions as defined by the U.S. banking regulators' Basel 2.5 "Market Risk Rule".

The table below shows the results of the Firm's VaR measure using a 95% confidence level.

Total VaR

As of or for the year ended December 31, (in millions)	2012 Avg.	2012 Min	2012 Max	2011 Avg.	2011 Min	2011 Max	At December 31, 2012	At December 31, 2011
CIB trading VaR by risk type								
Fixed income	$ 83 [a]	$ 47	$ 131	$ 50	$ 31	$ 68	$ 69	$ 49
Foreign exchange	10	6	22	11	6	19	8	19
Equities	21	12	35	23	15	42	22	19
Commodities and other	15	11	27	16	8	24	15	22
Diversification benefit to CIB trading VaR	(45) [b]	NM [c]	NM [c]	(42) [b]	NM [c]	NM [c]	(39) [b]	(55) [b]
CIB trading VaR	84	50	128	58	34	80	75	54
Credit portfolio VaR	25	16	42	33	19	55	18	42
Diversification benefit to CIB trading and credit portfolio VaR	(13) [b]	NM [c]	NM [c]	(15) [b]	NM [c]	NM [c]	(9) [b]	(20) [b]
Total CIB trading and credit portfolio VaR	96 [a][e]	58	142	76	42	102	84 [a][e]	76
Other VaR								
Mortgage Production and Mortgage Servicing VaR	17	8	43	30	6	98	24	16
Chief Investment Office ("CIO") VaR	92 [a][d]	5	196	57	30	80	6	77
Diversification benefit to total other VaR	(8) [b]	NM [c]	NM [c]	(17) [b]	NM [c]	NM [c]	(5) [b]	(10) [b]
Total other VaR	101	18	204	70	46	110	25	83
Diversification benefit to total CIB and other VaR	(45) [b]	NM [c]	NM [c]	(45) [b]	NM [c]	NM [c]	(11) [b]	(46) [b]
Total VaR	$ 152	$ 93	$ 254	$ 101	$ 67	$ 147	$ 98	$ 113

(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. During the third quarter of 2012, the Firm applied a new VaR model to calculate VaR for both the portion of the synthetic credit portfolio held by CIB, as well as the portion that was retained by CIO, and which was effectively closed out at September 30, 2012. For the three months ended December 31, 2012, this new VaR model resulted in a reduction to average fixed income VaR of $11 million, average CIB trading and credit portfolio VaR of $8 million, and average total VaR of $7 million.

(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 the risks were not perfectly correlated.

(c) Designated as not meaningful ("NM"), because the minimum and maximum may occur on different days for different risk components, and hence it is not meaningful to compute a portfolio-diversification effect.

(d) Reference is made to CIO synthetic credit portfolio on pages 69–70 of this Annual Report regarding the Firm's restatement of its 2012 first quarter financial statements. The CIO VaR amount has not been recalculated for the first quarter to reflect the restatement. The 2012 full-year VaR does not include recalculated amounts for the first quarter of 2012.

(e) Effective in the fourth quarter of 2012, CIB's VaR includes the VaR of 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.

VaR measurement

CIB trading VaR includes substantially all market-making and client-driven activities as well as certain risk management activities in CIB. This includes the credit spread sensitivities to CVA and syndicated lending facilities that the Firm intends to distribute. For certain products, specific risk parameters are not captured in VaR. Reasons include the lack of inherent illiquidity and availability of appropriate historical data or suitable proxies. 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. While the overall impact to VaR is not material, the Firm uses alternative methods to capture and measure these risk parameters not otherwise captured in VaR, including economic-value stress testing, nonstatistical measures and risk identification for large exposures as described further below.

Credit portfolio VaR includes the derivative CVA, hedges of the CVA and hedges of the retained portfolio, which are reported in principal transactions revenue. Credit portfolio VaR does not include the retained loan portfolio, which is not reported at fair value.

Other VaR includes certain positions employed as part of the Firm's risk management function within the CIO and in the Mortgage Production and Mortgage Servicing businesses. CIO VaR includes positions, primarily in debt securities and derivatives, which are measured at fair value through earnings. Mortgage Production and Mortgage Servicing VaR includes the Firm's mortgage pipeline and warehouse loans, MSRs and all related hedges.

As noted above, CIB, Credit portfolio and other VaR does not include the retained loan portfolio, which is not reported at fair value; however, it does include hedges of those positions, which are reported at fair value. It also does not include DVA on structured notes and derivative liabilities to reflect the credit quality of the Firm; principal investments; certain foreign exchange positions used for net investment hedging of foreign currency operations; and longer-term securities investments managed by CIO that are primarily classified as available for sale. These positions are managed through the Firm's nontrading interest rate-sensitive revenue-at-risk and other cash flow-monitoring processes, rather than by using a VaR measure. Principal investing activities (including mezzanine financing, tax oriented investments, etc.) and private equity positions are managed using stress and scenario analyses and are not included in VaR. See the DVA sensitivity table on page 167 of this

Annual Report for further details. For a discussion of Corporate/Private Equity, see pages 102–104 of this Annual Report.

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 pages 125–126 of this Annual Report.

During the third quarter of 2012, the Firm applied a new VaR model to calculate VaR for the synthetic credit portfolio. (This model change went through the Firm's review and approval process by the Model Review Group prior to implementation of this model into the operating environment. For further information, see the Model risk on pages 125–126 of this Annual Report.)

For the six months ended December 31, 2012, this new VaR model resulted in a reduction to average fixed income VaR of $19 million, average total CIB trading and credit portfolio VaR of $18 million, average CIO VaR of $9 million, and average total VaR of $22 million. Prior period VaR results have not been recalculated using the new model. The new model uses data that references actual underlying indices, rather than being constructed through single name and index basis, which the Firm believes is a more direct representation of the risks that were in the portfolio. As a result, the Firm believes the new model, which was applied to both the portion of the synthetic credit portfolio held by CIB, as well as the portion that was retained by CIO, during the last six months of 2012 more appropriately captured the risks of the portfolio.

2012 and 2011 VaR results

As presented in the table above, average Total VaR was $152 million for 2012, compared with $101 million for 2011. The increase was primarily driven by the synthetic credit portfolio, partially offset by a decrease in market volatility in the fourth quarter of 2012.

Average total CIB trading and Credit portfolio VaR for the 2012 was $96 million compared with $76 million for 2011. The increase was driven primarily by the addition of the synthetic credit portfolio in CIB on July 2, 2012.

Average CIO VaR for 2012 was $92 million compared with $57 million in 2011, predominantly reflecting the increased risk in the synthetic credit portfolio, during the first quarter of 2012. 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.

Average Mortgage Production and Mortgage Servicing VaR was $17 million for 2012 compared with $30 million for 2011. These decreases were primarily driven by changes in the risk profile of the MSR Portfolio.

The Firm's average CIB and other VaR diversification benefit was $45 million or 23% of the sum for 2012, compared with $45 million or 31% of the sum for 2011. In general, over the course of the year, VaR exposure can vary significantly as positions change, market volatility fluctuates and diversification benefits change.

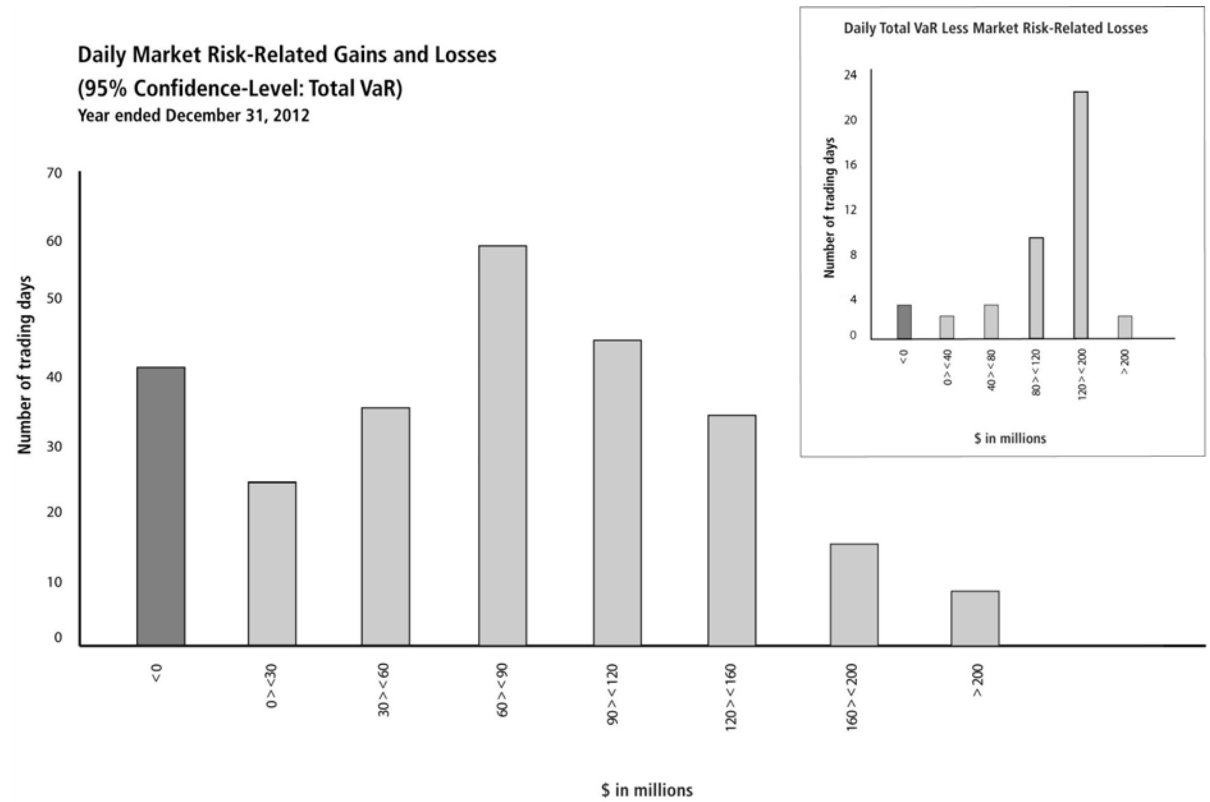
VaR back-testing

The Firm conducts daily back-testing of VaR against its market risk-related revenue.

The following histogram illustrates the daily market risk-related gains and losses for CIB, CIO and Mortgage Production and Mortgage Servicing positions in CCB for the year ended December 31, 2012. This market risk-related revenue is defined as the change in value of: principal transactions revenue for CIB and CIO (excludes Private Equity gains/(losses) and unrealized and realized gains/(losses) from AFS securities and other investments held for the longer term); trading related net interest income for CIB, 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; and mortgage fees and related income for the Firm's mortgage pipeline and warehouse loans, MSRs, and all related hedges. Daily firmwide market risk-related revenue excludes gains and losses from DVA.

The chart shows that for year ended December 31, 2012, the Firm posted market risk related gains on 220 of the 261 days in this period, with gains on eight days exceeding $200 million. The chart includes year to date losses incurred in the synthetic credit portfolio. CIB and Credit Portfolio posted market risk-related gains on 254 days in the period.

The inset graph looks at those days on which the Firm experienced losses and depicts the amount by which VaR exceeded the actual loss on each of those days. Of the losses that were sustained on the 41 days of the 261 days in the trading period, the Firm sustained losses that exceeded the VaR measure on three of those days. These losses in excess of the VaR all occurred in the second quarter of 2012 and were due to the adverse effect of market movements on risk positions in the synthetic credit portfolio held by CIO. During the year ended December 31, 2012, CIB and Credit Portfolio experienced seven loss days; none of the losses on those days exceeded their respective VaR measures.



Other risk measures

Debit valuation adjustment sensitivity

The following table provides information about the gross sensitivity of DVA to a one-basis-point increase in JPMorgan Chase's credit spreads. This sensitivity represents the impact from a one-basis-point parallel shift in JPMorgan Chase's entire credit curve. However, the sensitivity at a single point in time multiplied by the change in credit spread at a single maturity point may not be representative of the actual DVA gain or loss realized within a period. The actual results reflect the movement in credit spreads across various maturities, which typically do not move in a parallel fashion, and is the product of a constantly changing exposure profile, among other factors.

Debit valuation adjustment sensitivity

(in millions)	One basis-point increase in JPMorgan Chase's credit spread
December 31, 2012	**$ 34**
December 31, 2011	35

Economic-value stress testing

Along with VaR, stress testing is important 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 captures 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 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, (For further details see Risk Governance, on pages 123–125 of this Annual Report). While most of these 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 coming 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 Comprehensive Capital Analysis and Review ("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 are responsible for identifying potential 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 not adequately covered by standard risk measures.

Nontrading interest rate-sensitive revenue-at-risk (i.e., "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. Interest rate risk represents one of the Firm's significant market risk exposures. This 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 (i.e., asset/liability management positions, accrual loans within CIB and CIO, and off-balance sheet positions). ALCO establishes the Firm's interest rate risk policies and sets risk guidelines. Treasury, working in partnership with the lines of business, calculates the Firm's interest rate risk profile weekly and reviews it with senior management.

Interest rate risk for nontrading activities 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. For example, if liabilities reprice more quickly than assets and funding interest rates are declining, net interest income will increase initially.
- Differences in the amounts of assets, liabilities and off-balance sheet instruments that are repricing at the same time. For example, if more deposit liabilities are repricing than assets when general interest rates are declining, net interest income will increase initially.
- 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) because the Firm has the ability to lend at long-term fixed rates and borrow at variable or short-term fixed rates. Based on these scenarios, the Firm's net interest income would be affected negatively by a sudden and unanticipated increase in short-term rates paid on its liabilities (e.g., deposits) without a corresponding increase in long-term rates received on its assets (e.g., loans). Conversely, higher long-term rates received on assets generally are beneficial to net interest income, particularly when the increase is not accompanied by rising short-term rates paid on liabilities.
- The impact of changes in the maturity of various assets, liabilities or off-balance sheet instruments as interest rates change. For example, if more borrowers than forecasted pay down higher-rate loan balances when general interest rates are declining, net interest income may decrease initially.

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.

The Firm manages this interest rate risk generally through its investment securities portfolio and related derivatives. The Firm evaluates its nontrading interest rate risk exposure through the stress testing of earnings-at-risk, which measures the extent to which changes in interest rates will affect the Firm's core net interest income (see page 77 of this Annual Report for further discussion of core net interest income) and interest rate-sensitive fees ("nontrading interest rate-sensitive revenue"). Earnings-at-risk excludes the impact of trading activities and MSRs, as these sensitivities are captured under VaR.

The Firm conducts simulations of changes in nontrading interest rate-sensitive revenue under a variety of interest rate scenarios. Earnings-at-risk tests measure the potential change in this revenue, and the corresponding impact to the Firm's pretax net interest income, over the following 12 months. These tests highlight exposures to various interest rate-sensitive factors, such as the rates themselves (e.g., the prime lending rate), pricing strategies on deposits, optionality and changes in product mix. The tests include forecasted balance sheet changes, such as asset sales and securitizations, 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 and forward market expectations. The amount and pricing assumptions of deposits that have no stated maturity are based on historical performance, the competitive environment, customer behavior, and product mix.

Immediate changes in interest rates present a limited view of risk, and so a number of alternative scenarios are also reviewed. These scenarios include the implied forward curve, nonparallel rate shifts and severe interest rate shocks on selected key rates. These scenarios are intended to provide a comprehensive view of JPMorgan Chase's earnings-at-risk over a wide range of outcomes.

JPMorgan Chase's 12-month pretax net interest income sensitivity profiles.

December 31, (in millions)	Immediate change in rates +200bp	+100bp	-100bp	-200bp
2012	**$ 3,886**	**$ 2,145**	**NM** (a)	**NM** (a)
2011	4,046	2,326	NM (a)	NM (a)

(a) Downward 100- and 200-basis-point 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, 2011, resulted from investment portfolio repositioning, partially offset by higher expected deposit balances. The Firm's risk to rising rates was largely the result of widening deposit margins, which are currently compressed due to very low short-term interest rates, and ALM investment portfolio positioning.

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 net interest income benefit of $778 million. The increase in net interest income under this scenario is due to reinvestment of maturing assets 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. 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 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's wholesale lines of business, including CIO. 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 wholesale portfolio, including CIO, 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 and across the wholesale lines of business, including CIO. The Country Risk Management governance consists of 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 across the Firm
- Managing country limits and reporting utilization 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 wholesale 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) 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.

- 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
- AFS securities are measured at par value
- Securities financing exposures are measured at their receivable balance, net of collateral received
- Debt and equity securities in market-making and investing activities 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 are 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 are presented on a net basis, as such activities often result in selling and purchasing protection related to the same underlying reference entity, and which reflects the manner in which the Firm manages these exposures

In addition, 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 the country risk governance.

The Firm's internal country risk reporting differs from the reporting provided under FFIEC bank regulatory requirements. There are significant reporting differences in reporting methodology, including with respect to the treatment of collateral received and the benefit of credit derivative protection. For further information on the FFIEC's reporting methodology, see Cross-border outstandings on page 347 of the 2012 Form 10-K.

Country risk monitoring and control

The Country Risk Management Group establishes guidelines for sovereign ratings reviews and limit management. 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. The limit framework includes a risk-tier approach and stress testing procedures for assessing the potential risk of loss associated with a significant sovereign crisis. 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. For further information on market-risk stress testing the Firm performs in the normal course of business, see Market Risk Management on pages 163–169 of this Annual Report. For further information on credit loss estimates, see Critical Accounting Estimates – Allowance for credit losses on pages 178–180 of this Annual Report.

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 its view of any actual or potentially adverse credit conditions.

Top 20 country exposures

December 31, 2012 (in billions)	Lending[(a)]	Trading and investing[(b)(c)]	Other[(d)]	Total exposure
United Kingdom	$ 23.3	$ 52.6	$ 2.6	$ 78.5
Germany	24.4	36.3	–	60.7
France	14.7	30.3	–	45.0
Netherlands	5.0	29.8	3.0	37.8
Switzerland	24.4	1.5	2.1	28.0
Australia	7.1	16.2	–	23.3
Canada	12.8	5.8	0.6	19.2
Brazil	5.9	13.0	–	18.9
India	7.3	7.9	0.7	15.9
Korea	6.5	7.8	0.6	14.9
China	8.0	3.9	1.3	13.2
Japan	3.7	7.7	–	11.4
Mexico	2.8	6.8	–	9.6
Italy	2.8	4.7	–	7.5
Singapore	3.8	1.8	1.2	6.8
Russia	4.6	1.9	–	6.5
Hong Kong	3.4	2.8	–	6.2
Sweden	3.5	1.9	0.5	5.9
Malaysia	1.5	3.6	0.7	5.8
Spain	3.1	1.6	–	4.7

(a) Lending includes loans and accrued interest receivable, net of 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

Several European countries, including Spain, Italy, Ireland, Portugal and Greece, have been subject to continued credit deterioration due to weaknesses in their economic and fiscal situations. The Firm is closely monitoring its exposures in these countries and 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 the five countries listed below at December 31, 2012, as measured under the Firm's internal country risk management approach. For individual exposures, corporate clients represent approximately 78% of the Firm's non-sovereign exposure in these five countries, and substantially all of the remaining 22% of the non-sovereign exposure is to the banking sector.

December 31, 2012 (in billions)	Lending net of Allowance(a)	AFS securities(b)	Trading(c)	Derivative collateral(d)	Portfolio hedging(e)	Total exposure
Spain						
Sovereign	$ –	$ 0.5	$ (0.4)	$ –	$ (0.1)	$ –
Non-sovereign	3.1	–	5.2	(3.3)	(0.3)	4.7
Total Spain exposure	$ 3.1	$ 0.5	$ 4.8	$ (3.3)	$ (0.4)	$ 4.7
Italy						
Sovereign	$ –	$ –	$ 11.6	$ (1.4)	$ (4.9)	$ 5.3
Non-sovereign	2.8	–	1.0	(1.2)	(0.4)	2.2
Total Italy exposure	$ 2.8	$ –	$ 12.6	$ (2.6)	$ (5.3)	$ 7.5
Ireland						
Sovereign	$ –	$ 0.3	$ –	$ –	$ (0.3)	$ –
Non-sovereign	0.5	–	1.7	(0.3)	–	1.9
Total Ireland exposure	$ 0.5	$ 0.3	$ 1.7	$ (0.3)	$ (0.3)	$ 1.9
Portugal						
Sovereign	$ –	$ –	$ 0.4	$ –	$ (0.3)	$ 0.1
Non-sovereign	0.5	–	(0.4)	(0.4)	(0.1)	(0.4)
Total Portugal exposure	$ 0.5	$ –	$ –	$ (0.4)	$ (0.4)	$ (0.3)
Greece						
Sovereign	$ –	$ –	$ 0.1	$ –	$ –	$ 0.1
Non-sovereign	0.1	–	0.7	(0.9)	–	(0.1)
Total Greece exposure	$ 0.1	$ –	$ 0.8	$ (0.9)	$ –	$ –
Total exposure	$ 7.0	$ 0.8	$ 19.9	$ (7.5)	$ (6.4)	$ 13.8

(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 $116 million (Spain), $79 million (Italy), $9 million (Ireland), $15 million (Portugal), and $12 million (Greece) specifically attributable to these countries. Includes $2.4 billion of unfunded lending exposure at December 31, 2012. These exposures consist typically of committed, but unused corporate credit agreements, with market-based lending terms and covenants.

(b) The fair value of AFS securities was approximately $0.7 billion at December 31, 2012. The table above reflects AFS securities measured at par value.

(c) Primarily includes: $19.9 billion of counterparty exposure on derivative and securities financings, $3.7 billion of issuer exposure on debt and equity securities held in trading, $(3.6) billion of net protection from credit derivatives, including $(4.1) billion related to the synthetic credit portfolio managed by CIB. Securities financings of approximately $17.9 billion were collateralized with approximately $20.2 billion of cash and marketable securities as of December 31, 2012.

(d) Includes cash and marketable securities pledged to the Firm, of which approximately 97% of the collateral was cash at December 31, 2012.

(e) 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. It does not include the synthetic credit portfolio.

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, 2012	Trading			Portfolio hedging		
(in billions)	Purchased	Sold	Net	Purchased	Sold	Net
Spain	$ (121.2)	$ 120.2	$ (1.0)	$ (1.2)	$ 0.9	$ (0.3)
Italy	(157.9)	156.5	(1.4)	(11.0)	5.9	(5.1)
Ireland	(7.1)	7.2	0.1	(1.0)	0.7	(0.3)
Portugal	(43.2)	42.2	(1.0)	(0.5)	0.1	(0.4)
Greece	(11.7)	11.4	(0.3)	–	–	–
Total	$ (341.1)	$ 337.5	$ (3.6)	$ (13.7)	$ 7.6	$ (6.1)

Under the Firm's internal country risk management approach, generally credit derivatives are 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 "Trading" column include those from the Firm's market-making activities as well as $(4.1) billion of net purchased protection in the synthetic credit portfolio managed by CIB beginning in July 2012. Based on scheduled maturities and risk reduction actions being taken in the synthetic credit portfolio, the amount of protection provided by the synthetic credit portfolio relative to the five named countries is likely to be substantially reduced over time.

The credit derivatives reflected in the "Portfolio hedging" column are 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. These credit derivatives include both purchased and sold protection, where the sold protection is generally used to close out purchased protection when appropriate under the Firm's risk mitigation strategies. In its Credit Portfolio Management activities, the Firm generally seeks to purchase credit protection with a maturity date that is the same or similar to the maturity date of the exposures for which the protection was purchased. However, there are instances where the purchased protection has a shorter maturity date than the maturity date of the exposure for which the protection was purchased. These exposures are actively monitored and managed by the Firm. 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 contractual terms of the CDS. For further information about credit derivatives see Credit derivatives on pages 158–159, and Note 6 on pages 218–227 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, in each of the five countries as of December 31, 2012, the protection sold by the Firm was more than 92% offset by protection purchased on the identical reference entity.

In addition, counterparty credit risk has been substantially mitigated by the master netting and collateral agreements in place for these credit derivatives. As of December 31, 2012, 99% of the purchased protection presented in the table above is purchased under contracts that require posting of cash collateral; 92% is purchased from investment-grade counterparties domiciled outside of the selected European countries; and 69% of the protection purchased offsets protection sold on the identical reference entity, with the identical counterparty subject to a master netting agreement.

PRINCIPAL RISK MANAGEMENT

Principal investments are predominantly privately-held assets and instruments typically representing an ownership or junior capital position, that have unique risks due to their illiquidity and junior capital status, as well as lack of observable valuation data. Such investing activities, including mezzanine financing, tax-oriented investments and private equity positions, 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. All investments are approved by investment committees that include executives who are not part of the investing businesses. An independent valuation function is responsible for reviewing the appropriateness of the carrying values of principal investments, including private equity, in accordance with relevant accounting, valuation and risk policies.

The Firm's approach to managing principal risk is consistent with the Firm's general risk governance structure. Targeted levels for total and annual investments are established in order to manage the overall size of the portfolios. Industry and geographic 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.

The Firm's merchant banking business is managed in Corporate/Private Equity (for detailed information, see Private Equity portfolio on page 104 of this Annual Report); other lines of business may also conduct some principal investing activities, including private equity positions, which are captured within their respective financial results.

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 strong oversight and governance, comprehensive policies, 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:

- 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 & control committees
- Independent review by Internal Audit

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 focus on the Firm's control environment and drive consistent practices across businesses and functional areas, the Firm established a new Firmwide Oversight and Control Group during 2012. This group is dedicated to enhancing the Firm's control framework, and to looking within and across the lines of business and the Corporate functions (including CIO) to identify and remediate control issues. The Firmwide Oversight and Control Group will work closely with all control disciplines - partnering with compliance, risk, audit and other functions - in order to provide a cohesive and centralized view of control functions and control issues. Among other things, Oversight and Control will enable the Firm to detect problems and escalate issues quickly, get the right people involved to understand the common themes and interdependencies among various business and control issues, and effectively remediate these issues across all affected areas of the Firm. As a result, the group will facilitate an effective control framework and operational risk management across the Firm.

The 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
- Improper market practices
- Improper client management
- Processing error
- Financial reporting error
- Information risk
- Technology risk (including cybersecurity risk)
- Third-party risk
- Disruption & safety risk
- Employee risk
- Risk management error (including model risk)

Key components of the Operational Risk Management Framework include:

Control assessment

In order to evaluate the effectiveness of the control environment in mitigating operational risk, the businesses utilize the Firm's standard self-assessment process and supporting architecture. The goal of the self-assessment process is for each business to identify the key operational risks specific to its environment and assess the degree to which it maintains appropriate controls. 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 support areas.

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 with 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 II Framework.

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, as well as to serve other needs. 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 consumer online banking services. The Firm has also experienced other attempts to breach the security of the Firm's systems and data. 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.

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, FIDUCIARY AND REPUTATION RISK MANAGEMENT

The Firm's success depends not only on its prudent management of the liquidity, credit, market, principal, and operational risks that are part of its business risk, but equally on the maintenance among its many constituents — customers and clients, investors, regulators, as well as the general public — of a reputation for business practices of the highest quality. Attention to reputation has always been a key aspect of the Firm's practices, and maintenance of the Firm's reputation is the responsibility of each individual employee at the Firm. JPMorgan Chase bolsters this individual responsibility in many ways, including through the Firm's Code of Conduct (the "Code"), which is based on the Firm's fundamental belief that no one 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. 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.

In addition to training of employees with regard to the principles and requirements of the Code, and requiring annual affirmation by each employee of compliance with the Code, the Firm has established policies and procedures, and has in place various oversight functions, intended to promote the Firm's culture of "doing the right thing." These include a Conflicts Office which examines wholesale transactions with the potential to create conflicts of interest for the Firm and a Reputation Risk Office that reviews transactions or activities that may give rise to reputation risk for the Firm. Each line of business also has a risk committee which includes in its mandate the oversight of reputational risks in its business that may produce significant losses or reputational damage to the Firm.

Fiduciary Risk Management

Fiduciary Risk Management is part of the relevant line-of-business risk committees. Senior business, legal and compliance management, who have particular responsibility for fiduciary issues, work with the relevant businesses' risk committees with the goal of ensuring that the businesses providing investment or risk management products or services that give rise to fiduciary duties to clients perform at the appropriate standard relative to their fiduciary relationship with a client. 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 line-of-business 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.

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 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 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 weak 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.

For further discussion of the methodologies used in establishing the Firm's allowance for credit losses, see Allowance for Credit Losses on pages 159–162 and Note 15 on pages 276–279 of this Annual Report.

The determination of the formula-based allowance for credit losses also involves significant judgment on a number of matters, as discussed below.

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 expected loss factors to outstanding principal balances over an estimated loss emergence period to arrive at an estimate of 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 probable credit losses inherent 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. In the current economic environment, 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 estimated effects of the mortgage foreclosure-related settlement with federal and state officials, uncertainties regarding the ultimate success of loan modifications, 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, delinquency status, the realizable value of collateral, FICO scores, borrower behavior and other risk factors. Significant judgment is required to estimate the duration of current weak overall economic conditions, as well as the impact on housing prices and the labor market. The allowance for credit losses is highly sensitive to both home prices and unemployment rates, and in the current market it is difficult to estimate how potential changes in one or both of these factors might affect the allowance for credit losses. For example, while both factors are important determinants of overall allowance levels, changes in one factor or the other may not occur 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 both or either of 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 250–275 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 weak overall economic conditions, among other factors. These estimates and assumptions require significant management judgment and certain assumptions are highly subjective.

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 as 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 loss factors derived, 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 the Firm's 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, 2012, without consideration of any offsetting or correlated effects of other inputs in the Firm's allowance for loan losses:

- A 5% decline in housing prices from current levels, accompanied by an assumed corresponding change in the unemployment rate, for the residential real estate portfolio, excluding PCI loans, could result in an increase to modeled annual loss estimates of approximately $200 million.
- A 5% decline in housing prices from current levels, accompanied by an assumed corresponding change in the unemployment rate, could result in an increase in credit loss estimates for PCI loans of approximately $600 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 $800 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.

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 196–214 of this Annual Report.

December 31, 2012 (in billions, except ratio data)	Total assets at fair value	Total level 3 assets
Trading debt and equity instruments	$ 375.0	$ 25.6
Derivative receivables	75.0	23.3
Trading assets	450.0	48.9
AFS securities	371.1	28.9
Loans	2.6	2.3
MSRs	7.6	7.6
Private equity investments	7.8	7.2
Other	43.1	4.2
Total assets measured at fair value on a recurring basis	882.2	99.1
Total assets measured at fair value on a nonrecurring basis	5.1	4.4
Total assets measured at fair value	$ 887.3	$ 103.5 (a)
Total Firm assets	$ 2,359.1	
Level 3 assets as a percentage of total Firm assets		4.4%
Level 3 assets as a percentage of total Firm assets at fair value		11.7%

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 an established and well-documented process for determining fair value, for further details see Note 3 on pages 196–214 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, due to the lack of observability of significant inputs, management must 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. Finally, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality, the Firm's creditworthiness, 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. For further discussion of the valuation of level 3 instruments, including unobservable inputs used, see Note 3 on pages 196–214 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 different methodologies or assumptions to 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 196–214 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 291–295 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, the CARD Act, and limitations on non-sufficient funds and overdraft fees and (b) the relevant cost of equity and long-term growth rates. 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, 2012, nor was any goodwill written off during 2012. The fair values of almost all of the Firm's reporting units exceeded their carrying values by substantial amounts (excess fair value as a percent of carrying value ranged from approximately 30% to 180%) and did not indicate a significant risk of goodwill impairment based on current projections and valuations.

However, the fair value of the Firm's mortgage lending business exceeded its carrying value by less than 10% and 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 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 portfolio outstanding balances, net interest margin, operating expense, credit losses and the amount of capital necessary given the risk of business activities), 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 best estimate and most current projections, derived from the Firm's business forecasting process 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 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. In addition, the earnings or estimated cost of equity of the Firm's capital markets businesses could also be affected by regulatory or legislative changes. 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 291–295 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, 2012, 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 303–305 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 316–325 of this Annual Report.

Fair value measurement and disclosures

In May 2011, the Financial Accounting Standards Board ("FASB") issued guidance that amends the requirements for fair value measurement and disclosure. The guidance changes and clarifies certain existing requirements related to portfolios of financial instruments and valuation adjustments, requires additional disclosures for fair value measurements categorized in level 3 of the fair value hierarchy (including disclosure of the range of inputs used in certain valuations), and requires additional disclosures for certain financial instruments that are not carried at fair value. The guidance was effective in the first quarter of 2012, and the Firm adopted the new guidance, effective January 1, 2012. The application of this guidance did not have a material effect on the Firm's Consolidated Balance Sheets or results of operations.

Accounting for repurchase and similar agreements

In April 2011, the FASB issued guidance that amends the criteria used to assess whether repurchase and similar agreements should be accounted for as financings or sales (purchases) with forward agreements to repurchase (resell). Specifically, the guidance eliminates circumstances in which the lack of adequate collateral maintenance requirements could result in a repurchase agreement being accounted for as a sale. The guidance was effective for new transactions or existing transactions that were modified beginning January 1, 2012. The Firm has accounted for its repurchase and similar agreements as secured financings, and therefore, the application of this guidance did not have an impact on the Firm's Consolidated Balance Sheets or results of operations.

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 is effective in the first quarter of 2013. The application of this guidance will impact disclosures and will have no impact on the Firm's Consolidated Balance Sheets or results of operations.

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 guidance will become effective in the first quarter of 2013. The application of this guidance will only affect the disclosure of these instruments and will have no impact on the Firm's Consolidated Balance Sheets or results of operations.

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, 2012.

Year ended December 31, 2012 (in millions)	Asset position	Liability position
Net fair value of contracts outstanding at January 1, 2012	$ 13,122	$ 13,517
Effect of legally enforceable master netting agreements	33,495	35,695
Gross fair value of contracts outstanding at January 1, 2012	46,617	49,212
Contracts realized or otherwise settled	(23,889)	(26,321)
Fair value of new contracts	19,357	21,502
Changes in fair values attributable to changes in valuation techniques and assumptions	–	–
Other changes in fair value	(4,934)	(3,072)
Gross fair value of contracts outstanding at December 31, 2012	37,151	41,321
Effect of legally enforceable master netting agreements	(28,856)	(30,505)
Net fair value of contracts outstanding at December 31, 2012	$ 8,295	$ 10,816

The following table indicates the maturities of nonexchange-traded commodity derivative contracts at December 31, 2012.

December 31, 2012 (in millions)	Asset position	Liability position
Maturity less than 1 year	$ 21,878	$ 23,129
Maturity 1–3 years	12,029	12,424
Maturity 4–5 years	1,947	2,155
Maturity in excess of 5 years	1,297	3,613
Gross fair value of contracts outstanding at December 31, 2012	37,151	41,321
Effect of legally enforceable master netting agreements	(28,856)	(30,505)
Net fair value of contracts outstanding at December 31, 2012	$ 8,295	$ 10,816

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 bank regulatory and other governmental agency requirements affecting its mortgage business;
- Ability of the Firm to implement successfully the actions required under the various Consent Orders entered into with its banking regulators;
- 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, and the effectiveness of such controls and procedures in preventing control lapses or deficiencies;
- Efficacy of the models used by the Firm in valuing, measuring, monitoring and managing positions and risk;
- 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 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, 2012.

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.