Management's report on internal control over financial reporting

Management of JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the Firm's principal executive and principal financial officers, or persons performing similar functions, and effected by JPMorgan Chase's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

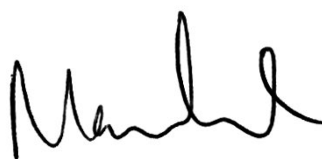
JPMorgan Chase's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records, that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Firm's assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Firm are being made only in accordance with authorizations of JPMorgan Chase's management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Firm's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.
Management has completed an assessment of the effectiveness of the Firm's internal control over financial reporting as of December 31, 2012. In making the assessment, management used the framework in "Internal Control - Integrated Framework" promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.

Based upon the assessment performed, management concluded that as of December 31, 2012, JPMorgan Chase's internal control over financial reporting was effective based upon the COSO criteria. Additionally, based upon management's assessment, the Firm determined that there were no material weaknesses in its internal control over financial reporting as of December 31, 2012.

The effectiveness of the Firm's internal control over financial reporting as of December 31, 2012, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

James Dimon
Chairman and Chief Executive Officer



Marianne Lake
Executive Vice President and Chief Financial Officer

February 28, 2013

To the Board of Directors and Stockholders of JPMorgan Chase & Co.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows present fairly, in all material respects, the financial position of JPMorgan Chase & Co. and its subsidiaries (the "Firm") at December 31, 2012 and 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Firm maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Firm's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's report on internal control over financial reporting". Our responsibility is to express opinions on these financial statements and on the Firm's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP

February 28, 2013

PricewaterhouseCoopers LLP • 300 Madison Avenue • New York, NY 10017

Consolidated statements of income

Year ended December 31, (in millions, except per share data)		2012		2011		2010
Revenue						
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[(a)]		**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		**4,258**		2,605		2,044
Noninterest revenue		**52,121**		49,545		51,693
Interest income		**56,063**		61,293		63,782
Interest expense		**11,153**		13,604		12,781
Net interest income		**44,910**		47,689		51,001
Total net revenue		**97,031**		97,234		102,694
Provision for credit losses		**3,385**		7,574		16,639
Noninterest expense						
Compensation expense		**30,585**		29,037		28,124
Occupancy expense		**3,925**		3,895		3,681
Technology, communications and equipment expense		**5,224**		4,947		4,684
Professional and outside services		**7,429**		7,482		6,767
Marketing		**2,577**		3,143		2,446
Other expense		**14,032**		13,559		14,558
Amortization of intangibles		**957**		848		936
Total noninterest expense		**64,729**		62,911		61,196
Income before income tax expense		**28,917**		26,749		24,859
Income tax expense		**7,633**		7,773		7,489
Net income	$	**21,284**	$	18,976	$	17,370
Net income applicable to common stockholders	$	**19,877**	$	17,568	$	15,764
Net income per common share data						
Basic earnings per share	$	**5.22**	$	4.50	$	3.98
Diluted earnings per share		**5.20**		4.48		3.96
Weighted-average basic shares		**3,809.4**		3,900.4		3,956.3
Weighted-average diluted shares		**3,822.2**		3,920.3		3,976.9
Cash dividends declared per common share	$	**1.20**	$	1.00	$	0.20

(a) The following other-than-temporary impairment losses are included in securities gains for the periods presented.

Year ended December 31, (in millions)		2012		2011		2010
Debt securities the Firm does not intend to sell that have credit losses						
Total other-than-temporary impairment losses	$	**(113)**	$	(27)	$	(94)
Losses recorded in/(reclassified from) other comprehensive income		**85**		(49)		(6)
Total credit losses recognized in income		**(28)**		(76)		(100)
Securities the Firm intends to sell		**(15)**		–		–
Total other-than-temporary impairment losses recognized in income	$	**(43)**	$	(76)	$	(100)

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated statements of comprehensive income

Year ended December 31, (in millions)	2012	2011	2010
Net income	**$ 21,284**	$ 18,976	$ 17,370
Other comprehensive income, after-tax			
Unrealized gains on AFS securities	**3,303**	1,067	610
Translation adjustments, net of hedges	**(69)**	(279)	269
Cash flow hedges	**69**	(155)	25
Defined benefit pension and OPEB plans	**(145)**	(690)	332
Total other comprehensive income, after-tax	**3,158**	(57)	1,236
Comprehensive income	**$ 24,442**	$ 18,919	$ 18,606

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated balance sheets

December 31, (in millions, except share data)		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 (included **$24,258** and $22,191 at fair value)		**296,296**		235,314
Securities borrowed (included **$10,177** and $15,308 at fair value)		**119,017**		142,462
Trading assets (included assets pledged of **$108,784** and $89,856)		**450,028**		443,963
Securities (included **$371,145** and $364,781 at fair value and assets pledged of **$71,167** and $94,691)		**371,152**		364,793
Loans (included **$2,555** and $2,097 at fair value)		**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 (included **$16,458** and $16,499 at fair value and assets pledged of **$1,127** and $1,316)		**101,775**		104,131
Total assets[(a)]	$	**2,359,141**	$	2,265,792
Liabilities				
Deposits (included **$5,733** and $4,933 at fair value)	$	**1,193,593**	$	1,127,806
Federal funds purchased and securities loaned or sold under repurchase agreements (included **$4,388** and $6,817 at fair value)		**240,103**		213,532
Commercial paper		**55,367**		51,631
Other borrowed funds (included **$11,591** and $9,576 at fair value)		**26,636**		21,908
Trading liabilities		**131,918**		141,695
Accounts payable and other liabilities (included **$36** and $51 at fair value)		**195,240**		202,895
Beneficial interests issued by consolidated variable interest entities (included **$1,170** and $1,250 at fair value)		**63,191**		65,977
Long-term debt (included **$30,788** and $34,720 at fair value)		**249,024**		256,775
Total liabilities[(a)]		**2,155,072**		2,082,219
Commitments and contingencies (see Notes 29, 30 and 31 of this Annual Report)				
Stockholders' equity				
Preferred stock ($1 par value; authorized 200,000,000 shares: issued **905,750** and 780,000 shares)		**9,058**		7,800
Common stock ($1 par value; authorized 9,000,000,000 shares; issued **4,104,933,895** shares)		**4,105**		4,105
Capital surplus		**94,604**		95,602
Retained earnings		**104,223**		88,315
Accumulated other comprehensive income/(loss)		**4,102**		944
Shares held in RSU Trust, at cost (**479,126** and 852,906 shares)		**(21)**		(38)
Treasury stock, at cost (**300,981,690** and 332,243,180 shares)		**(12,002)**		(13,155)
Total stockholders' equity		**204,069**		183,573
Total liabilities and stockholders' equity	$	**2,359,141**	$	2,265,792

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Firm at December 31, 2012 and 2011. The difference between total VIE assets and liabilities represents the Firm's interests in those entities, which were eliminated in consolidation.

December 31, (in millions)		2012		2011
Assets				
Trading assets	$	**11,966**	$	12,079
Loans		**82,723**		86,754
All other assets		**2,090**		2,638
Total assets	$	**96,779**	$	101,471
Liabilities				
Beneficial interests issued by consolidated variable interest entities	$	**63,191**	$	65,977
All other liabilities		**1,244**		1,487
Total liabilities	$	**64,435**	$	67,464

The assets of the consolidated VIEs are used to settle the liabilities of those entities. The holders of the beneficial interests do not have recourse to the general credit of JPMorgan Chase. At both December 31, 2012 and 2011, the Firm provided limited program-wide credit enhancement of $3.1 billion related to its Firm-administered multi-seller conduits, which are eliminated in consolidation. For further discussion, see Note 16 on pages 280–291 of this Annual Report.

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated statements of changes in stockholders' equity

Year ended December 31, (in millions, except per share data)	2012	2011	2010
Preferred stock			
Balance at January 1	$ 7,800	$ 7,800	$ 8,152
Issuance of preferred stock	1,258	–	–
Redemption of preferred stock	–	–	(352)
Balance at December 31	9,058	7,800	7,800
Common stock			
Balance at January 1 and December 31	4,105	4,105	4,105
Capital surplus			
Balance at January 1	95,602	97,415	97,982
Shares issued and commitments to issue common stock for employee stock-based compensation awards, and related tax effects	(736)	(1,688)	706
Other	(262)	(125)	(1,273)
Balance at December 31	94,604	95,602	97,415
Retained earnings			
Balance at January 1	88,315	73,998	62,481
Cumulative effect of changes in accounting principles	–	–	(4,376)
Net income	21,284	18,976	17,370
Dividends declared:			
Preferred stock	(647)	(629)	(642)
Common stock (**$1.20**, $1.00 and $0.20 per share for 2012, 2011 and 2010, respectively)	(4,729)	(4,030)	(835)
Balance at December 31	104,223	88,315	73,998
Accumulated other comprehensive income/(loss)			
Balance at January 1	944	1,001	(91)
Cumulative effect of changes in accounting principles	–	–	(144)
Other comprehensive (loss)/income	3,158	(57)	1,236
Balance at December 31	4,102	944	1,001
Shares held in RSU Trust, at cost			
Balance at January 1	(38)	(53)	(68)
Reissuance from RSU Trust	17	15	15
Balance at December 31	(21)	(38)	(53)
Treasury stock, at cost			
Balance at January 1	(13,155)	(8,160)	(7,196)
Purchase of treasury stock	(1,415)	(8,741)	(2,999)
Reissuance from treasury stock	2,574	3,750	2,040
Share repurchases related to employee stock-based compensation awards	(6)	(4)	(5)
Balance at December 31	(12,002)	(13,155)	(8,160)
Total stockholders' equity	$ 204,069	$ 183,573	$ 176,106

The Notes to Consolidated Financial Statements are an integral part of these statements.

Consolidated statements of cash flows

Year ended December 31, (in millions)	2012	2011	2010
Operating activities			
Net income	**$ 21,284**	$ 18,976	$ 17,370
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:			
Provision for credit losses	**3,385**	7,574	16,639
Depreciation and amortization	**4,190**	4,257	4,029
Amortization of intangibles	**957**	848	936
Deferred tax expense/(benefit)	**1,130**	1,693	(968)
Investment securities gains	**(2,110)**	(1,593)	(2,965)
Stock-based compensation	**2,545**	2,675	3,251
Originations and purchases of loans held-for-sale	**(34,026)**	(52,561)	(37,085)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	**33,202**	54,092	40,155
Net change in:			
Trading assets	**(5,379)**	36,443	(72,082)
Securities borrowed	**23,455**	(18,936)	(3,926)
Accrued interest and accounts receivable	**1,732**	8,655	443
Other assets	**(4,683)**	(15,456)	(12,452)
Trading liabilities	**(3,921)**	7,905	19,344
Accounts payable and other liabilities	**(13,069)**	35,203	17,325
Other operating adjustments	**(3,613)**	6,157	6,234
Net cash provided by/(used in) operating activities	**25,079**	95,932	(3,752)
Investing activities			
Net change in:			
Deposits with banks	**(36,595)**	(63,592)	41,625
Federal funds sold and securities purchased under resale agreements	**(60,821)**	(12,490)	(26,957)
Held-to-maturity securities:			
Proceeds	**4**	6	7
Available-for-sale securities:			
Proceeds from maturities	**112,633**	86,850	92,740
Proceeds from sales	**81,957**	68,631	118,600
Purchases	**(189,630)**	(202,309)	(179,487)
Proceeds from sales and securitizations of loans held-for-investment	**6,430**	10,478	9,476
Other changes in loans, net	**(30,491)**	(58,365)	3,022
Net cash received from/(used in) business acquisitions or dispositions	**88**	102	(4,910)
All other investing activities, net	**(3,400)**	(63)	(114)
Net cash (used in)/provided by investing activities	**(119,825)**	(170,752)	54,002
Financing activities			
Net change in:			
Deposits	**67,250**	203,420	(9,637)
Federal funds purchased and securities loaned or sold under repurchase agreements	**26,546**	(63,116)	15,202
Commercial paper and other borrowed funds	**9,315**	7,230	(6,869)
Beneficial interests issued by consolidated variable interest entities	**345**	1,165	2,426
Proceeds from long-term borrowings and trust preferred capital debt securities	**86,271**	54,844	55,181
Payments of long-term borrowings and trust preferred capital debt securities	**(96,473)**	(82,078)	(99,043)
Excess tax benefits related to stock-based compensation	**255**	867	26
Redemption of preferred stock	**—**	—	(352)
Proceeds from issuance of preferred stock	**1,234**	—	—
Treasury stock and warrants repurchased	**(1,653)**	(8,863)	(2,999)
Dividends paid	**(5,194)**	(3,895)	(1,486)
All other financing activities, net	**(189)**	(1,868)	(1,666)
Net cash provided by/(used in) financing activities	**87,707**	107,706	(49,217)
Effect of exchange rate changes on cash and due from banks	**1,160**	(851)	328
Net (decrease)/increase in cash and due from banks	**(5,879)**	32,035	1,361
Cash and due from banks at the beginning of the period	**59,602**	27,567	26,206
Cash and due from banks at the end of the period	**$ 53,723**	$ 59,602	$ 27,567
Cash interest paid	**$ 11,161**	$ 13,725	$ 12,404
Cash income taxes paid, net	**2,050**	8,153	9,747

The Notes to Consolidated Financial Statements are an integral part of these statements.

Note 1 – Basis of presentation

JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm"), a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America ("U.S."), with operations worldwide. The Firm is a leader in investment banking, financial services for consumers and small business, commercial banking, financial transaction processing, asset management and private equity. For a discussion of the Firm's business segments, see Note 33 on pages 326–329 of this Annual Report.

The accounting and financial reporting policies of JPMorgan Chase and its subsidiaries conform to accounting principles generally accepted in the U.S. ("U.S. GAAP"). Additionally, where applicable, the policies conform to the accounting and reporting guidelines prescribed by regulatory authorities.

Certain amounts reported in prior periods have been reclassified to conform with the current presentation.

Consolidation

The Consolidated Financial Statements include the accounts of JPMorgan Chase and other entities in which the Firm has a controlling financial interest. All material intercompany balances and transactions have been eliminated. The Firm determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity ("VIE").

Voting Interest Entities

Voting interest entities are entities that have sufficient equity and provide the equity investors voting rights that enable them to make significant decisions relating to the entity's operations. For these types of entities, the Firm's determination of whether it has a controlling interest is primarily based on the amount of voting equity interests held. Entities in which the Firm has a controlling financial interest, through ownership of the majority of the entities' voting equity interests, or through other contractual rights that give the Firm control, are consolidated by the Firm.

Investments in companies in which the Firm has significant influence over operating and financing decisions (but does not own a majority of the voting equity interests) are accounted for (i) in accordance with the equity method of accounting (which requires the Firm to recognize its proportionate share of the entity's net earnings), or (ii) at fair value if the fair value option was elected at the inception of the Firm's investment. These investments are generally included in other assets, with income or loss included in other income.

Certain Firm-sponsored asset management funds are structured as limited partnerships or limited liability companies. For many of these entities, the Firm is the general partner or managing member, but the non-affiliated partners or members have the ability to remove the Firm as the general partner or managing member without cause (i.e., kick-out rights), based on a simple majority vote, or the non-affiliated partners or members have rights to participate in important decisions. Accordingly, the Firm does not consolidate these funds. In the limited cases where the nonaffiliated partners or members do not have substantive kick-out or participating rights, the Firm consolidates the funds.

The Firm's investment companies make investments in both publicly-held and privately-held entities, including investments in buyouts, growth equity and venture opportunities. These investments are accounted for under investment company guidelines and accordingly, irrespective of the percentage of equity ownership interests held, are carried on the Consolidated Balance Sheets at fair value, and are recorded in other assets.

Variable Interest Entities

VIEs are entities that, by design, either (1) lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, or (2) have equity investors that do not have the ability to make significant decisions relating to the entity's operations through voting rights, or do not have the obligation to absorb the expected losses, or do not have the right to receive the residual returns of the entity.

The most common type of VIE is a special purpose entity ("SPE"). SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. The basic SPE structure involves a company selling assets to the SPE; the SPE funds the purchase of those assets by issuing securities to investors. The legal documents that govern the transaction specify how the cash earned on the assets must be allocated to the SPE's investors and other parties that have rights to those cash flows. SPEs are generally structured to insulate investors from claims on the SPE's assets by creditors of other entities, including the creditors of the seller of the assets.

The primary beneficiary of a VIE (i.e., the party that has a controlling financial interest) is required to consolidate the assets and liabilities of the VIE. The primary beneficiary is the party that has both (1) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance; and (2) through its interests in the VIE, the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE.

To assess whether the Firm has the power to direct the activities of a VIE that most significantly impact the VIE's economic performance, the Firm considers all the facts and circumstances, including its role in establishing the VIE and its ongoing rights and responsibilities. This assessment includes, first, identifying the activities that most significantly impact the VIE's economic performance; and second, identifying which party, if any, has power over those activities. In general, the parties that make the most significant decisions affecting the VIE (such as asset managers, collateral managers, servicers, or owners of call options or liquidation rights over the VIE's assets) or have the right to unilaterally remove those decision-makers are deemed to have the power to direct the activities of a VIE.

To assess whether the Firm has the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE, the Firm considers all of its economic interests, including debt and equity investments, servicing fees, and derivative or other arrangements deemed to be variable interests in the VIE. This assessment requires that the Firm apply judgment in determining whether these interests, in the aggregate, are considered potentially significant to the VIE. Factors considered in assessing significance include: the design of the VIE, including its capitalization structure; subordination of interests; payment priority; relative share of interests held across various classes within the VIE's capital structure; and the reasons why the interests are held by the Firm.

The Firm performs on-going reassessments of: (1) whether entities previously evaluated under the majority voting-interest framework have become VIEs, based on certain events, and therefore subject to the VIE consolidation framework; and (2) whether changes in the facts and circumstances regarding the Firm's involvement with a VIE cause the Firm's consolidation conclusion to change.

In January 2010, the Financial Accounting Standards Board ("FASB") issued an amendment which deferred the requirements of the accounting guidance for VIEs for certain investment funds, including mutual funds, private equity funds and hedge funds. For the funds to which the deferral applies, the Firm continues to apply other existing authoritative accounting guidance to determine whether such funds should be consolidated.

Assets held for clients in an agency or fiduciary capacity by the Firm are not assets of JPMorgan Chase and are not included on the Consolidated Balance Sheets.

Use of estimates in the preparation of consolidated financial statements

The preparation of the Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenue and expense, and disclosures of contingent assets and liabilities. Actual results could be different from these estimates.

Foreign currency translation

JPMorgan Chase revalues assets, liabilities, revenue and expense denominated in non-U.S. currencies into U.S. dollars using applicable exchange rates.

Gains and losses relating to translating functional currency financial statements for U.S. reporting are included in other comprehensive income/(loss) ("OCI") within stockholders' equity. Gains and losses relating to nonfunctional currency transactions, including non-U.S. operations where the functional currency is the U.S. dollar, are reported in the Consolidated Statements of Income.

Statements of cash flows

For JPMorgan Chase's Consolidated Statements of Cash Flows, cash is defined as those amounts included in cash and due from banks.

Significant accounting policies

The following table identifies JPMorgan Chase's other significant accounting policies and the Note and page where a detailed description of each policy can be found.

Policy	Note	Page
Business changes and developments	Note 2	Page 195
Fair value measurement	Note 3	Page 196
Fair value option	Note 4	Page 214
Derivative instruments	Note 6	Page 218
Noninterest revenue	Note 7	Page 228
Interest income and interest expense	Note 8	Page 230
Pension and other postretirement employee benefit plans	Note 9	Page 231
Employee stock-based incentives	Note 10	Page 241
Securities	Note 12	Page 244
Securities financing activities	Note 13	Page 249
Loans	Note 14	Page 250
Allowance for credit losses	Note 15	Page 276
Variable interest entities	Note 16	Page 280
Goodwill and other intangible assets	Note 17	Page 291
Premises and equipment	Note 18	Page 296
Long-term debt	Note 21	Page 297
Income taxes	Note 26	Page 303
Off–balance sheet lending-related financial instruments, guarantees and other commitments	Note 29	Page 308
Litigation	Note 31	Page 316

Note 2 – Business changes and developments

Changes in common stock dividend

On March 18, 2011, the Board of Directors raised the Firm's quarterly common stock dividend from $0.05 to $0.25 per share, effective with the dividend paid on April 30, 2011, to shareholders of record on April 6, 2011. On March 13, 2012, the Board of Directors increased the Firm's quarterly common stock dividend from $0.25 to $0.30 per share, effective with the dividend paid on April 30, 2012, to shareholders of record on April 5, 2012.

Other business events

RBS Sempra transaction

On July 1, 2010, JPMorgan Chase completed the acquisition of RBS Sempra Commodities' global oil, global metals and European power and gas businesses. The Firm acquired approximately $1.7 billion of net assets which included $3.3 billion of debt which was immediately repaid. This acquisition almost doubled the number of clients the Firm's commodities business can serve and has enabled the Firm to offer clients more products in more regions of the world.

Purchase of remaining interest in J.P. Morgan Cazenove

On January 4, 2010, JPMorgan Chase purchased the remaining interest in J.P. Morgan Cazenove, an investment banking business partnership formed in 2005, which resulted in an adjustment to the Firm's capital surplus of approximately $1.3 billion.

Global settlement on servicing and origination of mortgages

On February 9, 2012, the Firm announced that it had agreed to a settlement in principle (the "global settlement") with a number of federal and state government agencies, including the U.S. Department of Justice ("DOJ"), the U.S. Department of Housing and Urban Development, the Consumer Financial Protection Bureau and the State Attorneys General, relating to the servicing and origination of mortgages. The global settlement, 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.

As the Firm provides relief to borrowers under the Refi and Consumer Relief Programs, the Firm receives credits that reduce its remaining obligation under these programs. 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 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 global settlement releases the Firm from certain further claims by the participating government entities related to servicing activities, including foreclosures and loss mitigation activities; certain origination activities; and certain bankruptcy-related activities. Not included in the global settlement are any claims arising out of securitization activities, including representations made to investors with respect to mortgage-backed securities; criminal claims; and repurchase demands from U.S. government-sponsored entities ("GSEs"), among other items.

Also on February 9, 2012, the Firm entered into agreements with the Board of Governors of the Federal Reserve System ("Federal Reserve") and the Office of the Comptroller of the Currency ("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. 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 this global settlement, see Loans in Note 14 on pages 250–275 of this Annual Report.

Washington Mutual, Inc. bankruptcy plan confirmation

On February 17, 2012, a bankruptcy court confirmed the joint plan containing the global settlement agreement resolving numerous disputes among Washington Mutual, Inc. ("WMI"), JPMorgan Chase and the Federal Deposit Insurance Corporation ("FDIC") as well as significant creditor groups (the "WaMu Global Settlement"). The WaMu Global Settlement was finalized on March 19, 2012, pursuant to the execution of a definitive agreement and court approval, and the Firm recognized additional assets, including certain pension-related assets, as well as tax refunds, resulting in a pretax gain of $1.1 billion for the three months ended March 31, 2012. For additional information related to the WaMu Global Settlement see Washington Mutual Litigations in Note 31 on page 324 of this Annual Report.

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. Superstorm Sandy did not have a material impact on the 2012 financial results of the Firm.

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.

Note 3 – Fair value measurement

JPMorgan Chase carries a portion of its assets and liabilities at fair value. These assets and liabilities are predominantly carried at fair value on a recurring basis (i.e., assets and liabilities that are measured and reported at fair value on the Firm's Consolidated Balance Sheets). Certain assets (e.g. certain mortgage, home equity and other loans, where the carrying value is based on the fair value of the underlying collateral), liabilities and unfunded lending-related commitments are measured at fair value on a nonrecurring basis; that is, they are not measured at fair value on an ongoing basis but are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment).

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices, where available. If listed prices or quotes are not available, fair value is based on models that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters, including but not limited to yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value, as described below.

Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Firm believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgment and may vary across the Firm's businesses and portfolios.

The Firm uses various methodologies and assumptions in the determination of fair value. The use of different methodologies or assumptions to those used by the Firm could result in a different estimate of fair value at the reporting date.

Valuation process

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the Consolidated Balance Sheets at fair value. The Firm's valuation control function, which is part of the Firm's Finance function and independent of the risk-taking functions, is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Firm's positions are recorded at fair value. In addition, the Firm has a 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.

The valuation control function verifies fair value estimates leveraging independently derived prices, valuation inputs and other market data, where available. Where independent prices or inputs are not available, additional review is performed by the valuation control function to ensure the reasonableness of estimates that cannot be verified to external independent data, and may include: evaluating the limited market activity including client unwinds; benchmarking of valuation inputs to those for similar instruments; decomposing the valuation of structured instruments into individual components; comparing expected to actual cash flows; reviewing profit and loss trends; and reviewing trends in collateral valuation. In addition there are additional levels of management review for more significant or complex positions.

The valuation control function determines any valuation adjustments that may be required to the estimates provided by the risk-taking functions. No adjustments are applied to the quoted market price for instruments classified within

level 1 of the fair value hierarchy (see below for further information on the fair value hierarchy). For other positions, judgment is required to assess the need for valuation adjustments to appropriately reflect liquidity considerations, unobservable parameters, and, for certain portfolios that meet specified criteria, the size of the net open risk position. The determination of such adjustments follows a consistent framework across the Firm:

- Liquidity valuation adjustments are considered when the Firm may not be able to observe a recent market price for a financial instrument that trades in an inactive (or less active) market. The Firm estimates the amount of uncertainty in the initial fair value estimate based on the degree of liquidity in the market. Factors considered in determining the liquidity adjustment include: (1) the amount of time since the last relevant pricing point; (2) whether there was an actual trade or relevant external quote or alternatively pricing points for similar instruments in active markets; and (3) the volatility of the principal risk component of the financial instrument. For certain portfolios of financial instruments that the Firm manages on the basis of net open risk exposure, valuation adjustments are necessary to reflect the cost of exiting a larger-than-normal market-size net open risk position. Where applied, such adjustments are based on factors including the size of the adverse market move that is likely to occur during the period required to reduce the net open risk position to a normal market-size.
- Unobservable parameter valuation adjustments may be made when positions are valued using internally developed models that incorporate unobservable parameters – that is, parameters that must be estimated and are, therefore, subject to management judgment. Unobservable parameter valuation adjustments are applied to reflect the uncertainty inherent in the valuation estimate provided by the model.

Where appropriate, the Firm also applies adjustments to its estimates of fair value in order to appropriately reflect counterparty credit quality and the Firm's own creditworthiness, applying a consistent framework across the Firm. For more information on such adjustments see Credit adjustments on page 212 of this Note

Valuation model review and approval

If prices or quotes are not available for an instrument or a similar instrument, fair value is generally determined using valuation models that consider relevant transaction data such as maturity and use as inputs market-based or independently sourced parameters. Where this is the case the price verification process described above is applied to the inputs to those models.

The Firm's Model Risk function within the Firm's Model Risk and Development Group, which in turn reports to the Chief Risk Officer, reviews and approves valuation models used by the Firm. Model reviews consider a number of factors about the model's suitability for valuation of a particular product including whether it accurately reflects the characteristics and significant risks of a particular instrument; the selection and reliability of model inputs; consistency with models for similar products; the appropriateness of any model-related adjustments; and sensitivity to input parameters and assumptions that cannot be observed from the market. When reviewing a model, the Model Risk function analyzes and challenges the model methodology and the reasonableness of model assumptions and may perform or require additional testing, including back-testing of model outcomes.

New significant valuation models, as well as material changes to existing models, are reviewed and approved prior to implementation except where specified conditions are met. The Model Risk function performs an annual Firmwide model risk assessment where developments in the product or market are considered in determining whether valuation models which have already been reviewed need to be reviewed and approved again.

Valuation Hierarchy

A three-level valuation hierarchy has been established under U.S. GAAP for disclosure of fair value measurements. The valuation hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows.

- Level 1 – inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 – inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3 – one or more inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorization within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

The following table describes the valuation methodologies used by the Firm to measure its more significant products/ instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Securities financing agreements	Valuations are based on discounted cash flows, which consider: • Derivative features. For further information refer to discussion on derivatives below. • Market rates for the respective maturity • Collateral	Level 2
Loans and lending-related commitments - wholesale		
Trading portfolio	Where observable market data is available, valuations are based on: • Observed market prices (circumstances are limited) • Relevant broker quotes • Observed market prices for similar instruments Where observable market data is unavailable or limited, valuations are based on discounted cash flows, which consider the following: • Yield • Lifetime credit losses • Loss severity • Prepayment speed • Servicing costs	Level 2 or 3
Loans held for investment and associated lending related commitments	Valuations are based on discounted cash flows, which consider: • Credit spreads, derived from the cost of CDS; or benchmark credit curves developed by the Firm, by industry and credit rating, and which take into account the difference in loss severity rates between bonds and loans • Prepayment speed Lending related commitments are valued similar to loans and reflect the portion of an unused commitment expected, based on the Firm's average portfolio historical experience, to become funded prior to an obligor default For information regarding the valuation of loans measured at collateral value, see Note 14 on pages 250-275 of this Annual Report.	Predominantly level 3
Loans - consumer		
Held for investment consumer loans, excluding credit card	Valuations are based on discounted cash flows, which consider: • Discount rates (derived from primary origination rates and market activity) • Expected lifetime credit losses (considering expected and current default rates for existing portfolios, collateral prices, and economic environment expectations (i.e., unemployment rates)) • Estimated prepayments • Servicing costs • Market liquidity For information regarding the valuation of loans measured at collateral value, see Note 14 on pages 250-275 of this Annual Report.	Predominantly level 3
Credit card receivables	Valuations are based on discounted cash flows, which consider: • Projected interest income and late fee revenue, funding, servicing and credit costs, and loan repayment rates • Estimated life of receivables (based on projected loan payment rates) • Discount rate - based on expected return on receivables • Credit costs - allowance for loan losses is considered a reasonable proxy for the credit cost based on the short- term nature of credit card receivables	Level 3
Conforming residential mortgage loans expected to be sold	Fair value is based upon observable prices for mortgage-backed securities with similar collateral and incorporates adjustments to these prices to account for differences between the securities and the value of the underlying loans, which include credit characteristics, portfolio composition, and liquidity.	Predominantly level 2

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Securities	Quoted market prices are used where available.	Level 1
	In the absence of quoted market prices, securities are valued based on: • Observable market prices for similar securities • Relevant broker quotes • Discounted cash flows In addition, the following inputs to discounted cash flows are used for the following products: *Mortgage- and asset-backed securities specific inputs:* • Collateral characteristics • Deal-specific payment and loss allocations • Current market assumptions related to yield, prepayment speed, conditional default rates and loss severity *Collateralized loan obligations ("CLOs"), specific inputs:* • Collateral characteristics • Deal-specific payment and loss allocations • Expected prepayment speed, conditional default rates, loss severity • Credit spreads • Credit rating data	Level 2 or 3
Physical commodities	Valued using observable market prices or data	Level 1 or 2
Derivatives	Exchange-traded derivatives that are actively traded and valued using the exchange price, and over-the-counter contracts where quoted prices are available in an active market.	Level 1
	Derivatives valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models, that use observable or unobservable valuation inputs (e.g. plain vanilla options and interest rate and credit default swaps). Inputs include: • Contractual terms including the period to maturity • Readily observable parameters including interest rates and volatility • Credit quality of the counterparty and of the Firm • Correlation levels In addition, the following specific inputs are used for the following derivatives that are valued based on models with significant unobservable inputs: *Structured credit derivatives specific inputs include:* • CDS spreads and recovery rates • Credit correlation between the underlying debt instruments (levels are modeled on a transaction basis and calibrated to liquid benchmark tranche indices) • Actual transactions, where available, are used to regularly recalibrate unobservable parameters *Certain long-dated equity option specific inputs include:* • Long-dated equity volatilities *Certain interest rate and FX exotic options specific inputs include:* • Interest rate correlation • Interest rate spread volatility • Foreign exchange correlation • Correlation between interest rates and foreign exchange rates • Parameters describing the evolution of underlying interest rates *Certain commodity derivatives specific inputs include:* • Commodity volatility Adjustments to reflect counterparty credit quality (credit valuation adjustments or "CVA"), and the Firms own creditworthiness (debit valuation adjustments or "DVA"), see page 212 of this Note.	Level 2 or 3

Product/instrument	Valuation methodology, inputs and assumptions	Classification in the valuation hierarchy
Mortgage servicing rights ("MSRs")	See Mortgage servicing rights in Note 17 on pages 292-294 of this Annual Report.	Level 3
Private equity direct investments	*Private equity direct investments* Fair value is estimated using all available information and considering the range of potential inputs, including: • Transaction prices • Trading multiples of comparable public companies • Operating performance of the underlying portfolio company • Additional available inputs relevant to the investment • Adjustments as required, since comparable public companies are not identical to the company being valued, and for company-specific issues and lack of liquidity	Level 3
	Public investments held in the Private Equity portfolio • Valued using observable market prices less adjustments for relevant restrictions, where applicable	Level 1 or 2
Fund investments (i.e., mutual/ collective investment funds, private equity funds, hedge funds, and real estate funds)	Net asset value ("NAV") • NAV is validated by sufficient level of observable activity (i.e., purchases and sales)	Level 1
	• Adjustments to the NAV as required, for restrictions on redemption (e.g., lock up periods or withdrawal limitations) or where observable activity is limited	Level 2 or 3
Beneficial interests issued by consolidated VIE	Valued using observable market information, where available In the absence of observable market information, valuations are based on the fair value of the underlying assets held by the VIE	Level 2 or 3
Long-term debt, not carried at fair value	Valuations are based on discounted cash flows, which consider: • Market rates for respective maturity • The Firm's own creditworthiness (DVA), see page 212 of this Note	Predominantly level 2
Structured notes (included in deposits, other borrowed funds and long-term debt)	Valuations are based on discounted cash flows, which consider: • The Firm's own creditworthiness (DVA), see page 212 of this Note • Consideration of derivative features. For further information refer to discussion on derivatives above	Level 2 or 3

The following table presents the asset and liabilities measured at fair value as of December 31, 2012 and 2011 by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

	Fair value hierarchy				
December 31, 2012 (in millions)	Level 1	Level 2	Level 3	Netting	Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 24,258	$ –	$ –	$ 24,258
Securities borrowed	–	10,177	–	–	10,177
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies[a]	–	36,240	498	–	36,738
Residential – nonagency	–	1,509	663	–	2,172
Commercial – nonagency	–	1,565	1,207	–	2,772
Total mortgage-backed securities	–	39,314	2,368	–	41,682
U.S. Treasury and government agencies[a]	12,240	10,185	–	–	22,425
Obligations of U.S. states and municipalities	–	16,726	1,436	–	18,162
Certificates of deposit, bankers' acceptances and commercial paper	–	4,759	–	–	4,759
Non-U.S. government debt securities	23,500	45,121	67	–	68,688
Corporate debt securities	–	33,384	5,308	–	38,692
Loans[b]	–	30,754	10,787	–	41,541
Asset-backed securities	–	4,182	3,696	–	7,878
Total debt instruments	35,740	184,425	23,662	–	243,827
Equity securities	106,898	2,687	1,114	–	110,699
Physical commodities[c]	10,107	6,066	–	–	16,173
Other	–	3,483	863	–	4,346
Total debt and equity instruments[d]	152,745	196,661	25,639	–	375,045
Derivative receivables:					
Interest rate	476	1,322,155	6,617	(1,290,043)	39,205
Credit	–	93,821	6,489	(98,575)	1,735
Foreign exchange	450	144,758	3,051	(134,117)	14,142
Equity	–	36,017	4,921	(31,672)	9,266
Commodity	316	41,129	2,180	(32,990)	10,635
Total derivative receivables[e]	1,242	1,637,880	23,258	(1,587,397)	74,983
Total trading assets	153,987	1,834,541	48,897	(1,587,397)	450,028
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies[a]	–	98,388	–	–	98,388
Residential – nonagency	–	74,189	450	–	74,639
Commercial – nonagency	–	12,948	255	–	13,203
Total mortgage-backed securities	–	185,525	705	–	186,230
U.S. Treasury and government agencies[a]	8,907	3,223	–	–	12,130
Obligations of U.S. states and municipalities	35	21,489	187	–	21,711
Certificates of deposit	–	2,783	–	–	2,783
Non-U.S. government debt securities	41,218	24,826	–	–	66,044
Corporate debt securities	–	38,609	–	–	38,609
Asset-backed securities:					
Collateralized loan obligations	–	–	27,896	–	27,896
Other	–	12,843	128	–	12,971
Equity securities	2,733	38	–	–	2,771
Total available-for-sale securities	52,893	289,336	28,916	–	371,145
Loans	–	273	2,282	–	2,555
Mortgage servicing rights	–	–	7,614	–	7,614
Other assets:					
Private equity investments[f]	578	–	7,181	–	7,759
All other	4,188	253	4,258	–	8,699
Total other assets	4,766	253	11,439	–	16,458
Total assets measured at fair value on a recurring basis	$ 211,646	$ 2,158,838 [g]	$ 99,148 [g]	$ (1,587,397)	$ 882,235
Deposits	$ –	$ 3,750	$ 1,983	$ –	$ 5,733
Federal funds purchased and securities loaned or sold under repurchase agreements	–	4,388	–	–	4,388
Other borrowed funds	–	9,972	1,619	–	11,591
Trading liabilities:					
Debt and equity instruments[d]	46,580	14,477	205	–	61,262
Derivative payables:					
Interest rate	490	1,283,829	3,295	(1,262,708)	24,906
Credit	–	95,411	4,616	(97,523)	2,504
Foreign exchange	428	156,413	4,801	(143,041)	18,601
Equity	–	36,083	6,727	(30,991)	11,819
Commodity	176	45,363	1,926	(34,639)	12,826
Total derivative payables[e]	1,094	1,617,099	21,365	(1,568,902)	70,656
Total trading liabilities	47,674	1,631,576	21,570	(1,568,902)	131,918
Accounts payable and other liabilities	–	–	36	–	36
Beneficial interests issued by consolidated VIEs	–	245	925	–	1,170
Long-term debt	–	22,312	8,476	–	30,788
Total liabilities measured at fair value on a recurring basis	$ 47,674	$ 1,672,243	$ 34,609	$ (1,568,902)	$ 185,624

December 31, 2011 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Netting	Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 22,191	$ –	$ –	$ 22,191
Securities borrowed	–	15,308	–	–	15,308
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies[a]	27,082	7,801	86	–	34,969
Residential – nonagency	–	2,956	796	–	3,752
Commercial – nonagency	–	870	1,758	–	2,628
Total mortgage-backed securities	27,082	11,627	2,640	–	41,349
U.S. Treasury and government agencies[a]	11,508	8,391	–	–	19,899
Obligations of U.S. states and municipalities	–	15,117	1,619	–	16,736
Certificates of deposit, bankers' acceptances and commercial paper	–	2,615	–	–	2,615
Non-U.S. government debt securities	18,618	40,080	104	–	58,802
Corporate debt securities	–	33,938	6,373	–	40,311
Loans[b]	–	21,589	12,209	–	33,798
Asset-backed securities	–	2,406	7,965	–	10,371
Total debt instruments	57,208	135,763	30,910	–	223,881
Equity securities	93,799	3,502	1,177	–	98,478
Physical commodities[c]	21,066	4,898	–	–	25,964
Other	–	2,283	880	–	3,163
Total debt and equity instruments[d]	172,073	146,446	32,967	–	351,486
Derivative receivables:					
Interest rate	1,324	1,433,469	6,728	(1,395,152)	46,369
Credit	–	152,569	17,081	(162,966)	6,684
Foreign exchange	833	162,689	4,641	(150,273)	17,890
Equity	–	43,604	4,132	(40,943)	6,793
Commodity	4,561	50,409	2,459	(42,688)	14,741
Total derivative receivables[e]	6,718	1,842,740	35,041	(1,792,022)	92,477
Total trading assets	178,791	1,989,186	68,008	(1,792,022)	443,963
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies[a]	92,426	14,681	–	–	107,107
Residential – nonagency	–	67,554	3	–	67,557
Commercial – nonagency	–	10,962	267	–	11,229
Total mortgage-backed securities	92,426	93,197	270	–	185,893
U.S. Treasury and government agencies[a]	3,837	4,514	–	–	8,351
Obligations of U.S. states and municipalities	36	16,246	258	–	16,540
Certificates of deposit	–	3,017	–	–	3,017
Non-U.S. government debt securities	25,381	19,884	–	–	45,265
Corporate debt securities	–	62,176	–	–	62,176
Asset-backed securities:					
Collateralized loan obligations	–	116	24,745	–	24,861
Other	–	15,760	213	–	15,973
Equity securities	2,667	38	–	–	2,705
Total available-for-sale securities	124,347	214,948	25,486	–	364,781
Loans	–	450	1,647	–	2,097
Mortgage servicing rights	–	–	7,223	–	7,223
Other assets:					
Private equity investments[f]	99	706	6,751	–	7,556
All other	4,336	233	4,374	–	8,943
Total other assets	4,435	939	11,125	–	16,499
Total assets measured at fair value on a recurring basis	$ 307,573	$ 2,243,022 [g]	$ 113,489 [g]	$ (1,792,022)	$ 872,062
Deposits	$ –	$ 3,515	$ 1,418	$ –	$ 4,933
Federal funds purchased and securities loaned or sold under repurchase agreements	–	6,817	–	–	6,817
Other borrowed funds	–	8,069	1,507	–	9,576
Trading liabilities:					
Debt and equity instruments[d]	50,830	15,677	211	–	66,718
Derivative payables:					
Interest rate	1,537	1,395,113	3,167	(1,371,807)	28,010
Credit	–	155,772	9,349	(159,511)	5,610
Foreign exchange	846	159,258	5,904	(148,573)	17,435
Equity	–	39,129	7,237	(36,711)	9,655
Commodity	3,114	53,684	3,146	(45,677)	14,267
Total derivative payables[e]	5,497	1,802,956	28,803	(1,762,279)	74,977
Total trading liabilities	56,327	1,818,633	29,014	(1,762,279)	141,695
Accounts payable and other liabilities	–	–	51	–	51
Beneficial interests issued by consolidated VIEs	–	459	791	–	1,250
Long-term debt	–	24,410	10,310	–	34,720
Total liabilities measured at fair value on a recurring basis	$ 56,327	$ 1,861,903	$ 43,091	$ (1,762,279)	$ 199,042

(a) At December 31, 2012 and 2011, included total U.S. government-sponsored enterprise obligations of $119.4 billion and $122.4 billion respectively, which were predominantly mortgage-related.

(b) At December 31, 2012 and 2011, included within trading loans were $26.4 billion and $20.1 billion, respectively, of residential first-lien mortgages, and $2.2 billion and $2.0 billion, respectively, of commercial first-lien mortgages. Residential mortgage loans include conforming mortgage loans originated with the intent to sell to U.S. government agencies of $17.4 billion and $11.0 billion, respectively, and reverse mortgages of $4.0 billion and $4.0 billion, respectively.

(c) Physical commodities inventories are generally accounted for at the lower of cost or market. "Market" is a term defined in U.S. GAAP as an amount not exceeding fair value less costs to sell ("transaction costs"). Transaction costs for the Firm's physical commodities inventories are either not applicable or immaterial to the value of the inventory.

Therefore, market approximates fair value for the Firm's physical commodities inventories. When fair value hedging has been applied (or when market is below cost), the carrying value of physical commodities approximates fair value, because under fair value hedge accounting, the cost basis is adjusted for changes in fair value. For a further discussion of the Firm's hedge accounting relationships, see Note 6 on pages 218–227 of this Annual Report. To provide consistent fair value disclosure information, all physical commodities inventories have been included in each period presented.

(d) Balances reflect the reduction of securities owned (long positions) by the amount of securities sold but not yet purchased (short positions) when the long and short positions have identical Committee on Uniform Security Identification Procedures numbers ("CUSIPs").

(e) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists. For purposes of the tables above, the Firm does not reduce derivative receivables and derivative payables balances for this netting adjustment, either within or across the levels of the fair value hierarchy, as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset or liability. Therefore, the balances reported in the fair value hierarchy table are gross of any counterparty netting adjustments. However, if the Firm were to net such balances within level 3, the reduction in the level 3 derivative receivable and payable balances would be $8.4 billion and $11.7 billion at December 31, 2012 and 2011, respectively; this is exclusive of the netting benefit associated with cash collateral, which would further reduce the level 3 balances.

(f) Private equity instruments represent investments within the Corporate/Private Equity segment. The cost basis of the private equity investment portfolio totaled $8.4 billion and $9.5 billion at December 31, 2012 and 2011, respectively.

(g) Includes investments in hedge funds, private equity funds, real estate and other funds that do not have readily determinable fair values. The Firm uses net asset value per share when measuring the fair value of these investments. At December 31, 2012 and 2011, the fair value of these investments were $4.9 billion and $5.5 billion, respectively, of which $1.1 billion and $1.2 billion, respectively, in level 2, and $3.8 billion and $4.3 billion, respectively, in level 3.

Transfers between levels for instruments carried at fair value on a recurring basis

For the year ended December 31, 2012, $113.9 billion of settled U.S. government agency mortgage-backed securities were transferred from level 1 to level 2. While the U.S. government agency mortgage-backed securities market remains highly liquid and transparent, the transfer reflects greater market price differentiation between settled securities based on certain underlying loan specific factors. There were no significant transfers from level 2 to level 1 for the year ended December 31, 2012, and no significant transfers between level 1 and level 2 for the year ended December 31, 2011.

For the years ended December 31, 2012 and 2011, there were no significant transfers from level 2 into level 3. For the year ended December 31, 2012, transfers from level 3 into level 2 included $1.2 billion of derivative payables based on increased observability of certain structured equity derivatives; and $1.8 billion of long-term debt due to a decrease in valuation uncertainty of certain equity structured notes. For the year ended December 31, 2011, transfers from level 3 into level 2 included $2.6 billion of long-term debt due to a decrease in valuation uncertainty of certain structured notes.

All transfers are assumed to occur at the beginning of the reporting period.

During 2012 the liquidity for certain collateralized loan obligations increased and price transparency improved. Accordingly, the Firm incorporated a revised valuation model into its valuation process for CLOs to better calibrate to market data where available. The Firm began to verify fair value estimates from this model to independent sources during the fourth quarter of 2012. Although market liquidity and price transparency have improved, CLO market prices were not yet considered materially observable and therefore CLOs remained in level 3 as of December 31, 2012. The change in the valuation process did not have a significant impact on the fair value of the Firm's CLO positions.

Level 3 valuations

The Firm has established well-documented processes for determining fair value, including for instruments where fair value is estimated using significant unobservable inputs (level 3). For further information on the Firm's valuation process and a detailed discussion of the determination of fair value for individual financial instruments, see pages 196–200 of this Note.

Estimating fair value requires the application of judgment. The type and level of judgment required is largely dependent on the amount of observable market information available to the Firm. For instruments valued using internally developed models that use significant unobservable inputs and are therefore classified within level 3 of the fair value hierarchy, judgments used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, due to the lack of observability of significant inputs, management must assess all relevant empirical data in deriving valuation inputs — including, but not limited to, transaction details, yield curves, interest rates, prepayment speed, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves. Finally, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality, the Firm's creditworthiness, constraints on liquidity and unobservable parameters, where relevant. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole.

The following table presents the Firm's primary level 3 financial instruments, the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs, the range of values for those inputs and the weighted averages of such inputs. While the determination to classify an instrument within level 3 is based on the significance of the unobservable inputs to the overall fair value measurement, level 3 financial instruments typically include observable components (that is, components that are actively quoted and can be validated to external sources) in addition to the unobservable components. The level 1 and/or level 2 inputs are not included in the table. In addition, the Firm manages the risk of the observable components of level 3 financial instruments using securities and derivative positions that are classified within levels 1 or 2 of the fair value hierarchy.

The range of values presented in the table is representative of the highest and lowest level input used to value the significant groups of instruments within a product/instrument classification. The input range does not reflect the level of input uncertainty, instead it is driven by the different underlying characteristics of the various instruments within the classification. For example, two option contracts may have similar levels of market risk exposure and valuation uncertainty, but may have significantly different implied volatility levels because the option contracts have different underlyings, tenors , or strike prices.

Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value. In the Firm's view, the input range and the weighted average value do not reflect the degree of input uncertainty or an assessment of the reasonableness of the Firm's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Firm and the relative distribution of instruments within the range of characteristics. The input range and weighted average values will therefore vary from period to period and parameter to parameter based on the characteristics of the instruments held by the Firm at each balance sheet date.

Level 3 inputs[a]

December 31, 2012 (in millions, except for ratios and basis points)

Product/Instrument	Fair value	Principal valuation technique	Unobservable inputs	Range of input values	Weighted average
Residential mortgage-backed securities and loans	$ 9,836	Discounted cash flows	Yield	4 % - 20%	7%
			Prepayment speed	0 % - 40%	6%
			Conditional default rate	0 % - 100%	10%
			Loss severity	0 % - 95%	15%
Commercial mortgage-backed securities and loans[b]	1,724	Discounted cash flows	Yield	2 % - 32%	6%
			Conditional default rate	0 % - 8%	0%
			Loss severity	0 % - 40%	35%
Corporate debt securities, obligations of U.S. states and municipalities, and other[c]	19,563	Discounted cash flows	Credit spread	130 bps - 250 bps	153 bps
			Yield	0 % - 30%	9%
		Market comparables	Price	25 - 125	87
Net interest rate derivatives	3,322	Option pricing	Interest rate correlation	(75)% - 100%	
			Interest rate spread volatility	0 % - 60%	
Net credit derivatives[b]	1,873	Discounted cash flows	Credit correlation	27 % - 90%	
Net foreign exchange derivatives	(1,750)	Option pricing	Foreign exchange correlation	(75)% - 45%	
Net equity derivatives	(1,806)	Option pricing	Equity volatility	5 % - 45%	
Net commodity derivatives	254	Option pricing	Commodity volatility	24 % - 47%	
Collateralized loan obligations[d]	29,972	Discounted cash flows	Credit spread	130 bps - 600 bps	163 bps
			Prepayment speed	15 % - 20%	19%
			Conditional default rate	2%	2%
			Loss severity	40%	40%
Mortgage servicing rights ("MSRs")	7,614	Discounted cash flows	Refer to Note 17 on pages 291–295 of this Annual Report.		
Private equity direct investments	5,231	Market comparables	EBITDA multiple	2.7x - 14.6x	8.3x
			Liquidity adjustment	0 % - 30%	10%
Private equity fund investments	1,950	Net asset value	Net asset value[f]		
Long-term debt, other borrowed funds, and deposits[e]	12,078	Option pricing	Interest rate correlation	(75)% - 100%	
			Foreign exchange correlation	(75)% - 45%	
			Equity correlation	(40)% - 85%	
		Discounted cash flows	Credit correlation	27 % - 84%	

(a) The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the Consolidated Balance Sheet.
(b) The unobservable inputs and associated input ranges for approximately $1.3 billion of credit derivative receivables and $1.2 billion of credit derivative payables with underlying mortgage risk have been included in the inputs and ranges provided for commercial mortgage-backed securities and loans.
(c) Approximately 16% of instruments in this category include price as an unobservable input. This balance includes certain securities and illiquid trading loans, which are generally valued using comparable prices and/or yields for similar instruments.
(d) CLOs are securities backed by corporate loans. At December 31, 2012, $27.9 billion of CLOs were held in the available-for-sale ("AFS") securities portfolio and $2.1 billion were included in asset-backed securities held in the trading portfolio. Substantially all of the securities are rated "AAA", "AA" and "A". The reported range of credit spreads increased from the third quarter to the fourth quarter of 2012, while the reported ranges of other unobservable parameters decreased. This was primarily due to the Firm incorporating a revised valuation model for CLOs, which uses a different combination of valuation parameters as compared with the old model. The change did not have a significant impact on the fair value of the Firm's CLO positions.
(e) Long-term debt, other borrowed funds, and deposits include structured notes issued by the Firm that are financial instruments containing embedded derivatives. The estimation of the fair value of structured notes is predominantly based on the derivative features embedded within the instruments. The significant unobservable inputs are broadly consistent with those presented for derivative receivables.
(f) The range has not been disclosed due to the wide range of possible values given the diverse nature of the underlying investments.

Changes in and ranges of unobservable inputs
The following discussion provides a description of the impact on a fair value measurement of a change in each unobservable input in isolation, and the interrelationship between unobservable inputs, where relevant and significant. The impact of changes in inputs may not be independent as a change in one unobservable input may give rise to a change in another unobservable input, and where relationships exist between two unobservable inputs, those relationships are discussed below. Relationships may also exist between observable and unobservable inputs (for example, as observable interest rates rise, unobservable prepayment rates decline). Such relationships have not been included in the discussion below. In addition, for each of the individual relationships described below, the inverse relationship would also generally apply.

In addition, the following discussion provides a description of attributes of the underlying instruments and external market factors that affect the range of inputs used in the valuation of the Firm's positions.

Discount rates and spreads
Yield – The yield of an asset is the interest rate used to discount future cash flows in a discounted cash flow calculation. An increase in the yield, in isolation, would result in a decrease in a fair value measurement.

Credit spread – The credit spread is the amount of additional annualized return over the market interest rate that a market participant would demand for taking exposure to the credit risk of an instrument. The credit spread for an instrument forms part of the discount rate used in a discounted cash flow calculation. Generally, an increase in the credit spread would result in a decrease in a fair value measurement.

The yield and the credit spread of a particular mortgage-backed security or CLO primarily reflect the risk inherent in the instrument. The yield is also impacted by the absolute level of the coupon paid by the instrument (which may not correspond directly to the level of inherent risk). Therefore, the range of yield and credit spreads reflects the range of risk inherent in various instruments owned by the Firm. The risk inherent in mortgage-backed securities is driven by the subordination of the security being valued and the characteristics of the underlying mortgages within the collateralized pool, including borrower FICO scores, loan to value ratios for residential mortgages and the nature of the property and/or any tenants for commercial mortgages. For CLOs, credit spread reflects the market's implied risk premium based on several factors including the subordination of the investment, the credit quality of underlying borrowers, the specific terms of the loans within the CLO structure, as well as the supply and demand of the instrument. For corporate debt securities, obligations of U.S. states and municipalities and other similar instruments, credit spreads reflect the credit quality of the obligor and the tenor of the obligation.

Performance rates of underlying collateral in collateralized obligations (e.g., MBS, CLOs, etc.)
Prepayment speed – The prepayment speed is a measure of the voluntary unscheduled principal repayments of a prepayable obligation in a collateralized pool. Prepayment speeds generally decline as borrower delinquencies rise. An increase in prepayment speeds, in isolation, would result in a decrease in a fair value measurement of assets valued at a premium to par and an increase in a fair value measurement of assets valued at a discount to par.

Prepayment speeds may vary from collateral pool-to-collateral pool, and are driven by the type and location of the underlying borrower, the remaining tenor of the obligation as well as the level and type (e.g., fixed or floating) of interest rate being paid by the borrower. Typically collateral pools with higher borrower credit quality have a higher prepayment rate than those with lower borrower credit quality, all other factors being equal.

Conditional default rate – The conditional default rate is a measure of the reduction in the outstanding collateral balance underlying a collateralized obligation as a result of defaults. While there is typically no direct relationship between conditional default rates and prepayment speeds, collateralized obligations for which the underlying collateral have high prepayment speeds will tend to have lower conditional default rates. An increase in conditional default rates would generally be accompanied by an increase in loss severity and an increase in credit spreads. An increase in the conditional default rate, in isolation, would result in a decrease in a fair value measurement. Conditional default rates reflect the quality of the collateral underlying a securitization and the structure of the securitization itself. Based on the types of securities owned in the Firm's market-making portfolios, conditional default rates are most typically at the lower end of the range presented.

Loss severity – The loss severity (the inverse concept is the recovery rate) is the expected amount of future realized losses resulting from the ultimate liquidation of a particular loan, expressed as the net amount of loss relative to the outstanding loan balance. An increase in loss severity is generally accompanied by an increase in conditional default rates. An increase in the loss severity, in isolation, would result in a decrease in a fair value measurement.

The loss severity applied in valuing a mortgage-backed security or a CLO investment depends on a host of factors relating to the underlying obligations (i.e., mortgages or loans). For mortgages, this includes the loan-to-value ratio, the nature of the lender's charge over the property and various other instrument-specific factors. For CLO investments, loss severity is driven by the characteristics of the underlying loans including the seniority of the loans and the type and amount of any security provided by the obligor.

Correlation – Correlation is a measure of the relationship between the movements of two variables (e.g., how the change in one variable influences the change in the other). Correlation is a pricing input for a derivative product where the payoff is driven by one or more underlying risks. Correlation inputs are related to the type of derivative (e.g., interest rate, credit, equity and foreign exchange) due to the nature of the underlying risks. When parameters are positively correlated, an increase in one parameter will result in an increase in the other parameter. When parameters are negatively correlated, an increase in one parameter will result in a decrease in the other parameter. An increase in correlation can result in an increase or a decrease in a fair value measurement. Given a short correlation position, an increase in correlation, in isolation, would generally result in a decrease in a fair value measurement. Correlation inputs between risks within the same asset class are generally narrower than those between underlying risks across asset classes. In addition the ranges of credit correlation inputs tend to be narrower than those affecting other asset classes.

The level of correlation used in the valuation of derivatives with multiple underlying risks depends on a number of factors including the nature of those risks. For example, the correlation between two credit risk exposures would be different than that between two interest rate risk exposures. Similarly, the tenor of the transaction may also impact the correlation input as the relationship between the underlying risks may be different over different time periods. Furthermore, correlation levels are very much dependent on market conditions and could have a relatively wide range of levels within or across asset classes over time, particularly in volatile market conditions.

For the Firm's derivatives and structured notes positions classified within level 3, the equity, foreign exchange and interest rate correlation inputs used in estimating fair value were concentrated at the upper end of the range presented, while the credit correlation inputs were distributed across the range presented.

Volatility – Volatility is a measure of the variability in possible returns for an instrument, parameter or market index given how much the particular instrument, parameter or index changes in value over time. Volatility is a pricing input for options, including equity options, commodity options, and interest rate options. Generally, the higher the volatility of the underlying, the riskier the instrument. Given a long position in an option, an increase in volatility, in isolation, would generally result in an increase in a fair value measurement.

The level of volatility used in the valuation of a particular option-based derivative depends on a number of factors, including the nature of the risk underlying the option (e.g., the volatility of a particular equity security may be significantly different from that of a particular commodity index), the tenor of the derivative as well as the strike price of the option.

For the Firm's derivatives and structured notes positions classified within level 3, the equity and interest rate volatility inputs used in estimating fair value were concentrated at the upper end of the range presented, while commodities volatilities were concentrated at the lower end of the range.

EBITDA multiple – EBITDA multiples refer to the input (often derived from the value of a comparable company) that is multiplied by the historic and/or expected earnings before interest, taxes, depreciation and amortization ("EBITDA") of a company in order to estimate the company's value. An increase in the EBITDA multiple, in isolation, net of adjustments, would result in an increase in a fair value measurement.

Net asset value – Net asset value is the total value of a fund's assets less liabilities. An increase in net asset value would result in an increase in a fair value measurement.

Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the Consolidated Balance Sheet amounts (including changes in fair value) for financial instruments classified by the Firm within level 3 of the fair value hierarchy for the years ended December 31, 2012, 2011 and 2010. When a determination is made to classify a financial instrument within level 3, the determination is based on the significance of the unobservable parameters to the overall fair value measurement. However, level 3 financial instruments typically include, in addition to the unobservable or level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, the Firm risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains or losses in the following tables do not reflect the effect of the Firm's risk management activities related to such level 3 instruments.

Year ended December 31, 2012 (in millions)	Fair value measurements using significant unobservable inputs							
	Fair value at January 1, 2012	Total realized/ unrealized gains/ (losses)	Purchases[g]	Sales	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2012	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2012
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	$ 86	$ (44)	$ 575	$ (103)	$ (16)	$ –	$ 498	$ (21)
Residential – nonagency	796	151	417	(533)	(145)	(23)	663	74
Commercial – nonagency	1,758	(159)	287	(475)	(104)	(100)	1,207	(145)
Total mortgage-backed securities	2,640	(52)	1,279	(1,111)	(265)	(123)	2,368	(92)
Obligations of U.S. states and municipalities	1,619	37	336	(552)	(4)	–	1,436	(15)
Non-U.S. government debt securities	104	(6)	661	(668)	(24)	–	67	(5)
Corporate debt securities	6,373	187	8,391	(6,186)	(3,045)	(412)	5,308	689
Loans	12,209	836	5,342	(3,269)	(3,801)	(530)	10,787	411
Asset-backed securities	7,965	272	2,550	(6,468)	(614)	(9)	3,696	184
Total debt instruments	30,910	1,274	18,559	(18,254)	(7,753)	(1,074)	23,662	1,172
Equity securities	1,177	(209)	460	(379)	(12)	77	1,114	(112)
Other	880	186	68	(108)	(163)	–	863	180
Total trading assets – debt and equity instruments	32,967	1,251 (c)	19,087	(18,741)	(7,928)	(997)	25,639	1,240 (c)
Net derivative receivables:[a]								
Interest rate	3,561	6,930	406	(194)	(7,071)	(310)	3,322	905
Credit	7,732	(4,487)	124	(84)	(1,416)	4	1,873	(3,271)
Foreign exchange	(1,263)	(800)	112	(184)	436	(51)	(1,750)	(957)
Equity	(3,105)	168	1,676	(2,579)	899	1,135	(1,806)	580
Commodity	(687)	(673)	74	64	1,278	198	254	(160)
Total net derivative receivables	6,238	1,138 (c)	2,392	(2,977)	(5,874)	976	1,893	(2,903) (c)
Available-for-sale securities:								
Asset-backed securities	24,958	135	9,280	(3,361)	(3,104)	116	28,024	118
Other	528	55	667	(113)	(245)	–	892	59
Total available-for-sale securities	25,486	190 (d)	9,947	(3,474)	(3,349)	116	28,916	177 (d)
Loans	1,647	695 (c)	1,536	(22)	(1,718)	144	2,282	12 (c)
Mortgage servicing rights	7,223	(635) (e)	2,833	(579)	(1,228)	–	7,614	(635) (e)
Other assets:								
Private equity investments	6,751	420 (c)	1,545	(512)	(977)	(46)	7,181	333 (c)
All other	4,374	(195) (f)	818	(238)	(501)	–	4,258	(200) (f)

Year ended December 31, 2012 (in millions)	Fair value measurements using significant unobservable inputs								
	Fair value at January 1, 2012	Total realized/ unrealized (gains)/ losses	Purchases[g]	Sales	Issuances	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2012	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2012
Liabilities:[b]									
Deposits	$ 1,418	$ 212 (c)	$ –	$ –	$ 1,236	$ (380)	$ (503)	$ 1,983	$ 185 (c)
Other borrowed funds	1,507	148 (c)	–	–	1,646	(1,774)	92	1,619	72 (c)
Trading liabilities – debt and equity instruments	211	(16) (c)	(2,875)	2,940	–	(50)	(5)	205	(12) (c)
Accounts payable and other liabilities	51	1 (f)	–	–	–	(16)	–	36	1 (f)
Beneficial interests issued by consolidated VIEs	791	181 (c)	–	–	221	(268)	–	925	143 (c)
Long-term debt	10,310	328 (c)	–	–	3,662	(4,511)	(1,313)	8,476	(101) (c)

Year ended December 31, 2011 (in millions)	Fair value at January 1, 2011	Total realized/ unrealized gains/ (losses)	Purchases[g]	Sales	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2011	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2011
	Fair value measurements using significant unobservable inputs							
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	$ 174	$ 24	$ 28	$ (39)	$ (43)	$ (58)	$ 86	$ (51)
Residential – nonagency	687	109	708	(432)	(221)	(55)	796	(9)
Commercial – nonagency	2,069	37	796	(973)	(171)	–	1,758	33
Total mortgage-backed securities	2,930	170	1,532	(1,444)	(435)	(113)	2,640	(27)
Obligations of U.S. states and municipalities	2,257	9	807	(1,465)	(1)	12	1,619	(11)
Non-U.S. government debt securities	202	35	552	(531)	(80)	(74)	104	38
Corporate debt securities	4,946	32	8,080	(5,939)	(1,005)	259	6,373	26
Loans	13,144	329	5,532	(3,873)	(2,691)	(232)	12,209	142
Asset-backed securities	8,460	90	4,185	(4,368)	(424)	22	7,965	(217)
Total debt instruments	31,939	665	20,688	(17,620)	(4,636)	(126)	30,910	(49)
Equity securities	1,685	267	180	(541)	(352)	(62)	1,177	278
Other	930	48	36	(39)	(95)	–	880	79
Total trading assets – debt and equity instruments	34,554	980 [c]	20,904	(18,200)	(5,083)	(188)	32,967	308 [c]
Net derivative receivables:[a]								
Interest rate	2,836	5,205	511	(219)	(4,534)	(238)	3,561	1,497
Credit	5,386	2,240	22	(13)	116	(19)	7,732	2,744
Foreign exchange	(614)	(1,913)	191	(20)	886	207	(1,263)	(1,878)
Equity	(2,446)	(60)	715	(1,449)	37	98	(3,105)	(132)
Commodity	(805)	596	328	(350)	(294)	(162)	(687)	208
Total net derivative receivables	4,357	6,068 [c]	1,767	(2,051)	(3,789)	(114)	6,238	2,439 [c]
Available-for-sale securities:								
Asset-backed securities	13,775	(95)	15,268	(1,461)	(2,529)	–	24,958	(106)
Other	512	–	57	(15)	(26)	–	528	8
Total available-for-sale securities	14,287	(95) [d]	15,325	(1,476)	(2,555)	–	25,486	(98) [d]
Loans	1,466	504 [c]	326	(9)	(639)	(1)	1,647	484 [c]
Mortgage servicing rights	13,649	(7,119) [e]	2,603	–	(1,910)	–	7,223	(7,119) [e]
Other assets:								
Private equity investments	7,862	943 [c]	1,452	(2,746)	(594)	(166)	6,751	(242) [c]
All other	4,179	(54) [f]	938	(139)	(521)	(29)	4,374	(83) [f]

Year ended December 31, 2011 (in millions)	Fair value at January 1, 2011	Total realized/ unrealized (gains)/ losses	Purchases[g]	Sales	Issuances	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2011	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2011
	Fair value measurements using significant unobservable inputs								
Liabilities:[b]									
Deposits	$ 773	$ 15 [c]	$ –	$ –	$ 433	$ (386)	$ 583	$ 1,418	$ 4 [c]
Other borrowed funds	1,384	(244) [c]	–	–	1,597	(834)	(396)	1,507	(85) [c]
Trading liabilities – debt and equity instruments	54	17 [c]	(533)	778	–	(109)	4	211	(7) [c]
Accounts payable and other liabilities	236	(61) [f]	–	–	–	(124)	–	51	5 [f]
Beneficial interests issued by consolidated VIEs	873	17 [c]	–	–	580	(679)	–	791	(15) [c]
Long-term debt	13,044	60 [c]	–	–	2,564	(3,218)	(2,140)	10,310	288 [c]

Year ended December 31, 2010 (in millions)	Fair value measurements using significant unobservable inputs: Fair value at January 1, 2010	Total realized/ unrealized gains/ (losses)	Purchases, issuances, settlements, net	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2010	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2010
Assets:						
Trading assets:						
Debt instruments:						
Mortgage-backed securities:						
U.S. government agencies	$ 260	$ 24	$ (107)	$ (3)	$ 174	$ (31)
Residential – nonagency	1,115	178	(564)	(42)	687	110
Commercial – nonagency	1,770	230	(33)	102	2,069	130
Total mortgage-backed securities	3,145	432	(704)	57	2,930	209
Obligations of U.S. states and municipalities	1,971	2	142	142	2,257	(30)
Non-U.S. government debt securities	89	(36)	194	(45)	202	(8)
Corporate debt securities	5,241	(325)	115	(85)	4,946	28
Loans	13,218	(40)	1,296	(1,330)	13,144	(385)
Asset-backed securities	8,620	237	(408)	11	8,460	195
Total debt instruments	32,284	270	635	(1,250)	31,939	9
Equity securities	1,956	133	(351)	(53)	1,685	199
Other	1,441	211	(801)	79	930	299
Total trading assets – debt and equity instruments	35,681	614 (c)	(517)	(1,224)	34,554	507 (c)
Net derivative receivables:[a]						
Interest rate	2,040	3,057	(2,520)	259	2,836	487
Credit	10,350	(1,757)	(3,102)	(105)	5,386	(1,048)
Foreign exchange	1,082	(913)	(434)	(349)	(614)	(464)
Equity	(2,306)	(194)	(82)	136	(2,446)	(212)
Commodity	(329)	(700)	134	90	(805)	(76)
Total net derivative receivables	10,837	(507) (c)	(6,004)	31	4,357	(1,313) (c)
Available-for-sale securities:						
Asset-backed securities	12,732	(146)	1,189	–	13,775	(129)
Other	461	(49)	37	63	512	18
Total available-for-sale securities	13,193	(195) (d)	1,226	63	14,287	(111) (d)
Loans	990	145 (c)	323	8	1,466	37 (c)
Mortgage servicing rights	15,531	(2,268) (e)	386	–	13,649	(2,268) (e)
Other assets:						
Private equity investments	6,563	1,038 (c)	715	(454)	7,862	688 (c)
All other	9,521	(113) (f)	(5,132)	(97)	4,179	37 (f)

Year ended December 31, 2010 (in millions)	Fair value measurements using significant unobservable inputs: Fair value at January 1, 2010	Total realized/ unrealized (gains)/losses	Purchases, issuances, settlements, net	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2010	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2010
Liabilities:[b]						
Deposits	$ 476	$ 54 (c)	$ (86)	$ 329	$ 773	$ (77) (c)
Other borrowed funds	542	(242) (c)	1,326	(242)	1,384	445 (c)
Trading liabilities – debt and equity instruments	10	2 (c)	19	23	54	–
Accounts payable and other liabilities	355	(138) (f)	19	–	236	37 (f)
Beneficial interests issued by consolidated VIEs	625	(7) (c)	87	168	873	(76) (c)
Long-term debt	18,287	(532) (c)	(4,796)	85	13,044	662 (c)

(a) All level 3 derivatives are presented on a net basis, irrespective of underlying counterparty.
(b) Level 3 liabilities as a percentage of total Firm liabilities accounted for at fair value (including liabilities measured at fair value on a nonrecurring basis) were 19%, 22% and 23% at December 31, 2012, 2011 and 2010, respectively.
(c) Predominantly reported in principal transactions revenue, except for changes in fair value for Consumer & Community Banking ("CCB") mortgage loans and lending-related commitments originated with the intent to sell, which are reported in mortgage fees and related income.
(d) Realized gains/(losses) on AFS securities, as well as other-than-temporary impairment losses that are recorded in earnings, are reported in securities gains. Unrealized gains/(losses) are reported in OCI. Realized gains/(losses) and foreign exchange remeasurement adjustments recorded in income on AFS securities were $145 million, $(240) million, and $(66) million for the years ended December 31, 2012, 2011 and 2010, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were $45 million, $145 million and $(129) million for the years ended December 31, 2012, 2011 and 2010, respectively.
(e) Changes in fair value for CCB mortgage servicing rights are reported in mortgage fees and related income.
(f) Largely reported in other income.
(g) Loan originations are included in purchases.
(h) All transfers into and/or out of level 3 are assumed to occur at the beginning of the reporting period.

Level 3 analysis

Consolidated Balance Sheets changes

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were 4.4% of total Firm assets at December 31, 2012. The following describes significant changes to level 3 assets since December 31, 2011, for those items measured at fair value on a recurring basis. For further information on changes impacting items measured at fair value on a nonrecurring basis, see Assets and liabilities measured at fair value on a nonrecurring basis on page 212 of this Annual Report.

For the year ended December 31, 2012

Level 3 assets were $99.1 billion at December 31, 2012, reflecting a decrease of $14.3 billion from December 31, 2011, due to the following:

- $11.8 billion decrease in gross derivative receivables, predominantly driven by a $10.6 billion decrease from the impact of tightening reference entity credit spreads and risk reductions of credit derivatives and $1.6 billion decrease due to fluctuation in foreign exchange rates;
- $7.3 billion decrease in trading assets – debt and equity instruments, predominantly driven by sales and settlements of ABS, trading loans, and corporate debt securities.

  The decreases above are partially offset by:

- $3.1 billion increase in asset-backed AFS securities, predominantly driven by purchases of CLOs.

Gains and Losses

The following describes significant components of total realized/unrealized gains/(losses) for instruments measured at fair value on a recurring basis for the years ended 2012, 2011 and 2010. For further information on these instruments, see Changes in level 3 recurring fair value measurements rollforward tables on pages 207–210 of this Annual Report.

2012

- $1.3 billion of net gains on trading assets - debt and equity instruments, largely driven by tightening of credit spreads and fluctuation in foreign exchange rates; and
- $1.1 billion of net gains on derivatives, driven by $6.9 billion of net gains predominantly on interest rate lock commitments due to increased volumes and lower interest rates, partially offset by $4.5 billion of net losses on credit derivatives largely as a result of tightening of reference entity credit spreads.

2011

- $7.1 billion of losses on MSRs. For further discussion of the change, refer to Note 17 on pages 291–295 of this Annual Report; and
- $6.1 billion of net gains on derivatives, related to declining interest rates and widening of reference entity credit spreads, partially offset by losses due to fluctuation in foreign exchange rates.

2010

- $2.3 billion of losses on MSRs; For further discussion of the change, refer to Note 17 on pages 291–295 of this Annual Report; and
- $1.0 billion gain in private equity largely driven by gains on investments in the portfolio.

Credit adjustments

When determining the fair value of an instrument, it may be necessary to record adjustments to the Firm's estimates of fair value in order to reflect the counterparty credit quality and Firm's own creditworthiness:

- Credit valuation adjustments ("CVA") are taken to reflect the credit quality of a counterparty in the valuation of derivatives. CVA adjustments are necessary when the market price (or parameter) is not indicative of the credit quality of the counterparty. As few classes of derivative contracts are listed on an exchange, derivative positions are predominantly valued using models that use as their basis observable market parameters. An adjustment is necessary to reflect the credit quality of each derivative counterparty to arrive at fair value. The adjustment also takes into account contractual factors designed to reduce the Firm's credit exposure to each counterparty, such as collateral and legal rights of offset.
- Debit valuation adjustments ("DVA") are taken to reflect the credit quality of the Firm in the valuation of liabilities measured at fair value. The methodology to determine the adjustment is generally consistent with CVA and incorporates JPMorgan Chase's credit spread as observed through the credit default swap ("CDS") market.

The following table provides the credit adjustments, excluding the effect of any hedging activity, reflected within the Consolidated Balance Sheets as of the dates indicated.

December 31, (in millions)	2012	2011
Derivative receivables balance (net of derivatives CVA)	$ 74,983	$ 92,477
Derivatives CVA[(a)]	(4,238)	(6,936)
Derivative payables balance (net of derivatives DVA)	70,656	74,977
Derivatives DVA	(830)	(1,420)
Structured notes balance (net of structured notes DVA)[(b)(c)]	48,112	49,229
Structured notes DVA	(1,712)	(2,052)

(a) Derivatives CVA, gross of hedges, includes results managed by the credit portfolio and other lines of business within the Corporate & Investment Bank ("CIB").
(b) Structured notes are recorded within long-term debt, other borrowed funds or deposits on the Consolidated Balance Sheets, depending upon the tenor and legal form of the note.
(c) Structured notes are measured at fair value based on the Firm's election under the fair value option. For further information on these elections, see Note 4 on pages 214–216 of this Annual Report.

The following table provides the impact of credit adjustments on earnings in the respective periods, excluding the effect of any hedging activity.

Year ended December 31, (in millions)	2012	2011	2010
Credit adjustments:			
Derivative CVA[(a)]	$ 2,698	$ (2,574)	$ (665)
Derivative DVA	(590)	538	41
Structured notes DVA[(b)]	(340)	899	468

(a) Derivatives CVA, gross of hedges, includes results managed by the credit portfolio and other lines of business within the CIB.
(b) Structured notes are measured at fair value based on the Firm's election under the fair value option. For further information on these elections, see Note 4 on pages 214–216 of this Annual Report.

Assets and liabilities measured at fair value on a nonrecurring basis

At December 31, 2012 and 2011, assets measured at fair value on a nonrecurring basis were $5.1 billion and $5.3 billion, respectively, comprised predominantly of loans. At December 31, 2012, $667 million and $4.4 billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. At December 31, 2011, $369 million and $4.9 billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. Liabilities measured at fair value on a nonrecurring basis were not significant at December 31, 2012 and 2011. For the years ended December 31, 2012 and 2011, there were no significant transfers between levels 1, 2, and 3.

Of the $5.1 billion of assets measured at fair value on a nonrecurring basis, $4.0 billion related to residential real estate loans at the net realizable value of the underlying collateral (i.e., collateral dependent loans). These amounts are classified as level 3, as they are valued using a broker's price opinion and discounted based upon the Firm's experience with actual liquidation values. These discounts to the broker price opinions ranged from 22% to 66%, with a weighted average of 29%.

The total change in the value of assets and liabilities for which a fair value adjustment has been included in the Consolidated Statements of Income for the years ended December 31, 2012, 2011 and 2010, related to financial instruments held at those dates were losses of $1.6 billion, $2.2 billion and $3.6 billion, respectively; these losses were predominantly associated with loans. The changes reported for the year ended December 31, 2012, included the impact of charge-offs recognized on residential real estate loans discharged under Chapter 7 bankruptcy, as described in Note 14 on page 259 of this Annual Report.

For further information about the measurement of impaired collateral-dependent loans, and other loans where the carrying value is based on the fair value of the underlying collateral (e.g., residential mortgage loans charged off in accordance with regulatory guidance), see Note 14 on pages 250–275 of this Annual Report.

Additional disclosures about the fair value of financial instruments that are not carried on the Consolidated Balance Sheets at fair value

U.S. GAAP requires disclosure of the estimated fair value of certain financial instruments, and the methods and significant assumptions used to estimate their fair value. Financial instruments within the scope of these disclosure requirements are included in the following table. However, certain financial instruments and all nonfinancial instruments are excluded from the scope of these disclosure requirements. Accordingly, the fair value disclosures provided in the following table include only a partial estimate of the fair value of JPMorgan Chase's assets and liabilities. For example, the Firm has developed long-term relationships with its customers through its deposit base and credit card accounts, commonly referred to as core deposit intangibles and credit card relationships. In the opinion of management, these items, in the aggregate, add significant value to JPMorgan Chase, but their fair value is not disclosed in this Note.

Financial instruments for which carrying value approximates fair value

Certain financial instruments that are not carried at fair value on the Consolidated Balance Sheets are carried at amounts that approximate fair value, due to their short-term nature and generally negligible credit risk. These instruments include cash and due from banks; deposits with banks; federal funds sold; securities purchased under resale agreements and securities borrowed with short-dated maturities; short-term receivables and accrued interest receivable; commercial paper; federal funds purchased; securities loaned and sold under repurchase agreements with short-dated maturities; other borrowed funds; accounts payable; and accrued liabilities. In addition, U.S. GAAP requires that the fair value for deposit liabilities with no stated maturity (i.e., demand, savings and certain money market deposits) be equal to their carrying value; recognition of the inherent funding value of these instruments is not permitted.

The following table presents the carrying values and estimated fair values at December 31, 2012 and 2011, of financial assets and liabilities that are not carried on the Firm's Consolidated Balance Sheets at fair value (i.e. excluding financial instruments which are carried at fair value on a recurring basis. At December 31, 2012, information is provided on their classification within the fair value hierarchy. For additional information regarding the financial instruments within the scope of this disclosure, and the methods and significant assumptions used to estimate their fair value, see pages 196–200 of this Note.

	2012					2011	
		Estimated fair value hierarchy					
December 31, (in billions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value	Estimated fair value
Financial assets							
Cash and due from banks	$ **53.7**	$ **53.7**	$ **–**	$ **–**	$ **53.7**	$ 59.6	$ 59.6
Deposits with banks	**121.8**	**114.1**	**7.7**	**–**	**121.8**	85.3	85.3
Accrued interest and accounts receivable	**60.9**	**–**	**60.3**	**0.6**	**60.9**	61.5	61.5
Federal funds sold and securities purchased under resale agreements	**272.0**	**–**	**272.0**	**–**	**272.0**	213.1	213.1
Securities borrowed	**108.8**	**–**	**108.8**	**–**	**108.8**	127.2	127.2
Loans, net of allowance for loan losses[a]	**709.3**	**–**	**26.4**	**685.4**	**711.8**	694.0	693.7
Other	**49.7**	**–**	**42.7**	**7.4**	**50.1**	49.8	50.3
Financial liabilities							
Deposits	$ **1,187.9**	$ **–**	$ **1,187.2**	$ **1.2**	$ **1,188.4**	$ 1,122.9	$ 1,123.4
Federal funds purchased and securities loaned or sold under repurchase agreements	**235.7**	**–**	**235.7**	**–**	**235.7**	206.7	206.7
Commercial paper	**55.4**	**–**	**55.4**	**–**	**55.4**	51.6	51.6
Other borrowed funds	**15.0**	**–**	**15.0**	**–**	**15.0**	12.3	12.3
Accounts payable and other liabilities	**156.5**	**–**	**153.8**	**2.5**	**156.3**	166.9	166.8
Beneficial interests issued by consolidated VIEs	**62.0**	**–**	**57.7**	**4.4**	**62.1**	64.7	64.9
Long-term debt and junior subordinated deferrable interest debentures	**218.2**	**–**	**220.0**	**5.4**	**225.4**	222.1	219.5

(a) Fair value is typically estimated using a discounted cash flow model that incorporates the characteristics of the underlying loans (including principal, contractual interest rate and contractual fees) and other key inputs, including expected lifetime credit losses, interest rates, prepayment rates, and primary origination or secondary market spreads. For certain loans, the fair value is measured based on the value of the underlying collateral. The difference between the estimated fair value and carrying value of a financial asset or liability is the result of the different methodologies used to determine fair value as compared with carrying value. For example, credit losses are estimated for a financial asset's remaining life in a fair value calculation but are estimated for a loss emergence period in the allowance for loan loss calculation; future loan income (interest and fees) is incorporated in a fair value calculation but is generally not considered in the allowance for loan losses. For a further discussion of the Firm's methodologies for estimating the fair value of loans and lending-related commitments, see page 198 of this Note.

The majority of the Firm's lending-related commitments are not carried at fair value on a recurring basis on the Consolidated Balance Sheets, nor are they actively traded. The carrying value and estimated fair value of the Firm's wholesale lending-related commitments were as follows for the periods indicated.

	2012					2011	
		Estimated fair value hierarchy					
December 31, (in billions)	Carrying value[(a)]	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value[(a)]	Estimated fair value
Wholesale lending-related commitments	$ 0.7	$ —	$ —	$ 1.9	$ 1.9	$ 0.7	$ 3.4

(a) Represents the allowance for wholesale lending-related commitments. Excludes the current carrying values of the guarantee liability and the offsetting asset, each of which are recognized at fair value at the inception of guarantees.

The Firm does not estimate the fair value of consumer lending-related commitments. In many cases, the Firm can reduce or cancel these commitments by providing the borrower notice or, in some cases, without notice as permitted by law. For a further discussion of the valuation of lending-related commitments, see page 198 of this Note.

Trading assets and liabilities

Trading assets include debt and equity instruments owned by JPMorgan Chase ("long" positions) that are held for client market-making and client-driven activities, as well as for certain risk management activities, certain loans managed on a fair value basis and for which the Firm has elected the fair value option, and physical commodities inventories that are generally accounted for at the lower of cost or market (market approximates fair value). Trading liabilities include debt and equity instruments that the Firm has sold to other parties but does not own ("short" positions). The Firm is obligated to purchase instruments at a future date to cover the short positions. Included in trading assets and trading liabilities are the reported receivables (unrealized gains) and payables (unrealized losses) related to derivatives. Trading assets and liabilities are carried at fair value on the Consolidated Balance Sheets. Balances reflect the reduction of securities owned (long positions) by the amount of securities sold but not yet purchased (short positions) when the long and short positions have identical Committee on Uniform Security Identification Procedures numbers ("CUSIPs").

Trading assets and liabilities – average balances

Average trading assets and liabilities were as follows for the periods indicated.

Year ended December 31, (in millions)	2012	2011	2010
Trading assets – debt and equity instruments[(a)]	$ **349,337**	$ 393,890	$ 354,441
Trading assets – derivative receivables	**85,744**	90,003	84,676
Trading liabilities – debt and equity instruments[(a)(b)]	**69,001**	81,916	78,159
Trading liabilities – derivative payables	**76,162**	71,539	65,714

(a) Balances reflect the reduction of securities owned (long positions) by the amount of securities sold, but not yet purchased (short positions) when the long and short positions have identical CUSIP numbers.
(b) Primarily represent securities sold, not yet purchased.

Note 4 – Fair value option

The fair value option provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments, and written loan commitments not previously carried at fair value.

Elections

Elections were made by the Firm to:

- Mitigate income statement volatility caused by the differences in the measurement basis of elected instruments (for example, certain instruments elected were previously accounted for on an accrual basis) while the associated risk management arrangements are accounted for on a fair value basis;
- Eliminate the complexities of applying certain accounting models (e.g., hedge accounting or bifurcation accounting for hybrid instruments); and/or
- Better reflect those instruments that are managed on a fair value basis.

Elections include the following:

- Loans purchased or originated as part of securitization warehousing activity, subject to bifurcation accounting, or managed on a fair value basis.
- Securities financing arrangements with an embedded derivative and/or a maturity of greater than one year.

- Owned beneficial interests in securitized financial assets that contain embedded credit derivatives, which would otherwise be required to be separately accounted for as a derivative instrument.
- Certain investments that receive tax credits and other equity investments acquired as part of the Washington Mutual transaction.
- Structured notes issued as part of CIB's client-driven activities. (Structured notes are financial instruments that contain embedded derivatives.)
- Long-term beneficial interests issued by CIB's consolidated securitization trusts where the underlying assets are carried at fair value.

Changes in fair value under the fair value option election

The following table presents the changes in fair value included in the Consolidated Statements of Income for the years ended December 31, 2012, 2011 and 2010, for items for which the fair value option was elected. The profit and loss information presented below only includes the financial instruments that were elected to be measured at fair value; related risk management instruments, which are required to be measured at fair value, are not included in the table.

	2012			2011			2010		
December 31, (in millions)	Principal transactions	Other income	Total changes in fair value recorded	Principal transactions	Other income	Total changes in fair value recorded	Principal transactions	Other income	Total changes in fair value recorded
Federal funds sold and securities purchased under resale agreements	**$ 161**	**$ —**	**$ 161**	$ 270	$ —	$ 270	$ 173	$ —	$ 173
Securities borrowed	**10**	**—**	**10**	(61)	—	(61)	31	—	31
Trading assets:									
Debt and equity instruments, excluding loans	**513**	**7** (c)	**520**	53	(6) (c)	47	556	(2) (c)	554
Loans reported as trading assets:									
Changes in instrument-specific credit risk	**1,489**	**81** (c)	**1,570**	934	(174) (c)	760	1,279	(6) (c)	1,273
Other changes in fair value	**(183)**	**7,670** (c)	**7,487**	127	5,263 (c)	5,390	(312)	4,449 (c)	4,137
Loans:									
Changes in instrument-specific credit risk	**(14)**	**—**	**(14)**	2	—	2	95	—	95
Other changes in fair value	**676**	**—**	**676**	535	—	535	90	—	90
Other assets	**—**	**(339)** (d)	**(339)**	(49)	(19) (d)	(68)	—	(263) (d)	(263)
Deposits[(a)]	**(188)**	**—**	**(188)**	(237)	—	(237)	(564)	—	(564)
Federal funds purchased and securities loaned or sold under repurchase agreements	**(25)**	**—**	**(25)**	(4)	—	(4)	(29)	—	(29)
Other borrowed funds[(a)]	**494**	**—**	**494**	2,986	—	2,986	123	—	123
Trading liabilities	**(41)**	**—**	**(41)**	(57)	—	(57)	(23)	—	(23)
Beneficial interests issued by consolidated VIEs	**(166)**	**—**	**(166)**	(83)	—	(83)	(12)	—	(12)
Other liabilities	**—**	**—**	**—**	(3)	(5) (d)	(8)	(9)	8 (d)	(1)
Long-term debt:									
Changes in instrument-specific credit risk[(a)]	**(835)**	**—**	**(835)**	927	—	927	400	—	400
Other changes in fair value[(b)]	**(1,025)**	**—**	**(1,025)**	322	—	322	1,297	—	1,297

(a) Total changes in instrument-specific credit risk related to structured notes were $(340) million, $899 million, and $468 million for the years ended December 31, 2012, 2011 and 2010, respectively. These totals include adjustments for structured notes classified within deposits and other borrowed funds, as well as long-term debt.

(b) Structured notes are debt instruments with embedded derivatives that are tailored to meet a client's need. The embedded derivative is the primary driver of risk. Although the risk associated with the structured notes is actively managed, the gains/(losses) reported in this table do not include the income statement impact of such risk management instruments.

(c) Reported in mortgage fees and related income.

(d) Reported in other income.

Determination of instrument-specific credit risk for items for which a fair value election was made

The following describes how the gains and losses included in earnings during 2012, 2011 and 2010, which were attributable to changes in instrument-specific credit risk, were determined.

- Loans and lending-related commitments: For floating-rate instruments, all changes in value are attributed to instrument-specific credit risk. For fixed-rate instruments, an allocation of the changes in value for the period is made between those changes in value that are interest rate-related and changes in value that are credit-related. Allocations are generally based on an analysis of borrower-specific credit spread and recovery information, where available, or benchmarking to similar entities or industries.
- Long-term debt: Changes in value attributable to instrument-specific credit risk were derived principally from observable changes in the Firm's credit spread.
- Resale and repurchase agreements, securities borrowed agreements and securities lending agreements: Generally, for these types of agreements, there is a requirement that collateral be maintained with a market value equal to or in excess of the principal amount loaned; as a result, there would be no adjustment or an immaterial adjustment for instrument-specific credit risk related to these agreements.

Difference between aggregate fair value and aggregate remaining contractual principal balance outstanding

The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of December 31, 2012 and 2011, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

	2012			2011		
December 31, (in millions)	Contractual principal outstanding	Fair value	Fair value over/(under) contractual principal outstanding	Contractual principal outstanding	Fair value	Fair value over/(under) contractual principal outstanding
Loans[a]						
Nonaccrual loans						
Loans reported as trading assets	$ 4,217	$ 960	$ (3,257)	$ 4,875	$ 1,141	$ (3,734)
Loans	116	64	(52)	820	56	(764)
Subtotal	4,333	1,024	(3,309)	5,695	1,197	(4,498)
All other performing loans						
Loans reported as trading assets	44,084	40,581	(3,503)	37,481	32,657	(4,824)
Loans	2,211	2,099	(112)	2,136	1,601	(535)
Total loans	$ 50,628	$ 43,704	$ (6,924)	$ 45,312	$ 35,455	$ (9,857)
Long-term debt						
Principal-protected debt	$ 16,541 [c]	$ 16,391	$ (150)	$ 19,417 [c]	$ 19,890	$ 473
Nonprincipal-protected debt[b]	NA	14,397	NA	NA	14,830	NA
Total long-term debt	NA	$ 30,788	NA	NA	$ 34,720	NA
Long-term beneficial interests						
Nonprincipal-protected debt[b]	NA	$ 1,170	NA	NA	$ 1,250	NA
Total long-term beneficial interests	NA	$ 1,170	NA	NA	$ 1,250	NA

(a) There were no performing loans which were ninety days or more past due as of December 31, 2012 and 2011, respectively.
(b) Remaining contractual principal is not applicable to nonprincipal-protected notes. Unlike principal-protected structured notes, for which the Firm is obligated to return a stated amount of principal at the maturity of the note, nonprincipal-protected structured notes do not obligate the Firm to return a stated amount of principal at maturity, but to return an amount based on the performance of an underlying variable or derivative feature embedded in the note.
(c) Where the Firm issues principal-protected zero-coupon or discount notes, the balance reflected as the remaining contractual principal is the final principal payment at maturity.

At December 31, 2012 and 2011, the contractual amount of letters of credit for which the fair value option was elected was $4.5 billion and $3.9 billion, respectively, with a corresponding fair value of $(75) million and $(5) million, respectively. For further information regarding off-balance sheet lending-related financial instruments, see Note 29 on pages 308–315 of this Annual Report.

Note 5 – Credit risk concentrations

Concentrations of credit risk arise when a number of customers are engaged in similar business activities or activities in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions.

JPMorgan Chase regularly monitors various segments of its credit portfolio to assess potential concentration risks and to obtain collateral when deemed necessary. Senior management is significantly involved in the credit approval and review process, and risk levels are adjusted as needed to reflect the Firm's risk appetite.

In the Firm's consumer portfolio, concentrations are evaluated primarily by product and by U.S. geographic region, with a key focus on trends and concentrations at the portfolio level, where potential risk concentrations can be remedied through changes in underwriting policies and portfolio guidelines. In the wholesale portfolio, risk concentrations are evaluated primarily by industry and monitored regularly on both an aggregate portfolio level and on an individual customer basis. Management of the Firm's wholesale exposure is accomplished through loan syndications and participations, loan sales, securitizations, credit derivatives, use of master netting agreements, and collateral and other risk-reduction techniques.

The Firm does not believe that its exposure to any particular loan product (e.g., option adjustable rate mortgages ("ARMs")), industry segment (e.g., commercial real estate) or its exposure to residential real estate loans with high loan-to-value ratios results in a significant concentration of credit risk. Terms of loan products and collateral coverage are included in the Firm's assessment when extending credit and establishing its allowance for loan losses.

Customer receivables representing primarily margin loans to prime and retail brokerage clients of $23.8 billion and $17.6 billion at December 31, 2012 and 2011, respectively, are included in the table below. These margin loans are generally over-collateralized through a pledge of assets maintained in clients' brokerage accounts and are subject to daily minimum collateral requirements. In the event that the collateral value decreases, a maintenance margin call is made to the client to provide additional collateral into the account. If additional collateral is not provided by the client, the client's positions may be liquidated by the Firm to meet the minimum collateral requirements. As a result of the Firm's credit risk mitigation practices, the Firm does not hold any reserves for credit impairment on these receivables as of December 31, 2012 and 2011.

The table below presents both on–balance sheet and off–balance sheet consumer and wholesale-related credit exposure by the Firm's three credit portfolio segments as of December 31, 2012 and 2011.

	2012				2011			
	Credit exposure	On-balance sheet		Off-balance sheet[(c)]	Credit exposure	On-balance sheet		Off-balance sheet[(c)]
December 31, (in millions)		Loans	Derivatives			Loans	Derivatives	
Total consumer, excluding credit card[(a)]	$ 352,889	$ 292,620	$ –	$ 60,156	$ 370,834	$ 308,427	$ –	$ 62,307
Total credit card	661,011	127,993	–	533,018	662,893	132,277	–	530,616
Total consumer	1,013,900	420,613	–	593,174	1,033,727	440,704	–	592,923
Wholesale-related								
Real estate	76,198	60,740	1,084	14,374	67,594	54,684	1,155	11,755
Banks and finance companies	73,318	26,651	19,846	26,821	71,440	29,392	20,372	21,676
Healthcare	48,487	11,638	3,359	33,490	42,247	8,908	3,021	30,318
Oil and gas	42,563	14,704	2,345	25,514	35,437	10,780	3,521	21,136
State and municipal governments	41,821	7,998	5,138	28,685	41,930	7,144	6,575	28,211
Consumer products	32,778	9,151	826	22,801	29,637	9,187	1,079	19,371
Asset managers	31,474	6,220	8,390	16,864	33,465	6,182	9,458	17,825
Utilities	29,533	6,814	2,649	20,070	28,650	5,191	3,602	19,857
Retail and consumer services	25,597	7,901	429	17,267	22,891	6,353	565	15,973
Central government	21,223	1,333	11,232	8,658	17,138	623	10,813	5,702
Metals/mining	20,958	6,059	624	14,275	15,254	6,073	690	8,491
Transportation	19,827	12,763	673	6,391	16,305	10,000	947	5,358
Machinery and equipment manufacturing	18,504	6,304	592	11,608	16,498	5,111	417	10,970
Technology	18,488	3,806	1,192	13,490	17,898	4,394	1,310	12,194
Media	16,007	3,967	973	11,067	11,909	3,655	202	8,052
All other[(b)]	299,243	120,173	15,631	163,439	285,318	110,718	28,750	145,850
Subtotal	816,019	306,222	74,983	434,814	753,611	278,395	92,477	382,739
Loans held-for-sale and loans at fair value	6,961	6,961	–	–	4,621	4,621	–	–
Receivables from customers and other	23,648	–	–	–	17,461	–	–	–
Total wholesale-related	846,628	313,183	74,983	434,814	$ 775,693	$ 283,016	92,477	382,739
Total exposure[(d)]	$ 1,860,528	$ 733,796	$ 74,983	$ 1,027,988	$ 1,809,420	$ 723,720	$ 92,477	$ 975,662

(a) As of December 31, 2012 and 2011, credit exposure for total consumer, excluding credit card, includes receivables from customers of $113 million and $100 million, respectively.
(b) For more information on exposures to SPEs included within All other see Note 16 on pages 280–291 of this Annual Report.
(c) Represents lending-related financial instruments.
(d) For further information regarding on–balance sheet credit concentrations by major product and/or geography, see Notes 6, 14 and 15 on pages 218–227, 250–275 and 276–279, respectively, of this Annual Report. For information regarding concentrations of off-balance sheet lending-related financial instruments by major product, see Note 29 on pages 308–315 of this Annual Report.

Note 6 – Derivative instruments

Derivative instruments enable end-users to modify or mitigate exposure to credit or market risks. Counterparties to a derivative contract seek to obtain risks and rewards similar to those that could be obtained from purchasing or selling a related cash instrument without having to exchange upfront the full purchase or sales price. JPMorgan Chase makes markets in derivatives for customers and also uses derivatives to hedge or manage its own risk exposures. Predominantly all of the Firm's derivatives are entered into for market-making or risk management purposes.

Market-making derivatives

The majority of the Firm's derivatives are entered into for market-making purposes. Customers use derivatives to mitigate or modify interest rate, credit, foreign exchange, equity and commodity risks. The Firm actively manages the risks from its exposure to these derivatives by entering into other derivative transactions or by purchasing or selling other financial instruments that partially or fully offset the exposure from client derivatives. The Firm also seeks to earn a spread between the client derivatives and offsetting positions, and from the remaining open risk positions.

Risk management derivatives

The Firm manages its market risk exposures using various derivative instruments.

Interest rate contracts are used to minimize fluctuations in earnings that are caused by changes in interest rates. Fixed-rate assets and liabilities appreciate or depreciate in market value as interest rates change. Similarly, interest income and expense increases or decreases as a result of variable-rate assets and liabilities resetting to current market rates, and as a result of the repayment and subsequent origination or issuance of fixed-rate assets and liabilities at current market rates. Gains or losses on the derivative instruments that are related to such assets and liabilities are expected to substantially offset this variability in earnings. The Firm generally uses interest rate swaps, forwards and futures to manage the impact of interest rate fluctuations on earnings.

Foreign currency forward contracts are used to manage the foreign exchange risk associated with certain foreign currency–denominated (i.e., non-U.S. dollar) assets and liabilities and forecasted transactions, as well as the Firm's net investments in certain non-U.S. subsidiaries or branches whose functional currencies are not the U.S. dollar. As a result of fluctuations in foreign currencies, the U.S. dollar–equivalent values of the foreign currency–denominated assets and liabilities or forecasted revenue or expense increase or decrease. Gains or losses on the derivative instruments related to these foreign currency–denominated assets or liabilities, or forecasted transactions, are expected to substantially offset this variability.

Commodities contracts are used to manage the price risk of certain commodities inventories. Gains or losses on these derivative instruments are expected to substantially offset the depreciation or appreciation of the related inventory.

Also in the commodities portfolio, electricity and natural gas futures and forwards contracts are used to manage price risk associated with energy-related tolling and load-serving contracts and investments.

The Firm uses credit derivatives to manage the counterparty credit risk associated with loans and lending-related commitments. Credit derivatives compensate the purchaser when the entity referenced in the contract experiences a credit event, such as bankruptcy or a failure to pay an obligation when due. Credit derivatives primarily consist of credit default swaps. For a further discussion of credit derivatives, see the discussion in the Credit derivatives section on pages 226–227 of this Note.

For more information about risk management derivatives, see the risk management derivatives gains and losses table on page 224 of this Note, and the hedge accounting gains and losses tables on pages 222–224 of this Note.

Accounting for derivatives

All free-standing derivatives are required to be recorded on the Consolidated Balance Sheets at fair value. As permitted under U.S. GAAP, the Firm nets derivative assets and liabilities, and the related cash collateral receivables and payables, when a legally enforceable master netting agreement exists between the Firm and the derivative counterparty. The accounting for changes in value of a derivative depends on whether or not the transaction has been designated and qualifies for hedge accounting. Derivatives that are not designated as hedges are reported and measured at fair value through earnings. The tabular disclosures on pages 220–227 of this Note provide additional information on the amount of, and reporting for, derivative assets, liabilities, gains and losses. For further discussion of derivatives embedded in structured notes, see Notes 3 and 4 on pages 196–214 and 214–216, respectively, of this Annual Report.

Derivatives designated as hedges

The Firm applies hedge accounting to certain derivatives executed for risk management purposes – generally interest rate, foreign exchange and commodity derivatives. However, JPMorgan Chase does not seek to apply hedge accounting to all of the derivatives involved in the Firm's risk management activities. For example, the Firm does not apply hedge accounting to purchased credit default swaps used to manage the credit risk of loans and lending-related commitments, because of the difficulties in qualifying such contracts as hedges. For the same reason, the Firm does not apply hedge accounting to certain interest rate and commodity derivatives used for risk management purposes.

To qualify for hedge accounting, a derivative must be highly effective at reducing the risk associated with the exposure being hedged. In addition, for a derivative to be designated as a hedge, the risk management objective and strategy must be documented. Hedge documentation must identify the derivative hedging instrument, the asset or liability or forecasted transaction and type of risk to be hedged, and how the effectiveness of the derivative is assessed

prospectively and retrospectively. To assess effectiveness, the Firm uses statistical methods such as regression analysis, as well as nonstatistical methods including dollar-value comparisons of the change in the fair value of the derivative to the change in the fair value or cash flows of the hedged item. The extent to which a derivative has been, and is expected to continue to be, effective at offsetting changes in the fair value or cash flows of the hedged item must be assessed and documented at least quarterly. Any hedge ineffectiveness (i.e., the amount by which the gain or loss on the designated derivative instrument does not exactly offset the change in the hedged item attributable to the hedged risk) must be reported in current-period earnings. If it is determined that a derivative is not highly effective at hedging the designated exposure, hedge accounting is discontinued.

There are three types of hedge accounting designations: fair value hedges, cash flow hedges and net investment hedges. JPMorgan Chase uses fair value hedges primarily to hedge fixed-rate long-term debt, AFS securities and certain commodities inventories. For qualifying fair value hedges, the changes in the fair value of the derivative, and in the value of the hedged item for the risk being hedged, are recognized in earnings. If the hedge relationship is terminated, then the adjustment to the hedged item continues to be reported as part of the basis of the hedged item and for interest-bearing instruments is amortized to earnings as a yield adjustment. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item – primarily net interest income and principal transactions revenue.

JPMorgan Chase uses cash flow hedges primarily to hedge the exposure to variability in forecasted cash flows from floating-rate assets and liabilities and foreign currency–denominated revenue and expense. For qualifying cash flow hedges, the effective portion of the change in the fair value of the derivative is recorded in OCI and recognized in the Consolidated Statements of Income when the hedged cash flows affect earnings. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item – primarily interest income, interest expense, noninterest revenue and compensation expense. The ineffective portions of cash flow hedges are immediately recognized in earnings. If the hedge relationship is terminated, then the value of the derivative recorded in accumulated other comprehensive income/(loss) ("AOCI") is recognized in earnings when the cash flows that were hedged affect earnings. For hedge relationships that are discontinued because a forecasted transaction is not expected to occur according to the original hedge forecast, any related derivative values recorded in AOCI are immediately recognized in earnings.

JPMorgan Chase uses foreign currency hedges to protect the value of the Firm's net investments in certain non-U.S. subsidiaries or branches whose functional currencies are not the U.S. dollar. For foreign currency qualifying net investment hedges, changes in the fair value of the derivatives are recorded in the translation adjustments account within AOCI.

The following table outlines the Firm's primary uses of derivatives and the related hedge accounting designation or disclosure category.

Type of Derivative	Use of Derivative	Designation and disclosure	Affected segment or unit	Page reference
Manage specifically identified risk exposures in qualifying hedge accounting relationships:				
• Interest rate	Hedge fixed rate assets and liabilities	Fair value hedge	Corporate/PE	222
• Interest rate	Hedge floating rate assets and liabilities	Cash flow hedge	Corporate/PE	223
• Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	Corporate/PE	222
• Foreign exchange	Hedge forecasted revenue and expense	Cash flow hedge	Corporate/PE	223
• Foreign exchange	Hedge the value of the Firm's investments in non-U.S. subsidiaries	Net investment hedge	Corporate/PE	224
• Commodity	Hedge commodity inventory	Fair value hedge	CIB	222
Manage specifically identified risk exposures not designated in qualifying hedge accounting relationships:				
• Interest rate	Manage the risk of the mortgage pipeline, warehouse loans and MSRs	Specified risk management	CCB	224
• Credit	Manage the credit risk of wholesale lending exposures	Specified risk management	CIB	224
• Credit[(a)]	Manage the credit risk of certain AFS securities	Specified risk management	Corporate/PE	224
• Commodity	Manage the risk of certain commodities-related contracts and investments	Specified risk management	CIB	224
• Interest rate and foreign exchange	Manage the risk of certain other specified assets and liabilities	Specified risk management	Corporate/PE	224
Market-making derivatives and other activities:				
• Various	Market-making and related risk management	Market-making and other	CIB	224
• Various	Other derivatives, including the synthetic credit portfolio	Market-making and other	CIB, Corporate/PE	224

(a) Includes a limited number of single-name credit derivatives used to mitigate the credit risk arising from specified AFS securities.

Notional amount of derivative contracts

The following table summarizes the notional amount of derivative contracts outstanding as of December 31, 2012 and 2011.

	Notional amounts[b]	
December 31, (in billions)	2012	2011
Interest rate contracts		
Swaps	$ 33,183	$ 38,704
Futures and forwards	11,824	7,888
Written options	3,866	3,842
Purchased options	3,911	4,026
Total interest rate contracts	52,784	54,460
Credit derivatives[a]	5,981	5,774
Foreign exchange contracts		
Cross-currency swaps	3,355	2,931
Spot, futures and forwards	4,033	4,512
Written options	651	674
Purchased options	661	670
Total foreign exchange contracts	8,700	8,787
Equity contracts		
Swaps	163	119
Futures and forwards	49	38
Written options	442	460
Purchased options	403	405
Total equity contracts	1,057	1,022
Commodity contracts		
Swaps	313	341
Spot, futures and forwards	190	188
Written options	265	310
Purchased options	260	274
Total commodity contracts	1,028	1,113
Total derivative notional amounts	$ 69,550	$ 71,156

(a) Primarily consists of credit default swaps. For more information on volumes and types of credit derivative contracts, see the Credit derivatives discussion on pages 226–227 of this Note.
(b) Represents the sum of gross long and gross short third-party notional derivative contracts.

While the notional amounts disclosed above give an indication of the volume of the Firm's derivatives activity, the notional amounts significantly exceed, in the Firm's view, the possible losses that could arise from such transactions. For most derivative transactions, the notional amount is not exchanged; it is used simply as a reference to calculate payments.

Synthetic credit portfolio

The synthetic credit portfolio is a portfolio of index credit derivatives, including short and long positions, that was held by CIO. On July 2, 2012, CIO transferred the synthetic credit portfolio, other than a portion that aggregated to a notional amount of approximately $12 billion, to CIB. The positions making up the portion of the synthetic credit portfolio retained by CIO on July 2, 2012, were effectively closed out during the third quarter of 2012. The results of the synthetic credit portfolio, including the portion transferred to CIB, have been included in the gains and losses on derivatives related to market-making activities and other derivatives category discussed on page 224 of this Note.

Impact of derivatives on the Consolidated Balance Sheets

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Firm's Consolidated Balance Sheets as of December 31, 2012 and 2011, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables[a]

	Gross derivative receivables				Gross derivative payables			
December 31, 2012 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[c]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[c]
Trading assets and liabilities								
Interest rate	**$ 1,323,184**	**$ 6,064**	**$ 1,329,248**	**$ 39,205**	**$ 1,284,494**	**$ 3,120**	**$ 1,287,614**	**$ 24,906**
Credit	**100,310**	**—**	**100,310**	**1,735**	**100,027**	**—**	**100,027**	**2,504**
Foreign exchange[b]	**146,682**	**1,577**	**148,259**	**14,142**	**159,509**	**2,133**	**161,642**	**18,601**
Equity	**40,938**	**—**	**40,938**	**9,266**	**42,810**	**—**	**42,810**	**11,819**
Commodity	**43,039**	**586**	**43,625**	**10,635**	**46,821**	**644**	**47,465**	**12,826**
Total fair value of trading assets and liabilities	**$ 1,654,153**	**$ 8,227**	**$ 1,662,380**	**$ 74,983**	**$ 1,633,661**	**$ 5,897**	**$ 1,639,558**	**$ 70,656**

	Gross derivative receivables				Gross derivative payables			
December 31, 2011 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[c]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[c]
Trading assets and liabilities								
Interest rate	$ 1,433,900	$ 7,621	$ 1,441,521	$ 46,369	$ 1,397,625	$ 2,192	$ 1,399,817	$ 28,010
Credit	169,650	—	169,650	6,684	165,121	—	165,121	5,610
Foreign exchange[b]	163,497	4,666	168,163	17,890	165,353	655	166,008	17,435
Equity	47,736	—	47,736	6,793	46,366	—	46,366	9,655
Commodity	53,894	3,535	57,429	14,741	58,836	1,108	59,944	14,267
Total fair value of trading assets and liabilities	$ 1,868,677	$ 15,822	$ 1,884,499	$ 92,477	$ 1,833,301	$ 3,955	$ 1,837,256	$ 74,977

(a) Balances exclude structured notes for which the fair value option has been elected. See Note 4 on pages 214–216 of this Annual Report for further information.
(b) Excludes $11 million of foreign currency-denominated debt designated as a net investment hedge at December 31, 2011. Foreign currency-denominated debt was not designated as a hedging instrument at December 31, 2012.
(c) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral receivables and payables when a legally enforceable master netting agreement exists.

Impact of derivatives on the Consolidated Statements of Income

The following tables provide information related to gains and losses recorded on derivatives based on their hedge accounting designation or purpose.

Fair value hedge gains and losses

The following tables present derivative instruments, by contract type, used in fair value hedge accounting relationships, as well as pretax gains/(losses) recorded on such derivatives and the related hedged items for the years ended December 31, 2012, 2011 and 2010, respectively. The Firm includes gains/(losses) on the hedging derivative and the related hedged item in the same line item in the Consolidated Statements of Income.

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2012 (in millions)	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness[e]	Excluded components[f]
Contract type					
Interest rate[a]	**$ (1,238)**	**$ 1,879**	**$ 641**	**$ (28)**	**$ 669**
Foreign exchange[b]	**(3,027)** [d]	**2,925**	**(102)**	**—**	**(102)**
Commodity[c]	**(2,530)**	**1,131**	**(1,399)**	**107**	**(1,506)**
Total	**$ (6,795)**	**$ 5,935**	**$ (860)**	**$ 79**	**$ (939)**

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2011 (in millions)	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness[e]	Excluded components[f]
Contract type					
Interest rate[a]	$ 532	$ 33	$ 565	$ 104	$ 461
Foreign exchange[b]	5,684 [d]	(3,761)	1,923	—	1,923
Commodity[c]	1,784	(2,880)	(1,096)	(10)	(1,086)
Total	$ 8,000	$ (6,608)	$ 1,392	$ 94	$ 1,298

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2010 (in millions)	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness[e]	Excluded components[f]
Contract type					
Interest rate[a]	$ 1,102	$ (376)	$ 726	$ 175	$ 551
Foreign exchange[b]	1,357 [d]	(1,812)	(455)	—	(455)
Commodity[c]	(1,354)	1,882	528	—	528
Total	$ 1,105	$ (306)	$ 799	$ 175	$ 624

(a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate ("LIBOR")) interest rate risk of fixed-rate long-term debt and AFS securities. Gains and losses were recorded in net interest income. The current presentation excludes accrued interest. Prior period amounts have been revised to conform with the current presentation.

(b) Primarily consists of hedges of the foreign currency risk of long-term debt and AFS securities for changes in spot foreign currency rates. Gains and losses related to the derivatives and the hedged items, due to changes in foreign currency rates, were recorded in principal transactions revenue and net interest income.

(c) Consists of overall fair value hedges of physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value). Gains and losses were recorded in principal transactions revenue.

(d) Included $(3.1) billion, $4.9 billion and $278 million for the years ended December 31, 2012, 2011 and 2010, respectively, of revenue related to certain foreign exchange trading derivatives designated as fair value hedging instruments.

(e) Hedge ineffectiveness is the amount by which the gain or loss on the designated derivative instrument does not exactly offset the gain or loss on the hedged item attributable to the hedged risk.

(f) The assessment of hedge effectiveness excludes certain components of the changes in fair values of the derivatives and hedged items such as forward points on foreign exchange forward contracts and time values.

Cash flow hedge gains and losses

The following tables present derivative instruments, by contract type, used in cash flow hedge accounting relationships, and the pretax gains/(losses) recorded on such derivatives, for the years ended December 31, 2012, 2011 and 2010, respectively. The Firm includes the gain/(loss) on the hedging derivative and the change in cash flows on the hedged item in the same line item in the Consolidated Statements of Income.

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2012 (in millions)	Derivatives – effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income[d]	Total income statement impact	Derivatives – effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate[a]	**$ (3)**	**$ 5**	**$ 2**	**$ 13**	**$ 16**
Foreign exchange[b]	**31**	**—**	**31**	**128**	**97**
Total	**$ 28**	**$ 5**	**$ 33**	**$ 141**	**$ 113**

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2011 (in millions)	Derivatives – effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income[d]	Total income statement impact	Derivatives – effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate[a]	$ 310	$ 19	$ 329	$ 107	$ (203)
Foreign exchange[b]	(9)	—	(9)	(57)	(48)
Total	$ 301	$ 19	$ 320	$ 50	$ (251)

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2010 (in millions)	Derivatives – effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income[d]	Total income statement impact	Derivatives – effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate[a]	$ 288	$ 20	$ 308	$ 388	$ 100
Foreign exchange[b]	(82)	(3)	(85)	(141)	(59)
Total	$ 206	$ 17	$ 223	$ 247	$ 41

(a) Primarily consists of benchmark interest rate hedges of LIBOR-indexed floating-rate assets and floating-rate liabilities. Gains and losses were recorded in net interest income.

(b) Primarily consists of hedges of the foreign currency risk of non-U.S. dollar-denominated revenue and expense. The income statement classification of gains and losses follows the hedged item – primarily net interest income, noninterest revenue and compensation expense.

(c) The Firm did not experience any forecasted transactions that failed to occur for the years ended December 31, 2012 and 2011. In 2010, the Firm reclassified a $25 million loss from AOCI to earnings because the Firm determined that it was probable that forecasted interest payment cash flows related to certain wholesale deposits would not occur.

(d) Hedge ineffectiveness is the amount by which the cumulative gain or loss on the designated derivative instrument exceeds the present value of the cumulative expected change in cash flows on the hedged item attributable to the hedged risk.

Over the next 12 months, the Firm expects that $32 million (after-tax) of net losses recorded in AOCI at December 31, 2012, related to cash flow hedges will be recognized in income. The maximum length of time over which forecasted transactions are hedged is 8 years, and such transactions primarily relate to core lending and borrowing activities.

Net investment hedge gains and losses

The following tables present hedging instruments, by contract type, that were used in net investment hedge accounting relationships, and the pretax gains/(losses) recorded on such instruments for the years ended December 31, 2012, 2011 and 2010.

	Gains/(losses) recorded in income and other comprehensive income/(loss)					
	2012		2011		2010	
Year ended December 31, (in millions)	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI
Contract type						
Foreign exchange derivatives	**$ (306)**	**$ (82)**	$ (251)	$ 225	$ (139)	$ (30)
Foreign currency denominated debt	**—**	**—**	—	1	—	41
Total	**$ (306)**	**$ (82)**	$ (251)	$ 226	$ (139)	$ 11

(a) Certain components of hedging derivatives are permitted to be excluded from the assessment of hedge effectiveness, such as forward points on foreign exchange forward contracts. Amounts related to excluded components are recorded in current-period income. The Firm measures the ineffectiveness of net investment hedge accounting relationships based on changes in spot foreign currency rates, and therefore there was no ineffectiveness for net investment hedge accounting relationships during 2012, 2011 and 2010.

Gains and losses on derivatives used for specified risk management purposes

The following table presents pretax gains/(losses) recorded on a limited number of derivatives, not designated in hedge accounting relationships, that are used to manage risks associated with certain specified assets and liabilities, including certain risks arising from the mortgage pipeline, warehouse loans, MSRs, wholesale lending exposures, AFS securities, foreign currency-denominated liabilities, and commodities related contracts and investments.

	Derivatives gains/(losses) recorded in income		
Year ended December 31, (in millions)	**2012**	2011	2010
Contract type			
Interest rate[(a)]	**$ 5,353**	$ 8,084	$ 4,987
Credit[(b)]	**(175)**	(52)	(237)
Foreign exchange[(c)]	**47**	(157)	(64)
Commodity[(d)]	**94**	41	(48)
Total	**$ 5,319**	$ 7,916	$ 4,638

(a) Primarily relates to interest rate derivatives used to hedge the interest rate risks associated with the mortgage pipeline, warehouse loans and MSRs. Gains and losses were recorded predominantly in mortgage fees and related income.

(b) Relates to credit derivatives used to mitigate credit risk associated with lending exposures in the Firm's wholesale businesses, and single-name credit derivatives used to mitigate credit risk arising from certain AFS securities. These derivatives do not include the synthetic credit portfolio or credit derivatives used to mitigate counterparty credit risk arising from derivative receivables, both of which are included in gains and losses on derivatives related to market-making activities and other derivatives. Gains and losses were recorded in principal transactions revenue.

(c) Primarily relates to hedges of the foreign exchange risk of specified foreign currency-denominated liabilities. Gains and losses were recorded in principal transactions revenue and net interest income.

(d) Primarily relates to commodity derivatives used to mitigate energy price risk associated with energy-related contracts and investments. Gains and losses were recorded in principal transactions revenue.

Gains and losses on derivatives related to market-making activities and other derivatives

The Firm makes markets in derivatives in order to meet the needs of customers and uses derivatives to manage certain risks associated with net open risk positions from the Firm's market-making activities, including the counterparty credit risk arising from derivative receivables. These derivatives, as well as all other derivatives (including the synthetic credit portfolio) that are not included in the hedge accounting or specified risk management categories above, are included in this category. Gains and losses on these derivatives are recorded in principal transactions revenue. See Note 7 on pages 228–229 of this Annual Report for information on principal transactions revenue.

Credit risk, liquidity risk and credit-related contingent features

In addition to the specific market risks introduced by each derivative contract type, derivatives expose JPMorgan Chase to credit risk — the risk that derivative counterparties may fail to meet their payment obligations under the derivative contracts and the collateral, if any, held by the Firm proves to be of insufficient value to cover the payment obligation. It is the policy of JPMorgan Chase to actively pursue the use of legally enforceable master netting arrangements and collateral agreements to mitigate derivative counterparty credit risk. The amount of derivative receivables reported on the Consolidated Balance Sheets is the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and cash collateral held by the Firm.

While derivative receivables expose the Firm to credit risk, derivative payables expose the Firm to liquidity risk, as the derivative contracts typically require the Firm to post cash or securities collateral with counterparties as the fair value of the contracts moves in the counterparties' favor or upon specified downgrades in the Firm's and its subsidiaries' respective credit ratings. Certain derivative contracts also provide for termination of the contract, generally upon a downgrade of either the Firm or the counterparty, at the fair value of the derivative contracts. The following table shows the aggregate fair value of net derivative payables that contain contingent collateral or termination features that may be triggered upon a downgrade and the associated collateral the Firm has posted in the normal course of business at December 31, 2012 and 2011.

Derivative payables containing downgrade triggers

December 31, (in millions)	2012	2011
Aggregate fair value of net derivative payables[a]	$ 40,844	$ 39,316
Collateral posted[a]	34,414	31,473

(a) The current period presentation excludes contracts with downgrade triggers that were in a net receivable position. Prior period amounts have been revised to conform with the current presentation.

The following table shows the impact of a single-notch and two-notch ratings downgrade to JPMorgan Chase & Co. and its subsidiaries, predominantly JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), at December 31, 2012 and 2011, related to derivative contracts with contingent collateral or termination features that may be triggered upon a ratings downgrade. Derivatives contracts generally require additional collateral to be posted or terminations to be triggered when the predefined threshold rating is breached. A downgrade by a single rating agency that does not result in a rating lower than a preexisting corresponding rating provided by another major rating agency will generally not result in additional collateral or termination payment requirements. The liquidity impact in the table is calculated based upon a downgrade below the lowest current rating provided by major rating agencies.

Liquidity impact of derivative downgrade triggers

	2012		2011	
December 31, (in millions)	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Additional portion of net derivative payable to be posted as collateral upon downgrade	$ 1,012	$ 1,664	$ 1,460	$ 2,054
Amount required to settle contracts with termination triggers upon downgrade[a]	857	1,270	1,054	1,923

(a) Amounts represent fair value of derivative payables, and do not reflect collateral posted.

The following tables show the carrying value of derivative receivables and payables after netting adjustments, and adjustments for collateral held (including cash, U.S. government and agency securities and other G7 government bonds) and transferred as of December 31, 2012 and 2011.

Impact of netting adjustments on derivative receivables and payables

	Derivative receivables		Derivative payables	
December 31, (in millions)	2012	2011	2012	2011
Gross derivative fair value	$ 1,662,380	$ 1,884,499	$ 1,639,558	$ 1,837,256
Netting adjustment – offsetting receivables/payables[a]	(1,508,244)	(1,710,523)	(1,508,244)	(1,710,523)
Netting adjustment – cash collateral received/paid[a]	(79,153)	(81,499)	(60,658)	(51,756)
Carrying value on Consolidated Balance Sheets	$ 74,983	$ 92,477	$ 70,656	$ 74,977

Total derivative collateral

	Collateral held		Collateral transferred	
December 31, (in millions)	2012	2011	2012	2011
Netting adjustment for cash collateral[a]	$ 79,153	$ 81,499	$ 60,658	$ 51,756
Liquid securities and other cash collateral[b]	13,658	21,807	21,767	19,439
Additional liquid securities and cash collateral[c]	22,562	17,613	9,635	10,824
Total collateral for derivative transactions	$ 115,373	$ 120,919	$ 92,060	$ 82,019

(a) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists.

(b) Represents cash collateral received and paid that is not subject to a legally enforceable master netting agreement, and liquid securities collateral held and transferred.

(c) Represents liquid securities and cash collateral held and transferred at the initiation of derivative transactions, which is available as security against potential exposure that could arise should the fair value of the transactions move, as well as collateral held and transferred related to contracts that have non-daily call frequency for collateral to be posted, and collateral that the Firm or a counterparty has agreed to return but has not yet settled as of the reporting date. These amounts were not netted against the derivative receivables and payables in the tables above, because, at an individual counterparty level, the collateral exceeded the fair value exposure at both December 31, 2012 and 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). Credit derivatives expose the protection purchaser to the creditworthiness of the protection seller, as the protection seller is required to make payments under the contract when the reference entity experiences a credit event, such as a bankruptcy, a failure to pay its obligation or a restructuring. The seller of credit protection receives a premium for providing protection but has the risk that the underlying instrument referenced in the contract will be subject to a credit event.

The Firm is both a purchaser and seller of protection in the credit derivatives market and uses these derivatives for two primary purposes. First, in its capacity as a market-maker, the Firm actively manages a portfolio of credit derivatives by purchasing and selling credit protection, predominantly on corporate debt obligations, to meet the needs of customers. Second, as an end-user, the Firm uses credit derivatives to manage credit risk associated with lending exposures (loans and unfunded commitments) and derivatives counterparty exposures in the Firm's wholesale businesses, and to manage the credit risk arising from certain AFS securities and from certain financial instruments in the Firm's market-making businesses. For more information on the synthetic credit portfolio, see the discussion on page 220 of this Note. Following is a summary of various types of credit derivatives.

Credit default swaps

Credit derivatives may reference the credit of either a single reference entity ("single-name") or a broad-based index. The Firm purchases and sells protection on both single-name and index-reference obligations. Single-name CDS and index CDS contracts are OTC derivative contracts. Single-name CDS are used to manage the default risk of a single reference entity, while index CDS contracts are used to manage the credit risk associated with the broader credit markets or credit market segments. Like the S&P 500 and other market indices, a CDS index comprises a portfolio of CDS across many reference entities. New series of CDS indices are periodically established with a new underlying portfolio of reference entities to reflect changes in the credit markets. If one of the reference entities in the index experiences a credit event, then the reference entity that defaulted is removed from the index. CDS can also be referenced against specific portfolios of reference names or against customized exposure levels based on specific client demands: for example, to provide protection against the first $1 million of realized credit losses in a $10 million portfolio of exposure. Such structures are commonly known as tranche CDS.

For both single-name CDS contracts and index CDS contracts, upon the occurrence of a credit event, under the terms of a CDS contract neither party to the CDS contract has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value of the reference obligation at the time of settling the credit derivative contract, also known as the recovery value. The protection purchaser does not need to hold the debt instrument of the underlying reference entity in order to receive amounts due under the CDS contract when a credit event occurs.

Credit-related notes

A credit-related note is a funded credit derivative where the issuer of the credit-related note purchases from the note investor credit protection on a referenced entity. Under the contract, the investor pays the issuer the par value of the note at the inception of the transaction, and in return, the issuer pays periodic payments to the investor, based on the credit risk of the referenced entity. The issuer also repays the investor the par value of the note at maturity unless the reference entity experiences a specified credit event. If a credit event occurs, the issuer is not obligated to repay the par value of the note, but rather, the issuer pays the investor the difference between the par value of the note and the fair value of the defaulted reference obligation at the time of settlement. Neither party to the credit-related note has recourse to the defaulting reference entity. For a further discussion of credit-related notes, see Note 16 on pages 280–291 of this Annual Report.

The following tables present a summary of the notional amounts of credit derivatives and credit-related notes the Firm sold and purchased as of December 31, 2012 and 2011. Upon a credit event, the Firm as a seller of protection would typically pay out only a percentage of the full notional amount of net protection sold, as the amount actually required to be paid on the contracts takes into account the recovery value of the reference obligation at the time of settlement. The Firm manages the credit risk on contracts to sell protection by purchasing protection with identical or similar underlying reference entities. Other purchased protection referenced in the following tables includes credit derivatives bought on related, but not identical, reference positions (including indices, portfolio coverage and other reference points) as well as protection purchased through credit-related notes.

The Firm does not use notional amounts of credit derivatives as the primary measure of risk management for such derivatives, because the notional amount does not take into account the probability of the occurrence of a credit event, the recovery value of the reference obligation, or related cash instruments and economic hedges, each of which reduces, in the Firm's view, the risks associated with such derivatives.

Total credit derivatives and credit-related notes

	Maximum payout/Notional amount			
December 31, 2012 (in millions)	Protection sold	Protection purchased with identical underlyings[b]	Net protection (sold)/purchased[c]	Other protection purchased[d]
Credit derivatives				
Credit default swaps	**$ (2,954,705)**	**$ 2,879,105**	**$ (75,600)**	**$ 42,460**
Other credit derivatives[a]	**(66,244)**	**5,649**	**(60,595)**	**33,174**
Total credit derivatives	**(3,020,949)**	**2,884,754**	**(136,195)**	**75,634**
Credit-related notes	**(233)**	**—**	**(233)**	**3,255**
Total	**$ (3,021,182)**	**$ 2,884,754**	**$ (136,428)**	**$ 78,889**

	Maximum payout/Notional amount			
December 31, 2011 (in millions)	Protection sold	Protection purchased with identical underlyings[b]	Net protection (sold)/purchased[c]	Other protection purchased[d]
Credit derivatives				
Credit default swaps	$ (2,839,492)	$ 2,798,207	$ (41,285)	$ 29,139
Other credit derivatives[a]	(79,711)	4,954	(74,757)	22,292
Total credit derivatives	(2,919,203)	2,803,161	(116,042)	51,431
Credit-related notes	(742)	—	(742)	3,944
Total	$ (2,919,945)	$ 2,803,161	$ (116,784)	$ 55,375

(a) Primarily consists of total return swaps and CDS options.
(b) Represents the total notional amount of protection purchased where the underlying reference instrument is identical to the reference instrument on protection sold; the notional amount of protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.
(c) Does not take into account the fair value of the reference obligation at the time of settlement, which would generally reduce the amount the seller of protection pays to the buyer of protection in determining settlement value.
(d) Represents protection purchased by the Firm on referenced instruments (single-name, portfolio or index) where the Firm has not sold any protection on the identical reference instrument.

The following tables summarize the notional and fair value amounts of credit derivatives and credit-related notes as of December 31, 2012 and 2011, where JPMorgan Chase is the seller of protection. The maturity profile is based on the remaining contractual maturity of the credit derivative contracts. The ratings profile is based on the rating of the reference entity on which the credit derivative contract is based. The ratings and maturity profile of credit derivatives and credit-related notes where JPMorgan Chase is the purchaser of protection are comparable to the profile reflected below.

Protection sold – credit derivatives and credit-related notes ratings[a]/maturity profile

December 31, 2012 (in millions)	<1 year	1–5 years	>5 years	Total notional amount	Fair value of receivables[b]	Fair value of payables[b]	Net fair value
Risk rating of reference entity							
Investment-grade	**$ (409,748)**	**$ (1,383,644)**	**$ (224,001)**	**$ (2,017,393)**	**$ 16,690**	**$ (22,393)**	**$ (5,703)**
Noninvestment-grade	**(214,949)**	**(722,115)**	**(66,725)**	**(1,003,789)**	**22,355**	**(36,815)**	**(14,460)**
Total	**$ (624,697)**	**$ (2,105,759)**	**$ (290,726)**	**$ (3,021,182)**	**$ 39,045**	**$ (59,208)**	**$ (20,163)**

December 31, 2011 (in millions)	<1 year	1–5 years	>5 years	Total notional amount	Fair value of receivables[b]	Fair value of payables[b]	Net fair value
Risk rating of reference entity							
Investment-grade	$ (352,215)	$ (1,262,143)	$ (345,996)	$ (1,960,354)	$ 7,809	$ (57,697)	$ (49,888)
Noninvestment-grade	(241,823)	(589,954)	(127,814)	(959,591)	13,212	(85,304)	(72,092)
Total	$ (594,038)	$ (1,852,097)	$ (473,810)	$ (2,919,945)	$ 21,021	$ (143,001)	$ (121,980)

(a) The ratings scale is based on the Firm's internal ratings, which generally correspond to ratings as defined by S&P and Moody's.
(b) Amounts are shown on a gross basis, before the benefit of legally enforceable master netting agreements and cash collateral received by the Firm.

Note 7 – Noninterest revenue

Investment banking fees

This revenue category includes advisory and equity and debt underwriting fees. Underwriting fees are recognized as revenue when the Firm has rendered all services to the issuer and is entitled to collect the fee from the issuer, as long as there are no other contingencies associated with the fee. Underwriting fees are net of syndicate expense; the Firm recognizes credit arrangement and syndication fees as revenue after satisfying certain retention, timing and yield criteria. Advisory fees are recognized as revenue when the related services have been performed and the fee has been earned.

The following table presents the components of investment banking fees.

Year ended December 31, (in millions)	2012	2011	2010
Underwriting			
Equity	**$ 1,026**	$ 1,181	$ 1,589
Debt	**3,290**	2,934	3,172
Total underwriting	**4,316**	4,115	4,761
Advisory	**1,492**	1,796	1,429
Total investment banking fees	**$ 5,808**	$ 5,911	$ 6,190

Principal transactions

Principal transactions revenue includes realized and unrealized gains and losses recorded on derivatives, other financial instruments, private equity investments, and physical commodities used in market-making and client-driven activities.

In addition, principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk management activities disclosed separately in Note 6, including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specific risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk but as to which qualifying hedge accounting is not applied, and (c) certain derivatives related to market-making activities and other. See Note 6 on pages 218–227 of this Annual Report for information on the income statement classification of gains and losses on derivatives.

The following table presents principal transactions revenue by major underlying type of risk exposures. This table does not include other types of revenue, such as net interest income on trading assets, which are an integral part of the overall performance of the Firm's client-driven market-making activities.

Year ended December 31, (in millions)	2012	2011	2010
Trading revenue by risk exposure			
Interest rate[(a)]	**$ 3,922**	$ (873)	$ (199)
Credit[(b)]	**(5,460)**	3,393	4,543
Foreign exchange	**1,436**	1,154	1,896
Equity	**2,504**	2,401	2,275
Commodity[(c)]	**2,363**	2,823	889
Total trading revenue	**4,765**	8,898	9,404
Private equity gains/(losses)[(d)]	**771**	1,107	1,490
Principal transactions[(e)]	**$ 5,536**	$ 10,005	$ 10,894

(a) Includes a pretax gain of $665 million for the year ended December 31, 2012, reflecting the recovery on a Bear Stearns-related subordinated loan.
(b) Includes $5.8 billion of losses incurred by CIO from the synthetic credit portfolio for the six months ended June 30, 2012, and $449 million of losses incurred by CIO from the retained index credit derivative positions for the three months ended September 30, 2012; and losses incurred by CIB from the synthetic credit portfolio.
(c) Includes realized gains and losses and unrealized losses on physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value), subject to any applicable fair value hedge accounting adjustments, and gains and losses on commodity derivatives and other financial instruments that are carried at fair value through income. Commodity derivatives are frequently used to manage the Firm's risk exposure to its physical commodities inventories. Gains/(losses) related to commodity fair value hedges were $(1.4) billion, $(1.1) billion and $528 million for the years ended December 31, 2012, 2011 and 2010, respectively.
(d) Includes revenue on private equity investments held in the Private Equity business within Corporate/Private Equity, as well as those held in other business segments.
(e) Principal transactions revenue included DVA related to structured notes and derivative liabilities measured at fair value in CIB. DVA gains/(losses) were $(930) million, $1.4 billion, and $509 million for the years ended December 31, 2012, 2011 and 2010, respectively.

Lending- and deposit-related fees

This revenue category includes fees from loan commitments, standby letters of credit, financial guarantees, deposit-related fees in lieu of compensating balances, cash management-related activities or transactions, deposit accounts and other loan-servicing activities. These fees are recognized over the period in which the related service is provided.

Asset management, administration and commissions

This revenue category includes fees from investment management and related services, custody, brokerage services, insurance premiums and commissions, and other products. These fees are recognized over the period in which the related service is provided. Performance-based fees, which are earned based on exceeding certain benchmarks or other performance targets, are accrued and recognized at the end of the performance period in which the target is met.

The following table presents components of asset management, administration and commissions.

Year ended December 31, (in millions)	2012	2011	2010
Asset management			
Investment management fees	$ 6,309	$ 6,085	$ 5,632
All other asset management fees	792	605	496
Total asset management fees	7,101	6,690	6,128
Total administration fees[(a)]	2,135	2,171	2,023
Commission and other fees			
Brokerage commissions	2,331	2,753	2,804
All other commissions and fees	2,301	2,480	2,544
Total commissions and fees	4,632	5,233	5,348
Total asset management, administration and commissions	$ 13,868	$ 14,094	$ 13,499

(a) Includes fees for custody, securities lending, funds services and securities clearance.

Mortgage fees and related income

This revenue category primarily reflects CCB's Mortgage Production and Mortgage Servicing revenue, including: fees and income derived from mortgages originated with the intent to sell; mortgage sales and servicing including losses related to the repurchase of previously-sold loans; the impact of risk management activities associated with the mortgage pipeline, warehouse loans and MSRs; and revenue related to any residual interests held from mortgage securitizations. This revenue category also includes gains and losses on sales and lower of cost or fair value adjustments for mortgage loans held-for-sale, as well as changes in fair value for mortgage loans originated with the intent to sell and measured at fair value under the fair value option. Changes in the fair value of CCB mortgage servicing rights are reported in mortgage fees and related income. Net interest income from mortgage loans, and securities gains and losses on AFS securities used in mortgage-related risk management activities, are recorded in interest income and securities gains/(losses), respectively. For a further discussion of MSRs, see Note 17 on pages 291–295 of this Annual Report.

Card income

This revenue category includes interchange income from credit and debit cards and net fees earned from processing credit card transactions for merchants. Card income is recognized as earned. Annual fees and direct loan origination costs are deferred and recognized on a straight-line basis over a 12-month period. Expense related to rewards programs is recorded when the rewards are earned by the customer and netted against interchange income.

Credit card revenue sharing agreements

The Firm has contractual agreements with numerous affinity organizations and co-brand partners (collectively, "partners"), which grant the Firm exclusive rights to market to the members or customers of such partners. These partners endorse the credit card programs and provide their mailing lists to the Firm, and they may also conduct marketing activities and provide awards under the various credit card programs. The terms of these agreements generally range from three to 10 years.

The Firm typically makes incentive payments to the partners based on new account originations, charge volumes and the cost of the partners' marketing activities and awards. Payments based on new account originations are accounted for as direct loan origination costs. Payments to partners based on charge volumes are deducted from interchange income as the related revenue is earned. Payments based on marketing efforts undertaken by the partners are expensed by the Firm as incurred and reported as noninterest expense.

Other income

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

Note 8 – Interest income and Interest expense

Interest income and interest expense is recorded in the Consolidated Statements of Income and classified based on the nature of the underlying asset or liability. Interest income and interest expense includes the current-period interest accruals for financial instruments measured at fair value, except for financial instruments containing embedded derivatives that would be separately accounted for in accordance with U.S. GAAP absent the fair value option election; for those instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue. For financial instruments that are not measured at fair value, the related interest is included within interest income or interest expense, as applicable.

Details of interest income and interest expense were as follows.

Year ended December 31, (in millions)	2012	2011	2010
Interest income			
Loans	**$ 35,832**	$ 37,098	$ 40,388
Securities	**7,939**	9,215	9,540
Trading assets	**9,039**	11,142	11,007
Federal funds sold and securities purchased under resale agreements	**2,442**	2,523	1,786
Securities borrowed	**(3)** [c]	110	175
Deposits with banks	**555**	599	345
Other assets[a]	**259**	606	541
Total interest income	**56,063**	61,293	63,782
Interest expense			
Interest-bearing deposits	**2,655**	3,855	3,424
Short-term and other liabilities[b]	**1,788**	2,873	2,364
Long-term debt	**6,062**	6,109	5,848
Beneficial interests issued by consolidated VIEs	**648**	767	1,145
Total interest expense	**11,153**	13,604	12,781
Net interest income	**44,910**	47,689	51,001
Provision for credit losses	**3,385**	7,574	16,639
Net interest income after provision for credit losses	**$ 41,525**	$ 40,115	$ 34,362

(a) Largely margin loans.
(b) Includes brokerage customer payables.
(c) Negative interest income for the year ended December 31, 2012, is a result of increased client-driven demand for certain securities combined with the impact of low interest rates; the offset of this matched book activity is reflected as lower net interest expense reported within short-term and other liabilities.

Note 9 – Pension and other postretirement employee benefit plans

The Firm’s defined benefit pension plans and its other postretirement employee benefit (“OPEB”) plans (collectively the “Plans”) are accounted for in accordance with U.S. GAAP for retirement benefits.

Defined benefit pension plans

The Firm has a qualified noncontributory U.S. defined benefit pension plan that provides benefits to substantially all U.S. employees. The U.S. plan employs a cash balance formula in the form of pay and interest credits to determine the benefits to be provided at retirement, based on eligible compensation and years of service. Employees begin to accrue plan benefits after completing one year of service, and benefits generally vest after three years of service. The Firm also offers benefits through defined benefit pension plans to qualifying employees in certain non-U.S. locations based on factors such as eligible compensation, age and/or years of service.

It is the Firm’s policy to fund the pension plans in amounts sufficient to meet the requirements under applicable laws. The Firm does not anticipate at this time any contribution to the U.S. defined benefit pension plan in 2013. The 2013 contributions to the non-U.S. defined benefit pension plans are expected to be $40 million of which $36 million are contractually required.

JPMorgan Chase also has a number of defined benefit pension plans that are not subject to Title IV of the Employee Retirement Income Security Act. The most significant of these plans is the Excess Retirement Plan, pursuant to which certain employees previously earned pay credits on compensation amounts above the maximum stipulated by law under a qualified plan; no further pay credits are allocated under this plan. The Excess Retirement Plan had an unfunded projected benefit obligation in the amount of $276 million and $272 million, at December 31, 2012 and 2011, respectively.

Effective March 19, 2012, pursuant to the WaMu Global Settlement, JPMorgan Chase Bank, N.A. became the sponsor of the WaMu Pension Plan. This plan’s assets were merged with and into the JPMorgan Chase Retirement Plan effective as of December 31, 2012.

Defined contribution plans

JPMorgan Chase currently provides two qualified defined contribution plans in the U.S. and other similar arrangements in certain non-U.S. locations, all of which are administered in accordance with applicable local laws and regulations. The most significant of these plans is The JPMorgan Chase 401(k) Savings Plan (the “401(k) Savings Plan”), which covers substantially all U.S. employees. The 401(k) Savings Plan allows employees to make pretax and Roth 401(k) contributions to tax-deferred investment portfolios. The JPMorgan Chase Common Stock Fund, which is an investment option under the 401(k) Savings Plan, is a nonleveraged employee stock ownership plan.

The Firm matches eligible employee contributions up to 5% of benefits-eligible compensation (e.g., base pay) on an annual basis. Employees begin to receive matching contributions after completing a one-year-of-service requirement. Employees with total annual cash compensation of $250,000 or more are not eligible for matching contributions. Matching contributions vest after three years of service for employees hired on or after May 1, 2009. The 401(k) Savings Plan also permits discretionary profit-sharing contributions by participating companies for certain employees, subject to a specified vesting schedule.

OPEB plans

JPMorgan Chase offers postretirement medical and life insurance benefits to certain retirees and postretirement medical benefits to qualifying U.S. employees. These benefits vary with the length of service and the date of hire and provide for limits on the Firm’s share of covered medical benefits. The medical and life insurance benefits are both contributory. Postretirement medical benefits also are offered to qualifying U.K. employees.

JPMorgan Chase’s U.S. OPEB obligation is funded with corporate-owned life insurance (“COLI”) purchased on the lives of eligible employees and retirees. While the Firm owns the COLI policies, COLI proceeds (death benefits, withdrawals and other distributions) may be used only to reimburse the Firm for its net postretirement benefit claim payments and related administrative expense. The U.K. OPEB plan is unfunded.

The following table presents the changes in benefit obligations, plan assets and funded status amounts reported on the Consolidated Balance Sheets for the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans.

As of or for the year ended December 31, (in millions)	Defined benefit pension plans U.S. 2012	U.S. 2011	Non-U.S. 2012	Non-U.S. 2011	OPEB plans[e] 2012	OPEB plans[e] 2011
Change in benefit obligation						
Benefit obligation, beginning of year	**$ (9,043)**	$ (8,320)	**$ (2,829)**	$ (2,600)	**$ (999)**	$ (980)
Benefits earned during the year	**(272)**	(249)	**(41)**	(36)	**(1)**	(1)
Interest cost on benefit obligations	**(466)**	(451)	**(126)**	(133)	**(44)**	(51)
Plan amendments	**—**	—	**6**	—	**—**	—
WaMu Global Settlement	**(1,425)**	—	**—**	—	**—**	—
Employee contributions	**NA**	NA	**(5)**	(5)	**(74)**	(84)
Net gain/(loss)	**(864)**	(563)	**(244)**	(160)	**(9)**	(39)
Benefits paid	**592**	540	**108**	93	**149**	166
Expected Medicare Part D subsidy receipts	**NA**	NA	**NA**	NA	**(10)**	(10)
Foreign exchange impact and other	**—**	—	**(112)**	12	**(2)**	—
Benefit obligation, end of year	**$ (11,478)**	$ (9,043)	**$ (3,243)**	$ (2,829)	**$ (990)**	$ (999)
Change in plan assets						
Fair value of plan assets, beginning of year	**$ 10,472**	$ 10,828	**$ 2,989**	$ 2,647	**$ 1,435**	$ 1,381
Actual return on plan assets	**1,292**	147	**237**	277	**142**	78
Firm contributions	**31**	37	**86**	169	**2**	2
WaMu Global Settlement	**1,809**	—	**—**	—	**—**	—
Employee contributions	**—**	—	**5**	5	**—**	—
Benefits paid	**(592)**	(540)	**(108)**	(93)	**(16)**	(26)
Foreign exchange impact and other	**—**	—	**121**	(16)	**—**	—
Fair value of plan assets, end of year	**$ 13,012** [b][c]	$ 10,472 [b][c]	**$ 3,330** [c]	$ 2,989 [c]	**$ 1,563**	$ 1,435
Funded/(unfunded) status[a]	**$ 1,534**	$ 1,429 [d]	**$ 87**	$ 160	**$ 573**	$ 436
Accumulated benefit obligation, end of year	**$ (11,447)**	$ (9,008)	**$ (3,221)**	$ (2,800)	**NA**	NA

(a) Represents overfunded plans with an aggregate balance of $2.8 billion and $2.6 billion at December 31, 2012 and 2011, respectively, and underfunded plans with an aggregate balance of $612 million and $621 million at December 31, 2012 and 2011, respectively.
(b) At December 31, 2012 and 2011, approximately $418 million and $426 million, respectively, of U.S. plan assets included participation rights under participating annuity contracts.
(c) At December 31, 2012 and 2011, defined benefit pension plan amounts not measured at fair value included $137 million and $50 million, respectively, of accrued receivables, and $310 million and $245 million, respectively, of accrued liabilities, for U.S. plans; and $47 million and $56 million, respectively, of accrued receivables, and $46 million and $69 million of accrued liabilities, respectively, for non-U.S. plans.
(d) Does not include any amounts attributable to the WaMu Pension Plan.
(e) Includes an unfunded accumulated postretirement benefit obligation of $31 million and $33 million at December 31, 2012 and 2011, respectively, for the U.K. plan.

Gains and losses

For the Firm's defined benefit pension plans, fair value is used to determine the expected return on plan assets. Amortization of net gains and losses is included in annual net periodic benefit cost if, as of the beginning of the year, the net gain or loss exceeds 10% of the greater of the projected benefit obligation or the fair value of the plan assets. Any excess is amortized over the average future service period of defined benefit pension plan participants, which for the U.S. defined benefit pension plan is currently nine years. In addition, prior service costs are amortized over the average remaining service period of active employees expected to receive benefits under the plan when the prior service cost is first recognized. The average remaining amortization period for current prior service costs is six years.

For the Firm's OPEB plans, a calculated value that recognizes changes in fair value over a five-year period is used to determine the expected return on plan assets. This value is referred to as the market related value of assets. Amortization of net gains and losses, adjusted for gains and losses not yet recognized, is included in annual net periodic benefit cost if, as of the beginning of the year, the net gain or loss exceeds 10% of the greater of the accumulated postretirement benefit obligation or the market related value of assets. Any excess is amortized over the average future service period, which is currently four years; however, prior service costs are amortized over the average years of service remaining to full eligibility age, which is currently three years.

The following table presents pretax pension and OPEB amounts recorded in AOCI.

December 31,	Defined benefit pension plans				OPEB plans	
	U.S.		Non-U.S.			
(in millions)	**2012**	2011	**2012**	2011	**2012**	2011
Net gain/(loss)	**$ (3,814)**	$ (3,669)	**$ (676)**	$ (544)	**$ (133)**	$ (176)
Prior service credit/(cost)	**237**	278	**18**	12	**1**	1
Accumulated other comprehensive income/(loss), pretax, end of year	**$ (3,577)**	$ (3,391)	**$ (658)**	$ (532)	**$ (132)**	$ (175)

The following table presents the components of net periodic benefit costs reported in the Consolidated Statements of Income and other comprehensive income for the Firm's U.S. and non-U.S. defined benefit pension, defined contribution and OPEB plans.

	Pension plans						OPEB plans		
	U.S.			Non-U.S.					
Year ended December 31, (in millions)	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Components of net periodic benefit cost									
Benefits earned during the year	**$ 272**	$ 249	$ 230	**$ 41**	$ 36	$ 31	**$ 1**	$ 1	$ 2
Interest cost on benefit obligations	**466**	451	468	**126**	133	128	**44**	51	55
Expected return on plan assets	**(861)**	(791)	(742)	**(137)**	(141)	(126)	**(90)**	(88)	(96)
Amortization:									
Net (gain)/loss	**289**	165	225	**36**	48	56	**(1)**	1	(1)
Prior service cost/(credit)	**(41)**	(43)	(43)	**—**	(1)	(1)	**—**	(8)	(13)
Settlement (gain)/loss	**—**	—	—	**—**	—	1	**—**	—	—
Special termination benefits	**—**	—	—	**—**	—	1	**—**	—	—
Net periodic defined benefit cost	**125**	31	138	**66**	75	90	**(46)**	(43)	(53)
Other defined benefit pension plans[a]	**15**	19	14	**8**	12	11	**NA**	NA	NA
Total defined benefit plans	**140**	50	152	**74**	87	101	**(46)**	(43)	(53)
Total defined contribution plans	**409**	370	332	**302**	285	251	**NA**	NA	NA
Total pension and OPEB cost included in compensation expense	**$ 549**	$ 420	$ 484	**$ 376**	$ 372	$ 352	**$ (46)**	$ (43)	$ (53)
Changes in plan assets and benefit obligations recognized in other comprehensive income									
Net (gain)/loss arising during the year	**$ 434**	$ 1,207	$ (187)	**$ 146**	$ 25	$ (21)	**$ (43)**	$ 58	$ (54)
Prior service credit arising during the year	**—**	—	—	**(6)**	—	(10)	**—**	—	—
Amortization of net loss	**(289)**	(165)	(225)	**(36)**	(48)	(56)	**1**	(1)	1
Amortization of prior service (cost)/credit	**41**	43	43	**—**	1	1	**—**	8	13
Settlement loss/(gain)	**—**	—	—	**—**	—	(1)	**—**	—	—
Foreign exchange impact and other	**—**	—	—	**22**	1	(23)	**(1)**	—	1
Total recognized in other comprehensive income	**$ 186**	$ 1,085	$ (369)	**$ 126**	$ (21)	$ (110)	**$ (43)**	$ 65	$ (39)
Total recognized in net periodic benefit cost and other comprehensive income	**$ 311**	$ 1,116	$ (231)	**$ 192**	$ 54	$ (20)	**$ (89)**	$ 22	$ (92)

(a) Includes various defined benefit pension plans which are individually immaterial.

The estimated pretax amounts that will be amortized from AOCI into net periodic benefit cost in 2013 are as follows.

	Defined benefit pension plans		OPEB plans	
(in millions)	U.S.	Non-U.S.	U.S.	Non-U.S.
Net loss/(gain)	$ 276	$ 50	$ 5	$ (1)
Prior service cost/(credit)	(41)	(2)	—	—
Total	$ 235	$ 48	$ 5	$ (1)

The following table presents the actual rate of return on plan assets for the U.S. and non-U.S. defined benefit pension and OPEB plans.

	U.S.			Non-U.S.		
Year ended December 31,	**2012**	2011	2010	**2012**	2011	2010
Actual rate of return:						
Defined benefit pension plans	**12.66%**	0.72%	12.23%	**7.21 - 11.72%**	(4.29)-13.12%	0.77-10.65%
OPEB plans	**10.10**	5.22	11.23	**NA**	NA	NA

Plan assumptions

JPMorgan Chase's expected long-term rate of return for U.S. defined benefit pension and OPEB plan assets is a blended average of the investment advisor's projected long-term (10 years or more) returns for the various asset classes, weighted by the asset allocation. Returns on asset classes are developed using a forward-looking approach and are not strictly based on historical returns. Equity returns are generally developed as the sum of inflation, expected real earnings growth and expected long-term dividend yield. Bond returns are generally developed as the sum of inflation, real bond yield and risk spread (as appropriate), adjusted for the expected effect on returns from changing yields. Other asset-class returns are derived from their relationship to the equity and bond markets. Consideration is also given to current market conditions and the short-term portfolio mix of each plan; as a result, in 2012 the Firm generally maintained the same expected return on assets as in the prior year.

For the U.K. defined benefit pension plans, which represent the most significant of the non-U.S. defined benefit pension plans, procedures similar to those in the U.S. are used to develop the expected long-term rate of return on plan assets, taking into consideration local market conditions and the specific allocation of plan assets. The expected long-term rate of return on U.K. plan assets is an average of projected long-term returns for each asset class. The return on equities has been selected by reference to the yield on long-term U.K. government bonds plus an equity risk premium above the risk-free rate. The expected return on "AA" rated long-term corporate bonds is based on an implied yield for similar bonds.

The discount rate used in determining the benefit obligation under the U.S. defined benefit pension and OPEB plans was selected by reference to the yields on portfolios of bonds with maturity dates and coupons that closely match each of the plan's projected cash flows; such portfolios are derived from a broad-based universe of high-quality corporate bonds as of the measurement date. In years in which these hypothetical bond portfolios generate excess cash, such excess is assumed to be reinvested at the one-year forward rates implied by the Citigroup Pension Discount Curve published as of the measurement date. The discount rate for the U.K. defined benefit pension plan represents a rate implied from the yield curve of the year-end iBoxx £ corporate "AA" 15-year-plus bond index.

The following tables present the weighted-average annualized actuarial assumptions for the projected and accumulated postretirement benefit obligations, and the components of net periodic benefit costs, for the Firm's significant U.S. and non-U.S. defined benefit pension and OPEB plans, as of and for the periods indicated.

Weighted-average assumptions used to determine benefit obligations

	U.S.		Non-U.S.	
December 31,	**2012**	2011	**2012**	2011
Discount rate:				
Defined benefit pension plans	**3.90%**	4.60%	**1.40 - 4.40%**	1.50-4.80%
OPEB plans	**3.90**	4.70	**—**	—
Rate of compensation increase	**4.00**	4.00	**2.75 - 4.10**	2.75-4.20
Health care cost trend rate:				
Assumed for next year	**7.00**	7.00	**—**	—
Ultimate	**5.00**	5.00	**—**	—
Year when rate will reach ultimate	**2017**	2017	**—**	—

Weighted-average assumptions used to determine net periodic benefit costs

	U.S.			Non-U.S.		
Year ended December 31,	**2012**	2011	2010	**2012**	2011	2010
Discount rate:						
Defined benefit pension plans	**4.60%**	5.50%	6.00%	**1.50 - 4.80%**	1.60-5.50%	2.00–5.70%
OPEB plans	**4.70**	5.50	6.00	**—**	—	—
Expected long-term rate of return on plan assets:						
Defined benefit pension plans	**7.50**	7.50	7.50	**2.50 - 4.60**	2.40-5.40	2.40–6.20
OPEB plans	**6.25**	6.25	7.00	**NA**	NA	NA
Rate of compensation increase	**4.00**	4.00	4.00	**2.75 - 4.20**	3.00-4.50	3.00–4.50
Health care cost trend rate:						
Assumed for next year	**7.00**	7.00	7.75	**—**	—	—
Ultimate	**5.00**	5.00	5.00	**—**	—	—
Year when rate will reach ultimate	**2017**	2017	2014	**—**	—	—

The following table presents the effect of a one-percentage-point change in the assumed health care cost trend rate on JPMorgan Chase's total service and interest cost and accumulated postretirement benefit obligation.

Year ended December 31, 2012 (in millions)	1-Percentage point increase	1-Percentage point decrease
Effect on total service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligation	28	(25)

At December 31, 2012, the Firm decreased the discount rates used to determine its benefit obligations for the U.S. defined benefit pension and OPEB plans in light of current market interest rates, which will result in an increase in expense of approximately $48 million for 2013. The 2013 expected long-term rate of return on U.S. defined benefit pension plan assets and U.S. OPEB plan assets are 7.50% and 6.25%, respectively, unchanged from 2012. For 2013, the initial health care benefit obligation trend assumption has been set at 7.00%, and the ultimate health care trend assumption and the year to reach the ultimate rate remains at 5.00% and 2017, respectively, unchanged from 2012. As of December 31, 2012, the interest crediting rate assumption and the assumed rate of compensation increase remained at 5.00% and 4.00%, respectively.

JPMorgan Chase's U.S. defined benefit pension and OPEB plan expense is sensitive to the expected long-term rate of return on plan assets and the discount rate. With all other assumptions held constant, a 25-basis point decline in the expected long-term rate of return on U.S. plan assets would result in an increase of approximately an aggregate $35 million in 2013 U.S. defined benefit pension and OPEB plan expense. A 25-basis point decline in the discount rate for the U.S. plans would result in an increase in 2013 U.S. defined benefit pension and OPEB plan expense of approximately an aggregate $19 million and an increase in the related benefit obligations of approximately an aggregate $272 million. A 25-basis point decrease in the interest crediting rate for the U.S. defined benefit pension plan would result in a decrease in 2013 U.S. defined benefit pension expense of approximately $25 million and a decrease in the related projected benefit obligations of approximately $116 million. A 25-basis point decline in the discount rates for the non-U.S. plans would result in an increase in the 2013 non-U.S. defined benefit pension plan expense of approximately $14 million.

Investment strategy and asset allocation

The Firm's U.S. defined benefit pension plan assets are held in trust and are invested in a well-diversified portfolio of equity and fixed income securities, real estate, cash and cash equivalents, and alternative investments (e.g., hedge funds, private equity, real estate and real assets). Non-U.S. defined benefit pension plan assets are held in various trusts and are also invested in well-diversified portfolios of equity, fixed income and other securities. Assets of the Firm's COLI policies, which are used to partially fund the U.S. OPEB plan, are held in separate accounts with an insurance company and are invested in equity and fixed income index funds.

The investment policy for the Firm's U.S. defined benefit pension plan assets is to optimize the risk-return relationship as appropriate to the needs and goals using a global portfolio of various asset classes diversified by market segment, economic sector, and issuer. Assets are managed by a combination of internal and external investment managers. Periodically the Firm performs a comprehensive analysis on the U.S. defined benefit pension plan asset allocations, incorporating projected asset and liability data, which focuses on the short- and long-term impact of the asset allocation on cumulative pension expense, economic cost, present value of contributions and funded status. Currently, approved asset allocation ranges are: U.S. equity 15% to 35%, international equity 15% to 25%, debt securities 10% to 30%, hedge funds 10% to 30%, and real estate, real assets and private equity 5% to 20%. Asset allocations are not managed to a specific target but seek to shift asset class allocations within these stated ranges. Investment strategies incorporate the economic outlook and the anticipated implications of the macroeconomic environment on the various asset classes while maintaining an appropriate level of liquidity for the plan. The Firm regularly reviews the asset allocations and

asset managers, as well as other factors that impact the portfolio, which is rebalanced when deemed necessary.

For the U.K. defined benefit pension plans, which represent the most significant of the non-U.S. defined benefit pension plans, the assets are invested to maximize returns subject to an appropriate level of risk relative to the plans' liabilities. In order to reduce the volatility in returns relative to the plans' liability profiles, the U.K. defined benefit pension plans' largest asset allocations are to debt securities of appropriate durations. Other assets, mainly equity securities, are then invested for capital appreciation, to provide long-term investment growth. Similar to the U.S. defined benefit pension plan, asset allocations and asset managers for the U.K. plans are reviewed regularly and the portfolio is rebalanced when deemed necessary.

Investments held by the Plans include financial instruments which are exposed to various risks such as interest rate, market and credit risks. Exposure to a concentration of credit risk is mitigated by the broad diversification of both U.S. and non-U.S. investment instruments. Additionally, the investments in each of the common/collective trust funds and registered investment companies are further diversified into various financial instruments. As of December 31, 2012, assets held by the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans do not include JPMorgan Chase common stock, except in connection with investments in third-party stock-index funds. The plans hold investments in funds that are sponsored or managed by affiliates of JPMorgan Chase in the amount of $1.8 billion and $1.6 billion for U.S. plans and $220 million and $194 million for non-U.S. plans, as of December 31, 2012 and 2011, respectively.

The following table presents the weighted-average asset allocation of the fair values of total plan assets at December 31 for the years indicated, as well as the respective approved range/target allocation by asset category, for the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans.

	Defined benefit pension plans								
	U.S.			Non-U.S.			OPEB plans[c]		
	Target	% of plan assets		Target	% of plan assets		Target	% of plan assets	
December 31,	Allocation	**2012**	2011	Allocation	**2012**	2011	Allocation	**2012**	2011
Asset category									
Debt securities[a]	10-30%	**20%**	20%	70%	**72%**	74%	50%	**50%**	50%
Equity securities	25-60	**41**	39	29	**27**	25	50	**50**	50
Real estate	5-20	**5**	5	–	**–**	–	–	**–**	–
Alternatives[b]	15-50	**34**	36	1	**1**	1	–	**–**	–
Total	100%	**100%**	100%	100%	**100%**	100%	100%	**100%**	100%

(a) Debt securities primarily include corporate debt, U.S. federal, state, local and non-U.S. government, and mortgage-backed securities.
(b) Alternatives primarily include limited partnerships.
(c) Represents the U.S. OPEB plan only, as the U.K. OPEB plan is unfunded.

Fair value measurement of the plans' assets and liabilities

For information on fair value measurements, including descriptions of level 1, 2, and 3 of the fair value hierarchy and the valuation methods employed by the Firm, see Note 3 on pages 196–214 of this Annual Report.

Pension and OPEB plan assets and liabilities measured at fair value

	U.S. defined benefit pension plans				Non-U.S. defined benefit pension plans			
December 31, 2012 (in millions)	Level 1	Level 2	Level 3	Total fair value	Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 162	$ –	$ –	$ 162	$ 142	$ –	$ –	$ 142
Equity securities:								
Capital equipment	702	6	–	708	115	15	–	130
Consumer goods	744	4	–	748	136	32	–	168
Banks and finance companies	425	54	–	479	94	23	–	117
Business services	424	–	–	424	125	8	–	133
Energy	192	–	–	192	54	12	–	66
Materials	211	–	–	211	30	6	–	36
Real Estate	18	–	–	18	10	–	–	10
Other	1,107	42	4	1,153	19	71	–	90
Total equity securities	3,823	106	4	3,933	583	167	–	750
Common/collective trust funds[a]	412	1,660	199	2,271	62	192	–	254
Limited partnerships:[b]								
Hedge funds	–	878	1,166	2,044	–	–	–	–
Private equity	–	–	1,743	1,743	–	–	–	–
Real estate	–	–	467	467	–	–	–	–
Real assets[c]	–	–	311	311	–	–	–	–
Total limited partnerships	–	878	3,687	4,565	–	–	–	–
Corporate debt securities[d]	–	1,114	1	1,115	–	765	–	765
U.S. federal, state, local and non-U.S. government debt securities	–	537	–	537	–	1,237	–	1,237
Mortgage-backed securities	107	30	–	137	100	–	–	100
Derivative receivables	3	5	–	8	109	–	–	109
Other[e]	7	34	420	461	21	67	–	88
Total assets measured at fair value[f][g]	$ 4,514	$ 4,364	$ 4,311	$ 13,189	$ 1,017	$ 2,428	$ –	$ 3,445
Derivative payables	$ –	$ (4)	$ –	$ (4)	$ (116)	$ –	$ –	$ (116)
Total liabilities measured at fair value[h]	$ –	$ (4)	$ –	$ (4)	$ (116)	$ –	$ –	$ (116)

December 31, 2011 (in millions)	U.S. defined benefit pension plans Level 1	Level 2	Level 3	Total fair value	Non-U.S. defined benefit pension plans Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 117	$ –	$ –	$ 117	$ 72	$ –	$ –	$ 72
Equity securities:								
Capital equipment	607	7	–	614	69	12	–	81
Consumer goods	657	–	–	657	64	30	–	94
Banks and finance companies	301	2	–	303	83	13	–	96
Business services	332	–	–	332	48	10	–	58
Energy	173	–	–	173	52	10	–	62
Materials	161	–	1	162	35	6	–	41
Real estate	11	–	–	11	1	–	–	1
Other	766	274	–	1,040	160	5	–	165
Total equity securities	3,008	283	1	3,292	512	86	–	598
Common/collective trust funds[a]	401	1,125	202	1,728	138	170	–	308
Limited partnerships:[b]								
Hedge funds	–	933	1,039	1,972	–	–	–	–
Private equity	–	–	1,367	1,367	–	–	–	–
Real estate	–	–	306	306	–	–	–	–
Real assets[c]	–	–	264	264	–	–	–	–
Total limited partnerships	–	933	2,976	3,909	–	–	–	–
Corporate debt securities[d]	–	544	2	546	–	958	–	958
U.S. federal, state, local and non-U.S. government debt securities	–	328	–	328	–	904	–	904
Mortgage-backed securities	122	36	–	158	17	–	–	17
Derivative receivables	1	2	–	3	–	7	–	7
Other[e]	102	60	427	589	74	65	–	139
Total assets measured at fair value[f][g]	$ 3,751	$ 3,311	$ 3,608	$ 10,670	$ 813	$ 2,190	$ –	$ 3,003
Derivative payables	$ –	$ (3)	$ –	$ (3)	$ –	$ (1)	$ –	$ (1)
Total liabilities measured at fair value[h]	$ –	$ (3)	$ –	$ (3)	$ –	$ (1)	$ –	$ (1)

(a) At December 31, 2012 and 2011, common/collective trust funds primarily included a mix of short-term investment funds, domestic and international equity investments (including index) and real estate funds.
(b) Unfunded commitments to purchase limited partnership investments for the plans were $1.4 billion and $1.2 billion for 2012 and 2011, respectively.
(c) Real assets include investments in productive assets such as agriculture, energy rights, mining and timber properties and exclude raw land to be developed for real estate purposes.
(d) Corporate debt securities include debt securities of U.S. and non-U.S. corporations.
(e) Other consists of exchange-traded funds and participating and non-participating annuity contracts. Exchange-traded funds are primarily classified within level 1 of the fair value hierarchy given they are valued using market observable prices. Participating and non-participating annuity contracts are classified within level 3 of the fair value hierarchy due to lack of market mechanisms for transferring each policy and surrender restrictions.
(f) At December 31, 2012 and 2011, the fair value of investments valued at NAV were $4.4 billion and $3.9 billion, respectively, which were classified within the valuation hierarchy as follows: $0.4 billion and $0.4 billion in level 1, $2.5 billion and $2.1 billion in level 2 and $1.5 billion and $1.4 billion in level 3.
(g) At December 31, 2012 and 2011, excluded U.S. defined benefit pension plan receivables for investments sold and dividends and interest receivables of $137 million and $50 million, respectively; and excluded non-U.S. defined benefit pension plan receivables for investments sold and dividends and interest receivables of $47 million and $56 million, respectively.
(h) At December 31, 2012 and 2011, excluded $306 million and $241 million, respectively, of U.S. defined benefit pension plan payables for investments purchased; and $4 million and $4 million, respectively, of other liabilities; and excluded non-U.S. defined benefit pension plan payables for investments purchased of $46 million and $69 million, respectively.

The Firm's OPEB plan was partially funded with COLI policies of $1.6 billion and $1.4 billion, at December 31, 2012 and 2011, respectively, which were classified in level 3 of the valuation hierarchy.

Changes in level 3 fair value measurements using significant unobservable inputs

Year ended December 31, 2012 (in millions)	Fair value, January 1, 2012	Actual return on plan assets		Purchases, sales and settlements, net	Transfers in and/or out of level 3	Fair value, December 31, 2012
		Realized gains/(losses)	Unrealized gains/(losses)			
U.S. defined benefit pension plans						
Equities	**$ 1**	**$ –**	**$ (1)**	**$ –**	**$ 4**	**$ 4**
Common/collective trust funds	**202**	**2**	**22**	**(27)**	**–**	**199**
Limited partnerships:						
Hedge funds	**1,039**	**1**	**71**	**55**	**–**	**1,166**
Private equity	**1,367**	**59**	**54**	**263**	**–**	**1,743**
Real estate	**306**	**16**	**1**	**144**	**–**	**467**
Real assets	**264**	**–**	**10**	**37**	**–**	**311**
Total limited partnerships	**2,976**	**76**	**136**	**499**	**–**	**3,687**
Corporate debt securities	**2**	**–**	**–**	**(1)**	**–**	**1**
Other	**427**	**–**	**(7)**	**–**	**–**	**420**
Total U.S. plans	**$ 3,608**	**$ 78**	**$ 150**	**$ 471**	**$ 4**	**$ 4,311**
Non-U.S. defined benefit pension plans						
Other	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**
Total non-U.S. plans	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**
OPEB plans						
COLI	**$ 1,427**	**$ –**	**$ 127**	**$ –**	**$ –**	**$ 1,554**
Total OPEB plans	**$ 1,427**	**$ –**	**$ 127**	**$ –**	**$ –**	**$ 1,554**

Year ended December 31, 2011 (in millions)	Fair value, January 1, 2011	Actual return on plan assets		Purchases, sales and settlements, net	Transfers in and/or out of level 3	Fair value, December 31, 2011
		Realized gains/(losses)	Unrealized gains/(losses)			
U.S. defined benefit pension plans						
Equities	$ –	$ –	$ –	$ –	$ 1	$ 1
Common/collective trust funds	194	35	1	(28)	–	202
Limited partnerships:						
Hedge funds	1,160	(16)	27	(76)	(56)	1,039
Private equity	1,232	56	2	77	–	1,367
Real estate	304	8	40	14	(60)	306
Real assets	–	5	(7)	150	116	264
Total limited partnerships	2,696	53	62	165	–	2,976
Corporate debt securities	1	–	–	1	–	2
Other	387	–	41	(1)	–	427
Total U.S. plans	$ 3,278	$ 88	$ 104	$ 137	$ 1	$ 3,608
Non-U.S. defined benefit pension plans						
Other	$ –	$ –	$ –	$ –	$ –	$ –
Total non-U.S. plans	$ –	$ –	$ –	$ –	$ –	$ –
OPEB plans						
COLI	$ 1,381	$ –	$ 70	$ (24)	$ –	$ 1,427
Total OPEB plans	$ 1,381	$ –	$ 70	$ (24)	$ –	$ 1,427

Year ended December 31, 2010 (in millions)	Fair value, January 1, 2010	Actual return on plan assets		Purchases, sales and settlements, net	Transfers in and/or out of level 3	Fair value, December 31, 2010
		Realized gains/(losses)	Unrealized gains/(losses)			
U.S. defined benefit pension plans						
Equities	$ –	$ –	$ –	$ –	$ –	$ –
Common/collective trust funds[a]	284	–	(90)	–	–	194
Limited partnerships:						
Hedge funds	680	(1)	14	388	79	1,160
Private equity	874	3	108	235	12	1,232
Real estate	196	3	16	89	–	304
Real assets	–	–	–	–	–	–
Total limited partnerships	1,750	5	138	712	91	2,696
Corporate debt securities	–	–	–	–	1	1
Other	334	–	53	–	–	387
Total U.S. plans	$ 2,368	$ 5	$ 101	$ 712	$ 92	$ 3,278
Non-U.S. defined benefit pension plans						
Other	$ 13	$ –	$ (1)	$ (12)	$ –	$ –
Total non-U.S. plans	$ 13	$ –	$ (1)	$ (12)	$ –	$ –
OPEB plans						
COLI	$ 1,269	$ –	$ 137	$ (25)	$ –	$ 1,381
Total OPEB plans	$ 1,269	$ –	$ 137	$ (25)	$ –	$ 1,381

(a) The prior period has been revised to consider redemption notification periods in determining the classification of investments within the fair value hierarchy.

Estimated future benefit payments

The following table presents benefit payments expected to be paid, which include the effect of expected future service, for the years indicated. The OPEB medical and life insurance payments are net of expected retiree contributions.

Year ended December 31, (in millions)	U.S. defined benefit pension plans	Non-U.S. defined benefit pension plans	OPEB before Medicare Part D subsidy	Medicare Part D subsidy
2013	$ 1,159	$ 102	$ 92	$ 11
2014	1,162	101	91	12
2015	705	108	89	13
2016	709	110	87	14
2017	711	112	84	14
Years 2018–2022	3,555	626	376	65

Note 10 – Employee stock-based incentives

Employee stock-based awards

In 2012, 2011 and 2010, JPMorgan Chase granted long-term stock-based awards to certain key employees under the 2005 Long-Term Incentive Plan, which was last amended in May 2011 ("LTIP"). Under the terms of the LTIP, as of December 31, 2012, 283 million shares of common stock are available for issuance through May 2015. The LTIP is the only active plan under which the Firm is currently granting stock-based incentive awards. In the following discussion, the LTIP, plus prior Firm plans and plans assumed as the result of acquisitions, are referred to collectively as the "LTI Plans," and such plans constitute the Firm's stock-based incentive plans.

Restricted stock units ("RSUs") are awarded at no cost to the recipient upon their grant. RSUs are generally granted annually and generally vest at a rate of 50% after two years and 50% after three years and convert into shares of common stock at the vesting date. In addition, RSUs typically include full-career eligibility provisions, which allow employees to continue to vest upon voluntary termination, subject to post-employment and other restrictions based on age or service-related requirements. All of these awards are subject to forfeiture until vested and contain clawback provisions that may result in cancellation prior to vesting under certain specified circumstances. RSUs entitle the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSUs are outstanding and, as such, are considered participating securities as discussed in Note 24 on page 301 of this Annual Report.

Under the LTI Plans, stock options and stock appreciation rights ("SARs") have generally been granted with an exercise price equal to the fair value of JPMorgan Chase's common stock on the grant date. The Firm typically awards SARs to certain key employees once per year; the Firm also periodically grants employee stock options and SARs to individual employees. The 2012, 2011 and 2010 grants of SARs to key employees vest ratably over five years (i.e., 20% per year) and contain clawback provisions similar to RSUs. The 2012, 2011 and 2010 grants of SARs contain full-career eligibility provisions. SARs generally expire ten years after the grant date.

The Firm separately recognizes compensation expense for each tranche of each award as if it were a separate award with its own vesting date. Generally, for each tranche granted, compensation expense is recognized on a straight-line basis from the grant date until the vesting date of the respective tranche, provided that the employees will not become full-career eligible during the vesting period. For awards with full-career eligibility provisions and awards granted with no future substantive service requirement, the Firm accrues the estimated value of awards expected to be awarded to employees as of the grant date without giving consideration to the impact of post-employment restrictions. For each tranche granted to employees who will become full-career eligible during the vesting period, compensation expense is recognized on a straight-line basis from the grant date until the earlier of the employee's full-career eligibility date or the vesting date of the respective tranche.

The Firm's policy for issuing shares upon settlement of employee stock-based incentive awards is to issue either new shares of common stock or treasury shares. During 2012, 2011 and 2010, the Firm settled all of its employee stock-based awards by issuing treasury shares.

In January 2008, the Firm awarded to its Chairman and Chief Executive Officer up to 2 million SARs. The terms of this award are distinct from, and more restrictive than, other equity grants regularly awarded by the Firm. Effective January 2013, the Compensation Committee and Board of Directors determined that, while all the requirements for vesting of these awards have been met, vesting should be deferred for a period of up to 18 months (i.e., up to July 22, 2014), to enable the Firm to make progress against the Firm's strategic priorities and performance goals, including remediation relating to the CIO matter. The SARs, which have a 10-year term, will become exercisable no earlier than July 22, 2014, and have an exercise price of $39.83 (the price of JPMorgan Chase common stock on the date of grant). Vesting will be subject to a Board determination taking into consideration the extent of such progress and such other factors as it deems relevant. The expense related to this award is dependent on changes in fair value of the SARs through the date at which the award is finalized, and the cumulative expense is recognized ratably over the service period, which was initially assumed to be five years but, effective in the first quarter of 2013, has been extended to six and one-half years. The Firm recognized $5 million, $(4) million and $4 million in compensation expense in 2012, 2011 and 2010, respectively, for this award.

RSUs, employee stock options and SARs activity

Compensation expense for RSUs is measured based on the number of shares granted multiplied by the stock price at the grant date, and for employee stock options and SARs, is measured at the grant date using the Black-Scholes valuation model. Compensation expense for these awards is recognized in net income as described previously. The following table summarizes JPMorgan Chase's RSUs, employee stock options and SARs activity for 2012.

	RSUs		Options/SARs			
Year ended December 31, 2012 (in thousands, except weighted-average data, and where otherwise stated)	Number of shares	Weighted-average grant date fair value	Number of awards	Weighted-average exercise price	Weighted-average remaining contractual life (in years)	Aggregate intrinsic value
Outstanding, January 1	166,631	$ 37.65	155,761	$ 40.58		
Granted	59,646	35.73	14,738	35.70		
Exercised or vested	(79,062)	30.91	(18,675)	26.45		
Forfeited	(5,209)	40.22	(3,888)	38.07		
Canceled	NA	NA	(32,030)	40.10		
Outstanding, December 31	142,006	$ 40.49	115,906	$ 42.44	5.5	$ 721,059
Exercisable, December 31	NA	NA	70,576	45.87	4.2	420,713

The total fair value of RSUs that vested during the years ended December 31, 2012, 2011 and 2010, was $2.8 billion, $5.4 billion and $2.3 billion, respectively. The weighted-average grant date per share fair value of stock options and SARs granted during the years ended December 31, 2012, 2011 and 2010, was $8.89, $13.04 and $12.27, respectively. The total intrinsic value of options exercised during the years ended December 31, 2012, 2011 and 2010, was $283 million, $191 million and $154 million, respectively.

Compensation expense

The Firm recognized the following noncash compensation expense related to its various employee stock-based incentive plans in its Consolidated Statements of Income.

Year ended December 31, (in millions)	**2012**	2011	2010
Cost of prior grants of RSUs and SARs that are amortized over their applicable vesting periods	**$ 1,810**	$ 1,986	$ 2,479
Accrual of estimated costs of RSUs and SARs to be granted in future periods including those to full-career eligible employees	**735**	689	772
Total noncash compensation expense related to employee stock-based incentive plans	**$ 2,545**	$ 2,675	$ 3,251

At December 31, 2012, approximately $909 million (pretax) of compensation cost related to unvested awards had not yet been charged to net income. That cost is expected to be amortized into compensation expense over a weighted-average period of 0.9 years. The Firm does not capitalize any compensation cost related to share-based compensation awards to employees.

Cash flows and tax benefits

Income tax benefits related to stock-based incentive arrangements recognized in the Firm's Consolidated Statements of Income for the years ended December 31, 2012, 2011 and 2010, were $1.0 billion, $1.0 billion and $1.3 billion, respectively.

The following table sets forth the cash received from the exercise of stock options under all stock-based incentive arrangements, and the actual income tax benefit realized related to tax deductions from the exercise of the stock options.

Year ended December 31, (in millions)	**2012**	2011	2010
Cash received for options exercised	**$ 333**	$ 354	$ 205
Tax benefit realized[(a)]	**53**	31	14

(a) The tax benefit realized from dividends or dividend equivalents paid on equity-classified share-based payment awards that are charged to retained earnings are recorded as an increase to additional paid-in capital and included in the pool of excess tax benefits available to absorb tax deficiencies on share-based payment awards.

Valuation assumptions

The following table presents the assumptions used to value employee stock options and SARs granted during the years ended December 31, 2012, 2011 and 2010, under the Black-Scholes valuation model.

Year ended December 31,	2012	2011	2010
Weighted-average annualized valuation assumptions			
Risk-free interest rate	**1.19%**	2.58%	3.89%
Expected dividend yield[(a)]	**3.15**	2.20	3.13
Expected common stock price volatility	**35**	34	37
Expected life (in years)	**6.6**	6.5	6.4

(a) In 2012 and 2011, the expected dividend yield was determined using forward-looking assumptions. In 2010 the expected dividend yield was determined using historical dividend yields.

The expected volatility assumption is derived from the implied volatility of JPMorgan Chase's stock options. The expected life assumption is an estimate of the length of time that an employee might hold an option or SAR before it is exercised or canceled, and the assumption is based on the Firm's historical experience.

Note 11 – Noninterest expense

The following table presents the components of noninterest expense.

Year ended December 31, (in millions)	2012	2011	2010
Compensation expense[(a)]	**$ 30,585**	$ 29,037	$ 28,124
Noncompensation expense:			
Occupancy expense	**3,925**	3,895	3,681
Technology, communications and equipment expense	**5,224**	4,947	4,684
Professional and outside services	**7,429**	7,482	6,767
Marketing	**2,577**	3,143	2,446
Other expense[(b)(c)]	**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) Expense for 2010 includes a payroll tax expense related to the United Kingdom ("U.K.") Bank Payroll Tax on certain compensation awarded from December 9, 2009, to April 5, 2010, to relevant banking employees.

(b) 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.

(c) 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.

Note 12 – Securities

Securities are primarily classified as AFS or trading. Securities classified as trading assets are discussed in Note 3 on pages 196–214 of this Annual Report. Predominantly all of the AFS securities portfolio is held by CIO in connection with its asset-liability management objectives. At December 31, 2012, the average credit rating of the debt securities comprising the AFS portfolio was AA+ (based upon external ratings where available, and where not available, based primarily upon internal ratings which correspond to ratings as defined by S&P and Moody's). AFS securities are carried at fair value on the Consolidated Balance Sheets. Unrealized gains and losses, after any applicable hedge accounting adjustments, are reported as net increases or decreases to accumulated other comprehensive income/(loss). The specific identification method is used to determine realized gains and losses on AFS securities, which are included in securities gains/(losses) on the Consolidated Statements of Income.

Other-than-temporary impairment

AFS debt and equity securities in unrealized loss positions are analyzed as part of the Firm's ongoing assessment of other-than-temporary impairment ("OTTI"). For most types of debt securities, the Firm considers a decline in fair value to be other-than-temporary when the Firm does not expect to recover the entire amortized cost basis of the security. For beneficial interests in securitizations that are rated below "AA" at their acquisition, or that can be contractually prepaid or otherwise settled in such a way that the Firm would not recover substantially all of its recorded investment, the Firm considers an OTTI to have occurred when there is an adverse change in expected cash flows. For AFS equity securities, the Firm considers a decline in fair value to be other-than-temporary if it is probable that the Firm will not recover its amortized cost basis.

Potential OTTI is considered using a variety of factors, including the length of time and extent to which the market value has been less than cost; adverse conditions specifically related to the industry, geographic area or financial condition of the issuer or underlying collateral of a security; payment structure of the security; changes to the rating of the security by a rating agency; the volatility of the fair value changes; and the Firm's intent and ability to hold the security until recovery.

For debt securities, the Firm recognizes OTTI losses in earnings if the Firm has the intent to sell the debt security, or if it is more likely than not that the Firm will be required to sell the debt security before recovery of its amortized cost basis. In these circumstances the impairment loss is equal to the full difference between the amortized cost basis and the fair value of the securities. When the Firm has the intent and ability to hold AFS debt securities in an unrealized loss position, it evaluates the expected cash flows to be received and determines if a credit loss exists. In the event of a credit loss, only the amount of impairment associated with the credit loss is recognized in income. Amounts relating to factors other than credit losses are recorded in OCI.

The Firm's cash flow evaluations take into account the factors noted above and expectations of relevant market and economic data as of the end of the reporting period. For securities issued in a securitization, the Firm estimates cash flows considering underlying loan-level data and structural features of the securitization, such as subordination, excess spread, overcollateralization or other forms of credit enhancement, and compares the losses projected for the underlying collateral ("pool losses") against the level of credit enhancement in the securitization structure to determine whether these features are sufficient to absorb the pool losses, or whether a credit loss exists. The Firm also performs other analyses to support its cash flow projections, such as first-loss analyses or stress scenarios.

For equity securities, OTTI losses are recognized in earnings if the Firm intends to sell the security. In other cases the Firm considers the relevant factors noted above, as well as the Firm's intent and ability to retain its investment for a period of time sufficient to allow for any anticipated recovery in market value, and whether evidence exists to support a realizable value equal to or greater than the carrying value. Any impairment loss on an equity security is equal to the full difference between the amortized cost basis and the fair value of the security.

Realized gains and losses

The following table presents realized gains and losses and credit losses that were recognized in income from AFS securities.

Year ended December 31, (in millions)	**2012**	2011	2010
Realized gains	**$ 2,610**	$ 1,811	$ 3,382
Realized losses	**(457)**	(142)	(317)
Net realized gains[(a)]	**2,153**	1,669	3,065
OTTI losses			
Credit-related[(b)]	**(28)**	(76)	(100)
Securities the Firm intends to sell[(c)]	**(15)** [(d)]	–	–
Total OTTI losses recognized in income	**(43)**	(76)	(100)
Net securities gains	**$ 2,110**	$ 1,593	$ 2,965

(a) Proceeds from securities sold were within approximately 4% of amortized cost in 2012 and 2011, and within approximately 3% of amortized cost in 2010.

(b) Includes other-than-temporary impairment losses recognized in income on certain prime mortgage-backed securities and obligations of U.S. states and municipalities for the year ended December 31, 2012; certain prime mortgage-backed securities for the year ended December 31, 2011; and certain prime mortgage-backed securities and obligations of U.S. states and municipalities for the year ended December 31, 2010.

(c) Represents the excess of the amortized cost over the fair value of certain non-U.S. corporate debt, and non-U.S. government debt securities the Firm intends to sell.

(d) Excludes realized losses of $24 million on sales of non-U.S. corporate debt, non-U.S. government debt and certain asset-backed securities that had been previously reported as an OTTI loss due to the intention to sell the securities during the year ended December 31, 2012.

The amortized costs and estimated fair values of AFS and held-to-maturity ("HTM") securities were as follows for the dates indicated.

December 31, (in millions)	2012 Amortized cost	2012 Gross unrealized gains	2012 Gross unrealized losses	2012 Fair value	2011 Amortized cost	2011 Gross unrealized gains	2011 Gross unrealized losses	2011 Fair value
Available-for-sale debt securities								
Mortgage-backed securities:								
U.S. government agencies[a]	$ 93,693	$ 4,708	$ 13	$ 98,388	$ 101,968	$ 5,141	$ 2	$ 107,107
Residential:								
Prime and Alt-A	1,853	83	3 [c]	1,933	2,170	54	218 [c]	2,006
Subprime	825	28	–	853	1	–	–	1
Non-U.S.	70,358	1,524	29	71,853	66,067	170	687	65,550
Commercial	12,268	948	13	13,203	10,632	650	53	11,229
Total mortgage-backed securities	178,997	7,291	58	186,230	180,838	6,015	960	185,893
U.S. Treasury and government agencies[a]	12,022	116	8	12,130	8,184	169	2	8,351
Obligations of U.S. states and municipalities	19,876	1,845	10	21,711	15,404	1,184	48	16,540
Certificates of deposit	2,781	4	2	2,783	3,017	–	–	3,017
Non-U.S. government debt securities	65,168	901	25	66,044	44,944	402	81	45,265
Corporate debt securities[b]	37,999	694	84	38,609	63,607	216	1,647	62,176
Asset-backed securities:								
Collateralized loan obligations	27,483	465	52	27,896	24,474	553	166	24,861
Other	12,816	166	11	12,971	15,779	251	57	15,973
Total available-for-sale debt securities	357,142	11,482	250 [c]	368,374	356,247	8,790	2,961 [c]	362,076
Available-for-sale equity securities	2,750	21	–	2,771	2,693	14	2	2,705
Total available-for-sale securities	$ 359,892	$ 11,503	$ 250 [c]	$ 371,145	$ 358,940	$ 8,804	$ 2,963 [c]	$ 364,781
Total held-to-maturity securities	$ 7	$ 1	$ –	$ 8	$ 12	$ 1	$ –	$ 13

(a) Includes total U.S. government-sponsored enterprise obligations with fair values of $84.0 billion and $89.3 billion at December 31, 2012 and 2011, respectively, which were predominantly mortgage-related.
(b) Consists primarily of bank debt including sovereign government-guaranteed bank debt.
(c) Includes a total of $91 million (pretax) of unrealized losses related to prime mortgage-backed securities for which credit losses have been recognized in income at December 31, 2011. These unrealized losses are not credit-related and remain reported in AOCI. There were no such losses at December 31, 2012.

Securities impairment

The following tables present the fair value and gross unrealized losses for AFS securities by aging category at December 31, 2012 and 2011.

	Securities with gross unrealized losses					
	Less than 12 months		12 months or more			
December 31, 2012 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	$ 2,440	$ 13	$ –	$ –	$ 2,440	$ 13
Residential:						
Prime and Alt-A	218	2	76	1	294	3
Subprime	–	–	–	–	–	–
Non-U.S.	2,442	6	734	23	3,176	29
Commercial	1,159	8	312	5	1,471	13
Total mortgage-backed securities	6,259	29	1,122	29	7,381	58
U.S. Treasury and government agencies	4,198	8	–	–	4,198	8
Obligations of U.S. states and municipalities	907	10	–	–	907	10
Certificates of deposit	741	2	–	–	741	2
Non-U.S. government debt securities	14,527	21	1,927	4	16,454	25
Corporate debt securities	2,651	10	5,641	74	8,292	84
Asset-backed securities:						
Collateralized loan obligations	6,328	17	2,063	35	8,391	52
Other	2,076	7	275	4	2,351	11
Total available-for-sale debt securities	37,687	104	11,028	146	48,715	250
Available-for-sale equity securities	–	–	–	–	–	–
Total securities with gross unrealized losses	$ 37,687	$ 104	$ 11,028	$ 146	$ 48,715	$ 250

	Securities with gross unrealized losses					
	Less than 12 months		12 months or more			
December 31, 2011 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	$ 2,724	$ 2	$ –	$ –	$ 2,724	$ 2
Residential:						
Prime and Alt-A	649	12	970	206	1,619	218
Subprime	–	–	–	–	–	–
Non-U.S.	30,500	266	25,176	421	55,676	687
Commercial	837	53	–	–	837	53
Total mortgage-backed securities	34,710	333	26,146	627	60,856	960
U.S. Treasury and government agencies	3,369	2	–	–	3,369	2
Obligations of U.S. states and municipalities	147	42	40	6	187	48
Certificates of deposit	–	–	–	–	–	–
Non-U.S. government debt securities	11,901	66	1,286	15	13,187	81
Corporate debt securities	22,230	901	9,585	746	31,815	1,647
Asset-backed securities:						
Collateralized loan obligations	5,610	49	3,913	117	9,523	166
Other	4,735	40	1,185	17	5,920	57
Total available-for-sale debt securities	82,702	1,433	42,155	1,528	124,857	2,961
Available-for-sale equity securities	338	2	–	–	338	2
Total securities with gross unrealized losses	$ 83,040	$ 1,435	$ 42,155	$ 1,528	$ 125,195	$ 2,963

Other-than-temporary impairment

The following table presents OTTI losses that are included in the securities gains and losses table above.

Year ended December 31, (in millions)	2012	2011	2010
Debt securities the Firm does not intend to sell that have credit losses			
Total OTTI[a]	**$ (113)**	$ (27)	$ (94)
Losses recorded in/ (reclassified from) AOCI	**85**	(49)	(6)
Total credit losses recognized in income[b]	**(28)** [d]	(76) [f]	(100) [g]
Securities the Firm intends to sell[c]	**(15)** [e]	–	–
Total OTTI losses recognized in income	**$ (43)**	$ (76)	$ (100)

(a) For initial OTTI, represents the excess of the amortized cost over the fair value of AFS debt securities. For subsequent impairments of the same security, represents additional declines in fair value subsequent to previously recorded OTTI, if applicable.
(b) Subsequent credit losses may be recorded on securities without a corresponding further decline in fair value if there has been a decline in expected cash flows.
(c) Represents the excess of the amortized cost over the fair value of certain non-U.S. corporate debt, and non-U.S. government debt securities the Firm intends to sell.
(d) Represents the credit loss component on certain prime mortgage-backed securities and obligations of U.S. states and municipalities for the year ended December 31, 2012, that the Firm does not intend to sell. At December 31, 2012, there were no unrealized losses remaining in AOCI on securities for which credit losses were recognized in income during 2012.
(e) Excludes realized losses of $24 million on sales of non-U.S. corporate debt, non-U.S. government debt and certain asset-backed securities that had been previously reported as an OTTI loss due to the intention to sell the securities during the year ended December 31, 2012.
(f) Represents the credit loss component on certain prime mortgage-backed securities for the year ended December 31, 2011, that the Firm did not intend to sell.
(g) Represents the credit loss component on certain prime mortgage-backed securities and obligations of U.S. states and municipalities for the year ended December 31, 2010 that the Firm did not intend to sell.

Changes in the credit loss component of credit-impaired debt securities

The following table presents a rollforward for the years ended December 31, 2012, 2011 and 2010, of the credit loss component of OTTI losses that have been recognized in income, related to debt securities that the Firm does not intend to sell.

Year ended December 31, (in millions)	2012	2011	2010
Balance, beginning of period	**$ 708**	$ 632	$ 578
Additions:			
Newly credit-impaired securities	**21**	4	–
Increase in losses on previously credit-impaired securities	**–**	–	94
Losses reclassified from other comprehensive income on previously credit-impaired securities	**7**	72	6
Reductions:			
Sales of credit-impaired securities	**(214)**	–	(31)
Impact of new accounting guidance related to VIEs	**–**	–	(15)
Balance, end of period	**$ 522**	$ 708	$ 632

Gross unrealized losses

Gross unrealized losses have generally decreased since December 31, 2011, including those that have been in an unrealized loss position for 12 months or more. Except for certain securities that the Firm intends to sell for which the unrealized losses have been recognized in income, as of December 31, 2012, the Firm does not intend to sell the securities with a loss position in AOCI, and it is not likely that the Firm will be required to sell these securities before recovery of their amortized cost basis. Except for the securities reported in the table above for which credit losses have been recognized in income, the Firm believes that the securities with an unrealized loss in AOCI are not other-than-temporarily impaired as of December 31, 2012.

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at December 31, 2012, of JPMorgan Chase's AFS and HTM securities by contractual maturity.

By remaining maturity December 31, 2012 (in millions)	Due in one year or less	Due after one year through five years	Due after five years through 10 years	Due after 10 years[c]	Total
Available-for-sale debt securities					
Mortgage-backed securities[a]					
Amortized cost	$ 102	$ 11,915	$ 10,568	$ 156,412	$ 178,997
Fair value	103	12,268	11,008	162,851	186,230
Average yield[b]	1.91%	1.94%	2.81%	3.15%	3.05%
U.S. Treasury and government agencies[a]					
Amortized cost	$ 7,779	$ 1,502	$ 1,651	$ 1,090	$ 12,022
Fair value	7,805	1,558	1,653	1,114	12,130
Average yield[b]	0.51%	2.29%	1.17%	0.78%	0.85%
Obligations of U.S. states and municipalities					
Amortized cost	$ 23	$ 436	$ 972	$ 18,445	$ 19,876
Fair value	23	471	1,033	20,184	21,711
Average yield[b]	3.45%	5.52%	4.08%	6.02%	5.91%
Certificates of deposit					
Amortized cost	$ 2,730	$ 51	$ —	$ —	$ 2,781
Fair value	2,729	54	—	—	2,783
Average yield[b]	5.78%	3.28%	—%	—%	5.73%
Non-U.S. government debt securities					
Amortized cost	$ 18,248	$ 21,937	$ 22,870	$ 2,113	$ 65,168
Fair value	18,254	22,172	23,386	2,232	66,044
Average yield[b]	1.23%	2.03%	1.40%	1.65%	1.57%
Corporate debt securities					
Amortized cost	$ 5,605	$ 23,342	$ 8,899	$ 153	$ 37,999
Fair value	5,618	23,732	9,098	161	38,609
Average yield[b]	2.09%	2.37%	2.57%	3.99%	2.38%
Asset-backed securities					
Amortized cost	$ 500	$ 3,104	$ 17,129	$ 19,566	$ 40,299
Fair value	501	3,145	17,468	19,753	40,867
Average yield[b]	1.08%	2.10%	1.75%	2.09%	1.93%
Total available-for-sale debt securities					
Amortized cost	$ 34,987	$ 62,287	$ 62,089	$ 197,779	$ 357,142
Fair value	35,033	63,400	63,646	206,295	368,374
Average yield[b]	1.57%	2.17%	1.94%	3.29%	2.69%
Available-for-sale equity securities					
Amortized cost	$ —	$ —	$ —	$ 2,750	$ 2,750
Fair value	—	—	—	2,771	2,771
Average yield[b]	—%	—%	—%	0.36%	0.36%
Total available-for-sale securities					
Amortized cost	$ 34,987	$ 62,287	$ 62,089	$ 200,529	$ 359,892
Fair value	35,033	63,400	63,646	209,066	371,145
Average yield[b]	1.57%	2.17%	1.94%	3.25%	2.67%
Total held-to-maturity securities					
Amortized cost	$ —	$ 6	$ 1	$ —	$ 7
Fair value	—	7	1	—	8
Average yield[b]	—%	6.85%	6.64%	—%	6.83%

(a) U.S. government agencies and U.S. government-sponsored enterprises were the only issuers whose securities exceeded 10% of JPMorgan Chase's total stockholders' equity at December 31, 2012.

(b) Average yield is computed using the effective yield of each security owned at the end of the period, weighted based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts, and the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable. The effective yield excludes unscheduled principal prepayments; and accordingly, actual maturities of securities may differ from their contractual or expected maturities as certain securities may be prepaid.

(c) Includes securities with no stated maturity. Substantially all of the Firm's residential mortgage-backed securities and collateralized mortgage obligations are due in 10 years or more, based on contractual maturity. The estimated duration, which reflects anticipated future prepayments based on a consensus of dealers in the market, is approximately three years for agency residential mortgage-backed securities, two years for agency residential collateralized mortgage obligations and four years for nonagency residential collateralized mortgage obligations.

Note 13 – Securities financing activities

JPMorgan Chase enters into resale agreements, repurchase agreements, securities borrowed transactions and securities loaned transactions (collectively, “securities financing agreements”) primarily to finance the Firm’s inventory positions, acquire securities to cover short positions, accommodate customers’ financing needs, and settle other securities obligations.

Securities financing agreements are treated as collateralized financings on the Firm’s Consolidated Balance Sheets. Resale and repurchase agreements are generally carried at the amounts at which the securities will be subsequently sold or repurchased, plus accrued interest. Securities borrowed and securities loaned transactions are generally carried at the amount of cash collateral advanced or received. Where appropriate under applicable accounting guidance, resale and repurchase agreements with the same counterparty are reported on a net basis. Fees received and paid in connection with securities financing agreements are recorded in interest income and interest expense, respectively.

The Firm has elected the fair value option for certain securities financing agreements. For further information regarding the fair value option, see Note 4 on pages 214–216 of this Annual Report. The securities financing agreements for which the fair value option has been elected are reported within securities purchased under resale agreements; securities loaned or sold under repurchase agreements; and securities borrowed on the Consolidated Balance Sheets. Generally, for agreements carried at fair value, current-period interest accruals are recorded within interest income and interest expense, with changes in fair value reported in principal transactions revenue. However, for financial instruments containing embedded derivatives that would be separately accounted for in accordance with accounting guidance for hybrid instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue.

The following table details the Firm’s securities financing agreements, all of which are accounted for as collateralized financings during the periods presented.

December 31, (in millions)	2012	2011
Securities purchased under resale agreements[(a)]	$ 295,413	$ 235,000
Securities borrowed[(b)]	119,017	142,462
Securities sold under repurchase agreements[(c)]	$ 215,560	$ 197,789
Securities loaned[(d)]	23,582	14,214

(a) At December 31, 2012 and 2011, included resale agreements of $24.3 billion and $22.2 billion, respectively, accounted for at fair value.
(b) At December 31, 2012 and 2011, included securities borrowed of $10.2 billion and $15.3 billion, respectively, accounted for at fair value.
(c) At December 31, 2012 and 2011, included repurchase agreements of $3.9 billion and $6.8 billion, respectively, accounted for at fair value.
(d) At December 31, 2012, included securities loaned of $457 million accounted for at fair value. There were no securities loaned accounted for at fair value at December 31, 2011.

The amounts reported in the table above were reduced by $96.9 billion and $115.7 billion at December 31, 2012 and 2011, respectively, as a result of agreements in effect that meet the specified conditions for net presentation under applicable accounting guidance.

JPMorgan Chase’s policy is to take possession, where possible, of securities purchased under resale agreements and of securities borrowed. The Firm monitors the value of the underlying securities (primarily G7 government securities, U.S. agency securities and agency MBS, and equities) that it has received from its counterparties and either requests additional collateral or returns a portion of the collateral when appropriate in light of the market value of the underlying securities. Margin levels are established initially based upon the counterparty and type of collateral and monitored on an ongoing basis to protect against declines in collateral value in the event of default. JPMorgan Chase typically enters into master netting agreements and other collateral arrangements with its resale agreement and securities borrowed counterparties, which provide for the right to liquidate the purchased or borrowed securities in the event of a customer default. As a result of the Firm’s credit risk mitigation practices with respect to resale and securities borrowed agreements as described above, the Firm did not hold any reserves for credit impairment with respect to these agreements as of December 31, 2012 and 2011.

For further information regarding assets pledged and collateral received in securities financing agreements, see Note 30 on pages 315–316 of this Annual Report.

Note 14 – Loans

Loan accounting framework

The accounting for a loan depends on management's strategy for the loan, and on whether the loan was credit-impaired at the date of acquisition. The Firm accounts for loans based on the following categories:

- Originated or purchased loans held-for-investment (i.e., "retained"), other than purchased credit-impaired ("PCI") loans
- Loans held-for-sale
- Loans at fair value
- PCI loans held-for-investment

The following provides a detailed accounting discussion of these loan categories:

Loans held-for-investment (other than PCI loans)

Originated or purchased loans held-for-investment, other than PCI loans, are measured at the principal amount outstanding, net of the following: allowance for loan losses; net charge-offs; interest applied to principal (for loans accounted for on the cost recovery method); unamortized discounts and premiums; and net deferred loan fees or costs.

Interest income

Interest income on performing loans held-for-investment, other than PCI loans, is accrued and recognized as interest income at the contractual rate of interest. Purchase price discounts or premiums, as well as net deferred loan fees or costs, are amortized into interest income over the life of the loan to produce a level rate of return.

Nonaccrual loans

Nonaccrual loans are those on which the accrual of interest has been suspended. Loans (other than credit card loans and certain consumer loans insured by U.S. government agencies) are placed on nonaccrual status and considered nonperforming when full payment of principal and interest is in doubt, which for consumer loans, excluding credit card, is generally determined when principal or interest is 90 days or more past due and collateral, if any, is insufficient to cover principal and interest. A loan is determined to be past due when the minimum payment is not received from the borrower by the contractually specified due date or for certain loans (e.g., residential real estate loans), when a monthly payment is due and unpaid for 30 days or more. Consumer, excluding credit card, loans that are less than 90 days past due may be placed on nonaccrual status when there is evidence that full payment of principal and interest is in doubt (e.g., performing junior liens that are subordinate to nonperforming senior liens). Finally, collateral-dependent loans are typically maintained on nonaccrual status.

On the date a loan is placed on nonaccrual status, all interest accrued but not collected is reversed against interest income. In addition, the amortization of deferred amounts is suspended. Interest income on nonaccrual loans may be recognized as cash interest payments are received (i.e., on a cash basis) if the recorded loan balance is deemed fully collectible; however, if there is doubt regarding the ultimate collectibility of the recorded loan balance, all interest cash receipts are applied to reduce the carrying value of the loan (the cost recovery method). For consumer loans, application of this policy typically results in the Firm recognizing interest income on nonaccrual consumer loans on a cash basis.

A loan may be returned to accrual status when repayment is reasonably assured and there has been demonstrated performance under the terms of the loan or, if applicable, the terms of the restructured loan.

As permitted by regulatory guidance, credit card loans are generally exempt from being placed on nonaccrual status; accordingly, interest and fees related to credit card loans continue to accrue until the loan is charged off or paid in full. However, the Firm separately establishes an allowance for the estimated uncollectible portion of accrued interest and fee income on credit card loans. The allowance is established with a charge to interest income and is reported as an offset to loans.

Allowance for loan losses

The allowance for loan losses represents the estimated probable losses on held-for-investment loans. Changes in the allowance for loan losses are recorded in the provision for credit losses on the Firm's Consolidated Statements of Income. See Note 15 on pages 276–279 of this Annual Report for further information on the Firm's accounting polices for the allowance for loan losses.

Charge-offs

Consumer loans, other than risk-rated business banking, risk-rated auto and PCI loans, are generally charged off or charged down to the net realizable value of the underlying collateral (i.e., fair value less costs to sell), with an offset to the allowance for loan losses, upon reaching specified stages of delinquency in accordance with standards established by the Federal Financial Institutions Examination Council ("FFIEC"). Residential real estate loans, non-modified credit card loans and scored business banking loans are generally charged off at 180 days past due. In the second quarter of 2012, the Firm revised its policy to charge-off modified credit card loans that do not comply with their modified payment terms at 120 days past due rather than 180 days past due. Auto and student loans are charged off no later than 120 days past due.

Certain consumer loans will be charged off earlier than the FFIEC charge-off standards in certain circumstances as follows:

- A charge-off is recognized when a loan is modified in a TDR if the loan is determined to be collateral-dependent. A loan is considered to be collateral-dependent when repayment of the loan is expected to be provided solely by the underlying collateral, rather than by cash flows from the borrower's operations, income or other resources.
- Loans to borrowers who have experienced an event (e.g., bankruptcy) that suggests a loss is either known or highly certain are subject to accelerated charge-off standards. Residential real estate and auto loans are charged off when the loan becomes 60 days past due, or sooner if the loan is determined to be collateral-dependent. Credit card and scored business banking loans are charged off within 60 days of receiving notification of the bankruptcy filing or other event. Student loans are generally charged off when the loan becomes 60 days past due after receiving notification of a bankruptcy.
- Auto loans are written down to net realizable value upon repossession of the automobile and after a redemption period (i.e., the period during which a borrower may cure the loan) has passed.

Other than in certain limited circumstances, the Firm typically does not recognize charge-offs on government-guaranteed loans.

Wholesale loans, risk-rated business banking loans and risk-rated auto loans are charged off when it is highly certain that a loss has been realized, including situations where a loan is determined to be both impaired and collateral-dependent. The determination of whether to recognize a charge-off includes many factors, including the prioritization of the Firm's claim in bankruptcy, expectations of the workout/restructuring of the loan and valuation of the borrower's equity or the loan collateral.

When a loan is charged down to the estimated net realizable value, the determination of the fair value of the collateral depends on the type of collateral (e.g., securities, real estate). In cases where the collateral is in the form of liquid securities, the fair value is based on quoted market prices or broker quotes. For illiquid securities or other financial assets, the fair value of the collateral is estimated using a discounted cash flow model.

For residential real estate loans, collateral values are based upon external valuation sources. When it becomes likely that a borrower is either unable or unwilling to pay, the Firm obtains a broker's price opinion of the home based on an exterior-only valuation ("exterior opinions"), which is then updated at least every six months thereafter. As soon as practicable after the Firm receives the property in satisfaction of a debt (e.g., by taking legal title or physical possession), generally, either through foreclosure or upon the execution of a deed in lieu of foreclosure transaction with the borrower, the Firm obtains an appraisal based on an inspection that includes the interior of the home ("interior appraisals"). Exterior opinions and interior appraisals are discounted based upon the Firm's experience with actual liquidation values as compared to the estimated values provided by exterior opinions and interior appraisals, considering state- and product-specific factors.

For commercial real estate loans, collateral values are generally based on appraisals from internal and external valuation sources. Collateral values are typically updated every six to twelve months, either by obtaining a new appraisal or by performing an internal analysis, in accordance with the Firm's policies. The Firm also considers both borrower- and market-specific factors, which may result in obtaining appraisal updates or broker price opinions at more frequent intervals.

Loans held-for-sale

Held-for-sale loans are measured at the lower of cost or fair value, with valuation changes recorded in noninterest revenue. For consumer loans, the valuation is performed on a portfolio basis. For wholesale loans, the valuation is performed on an individual loan basis.

Interest income on loans held-for-sale is accrued and recognized based on the contractual rate of interest.

Loan origination fees or costs and purchase price discounts or premiums are deferred in a contra loan account until the related loan is sold. The deferred fees and discounts or premiums are an adjustment to the basis of the loan and therefore are included in the periodic determination of the lower of cost or fair value adjustments and/or the gain or losses recognized at the time of sale.

Held-for-sale loans are subject to the nonaccrual policies described above.

Because held-for-sale loans are recognized at the lower of cost or fair value, the Firm's allowance for loan losses and charge-off policies do not apply to these loans.

Loans at fair value

Loans used in a market-making strategy or risk managed on a fair value basis are measured at fair value, with changes in fair value recorded in noninterest revenue.

For these loans, the earned current contractual interest payment is recognized in interest income. Changes in fair value are recognized in noninterest revenue. Loan origination fees are recognized upfront in noninterest revenue. Loan origination costs are recognized in the associated expense category as incurred.

Because these loans are recognized at fair value, the Firm's nonaccrual, allowance for loan losses, and charge-off policies do not apply to these loans.

See Note 4 on pages 214–216 of this Annual Report for further information on the Firm's elections of fair value accounting under the fair value option. See Note 3 and Note 4 on pages 196–214 and 214–216 of this Annual Report for further information on loans carried at fair value and classified as trading assets.

PCI loans

PCI loans held-for-investment are initially measured at fair value. PCI loans have evidence of credit deterioration since the loan's origination date and therefore it is probable, at acquisition, that all contractually required payments will not be collected. Because PCI loans are initially measured at fair value, which includes an estimate of future credit losses, no allowance for loan losses related to PCI loans is recorded at the acquisition date. See page 266 of this Note for information on accounting for PCI loans subsequent to their acquisition.

Loan classification changes

Loans in the held-for-investment portfolio that management decides to sell are transferred to the held-for-sale portfolio at the lower of cost or fair value on the date of transfer. Credit-related losses are charged against the allowance for loan losses; losses due to changes in interest rates or foreign currency exchange rates are recognized in noninterest revenue.

In the event that management decides to retain a loan in the held-for-sale portfolio, the loan is transferred to the held-for-investment portfolio at the lower of cost or fair value on the date of transfer. These loans are subsequently assessed for impairment based on the Firm's allowance methodology. For a further discussion of the methodologies used in establishing the Firm's allowance for loan losses, see Note 15 on pages 276–279 of this Annual Report.

Loan modifications

The Firm seeks to modify certain loans in conjunction with its loss-mitigation activities. Through the modification, JPMorgan Chase grants one or more concessions to a borrower who is experiencing financial difficulty in order to minimize the Firm's economic loss, avoid foreclosure or repossession of the collateral, and to ultimately maximize payments received by the Firm from the borrower. The concessions granted vary by program and by borrower-specific characteristics, and may include interest rate reductions, term extensions, payment deferrals, principal forgiveness, or the acceptance of equity or other assets in lieu of payments.

Such modifications are accounted for and reported as troubled debt restructurings ("TDRs"). A loan that has been modified in a TDR is generally considered to be impaired until it matures, is repaid, or is otherwise liquidated, regardless of whether the borrower performs under the modified terms. In certain limited cases, the effective interest rate applicable to the modified loan is at or above the current market rate at the time of the restructuring. In such circumstances, and assuming that the loan subsequently performs under its modified terms and the Firm expects to collect all contractual principal and interest cash flows, the loan is disclosed as impaired and as a TDR only during the year of the modification; in subsequent years, the loan is not disclosed as an impaired loan or as a TDR so long as repayment of the restructured loan under its modified terms is reasonably assured.

Loans, except for credit card loans, modified in a TDR are generally placed on nonaccrual status, although in many cases such loans were already on nonaccrual status prior to modification. These loans may be returned to performing status (the accrual of interest is resumed) if the following criteria are met: (a) the borrower has performed under the modified terms for a minimum of six months and/or six payments, and (b) the Firm has an expectation that repayment of the modified loan is reasonably assured based on, for example, the borrower's debt capacity and level of future earnings, collateral values, LTV ratios, and other current market considerations. In certain limited and well-defined circumstances in which the loan is current at the modification date, such loans are not placed on nonaccrual status at the time of modification.

Because loans modified in TDRs are considered to be impaired, these loans are measured for impairment using the Firm's established asset-specific allowance methodology, which considers the expected re-default rates for the modified loans. A loan modified in a TDR remains subject to the asset-specific allowance methodology throughout its remaining life, regardless of whether the loan is performing and has been returned to accrual status. For further discussion of the methodology used to estimate the Firm's asset-specific allowance, see Note 15 on pages 276–279 of this Annual Report.

Foreclosed property

The Firm acquires property from borrowers through loan restructurings, workouts, and foreclosures. Property acquired may include real property (e.g., residential real estate, land, buildings, and fixtures) and commercial and personal property (e.g., aircraft, railcars, and ships).

The Firm recognizes foreclosed property upon receiving assets in satisfaction of a debt (e.g., by taking legal title or physical possession). For loans collateralized by real property, the Firm generally recognizes the asset received at foreclosure sale or upon the execution of a deed in lieu of foreclosure transaction with the borrower. Foreclosed assets are reported in other assets on the Consolidated Balance Sheets and initially recognized at fair value less costs to sell. Each quarter the fair value of the acquired property is reviewed and adjusted, if necessary, to the lower of cost or fair value. Subsequent adjustments to fair value are charged/credited to noninterest revenue. Operating expense, such as real estate taxes and maintenance, are charged to other expense.

Loan portfolio

The Firm's loan portfolio is divided into three portfolio segments, which are the same segments used by the Firm to determine the allowance for loan losses: Consumer, excluding credit card; Credit card; and Wholesale. Within each portfolio segment, the Firm monitors and assesses the credit risk in the following classes of loans, based on the risk characteristics of each loan class:

Consumer, excluding credit card(a)	Credit card	Wholesale(c)
Residential real estate – excluding PCI • Home equity – senior lien • Home equity – junior lien • Prime mortgage, including option ARMs • Subprime mortgage Other consumer loans • Auto(b) • Business banking(b) • Student and other Residential real estate – PCI • Home equity • Prime mortgage • Subprime mortgage • Option ARMs	• Credit card loans	• Commercial and industrial • Real estate • Financial institutions • Government agencies • Other

(a) Includes loans reported in CCB and residential real estate loans reported in the AM business segment and in Corporate/Private Equity.
(b) Includes certain business banking and auto dealer risk-rated loans that apply the wholesale methodology for determining the allowance for loan losses; these loans are managed by CCB, and therefore, for consistency in presentation, are included with the other consumer loan classes.
(c) Includes loans reported in CIB, CB and AM business segments and in Corporate/Private Equity.

The following tables summarize the Firm's loan balances by portfolio segment.

December 31, 2012 (in millions)	Consumer, excluding credit card	Credit card[a]	Wholesale	Total
Retained	**$ 292,620**	**$ 127,993**	**$ 306,222**	**$ 726,835** [b]
Held-for-sale	**–**	**–**	**4,406**	**4,406**
At fair value	**–**	**–**	**2,555**	**2,555**
Total	**$ 292,620**	**$ 127,993**	**$ 313,183**	**$ 733,796**

December 31, 2011 (in millions)	Consumer, excluding credit card	Credit card[a]	Wholesale	Total
Retained	$ 308,427	$ 132,175	$ 278,395	$ 718,997 [b]
Held-for-sale	–	102	2,524	2,626
At fair value	–	–	2,097	2,097
Total	$ 308,427	$ 132,277	$ 283,016	$ 723,720

(a) Includes billed finance charges and fees net of an allowance for uncollectible amounts.
(b) Loans (other than PCI loans and those for which the fair value option has been elected) are presented net of unearned income, unamortized discounts and premiums, and net deferred loan costs of $2.5 billion and $2.7 billion at December 31, 2012 and 2011, respectively.

The following table provides information about the carrying value of retained loans purchased, sold and reclassified to held-for-sale during the periods indicated. These tables exclude loans recorded at fair value. On an ongoing basis, the Firm manages its exposure to credit risk. Selling loans is one way that the Firm reduces its credit exposures.

	2012				2011			
Years ended December 31, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	**$ 6,601**	**$ –**	**$ 827**	**$ 7,428**	$ 7,525	$ –	$ 906	$ 8,431
Sales	**1,852**	**–**	**3,423**	**5,275**	1,384	–	3,289	4,673
Retained loans reclassified to held-for-sale	**–**	**1,043**	**504**	**1,547**	–	2,006	538	2,544

The following table provides information about gains/(losses) on loan sales by portfolio segment.

Year ended December 31, (in millions)	**2012**	2011	2010
Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)[a]			
Consumer, excluding credit card	**$ 122**	$ 131	$ 265
Credit card	**(9)**	(24)	(16)
Wholesale	**180**	121	215
Total net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)[a]	**$ 293**	$ 228	$ 464

(a) Excludes sales related to loans accounted for at fair value.

Consumer, excluding credit card, loan portfolio

Consumer loans, excluding credit card loans, consist primarily of residential mortgages, home equity loans and lines of credit, auto loans, business banking loans, and student and other loans, with a primary focus on serving the prime consumer credit market. The portfolio also includes home equity loans secured by junior liens and mortgage loans with interest-only payment options to predominantly prime borrowers, as well as certain payment-option loans originated by Washington Mutual that may result in negative amortization.

The table below provides information about retained consumer loans, excluding credit card, by class.

December 31, (in millions)	2012	2011
Residential real estate – excluding PCI		
Home equity:		
Senior lien	$ 19,385	$ 21,765
Junior lien	48,000	56,035
Mortgages:		
Prime, including option ARMs	76,256	76,196
Subprime	8,255	9,664
Other consumer loans		
Auto	49,913	47,426
Business banking	18,883	17,652
Student and other	12,191	14,143
Residential real estate – PCI		
Home equity	20,971	22,697
Prime mortgage	13,674	15,180
Subprime mortgage	4,626	4,976
Option ARMs	20,466	22,693
Total retained loans	$ 292,620	$ 308,427

Delinquency rates are a primary credit quality indicator for consumer loans. Loans that are more than 30 days past due provide an early warning of borrowers who may be experiencing financial difficulties and/or who may be unable or unwilling to repay the loan. As the loan continues to age, it becomes more clear that the borrower is likely either unable or unwilling to pay. In the case of residential real estate loans, late-stage delinquencies (greater than 150 days past due) are a strong indicator of loans that will ultimately result in a foreclosure or similar liquidation transaction. In addition to delinquency rates, other credit quality indicators for consumer loans vary based on the class of loan, as follows:

- For residential real estate loans, including both non-PCI and PCI portfolios, the current estimated LTV ratio, or the combined LTV ratio in the case of junior lien loans, is an indicator of the potential loss severity in the event of default. Additionally, LTV or combined LTV can provide insight into a borrower's continued willingness to pay, as the delinquency rate of high-LTV loans tends to be greater than that for loans where the borrower has equity in the collateral. The geographic distribution of the loan collateral also provides insight as to the credit quality of the portfolio, as factors such as the regional economy, home price changes and specific events such as natural disasters, will affect credit quality. The borrower's current or "refreshed" FICO score is a secondary credit-quality indicator for certain loans, as FICO scores are an indication of the borrower's credit payment history. Thus, a loan to a borrower with a low FICO score (660 or below) is considered to be of higher risk than a loan to a borrower with a high FICO score. Further, a loan to a borrower with a high LTV ratio and a low FICO score is at greater risk of default than a loan to a borrower that has both a high LTV ratio and a high FICO score.
- For scored auto, scored business banking and student loans, geographic distribution is an indicator of the credit performance of the portfolio. Similar to residential real estate loans, geographic distribution provides insights into the portfolio performance based on regional economic activity and events.
- Risk-rated business banking and auto loans are similar to wholesale loans in that the primary credit quality indicators are the risk rating that is assigned to the loan and whether the loans are considered to be criticized and/or nonaccrual. Risk ratings are reviewed on a regular and ongoing basis by Credit and Risk Management and are adjusted as necessary for updated information about borrowers' ability to fulfill their obligations. For further information about risk-rated wholesale loan credit quality indicators, see page 271 of this Note.

Residential real estate – excluding PCI loans

The following table provides information by class for residential real estate – excluding retained PCI loans in the consumer, excluding credit card, portfolio segment.

The following factors should be considered in analyzing certain credit statistics applicable to the Firm's residential real estate – excluding PCI loans portfolio: (i) junior lien home equity loans may be fully charged off when the loan becomes 180 days past due, and the value of the collateral does not support the repayment of the loan, resulting in relatively high charge-off rates for this product class; and (ii) the lengthening of loss-mitigation timelines may result in higher delinquency rates for loans carried at the net realizable value of the collateral that remain on the Firm's Consolidated Balance Sheets.

Residential real estate – excluding PCI loans

December 31, (in millions, except ratios)	Home equity			
	Senior lien		Junior lien	
	2012	2011	**2012**	2011
Loan delinquency[(a)]				
Current	**$ 18,688**	$ 20,992	**$ 46,805**	$ 54,533
30–149 days past due	**330**	405	**960**	1,272
150 or more days past due	**367**	368	**235**	230
Total retained loans	**$ 19,385**	$ 21,765	**$ 48,000**	$ 56,035
% of 30+ days past due to total retained loans	**3.60%**	3.55%	**2.49%**	2.68%
90 or more days past due and still accruing	**$ —**	$ —	**$ —**	$ —
90 or more days past due and government guaranteed[(b)]	**—**	—	**—**	—
Nonaccrual loans[(c)]	**931**	495	**2,277** [(h)]	792
Current estimated LTV ratios[(d)(e)(f)]				
Greater than 125% and refreshed FICO scores:				
Equal to or greater than 660	**$ 197**	$ 341	**$ 4,561**	$ 6,463
Less than 660	**93**	160	**1,338**	2,037
101% to 125% and refreshed FICO scores:				
Equal to or greater than 660	**491**	663	**7,089**	8,775
Less than 660	**191**	241	**1,971**	2,510
80% to 100% and refreshed FICO scores:				
Equal to or greater than 660	**1,502**	1,850	**9,604**	11,433
Less than 660	**485**	601	**2,279**	2,616
Less than 80% and refreshed FICO scores:				
Equal to or greater than 660	**13,988**	15,350	**18,252**	19,326
Less than 660	**2,438**	2,559	**2,906**	2,875
U.S. government-guaranteed	**—**	—	**—**	—
Total retained loans	**$ 19,385**	$ 21,765	**$ 48,000**	$ 56,035
Geographic region				
California	**$ 2,786**	$ 3,066	**$ 10,969**	$ 12,851
New York	**2,847**	3,023	**9,753**	10,979
Illinois	**1,358**	1,495	**3,265**	3,785
Florida	**892**	992	**2,572**	3,006
Texas	**2,508**	3,027	**1,503**	1,859
New Jersey	**652**	687	**2,838**	3,238
Arizona	**1,183**	1,339	**2,151**	2,552
Washington	**651**	714	**1,629**	1,895
Ohio	**1,514**	1,747	**1,091**	1,328
Michigan	**910**	1,044	**1,169**	1,400
All other[(g)]	**4,084**	4,631	**11,060**	13,142
Total retained loans	**$ 19,385**	$ 21,765	**$ 48,000**	$ 56,035

(a) Individual delinquency classifications included mortgage loans insured by U.S. government agencies as follows: current includes $3.8 billion and $3.0 billion; 30–149 days past due includes $2.3 billion and $2.3 billion; and 150 or more days past due includes $9.5 billion and $10.3 billion at December 31, 2012 and 2011, respectively.

(b) These balances, which are 90 days or more past due but insured by U.S. government agencies, are excluded from nonaccrual loans. In predominately all cases, 100% of the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting agreed-upon servicing guidelines. These amounts are excluded from nonaccrual loans because reimbursement of insured and guaranteed amounts is proceeding normally. At December 31, 2012 and 2011, these balances included $6.8 billion and $7.0 billion, respectively, of loans that are no longer accruing interest because interest has been curtailed by the U.S. government agencies although, in predominantly all cases, 100% of the principal is still insured. For the remaining balance, interest is being accrued at the guaranteed reimbursement rate.

(c) At December 31, 2012, included $1.7 billion of loans recorded in accordance with regulatory guidance requiring loans discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower to be reported as nonaccrual loans, regardless of their delinquency status. This $1.7 billion consisted of $450 million, $440 million, $500 million, and $357 million for home equity - senior lien, home equity - junior lien, prime mortgage, including option ARMs, and subprime mortgages, respectively. Certain of these loans have previously been reported as performing TDRs (e.g., loans that were previously modified under one of the Firm's loss mitigation programs and that have made at least six payments under the modified payment terms).

(d) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. These property values do not represent actual appraised loan level collateral values; as such, the resulting ratios are necessarily imprecise and should be viewed as estimates.

(e) Junior lien represents combined LTV, which considers all available lien positions related to the property. All other products are presented without consideration of subordinate liens on the property.

(f) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by the Firm on at least a quarterly basis.

(g) At both December 31, 2012 and 2011, included mortgage loans insured by U.S. government agencies of $15.6 billion.

(h) Includes $1.2 billion of performing junior liens at December 31, 2012, that are subordinate to senior liens that are 90 days or more past due; such junior liens are now being reported as nonaccrual loans based upon regulatory guidance issued in the first quarter of 2012. Of the total, $1.1 billion were current at December 31, 2012. Prior periods have not been restated.

(i) At December 31, 2012 and 2011, excluded mortgage loans insured by U.S. government agencies of $11.8 billion and $12.6 billion, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.

(table continued from previous page)

Mortgages					
Prime, including option ARMs		Subprime		Total residential real estate – excluding PCI	
2012	2011	2012	2011	2012	2011
$ 61,439	$ 59,855	$ 6,673	$ 7,585	$ 133,605	$ 142,965
3,237	3,475	727	820	5,254	5,972
11,580	12,866	855	1,259	13,037	14,723
$ 76,256	$ 76,196	$ 8,255	$ 9,664	$ 151,896	$ 163,660
3.97% [i]	4.96% [i]	19.16%	21.51%	4.28% [i]	4.97% [i]
$ –	$ –	$ –	$ –	$ –	$ –
10,625	11,516	–	–	10,625	11,516
3,445	3,462	1,807	1,781	8,460	6,530
$ 2,573	$ 3,168	$ 236	$ 367	$ 7,567	$ 10,339
991	1,416	653	1,061	3,075	4,674
3,697	4,626	457	506	11,734	14,570
1,376	1,636	985	1,284	4,523	5,671
7,070	9,343	726	817	18,902	23,443
2,117	2,349	1,346	1,556	6,227	7,122
38,281	33,849	1,793	1,906	72,314	70,431
4,549	4,225	2,059	2,167	11,952	11,826
15,602	15,584	–	–	15,602	15,584
$ 76,256	$ 76,196	$ 8,255	$ 9,664	$ 151,896	$ 163,660
$ 17,539	$ 18,029	$ 1,240	$ 1,463	$ 32,534	$ 35,409
11,190	10,200	1,081	1,217	24,871	25,419
3,999	3,922	323	391	8,945	9,593
4,372	4,565	1,031	1,206	8,867	9,769
2,927	2,851	257	300	7,195	8,037
2,131	2,042	399	461	6,020	6,428
1,162	1,194	165	199	4,661	5,284
1,741	1,878	177	209	4,198	4,696
405	441	191	234	3,201	3,750
866	909	203	246	3,148	3,599
29,924	30,165	3,188	3,738	48,256	51,676
$ 76,256	$ 76,196	$ 8,255	$ 9,664	$ 151,896	$ 163,660

The following tables represent the Firm's delinquency statistics for junior lien home equity loans as of December 31, 2012 and 2011.

December 31, 2012 (in millions, except ratios)	Delinquencies 30–89 days past due	 90–149 days past due	 150+ days past due	Total loans	Total 30+ day delinquency rate
HELOCs:[a]					
Within the revolving period[b]	**$ 514**	**$ 196**	**$ 185**	**$ 40,794**	**2.19%**
Beyond the revolving period	**48**	**19**	**27**	**2,127**	**4.42**
HELOANs	**125**	**58**	**23**	**5,079**	**4.06**
Total	**$ 687**	**$ 273**	**$ 235**	**$ 48,000**	**2.49%**

December 31, 2011 (in millions, except ratios)	Delinquencies 30–89 days past due	 90–149 days past due	 150+ days past due	Total loans	Total 30+ day delinquency rate
HELOCs:[a]					
Within the revolving period[b]	$ 606	$ 314	$ 173	$ 47,760	2.29%
Beyond the revolving period	45	19	15	1,636	4.83
HELOANs	188	100	42	6,639	4.97
Total	$ 839	$ 433	$ 230	$ 56,035	2.68%

(a) These HELOCs are predominantly revolving loans for a 10-year period, after which time the HELOC converts to a loan with a 20-year amortization period, but also include HELOCs originated by Washington Mutual that require interest-only payments beyond the revolving period.
(b) The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are experiencing financial difficulty or when the collateral does not support the loan amount.

Home equity lines of credit ("HELOCs") within the required amortization period and home equity loans ("HELOANs") have higher delinquency rates than do HELOCs within the revolving period. That is primarily because the fully-amortizing payment required for those products is higher than the minimum payment options available for HELOCs within the revolving period. The higher delinquency rates associated with amortizing HELOCs and HELOANs are factored into the loss estimates produced by the Firm's delinquency roll-rate methodology, which estimates defaults based on the current delinquency status of a portfolio.

Impaired loans

At December 31, 2012, the Firm reported, in accordance with regulatory guidance, $1.6 billion of residential real estate loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status. Pursuant to that guidance, these Chapter 7 loans were charged off to the net realizable value of the collateral, resulting in $747 million of charge-offs for the year ended December 31, 2012. Prior periods were not restated for this policy change. Prior to September 30, 2012, the Firm's policy was to charge down to net realizable value, and also to place on nonaccrual status, loans to borrowers who had filed for bankruptcy when such loans became 60 days past due; however, the Firm did not previously report Chapter 7 loans as TDRs unless otherwise modified under one of the Firm's loss mitigation programs.

The table below sets forth information about the Firm's residential real estate impaired loans, excluding PCI loans. These loans are considered to be impaired as they have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 on pages 276–279 of this Annual Report.

December 31, (in millions)	Home equity				Mortgages				Total residential real estate – excluding PCI	
	Senior lien		Junior lien		Prime, including option ARMs		Subprime			
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011
Impaired loans										
With an allowance	**$ 542**	$ 319	**$ 677**	$ 622	**$ 5,810**	$ 4,332	**$ 3,071**	$ 3,047	**$ 10,100**	$ 8,320
Without an allowance[a]	**550**	16	**546**	35	**1,308**	545	**741**	172	**3,145**	768
Total impaired loans[b][c]	**$ 1,092**	$ 335	**$ 1,223**	$ 657	**$ 7,118**	$ 4,877	**$ 3,812**	$ 3,219	**$ 13,245**	$ 9,088
Allowance for loan losses related to impaired loans	**$ 159**	$ 80	**$ 188**	$ 141	**$ 70**	$ 4	**$ 174**	$ 366	**$ 591**	$ 591
Unpaid principal balance of impaired loans[d][e]	**1,408**	433	**2,352**	994	**9,095**	6,190	**5,700**	4,827	**18,555**	12,444
Impaired loans on nonaccrual status[f]	**607**	77	**599**	159	**1,888**	922	**1,308**	832	**4,402**	1,990

(a) Represents collateral-dependent residential mortgage loans, including Chapter 7 loans, that are charged off to the fair value of the underlying collateral less cost to sell.

(b) At December 31, 2012 and 2011, $7.5 billion and $4.3 billion, respectively, of loans permanently modified subsequent to repurchase from Government National Mortgage Association ("Ginnie Mae") in accordance with the standards of the appropriate government agency (i.e., Federal Housing Administration ("FHA"), U.S. Department of Veterans Affairs ("VA"), Rural Housing Services ("RHS")) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure.

(c) 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).

(d) Represents the contractual amount of principal owed at December 31, 2012 and 2011. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs, net deferred loan fees or costs, and unamortized discounts or premiums on purchased loans.

(e) At December 31, 2012, included $2.7 billion of Chapter 7 loans, consisting of $596 million of senior lien home equity loans, $990 million of junior lien home equity loans, $713 million of prime, including option ARMs, and $379 million of subprime mortgages.

(f) 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 refer to the Loan accounting framework on pages 250–252 of this Note.

The following table presents average impaired loans and the related interest income reported by the Firm.

Year ended December 31,	Average impaired loans			Interest income on impaired loans[a]			Interest income on impaired loans on a cash basis[a]		
(in millions)	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Home equity									
Senior lien	**$ 610**	$ 287	$ 207	**$ 27**	$ 10	$ 15	**$ 12**	$ 1	$ 1
Junior lien	**848**	521	266	**42**	18	10	**16**	2	1
Mortgages									
Prime, including option ARMs	**5,989**	3,859	1,530	**238**	147	70	**28**	14	14
Subprime	**3,494**	3,083	2,539	**183**	148	121	**31**	16	19
Total residential real estate – excluding PCI	**$ 10,941**	$ 7,750	$ 4,542	**$ 490**	$ 323	$ 216	**$ 87**	$ 33	$ 35

(a) Generally, interest income on loans modified in TDRs is recognized on a cash basis until such time as the borrower has made a minimum of six payments under the new terms.

Loan modifications

The global settlement, which became effective on April 5, 2012, required the Firm to, among other things, provide approximately $500 million of refinancing relief to certain "underwater" borrowers under the Refi Program and approximately $3.7 billion of additional relief to certain borrowers under the Consumer Relief Program, including reductions of principal on first and second liens.

The purpose of the Refi Program was to allow eligible borrowers who were current on their mortgage loans to refinance their existing loans; such borrowers were otherwise unable to do so because they had no equity or, in many cases, negative equity in their homes. 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. The refinancings generally did not result in term extensions and accordingly, in that regard, were more similar to loan modifications than to traditional refinancings.

The Firm continues to modify first and second lien loans under the Consumer Relief Program. These loan modifications are primarily expected to be executed under the terms of either the U.S. Treasury's Making Home Affordable ("MHA") programs (e.g., the Home Affordable Modification Program ("HAMP"), the Second Lien Modification Program ("2MP")) or one of the Firm's proprietary modification programs. For further information on the global settlement, see Global settlement on servicing and origination of mortgages in Note 2 on page 195 of this Annual Report.

Modifications of residential real estate loans, excluding PCI loans, are generally accounted for and reported as TDRs. There were no additional commitments to lend to borrowers whose residential real estate loans, excluding PCI loans, have been modified in TDRs.

TDR activity rollforward

The following table reconciles the beginning and ending balances of residential real estate loans, excluding PCI loans, modified in TDRs for the periods presented.

Year ended December 31, (in millions)	Home equity				Mortgages				Total residential real estate – excluding PCI	
	Senior lien		Junior lien		Prime, including option ARMs		Subprime			
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011
Beginning balance of TDRs	**$ 335**	$ 226	**$ 657**	$ 283	**$ 4,877**	$ 2,084	**$ 3,219**	$ 2,751	**$ 9,088**	$ 5,344
New TDRs[a]	**835**	138	**711**	518	**2,918**	3,268	**1,043**	883	**5,507**	4,807
Charge-offs post-modification[b]	**(31)**	(15)	**(2)**	(78)	**(135)**	(119)	**(208)**	(234)	**(376)**	(446)
Foreclosures and other liquidations (e.g., short sales)	**(5)**	–	**(21)**	(11)	**(138)**	(108)	**(113)**	(82)	**(277)**	(201)
Principal payments and other	**(42)**	(14)	**(122)**	(55)	**(404)**	(248)	**(129)**	(99)	**(697)**	(416)
Ending balance of TDRs	**$ 1,092**	$ 335	**$ 1,223**	$ 657	**$ 7,118**	$ 4,877	**$ 3,812**	$ 3,219	**$ 13,245**	$ 9,088
Permanent modifications[a]	**$ 1,058**	$ 285	**$ 1,218**	$ 634	**$ 6,834**	$ 4,601	**$ 3,661**	$ 3,029	**$ 12,771**	$ 8,549
Trial modifications	**$ 34**	$ 50	**$ 5**	$ 23	**$ 284**	$ 276	**$ 151**	$ 190	**$ 474**	$ 539

(a) For the year ended 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).

(b) Includes charge-offs on unsuccessful trial modifications.

Nature and extent of modifications

MHA, as well as the Firm's proprietary modification programs, generally provide various concessions to financially troubled borrowers including, but not limited to, interest rate reductions, term or payment extensions and deferral of principal and/or interest payments that would otherwise have been required under the terms of the original agreement.

The following table provides information about how residential real estate loans, excluding PCI loans, were modified under the Firm's loss mitigation programs during the periods presented. This table excludes Chapter 7 loans where the sole concession granted is the discharge of debt. At December 31, 2012, there were approximately 37,300 of such Chapter 7 loans, consisting of approximately 9,000 senior lien home equity loans, 20,700 junior lien home equity loans, 3,800 prime mortgage, including option ARMs, and 3,800 subprime mortgages.

	Home equity				Mortgages				Total residential real estate - excluding PCI	
	Senior lien		Junior lien		Prime, including option ARMs		Subprime			
Year ended December 31,	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011
Number of loans approved for a trial modification, but not permanently modified	**410**	654	**528**	778	**1,101**	898	**1,168**	1,730	**3,207**	4,060
Number of loans permanently modified	**4,385**	1,006	**7,430**	9,142	**9,043**	9,579	**9,964**	4,972	**30,822**	24,699
Concession granted:[(a)]										
Interest rate reduction	**81%**	76%	**89%**	95%	**75%**	54%	**70%**	79%	**77%**	75%
Term or payment extension	**49**	86	**76**	81	**61**	71	**45**	74	**57**	76
Principal and/or interest deferred	**8**	12	**19**	22	**21**	18	**12**	19	**16**	19
Principal forgiveness	**12**	8	**22**	20	**30**	3	**43**	14	**30**	12
Other[(b)]	**3**	27	**5**	7	**31**	68	**8**	26	**13**	35

(a) As a percentage of the number of loans modified. The sum of the percentages exceeds 100% because predominantly all of the modifications include more than one type of concession.

(b) Represents variable interest rate to fixed interest rate modifications.

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the various concessions granted in modifications of residential real estate loans, excluding PCI, under the Firm's loss mitigation programs and about redefaults of certain loans modified in TDRs for the periods presented. This table excludes Chapter 7 loans where the sole concession granted is the discharge of debt.

Year ended December 31, (in millions, except weighted-average data and number of loans)	Home equity				Mortgages				Total residential real estate – excluding PCI	
	Senior lien		Junior lien		Prime, including option ARMs		Subprime			
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011
Weighted-average interest rate of loans with interest rate reductions – before TDR	**7.14%**	7.25%	**5.40%**	5.44%	**6.12%**	5.99%	**7.78%**	8.27%	**6.56%**	6.47%
Weighted-average interest rate of loans with interest rate reductions – after TDR	**4.56**	3.54	**1.89**	1.48	**3.57**	3.32	**4.09**	3.50	**3.62**	3.09
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	**19**	18	**20**	21	**25**	25	**23**	23	**23**	24
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	**28**	30	**32**	34	**36**	35	**32**	34	**34**	35
Charge-offs recognized upon permanent modification	**$ 8**	$ 1	**$ 65**	$ 117	**$ 35**	$ 61	**$ 29**	$ 19	**$ 137**	$ 198
Principal deferred	**5**	4	**26**	36	**164**	176	**50**	68	**245**	284
Principal forgiven	**23**	1	**58**	62	**318**	24	**371**	55	**770**	142
Number of loans that redefaulted within one year of permanent modification[(a)]	**374**	201	**1,436**	1,170	**920**	1,041	**1,426**	1,742	**4,156**	4,154
Balance of loans that redefaulted within one year of permanent modification[(a)]	**$ 30**	$ 17	**$ 46**	$ 47	**$ 255**	$ 319	**$ 156**	$ 245	**$ 487**	$ 628

(a) Represents loans permanently modified in TDRs that experienced a payment default in the period presented, and for which the payment default occurred within one year of the modification. The dollar amounts presented represent the balance of such loans at the end of the reporting period in which such loans defaulted. For residential real estate loans modified in TDRs, payment default is deemed to occur when the loan becomes two contractual payments past due. In the event that a modified loan redefaults, it is probable that the loan will ultimately be liquidated through foreclosure or another similar type of liquidation transaction. Redefaults of loans modified within the last 12 months may not be representative of ultimate redefault levels.

Approximately 85% of the trial modifications approved on or after July 1, 2010 (the approximate date on which substantial revisions were made to the HAMP program), that are seasoned more than six months have been successfully converted to permanent modifications.

The primary performance indicator for TDRs is the rate at which permanently modified loans redefault. At December 31, 2012, the cumulative redefault rates of residential real estate loans that have been modified under the Firm's loss mitigation programs, excluding PCI loans, based upon permanent modifications that were completed after October 1, 2009, and that are seasoned more than six months, are 25% for senior lien home equity, 20% for junior lien home equity, 14% for prime mortgages including option ARMs, and 24% for subprime mortgages.

Default rates of Chapter 7 loans vary significantly based on the delinquency status of the loan and overall economic conditions at the time of discharge. Default rates for Chapter 7 residential real estate loans that were less than 60 days past due at the time of discharge have ranged between approximately 10% and 40% in recent years based on the economic conditions at the time of discharge. At December 31, 2012, Chapter 7 residential real estate loans included approximately 19% of senior lien home equity, 12% of junior lien home equity, 45% of prime mortgages, including option ARMs, and 32% of subprime mortgages that were 30 days or more past due.

At December 31, 2012, the weighted-average estimated remaining lives of residential real estate loans, excluding PCI loans, permanently modified in TDRs were 6 years for senior lien home equity, 7 years for junior lien home equity, 10 years for prime mortgage, including option ARMs and 8 years for subprime mortgage. The estimated remaining lives of these loans reflect estimated prepayments, both voluntary and involuntary (i.e., foreclosures and other forced liquidations).

Other consumer loans

The table below provides information for other consumer retained loan classes, including auto, business banking and student loans.

December 31, (in millions, except ratios)	Auto		Business banking		Student and other		Total other consumer	
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011
Loan delinquency[a]								
Current	**$ 49,290**	$ 46,891	**$ 18,482**	$ 17,173	**$ 11,038**	$ 12,905	**$ 78,810**	$ 76,969
30–119 days past due	**616**	528	**263**	326	**709**	777	**1,588**	1,631
120 or more days past due	**7**	7	**138**	153	**444**	461	**589**	621
Total retained loans	**$ 49,913**	$ 47,426	**$ 18,883**	$ 17,652	**$ 12,191**	$ 14,143	**$ 80,987**	$ 79,221
% of 30+ days past due to total retained loans	**1.25%**	1.13%	**2.12%**	2.71%	**2.12%** [e]	1.76% [e]	**1.58%** [e]	1.59% [e]
90 or more days past due and still accruing [b]	**$ —**	$ —	**$ —**	$ —	**$ 525**	$ 551	**$ 525**	$ 551
Nonaccrual loans	**163** [d]	118	**481**	694	**70**	69	**714**	881
Geographic region								
California	**$ 4,962**	$ 4,413	**$ 1,983**	$ 1,342	**$ 1,108**	$ 1,261	**$ 8,053**	$ 7,016
New York	**3,742**	3,616	**2,981**	2,792	**1,202**	1,401	**7,925**	7,809
Illinois	**2,738**	2,496	**1,404**	1,364	**556**	851	**4,698**	4,711
Florida	**1,922**	1,881	**527**	313	**748**	658	**3,197**	2,852
Texas	**4,739**	4,467	**2,749**	2,680	**891**	1,053	**8,379**	8,200
New Jersey	**1,921**	1,829	**379**	376	**409**	460	**2,709**	2,665
Arizona	**1,719**	1,495	**1,139**	1,165	**265**	316	**3,123**	2,976
Washington	**824**	735	**202**	160	**287**	249	**1,313**	1,144
Ohio	**2,462**	2,633	**1,443**	1,541	**770**	880	**4,675**	5,054
Michigan	**2,091**	2,282	**1,368**	1,389	**548**	637	**4,007**	4,308
All other	**22,793**	21,579	**4,708**	4,530	**5,407**	6,377	**32,908**	32,486
Total retained loans	**$ 49,913**	$ 47,426	**$ 18,883**	$ 17,652	**$ 12,191**	$ 14,143	**$ 80,987**	$ 79,221
Loans by risk ratings[c]								
Noncriticized	**$ 8,882**	$ 6,775	**$ 13,336**	$ 11,749	**NA**	NA	**$ 22,218**	$ 18,524
Criticized performing	**130**	166	**713**	817	**NA**	NA	**843**	983
Criticized nonaccrual	**4**	3	**386**	524	**NA**	NA	**390**	527

(a) Individual delinquency classifications included loans insured by U.S. government agencies under the Federal Family Education Loan Program ("FFELP") as follows: current includes $5.4 billion and $7.0 billion; 30-119 days past due includes $466 million and $542 million; and 120 or more days past due includes $428 million and $447 million at December 31, 2012 and 2011, respectively.

(b) These amounts represent student loans, which are insured by U.S. government agencies under the FFELP. These amounts were accruing as reimbursement of insured amounts is proceeding normally.

(c) For risk-rated business banking and auto loans, the primary credit quality indicator is the risk rating of the loan, including whether the loans are considered to be criticized and/or nonaccrual.

(d) At December 31, 2012, included $51 million of Chapter 7 auto loans.

(e) December 31, 2012 and 2011, excluded loans 30 days or more past due and still accruing, which are insured by U.S. government agencies under the FFELP, of $894 million and $989 million, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.

Other consumer impaired loans and loan modifications

The table below sets forth information about the Firm's other consumer impaired loans, including risk-rated business banking and auto loans that have been placed on nonaccrual status, and loans that have been modified in TDRs.

December 31, (in millions)	Auto		Business banking		Total other consumer[e]	
	2012	2011	**2012**	2011	**2012**	2011
Impaired loans						
With an allowance	**$ 78**	$ 88	**$ 543**	$ 713	**$ 621**	$ 801
Without an allowance[a]	**72**	3	**—**	—	**72**	3
Total impaired loans[b]	**$ 150**	$ 91	**$ 543**	$ 713	**$ 693**	$ 804
Allowance for loan losses related to impaired loans	**$ 12**	$ 12	**$ 126**	$ 225	**$ 138**	$ 237
Unpaid principal balance of impaired loans[c][d]	**259**	126	**624**	822	**883**	948
Impaired loans on nonaccrual status[b]	**109**	41	**394**	551	**503**	592

(a) When discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged off and/or there have been interest payments received and applied to the loan balance.
(b) At December 31, 2012, included $72 million of Chapter 7 auto loans. Certain of these loans were previously reported as nonaccrual loans (e.g., based upon the delinquency status of the loan).
(c) At December 31, 2012, included $146 million of Chapter 7 auto loans.
(d) Represents the contractual amount of principal owed at December 31, 2012 and 2011. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the principal balance; net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.
(e) There were no impaired student and other loans at December 31, 2012 and 2011.

The following table presents average impaired loans for the periods presented.

Year ended December 31, (in millions)	Average impaired loans[b]		
	2012	2011	2010
Auto	**$ 111**	$ 92	$ 120
Business banking	**622**	760	682
Total other consumer[a]	**$ 733**	$ 852	$ 802

(a) There were no impaired student and other loans for the years ended 2012, 2011 and 2010.
(b) The related interest income on impaired loans, including those on a cash basis, was not material for the years ended 2012, 2011 and 2010.

Loan modifications

The following table provides information about the Firm's other consumer loans modified in TDRs. All of these TDRs are reported as impaired loans in the tables above.

December 31, (in millions)	Auto		Business banking		Total other consumer[d]	
	2012	2011	**2012**	2011	**2012**	2011
Loans modified in troubled debt restructurings[a][b][c]	**$ 150**	$ 88	**$ 352**	$ 415	**$ 502**	$ 503
TDRs on nonaccrual status	**109**	38	**203**	253	**312**	291

(a) These modifications generally provided interest rate concessions to the borrower or deferral of principal repayments.
(b) Additional commitments to lend to borrowers whose loans have been modified in TDRs as of December 31, 2012 and 2011, were immaterial.
(c) At December 31, 2012, included $72 million of Chapter 7 auto loans. Certain of these loans were previously reported as nonaccrual loans (e.g., based upon the delinquency status of the loan).
(d) There were no student and other loans modified in TDRs at December 31, 2012 and 2011.

TDR activity rollforward

The following table reconciles the beginning and ending balances of other consumer loans modified in TDRs for the periods presented.

Year ended December 31, (in millions)	Auto		Business banking		Total other consumer	
	2012	2011	**2012**	2011	**2012**	2011
Beginning balance of TDRs	**$ 88**	$ 91	**$ 415**	$ 395	**$ 503**	$ 486
New TDRs[a]	**145**	54	**104**	195	**249**	249
Charge-offs post-modification	**(9)**	(5)	**(9)**	(11)	**(18)**	(16)
Foreclosures and other liquidations	**—**	—	**(1)**	(3)	**(1)**	(3)
Principal payments and other	**(74)**	(52)	**(157)**	(161)	**(231)**	(213)
Ending balance of TDRs	**$ 150**	$ 88	**$ 352**	$ 415	**$ 502**	$ 503

(a) At December 31, 2012, included $72 million of Chapter 7 auto loans. Certain of these loans were previously reported as nonaccrual loans (e.g., based upon the delinquency status of the loan).

Financial effects of modifications and redefaults

For auto loans, TDRs typically occur in connection with the bankruptcy of the borrower. In these cases, the loan is modified with a revised repayment plan that typically incorporates interest rate reductions and, to a lesser extent, principal forgiveness. Beginning September 30, 2012, Chapter 7 auto loans are also considered TDRs.

For business banking loans, concessions are dependent on individual borrower circumstances and can be of a short-term nature for borrowers who need temporary relief or longer term for borrowers experiencing more fundamental financial difficulties. Concessions are predominantly term or payment extensions, but also may include interest rate reductions.

The balance of business banking loans modified in TDRs that experienced a payment default, and for which the payment default occurred within one year of the modification, was $42 million and $80 million, during the years ended December 31, 2012 and 2011, respectively. The balance of auto loans modified in TDRs that experienced a payment default, and for which the payment default occurred within one year of the modification, was $46 million during the year ended December 31, 2012. The corresponding amount for the year ended December 31, 2011 was insignificant. A payment default is deemed to occur as follows: (1) for scored auto and business banking loans, when the loan is two payments past due; and (2) for risk-rated business banking loans and auto loans, when the borrower has not made a loan payment by its scheduled due date after giving effect to the contractual grace period, if any.

The following table provides information about the financial effects of the various concessions granted in modifications of other consumer loans for the periods presented.

Year ended December 31,	Auto		Business banking	
	2012	2011	**2012**	2011
Weighted-average interest rate of loans with interest rate reductions – before TDR	**12.64%**	12.45%	**7.33%**	7.55%
Weighted-average interest rate of loans with interest rate reductions – after TDR	**4.83**	5.70	**5.49**	5.52
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	**NM**	NM	**1.4**	1.4
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	**NM**	NM	**2.4**	2.6

Purchased credit-impaired loans

PCI loans are initially recorded at fair value at acquisition; PCI loans acquired in the same fiscal quarter may be aggregated into one or more pools, provided that the loans have common risk characteristics. A pool is then accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows. With respect to the Washington Mutual transaction, all of the consumer loans were aggregated into pools of loans with common risk characteristics.

On a quarterly basis, the Firm estimates the total cash flows (both principal and interest) expected to be collected over the remaining life of each pool. These estimates incorporate assumptions regarding default rates, loss severities, the amounts and timing of prepayments and other factors that reflect then-current market conditions. Probable decreases in expected cash flows (i.e., increased credit losses) trigger the recognition of impairment, which is then measured as the present value of the expected principal loss plus any related foregone interest cash flows, discounted at the pool's effective interest rate. Impairments are recognized through the provision for credit losses and an increase in the allowance for loan losses. Probable and significant increases in expected cash flows (e.g., decreased credit losses, the net benefit of modifications) would first reverse any previously recorded allowance for loan losses with any remaining increases recognized prospectively as a yield adjustment over the remaining estimated lives of the underlying loans. The impacts of (i) prepayments, (ii) changes in variable interest rates, and (iii) any other changes in the timing of expected cash flows are recognized prospectively as adjustments to interest income. Disposals of loans – which may include sales of loans, receipt of payments in full by the borrower, or foreclosure – result in removal of the loans from the PCI portfolio.

The Firm continues to modify certain PCI loans. The impact of these modifications is incorporated into the Firm's quarterly assessment of whether a probable and significant change in expected cash flows has occurred, and the loans continue to be accounted for and reported as PCI loans. In evaluating the effect of modifications on expected cash flows, the Firm incorporates the effect of any foregone interest and also considers the potential for redefault. The Firm develops product-specific probability of default estimates, which are used to compute expected credit losses. In developing these probabilities of default, the Firm considers the relationship between the credit quality characteristics of the underlying loans and certain assumptions about home prices and unemployment based upon industry-wide data. The Firm also considers its own historical loss experience to date based on actual redefaulted PCI modified loans.

The excess of cash flows expected to be collected over the carrying value of the underlying loans is referred to as the accretable yield. This amount is not reported on the Firm's Consolidated Balance Sheets but is accreted into interest income at a level rate of return over the remaining estimated lives of the underlying pools of loans.

If the timing and/or amounts of expected cash flows on PCI loans were determined not to be reasonably estimable, no interest would be accreted and the loans would be reported as nonaccrual loans; however, since the timing and amounts of expected cash flows for the Firm's PCI consumer loans are reasonably estimable, interest is being accreted and the loans are being reported as performing loans.

Charge-offs are not recorded on PCI loans until actual losses exceed the estimated losses that were recorded as purchase accounting adjustments at acquisition date. Actual losses in excess of the purchase accounting adjustment are charged off against the PCI allowance for credit losses. To date, no charge-offs have been recorded for these consumer loans.

The PCI portfolio affects the Firm's results of operations primarily through: (i) contribution to net interest margin; (ii) expense related to defaults and servicing resulting from the liquidation of the loans; and (iii) any provision for loan losses. The PCI loans acquired in the Washington Mutual transaction were funded based on the interest rate characteristics of the loans. For example, variable-rate loans were funded with variable-rate liabilities and fixed-rate loans were funded with fixed-rate liabilities with a similar maturity profile. A net spread will be earned on the declining balance of the portfolio, which is estimated as of December 31, 2012, to have a remaining weighted-average life of 8 years.

Residential real estate – PCI loans

The table below sets forth information about the Firm's consumer, excluding credit card, PCI loans.

December 31, (in millions, except ratios)	Home equity		Prime mortgage		Subprime mortgage		Option ARMs		Total PCI	
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011
Carrying value[(a)]	**$20,971**	$22,697	**$13,674**	$15,180	**$ 4,626**	$ 4,976	**$20,466**	$22,693	**$59,737**	$65,546
Related allowance for loan losses[(b)]	**1,908**	1,908	**1,929**	1,929	**380**	380	**1,494**	1,494	**5,711**	5,711
Loan delinquency (based on unpaid principal balance)										
Current	**$20,331**	$22,682	**$11,078**	$12,148	**$ 4,198**	$ 4,388	**$16,415**	$17,919	**$52,022**	$57,137
30–149 days past due	**803**	1,130	**740**	912	**698**	782	**1,314**	1,467	**3,555**	4,291
150 or more days past due	**1,209**	1,252	**2,066**	3,000	**1,430**	2,059	**4,862**	6,753	**9,567**	13,064
Total loans	**$22,343**	$25,064	**$13,884**	$16,060	**$ 6,326**	$ 7,229	**$22,591**	$26,139	**$65,144**	$74,492
% of 30+ days past due to total loans	**9.01%**	9.50%	**20.21%**	24.36%	**33.64%**	39.30%	**27.34%**	31.45%	**20.14%**	23.30%
Current estimated LTV ratios (based on unpaid principal balance)[(c)(d)]										
Greater than 125% and refreshed FICO scores:										
Equal to or greater than 660	**$ 4,508**	$ 5,915	**$ 1,478**	$ 2,313	**$ 375**	$ 473	**$ 1,597**	$ 2,509	**$ 7,958**	$11,210
Less than 660	**2,344**	3,299	**1,449**	2,319	**1,300**	1,939	**2,729**	4,608	**7,822**	12,165
101% to 125% and refreshed FICO scores:										
Equal to or greater than 660	**4,966**	5,393	**2,968**	3,328	**434**	434	**3,281**	3,959	**11,649**	13,114
Less than 660	**2,098**	2,304	**1,983**	2,314	**1,256**	1,510	**3,200**	3,884	**8,537**	10,012
80% to 100% and refreshed FICO scores:										
Equal to or greater than 660	**3,531**	3,482	**1,872**	1,629	**416**	372	**3,794**	3,740	**9,613**	9,223
Less than 660	**1,305**	1,264	**1,378**	1,457	**1,182**	1,197	**2,974**	3,035	**6,839**	6,953
Lower than 80% and refreshed FICO scores:										
Equal to or greater than 660	**2,524**	2,409	**1,356**	1,276	**255**	198	**2,624**	2,189	**6,759**	6,072
Less than 660	**1,067**	998	**1,400**	1,424	**1,108**	1,106	**2,392**	2,215	**5,967**	5,743
Total unpaid principal balance	**$22,343**	$25,064	**$13,884**	$16,060	**$ 6,326**	$ 7,229	**$22,591**	$26,139	**$65,144**	$74,492
Geographic region (based on unpaid principal balance)										
California	**$13,493**	$15,091	**$ 7,877**	$ 9,121	**$ 1,444**	$ 1,661	**$11,889**	$13,565	**$34,703**	$39,438
New York	**1,067**	1,179	**927**	1,018	**649**	709	**1,404**	1,548	**4,047**	4,454
Illinois	**502**	558	**433**	511	**338**	411	**587**	702	**1,860**	2,182
Florida	**2,054**	2,307	**1,023**	1,265	**651**	812	**2,480**	3,201	**6,208**	7,585
Texas	**385**	455	**148**	168	**368**	405	**118**	140	**1,019**	1,168
New Jersey	**423**	471	**401**	445	**260**	297	**854**	969	**1,938**	2,182
Arizona	**408**	468	**215**	254	**105**	126	**305**	362	**1,033**	1,210
Washington	**1,215**	1,368	**328**	388	**142**	160	**563**	649	**2,248**	2,565
Ohio	**27**	32	**71**	79	**100**	114	**89**	111	**287**	336
Michigan	**70**	81	**211**	239	**163**	187	**235**	268	**679**	775
All other	**2,699**	3,054	**2,250**	2,572	**2,106**	2,347	**4,067**	4,624	**11,122**	12,597
Total unpaid principal balance	**$22,343**	$25,064	**$13,884**	$16,060	**$ 6,326**	$ 7,229	**$22,591**	$26,139	**$65,144**	$74,492

(a) Carrying value includes the effect of fair value adjustments that were applied to the consumer PCI portfolio at the date of acquisition.

(b) Management concluded as part of the Firm's regular assessment of the PCI loan pools that it was probable that higher expected credit losses would result in a decrease in expected cash flows. As a result, an allowance for loan losses for impairment of these pools has been recognized.

(c) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. These property values do not represent actual appraised loan level collateral values; as such, the resulting ratios are necessarily imprecise and should be viewed as estimates. Current estimated combined LTV for junior lien home equity loans considers all available lien positions related to the property.

(d) Refreshed FICO scores, which the Firm obtains at least quarterly, represent each borrower's most recent credit score.

Approximately 21% of the PCI home equity portfolio are senior lien loans; the remaining balance are junior lien HELOANs or HELOCs. The following tables set forth delinquency statistics for PCI junior lien home equity loans based on unpaid principal balance as of December 31, 2012 and 2011.

December 31, 2012 (in millions, except ratios)	Delinquencies: 30–89 days past due	Delinquencies: 90–149 days past due	Delinquencies: 150+ days past due	Total loans	Total 30+ day delinquency rate
HELOCs:[a]					
Within the revolving period[b]	**$ 361**	**$ 175**	**$ 591**	**$ 15,915**	**7.08%**
Beyond the revolving period[c]	**30**	**13**	**20**	**666**	**9.46**
HELOANs	**37**	**18**	**44**	**1,085**	**9.12**
Total	**$ 428**	**$ 206**	**$ 655**	**$ 17,666**	**7.30%**

December 31, 2011 (in millions, except ratios)	Delinquencies: 30–89 days past due	Delinquencies: 90–149 days past due	Delinquencies: 150+ days past due	Total loans	Total 30+ day delinquency rate
HELOCs:[a]					
Within the revolving period[b]	$ 500	$ 296	$ 543	$ 18,246	7.34%
Beyond the revolving period[c]	16	11	5	400	8.00
HELOANs	53	29	44	1,327	9.50
Total	$ 569	$ 336	$ 592	$ 19,973	7.50%

(a) In general, these HELOCs are revolving loans for a 10-year period, after which time the HELOC converts to an interest-only loan with a balloon payment at the end of the loan's term.
(b) Substantially all undrawn HELOCs within the revolving period have been closed.
(c) Predominantly all of these loans have been modified into fixed-rate amortizing loans.

The table below sets forth the accretable yield activity for the Firm's PCI consumer loans for the years ended December 31, 2012, 2011 and 2010, and represents the Firm's estimate of gross interest income expected to be earned over the remaining life of the PCI loan portfolios. The table excludes the cost to fund the PCI portfolios, and therefore the accretable yield does not represent net interest income expected to be earned on these portfolios.

Year ended December 31, (in millions, except ratios)	Total PCI: 2012	Total PCI: 2011	Total PCI: 2010
Beginning balance	**$ 19,072**	$ 19,097	$ 25,544
Accretion into interest income	**(2,491)**	(2,767)	(3,232)
Changes in interest rates on variable-rate loans	**(449)**	(573)	(819)
Other changes in expected cash flows[a]	**2,325**	3,315	(2,396)
Balance at December 31	**$ 18,457**	$ 19,072	$ 19,097
Accretable yield percentage	**4.38%**	4.33%	4.35%

(a) Other changes in expected cash flows may vary from period to period as the Firm continues to refine its cash flow model and periodically updates model assumptions. For the years ended December 31, 2012 and 2011, other changes in expected cash flows were principally driven by the impact of modifications, but also related to changes in prepayment assumptions. For the year ended December 31, 2010, other changes in expected cash flows were principally driven by changes in prepayment assumptions, as well as reclassification to the nonaccretable difference. Changes to prepayment assumptions change the expected remaining life of the portfolio, which drives changes in expected future interest cash collections. Such changes do not have a significant impact on the accretable yield percentage.

The factors that most significantly affect estimates of gross cash flows expected to be collected, and accordingly the accretable yield balance, include: (i) changes in the benchmark interest rate indices for variable-rate products such as option ARM and home equity loans; and (ii) changes in prepayment assumptions.

From the date of acquisition through 2011, the decrease in the accretable yield percentage has been primarily related to a decrease in interest rates on variable-rate loans and, to a lesser extent, extended loan liquidation periods. More recently, however, the Firm has observed loan liquidation periods start to shorten, thus increasing the accretable yield percentage. Certain events, such as extended or shortened loan liquidation periods, affect the timing of expected cash flows and the accretable yield percentage, but not the amount of cash expected to be received (i.e., the accretable yield balance). While extended loan liquidation periods reduce the accretable yield percentage (because the same accretable yield balance is recognized against a higher-than-expected loan balance over a longer-than-expected period of time), shortened loan liquidation periods would have the opposite effect.

Credit card loan portfolio

The Credit card portfolio segment includes credit card loans originated and purchased by the Firm. Delinquency rates are the primary credit quality indicator for credit card loans as they provide an early warning that borrowers may be experiencing difficulties (30 days past due), as well as information on those borrowers that have been delinquent for a longer period of time (90 days past due). In addition to delinquency rates, the geographic distribution of the loans provides insight as to the credit quality of the portfolio based on the regional economy.

While the borrower's credit score is another general indicator of credit quality, because the borrower's credit score tends to be a lagging indicator, the Firm does not view credit scores as a primary indicator of credit quality. However, the distribution of such scores provides a general indicator of credit quality trends within the portfolio. Refreshed FICO score information for a statistically significant random sample of the credit card portfolio is indicated in the table below; FICO is considered to be the industry benchmark for credit scores.

The Firm generally originates new card accounts to prime consumer borrowers. However, certain cardholders' FICO scores may decrease over time, depending on the performance of the cardholder and changes in credit score technology.

The table below sets forth information about the Firm's credit card loans.

As of or for the year ended December 31, (in millions, except ratios)	2012	2011
Net charge-offs	$ 4,944	$ 6,925
% of net charge-offs to retained loans	3.95%	5.44%
Loan delinquency		
Current and less than 30 days past due and still accruing	$ 125,309	$ 128,464
30–89 days past due and still accruing	1,381	1,808
90 or more days past due and still accruing	1,302	1,902
Nonaccrual loans	1	1
Total retained credit card loans	$ 127,993	$ 132,175
Loan delinquency ratios		
% of 30+ days past due to total retained loans	2.10%	2.81%
% of 90+ days past due to total retained loans	1.02	1.44
Credit card loans by geographic region		
California	$ 17,115	$ 17,598
New York	10,379	10,594
Texas	10,209	10,239
Illinois	7,399	7,548
Florida	7,231	7,583
New Jersey	5,503	5,604
Ohio	4,956	5,202
Pennsylvania	4,549	4,779
Michigan	3,745	3,994
Virginia	3,193	3,298
All other	53,714	55,736
Total retained credit card loans	$ 127,993	$ 132,175
Percentage of portfolio based on carrying value with estimated refreshed FICO scores[a]		
Equal to or greater than 660	84.1%	81.4%
Less than 660	15.9	18.6

(a) Refreshed FICO scores are estimated based on a statistically significant random sample of credit card accounts in the credit card portfolio for the periods shown. The Firm obtains refreshed FICO scores at least quarterly.

Credit card impaired loans and loan modifications

The table below sets forth information about the Firm's impaired credit card loans. All of these loans are considered to be impaired as they have been modified in TDRs.

December 31, (in millions)	2012	2011
Impaired credit card loans with an allowance[(a)(b)]		
Credit card loans with modified payment terms[(c)]	$ **4,189**	$ 6,075
Modified credit card loans that have reverted to pre-modification payment terms[(d)]	**573**	1,139
Total impaired credit card loans	$ **4,762**	$ 7,214
Allowance for loan losses related to impaired credit card loans	$ **1,681**	$ 2,727

(a) The carrying value and the unpaid principal balance are the same for credit card impaired loans.
(b) There were no impaired loans without an allowance.
(c) Represents credit card loans outstanding to borrowers enrolled in a credit card modification program as of the date presented.
(d) Represents credit card loans that were modified in TDRs but that have subsequently reverted back to the loans' pre-modification payment terms. At December 31, 2012 and 2011, $341 million and $762 million, respectively, of loans have reverted back to the pre-modification payment terms of the loans due to noncompliance with the terms of the modified loans. The remaining $232 million and $377 million at December 31, 2012 and 2011, respectively, of these loans are to borrowers who have successfully completed a short-term modification program. The Firm continues to report these loans as TDRs since the borrowers' credit lines remain closed.

The following table presents average balances of impaired credit card loans and interest income recognized on those loans.

Year ended December 31, (in millions)	2012	2011	2010
Average impaired credit card loans	$ **5,893**	$ 8,499	$10,730
Interest income on impaired credit card loans	**308**	463	605

Loan modifications

JPMorgan Chase may offer one of a number of loan modification programs to credit card borrowers who are experiencing financial difficulty. The Firm has short-term programs for borrowers who may be in need of temporary relief, and long-term programs for borrowers who are experiencing more fundamental financial difficulties. Most of the credit card loans have been modified under long-term programs. Modifications under long-term programs involve placing the customer on a fixed payment plan, generally for 60 months. Modifications under all short- and long-term programs typically include reducing the interest rate on the credit card. Certain borrowers enrolled in a short-term modification program may be given the option to re-enroll in a long-term program. Substantially all modifications are considered to be TDRs. If the cardholder does not comply with the modified payment terms, then the credit card loan agreement reverts back to its pre-modification payment terms. Assuming that the cardholder does not begin to perform in accordance with those payment terms, the loan continues to age and will ultimately be charged-off in accordance with the Firm's standard charge-off policy. In addition, if a borrower successfully completes a short-term modification program, then the loan reverts back to its pre-modification payment terms. However, in most cases, the Firm does not reinstate the borrower's line of credit.

The following table provides information regarding the nature and extent of modifications of credit card loans for the periods presented.

Year ended December 31,	New enrollments	
(in millions)	2012	2011
Short-term programs	$ **47**	$ 167
Long-term programs	**1,607**	2,523
Total new enrollments	$ **1,654**	$ 2,690

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the concessions granted on credit card loans modified in TDRs and redefaults for the period presented.

Year ended December 31, (in millions, except weighted-average data)	2012	2011
Weighted-average interest rate of loans – before TDR	**15.67%**	16.05%
Weighted-average interest rate of loans – after TDR	**5.19**	5.28
Loans that redefaulted within one year of modification[(a)]	$ **309**	$ 687

(a) Represents loans modified in TDRs that experienced a payment default in the period presented, and for which the payment default occurred within one year of the modification. The amounts presented represent the balance of such loans as of the end of the quarter in which they defaulted.

For credit card loans modified in TDRs, payment default is deemed to have occurred when the loans become two payments past due. A substantial portion of these loans is expected to be charged-off in accordance with the Firm's standard charge-off policy. Based on historical experience, the estimated weighted-average expected default rate for modified credit card loans was 38.23% at December 31, 2012, and 35.47% at December 31, 2011.

Wholesale loan portfolio

Wholesale loans include loans made to a variety of customers, ranging from large corporate and institutional clients to high-net-worth individuals.

The primary credit quality indicator for wholesale loans is the risk rating assigned each loan. Risk ratings are used to identify the credit quality of loans and differentiate risk within the portfolio. Risk ratings on loans consider the probability of default ("PD") and the loss given default ("LGD"). PD is the likelihood that a loan will not be repaid at default. The LGD is the estimated loss on the loan that would be realized upon the default of the borrower and takes into consideration collateral and structural support for each credit facility.

Management considers several factors to determine an appropriate risk rating, including the obligor's debt capacity and financial flexibility, the level of the obligor's earnings, the amount and sources for repayment, the level and nature of contingencies, management strength, and the industry and geography in which the obligor operates. 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 consists of the special mention, substandard and doubtful categories. Prior periods have been reclassified to conform with the current presentation. Risk ratings generally represent ratings profiles similar to those defined by S&P and Moody's. Investment grade ratings range from "AAA/Aaa" to "BBB-/Baa3." Noninvestment grade ratings are classified as noncriticized ("BB+/Ba1 and B-/B3") and criticized ("CCC+"/"Caa1 and below"), and the criticized portion is further subdivided into performing and nonaccrual loans, representing management's assessment of the collectibility of principal and interest. Criticized loans have a higher probability of default than noncriticized loans.

Risk ratings are reviewed on a regular and ongoing basis by Credit Risk Management and are adjusted as necessary for updated information affecting the obligor's ability to fulfill its obligations.

As noted above, the risk rating of a loan considers the industry in which the obligor conducts its operations. As part of the overall credit risk management framework, the Firm focuses on the management and diversification of its industry and client exposures, with particular attention paid to industries with actual or potential credit concern. See Note 5 on page 217 in this Annual Report for further detail on industry concentrations.

The table below provides information by class of receivable for the retained loans in the Wholesale portfolio segment.

As of or for the year ended December 31, (in millions, except ratios)	Commercial and industrial		Real estate	
	2012	2011	**2012**	2011
Loans by risk ratings				
Investment grade	**$ 61,870**	$ 52,379	**$ 41,796**	$ 33,920
Noninvestment grade:				
Noncriticized	**44,651**	37,870	**14,567**	14,394
Criticized performing	**2,636**	3,077	**3,857**	5,484
Criticized nonaccrual	**708**	889	**520**	886
Total noninvestment grade	**47,995**	41,836	**18,944**	20,764
Total retained loans	**$ 109,865**	$ 94,215	**$ 60,740**	$ 54,684
% of total criticized to total retained loans	**3.04 %**	4.21%	**7.21%**	11.65%
% of nonaccrual loans to total retained loans	**0.64**	0.94	**0.86**	1.62
Loans by geographic distribution[(a)]				
Total non-U.S.	**$ 35,494**	$ 30,813	**$ 1,533**	$ 1,497
Total U.S.	**74,371**	63,402	**59,207**	53,187
Total retained loans	**$ 109,865**	$ 94,215	**$ 60,740**	$ 54,684
Net charge-offs/(recoveries)	**$ (212)**	$ 124	**$ 54**	$ 256
% of net charge-offs/(recoveries) to end-of-period retained loans	**(0.19)%**	0.13%	**0.09%**	0.47%
Loan delinquency[(b)]				
Current and less than 30 days past due and still accruing	**$ 109,019**	$ 93,060	**$ 59,829**	$ 53,387
30–89 days past due and still accruing	**119**	266	**322**	327
90 or more days past due and still accruing[(c)]	**19**	—	**69**	84
Criticized nonaccrual	**708**	889	**520**	886
Total retained loans	**$ 109,865**	$ 94,215	**$ 60,740**	$ 54,684

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.
(b) The credit quality of wholesale loans is assessed primarily through ongoing review and monitoring of an obligor's ability to meet contractual obligations rather than relying on the past due status, which is generally a lagging indicator of credit quality. For a discussion of more significant risk factors, see page 271 of this Note.
(c) Represents loans that are considered well-collateralized and therefore still accruing interest.
(d) Other primarily includes loans to SPEs and loans to private banking clients. See Note 1 on pages 193–194 of this Annual Report for additional information on SPEs.

The following table presents additional information on the real estate class of loans within the Wholesale portfolio segment for the periods indicated. The real estate class primarily consists of secured commercial loans mainly to borrowers for multi-family and commercial lessor properties. Multifamily lending specifically finances apartment buildings. Commercial lessors receive financing specifically for real estate leased to retail, office and industrial tenants. Commercial construction and development loans represent financing for the construction of apartments, office and professional buildings and malls. Other real estate loans include lodging, real estate investment trusts ("REITs"), single-family, homebuilders and other real estate.

December 31, (in millions, except ratios)	Multifamily		Commercial lessors	
	2012	2011	**2012**	2011
Real estate retained loans	**$ 38,030**	$ 32,524	**$ 14,668**	$ 14,444
Criticized exposure	**2,118**	3,452	**1,951**	2,192
% of criticized exposure to total real estate retained loans	**5.57%**	10.61%	**13.30%**	15.18%
Criticized nonaccrual	**$ 249**	$ 412	**$ 207**	$ 284
% of criticized nonaccrual to total real estate retained loans	**0.65%**	1.27%	**1.41%**	1.97%

(table continued from previous page)

Financial institutions		Government agencies		Other[(d)]		Total retained loans	
2012	2011	**2012**	2011	**2012**	2011	**2012**	2011
$ 22,064	$ 28,803	**$ 9,183**	$ 7,421	**$ 79,533**	$ 74,475	**$ 214,446**	$ 196,998
13,760	8,849	**356**	377	**9,914**	7,450	**83,248**	68,940
395	530	**5**	5	**201**	963	**7,094**	10,059
8	37	**–**	16	**198**	570	**1,434**	2,398
14,163	9,416	**361**	398	**10,313**	8,983	**91,776**	81,397
$ 36,227	$ 38,219	**$ 9,544**	$ 7,819	**$ 89,846**	$ 83,458	**$ 306,222**	$ 278,395
1.11 %	1.48 %	**0.05%**	0.27%	**0.44%**	1.84%	**2.78 %**	4.47%
0.02	0.10	**–**	0.20	**0.22**	0.68	**0.47**	0.86
$ 26,326	$ 29,996	**$ 1,582**	$ 583	**$ 39,421**	$ 32,275	**$ 104,356**	$ 95,164
9,901	8,223	**7,962**	7,236	**50,425**	51,183	**201,866**	183,231
$ 36,227	$ 38,219	**$ 9,544**	$ 7,819	**$ 89,846**	$ 83,458	**$ 306,222**	$ 278,395
$ (36)	$ (137)	**$ 2**	$ –	**$ 14**	$ 197	**$ (178)**	$ 440
(0.10)%	(0.36)%	**0.02%**	–%	**0.02%**	0.24%	**(0.06)%**	0.16%
$ 36,151	$ 38,129	**$ 9,516**	$ 7,780	**$ 88,177**	$ 81,802	**$ 302,692**	$ 274,158
62	51	**28**	23	**1,427**	1,072	**1,958**	1,739
6	2	**–**	–	**44**	14	**138**	100
8	37	**–**	16	**198**	570	**1,434**	2,398
$ 36,227	$ 38,219	**$ 9,544**	$ 7,819	**$ 89,846**	$ 83,458	**$ 306,222**	$ 278,395

(table continued from previous page)

Commercial construction and development		Other		Total real estate loans	
2012	2011	**2012**	2011	**2012**	2011
$ 2,989	$ 3,148	**$ 5,053**	$ 4,568	**$ 60,740**	$ 54,684
119	304	**189**	422	**4,377**	6,370
3.98%	9.66%	**3.74%**	9.24%	**7.21%**	11.65%
$ 21	$ 69	**$ 43**	$ 121	**$ 520**	$ 886
0.70%	2.19%	**0.85%**	2.65%	**0.86%**	1.62%

Wholesale impaired loans and loan modifications

Wholesale impaired loans are comprised of loans that have been placed on nonaccrual status and/or that have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 on pages 276–279 of this Annual Report.

The table below sets forth information about the Firm's wholesale impaired loans.

December 31, (in millions)	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other		Total retained loans	
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011	**2012**	2011
Impaired loans												
With an allowance	**$ 588**	$ 828	**$ 375**	$ 621	**$ 6**	$ 21	**$ –**	$ 16	**$ 122**	$ 473	**$ 1,091**	$ 1,959
Without an allowance[(a)]	**173**	177	**133**	292	**2**	18	**–**	–	**76**	103	**384**	590
Total impaired loans	**$ 761**	$ 1,005	**$ 508**	$ 913	**$ 8**	$ 39	**$ –**	$ 16	**$ 198**	$ 576	**$ 1,475**	$ 2,549
Allowance for loan losses related to impaired loans	**$ 205**	$ 276	**$ 82**	$ 148	**$ 2**	$ 5	**$ –**	$ 10	**$ 30**	$ 77	**$ 319**	$ 516
Unpaid principal balance of impaired loans[(b)]	**957**	1,705	**626**	1,124	**22**	63	**–**	17	**318**	1,008	**1,923**	3,917

(a) When the discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, then the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged-off and/or there have been interest payments received and applied to the loan balance.

(b) Represents the contractual amount of principal owed at December 31, 2012 and 2011. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the carrying value; net deferred loan fees or costs; and unamortized discount or premiums on purchased loans.

The following table presents the Firm's average impaired loans for the years ended 2012, 2011 and 2010.

Year ended December 31, (in millions)	**2012**	2011	2010
Commercial and industrial	**$ 873**	$ 1,309	$ 1,655
Real estate	**784**	1,813	3,101
Financial institutions	**17**	84	304
Government agencies	**9**	20	5
Other	**277**	634	884
Total[(a)]	**$ 1,960**	$ 3,860	$ 5,949

(a) The related interest income on accruing impaired loans and interest income recognized on a cash basis were not material for the years ended December 31, 2012, 2011 and 2010.

Loan modifications

Certain loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. All TDRs are reported as impaired loans in the tables above.

The following table provides information about the Firm's wholesale loans that have been modified in TDRs, including a reconciliation of the beginning and ending balances of such loans and information regarding the nature and extent of modifications during the periods presented.

Years ended December 31, (in millions)	Commercial and industrial		Real estate		Other[b]		Total	
	2012	2011	**2012**	2011	**2012**	2011	**2012**	2011
Beginning balance of TDRs	**$ 531**	$ 212	**$ 176**	$ 907	**$ 43**	$ 24	**$ 750**	$ 1,143
New TDRs	**162**	$ 665	**43**	113	**73**	32	**278**	810
Increases to existing TDRs	**183**	96	**—**	16	**—**	—	**183**	112
Charge-offs post-modification	**(27)**	(30)	**(2)**	(146)	**(7)**	—	**(36)**	(176)
Sales and other[a]	**(274)**	(412)	**(118)**	(714)	**(87)**	(13)	**(479)**	(1,139)
Ending balance of TDRs	**$ 575**	$ 531	**$ 99**	$ 176	**$ 22**	$ 43	**$ 696**	$ 750
TDRs on nonaccrual status	**$ 522**	$ 415	**$ 92**	$ 128	**$ 22**	$ 35	**$ 636**	$ 578
Additional commitments to lend to borrowers whose loans have been modified in TDRs	**44**	147	**—**	—	**2**	—	**46**	147

(a) Sales and other are largely sales and paydowns, but also includes performing loans restructured at market rates that were removed from the reported TDR balance of $44 million and $152 million during the years ended December 31, 2012 and 2011, respectively.

(b) Includes loans to Financial institutions, Government agencies and Other.

Financial effects of modifications and redefaults

Loans modified as TDRs are typically term or payment extensions and, to a lesser extent, deferrals of principal and/or interest on commercial and industrial and real estate loans. For the years ended December 31, 2012 and 2011, the average term extension granted on loans with term or payment extensions was 1.1 years and 3.3 years, respectively. The weighted-average remaining term for all loans modified during these periods was 3.6 years and 4.5 years, respectively. Wholesale TDR loans that redefaulted within one year of the modification were $56 million and $96 million during the years ended December 31, 2012 and 2011, respectively. A payment default is deemed to occur when the borrower has not made a loan payment by its scheduled due date after giving effect to any contractual grace period.

Note 15 – Allowance for credit losses

JPMorgan Chase's allowance for loan losses covers the consumer, including credit card, portfolio segments (primarily scored); and wholesale (risk-rated) portfolio, and represents management's estimate of probable credit losses inherent in the Firm's loan portfolio. The allowance for loan losses includes an asset-specific component, a formula-based component and a component related to PCI loans, as described below. Management also estimates an allowance for wholesale and consumer lending-related commitments using methodologies similar to those used to estimate the allowance on the underlying loans. During 2012, the Firm did not make any significant changes to the methodologies or policies used to determine its allowance for credit losses; such policies are described in the following paragraphs.

The asset-specific component of the allowance relates to loans considered to be impaired, which includes loans that have been modified in TDRs as well as risk-rated loans that have been placed on nonaccrual status. To determine the asset-specific component of the allowance, larger loans are evaluated individually, while smaller loans are evaluated as pools using historical loss experience for the respective class of assets. Scored loans (i.e., consumer loans) are pooled by product type, while risk-rated loans (primarily wholesale loans) are segmented by risk rating.

The Firm generally measures the asset-specific allowance as the difference between the recorded investment in the loan and the present value of the cash flows expected to be collected, discounted at the loan's original effective interest rate. Subsequent changes in impairment are reported as an adjustment to the provision for loan losses. In certain cases, the asset-specific allowance is determined using an observable market price, and the allowance is measured as the difference between the recorded investment in the loan and the loan's fair value. Impaired collateral-dependent loans are charged down to the fair value of collateral less costs to sell and therefore may not be subject to an asset-specific reserve as for other impaired loans. See Note 14 on pages 250–275 of this Annual Report for more information about charge-offs and collateral-dependent loans.

The asset-specific component of the allowance for impaired loans that have been modified in TDRs incorporates the effects of foregone interest, if any, in the present value calculation and also incorporates the effect of the modification on the loan's expected cash flows, which considers the potential for redefault. For residential real estate loans modified in TDRs, the Firm develops product-specific probability of default estimates, which are applied at a loan level to compute expected losses. In developing these probabilities of default, the Firm considers the relationship between the credit quality characteristics of the underlying loans and certain assumptions about home prices and unemployment, based upon industry-wide data. The Firm also considers its own historical loss experience to date based on actual redefaulted modified loans. For credit card loans modified in TDRs, expected losses incorporate projected redefaults based on the Firm's historical experience by type of modification program. For wholesale loans modified in TDRs, expected losses incorporate redefaults based on management's expectation of the borrower's ability to repay under the modified terms.

The formula-based component is based on a statistical calculation to provide for probable principal losses inherent in performing risk-rated loans and all consumer loans, except for any loans restructured in TDRs and PCI loans. See Note 14 on pages 250–275 of this Annual Report for more information on PCI loans.

For scored loans, the statistical calculation is performed on pools of loans with similar risk characteristics (e.g., product type) and generally computed by applying expected loss factors to outstanding principal balances over an estimated loss emergence period. The loss emergence period represents the time period between the date at which the loss is estimated to have been incurred and the ultimate realization of that loss (through a charge-off). Estimated loss emergence periods may vary by product and may change over time; management applies judgment in estimating loss emergence periods, using available credit information and trends.

Loss factors are statistically derived and sensitive to changes in delinquency status, credit scores, collateral values and other risk factors. The Firm uses a number of different forecasting models to estimate both the PD and the loss severity, including delinquency roll rate models and credit loss severity models. In developing PD and loss severity assumptions, the Firm also considers known and anticipated changes in the economic environment, including changes in home prices, unemployment rates and other risk indicators.

A nationally recognized home price index measure is used to estimate both the PD and the loss severity on residential real estate loans at the metropolitan statistical areas ("MSA") level. Loss severity estimates are regularly validated by comparison to actual losses recognized on defaulted loans, market-specific real estate appraisals and property sales activity. The economic impact of potential modifications of residential real estate loans is not included in the statistical calculation because of the uncertainty regarding the type and results of such modifications.

For risk-rated loans, the statistical calculation is the product of an estimated PD and an estimated LGD. These factors are differentiated by risk rating and expected maturity. In assessing the risk rating of a particular loan, among the factors considered are the obligor's debt capacity and financial flexibility, the level of the obligor's earnings, the amount and sources for repayment, the level and nature of contingencies, management strength, and the industry and geography in which the obligor operates. These factors are based on an evaluation of historical and current information, and involve subjective assessment and interpretation. Emphasizing one factor over another or considering additional factors could impact the risk rating assigned by the Firm to that loan. PD estimates are based on observable external through-the-cycle data, using credit-rating agency default statistics. LGD estimates are based on the Firm's history of actual credit losses over more than one credit cycle.

Management applies judgment within an established framework to adjust the results of applying the statistical calculation described above. The determination of the appropriate adjustment is based on management's view of uncertainties that have occurred but that are not yet reflected in the loss factors and that relate to current macroeconomic and political conditions, the quality of underwriting standards and other relevant internal and external factors affecting the credit quality of the portfolio. For the scored loan portfolios, adjustments to the statistical calculation are accomplished in part by analyzing the historical loss experience for each major product segment. Factors related to unemployment, home prices, borrower behavior and lien position, the estimated effects of the mortgage foreclosure-related settlement with federal and state officials and uncertainties regarding the ultimate success of loan modifications are incorporated into the calculation, as appropriate. For junior lien products, management considers the delinquency and/or modification status of any senior liens in determining the adjustment. In addition, for the risk-rated portfolios, any adjustments made to the statistical calculation also consider concentrated and deteriorating industries.

Management establishes an asset-specific allowance for lending-related commitments that are considered impaired and computes a formula-based allowance for performing consumer and wholesale lending-related commitments. These are computed using a methodology similar to that used for the wholesale loan portfolio, modified for expected maturities and probabilities of drawdown.

Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. Subsequent evaluations of the loan portfolio, in light of the factors then prevailing, may result in significant changes in the allowances for loan losses and lending-related commitments in future periods.

At least quarterly, the allowance for credit losses is reviewed by the Chief Risk Officer, the Chief Financial Officer and the Controller of the Firm and discussed with the Risk Policy and Audit Committees of the Board of Directors of the Firm. As of December 31, 2012, JPMorgan Chase deemed the allowance for credit losses to be appropriate (i.e., sufficient to absorb probable credit losses that are inherent in the portfolio).

Allowance for credit losses and loans and lending-related commitments by impairment methodology

The table below summarizes information about the allowance for loan losses, loans by impairment methodology, the allowance for lending-related commitments and lending-related commitments by impairment methodology.

	2012			
Year ended December 31, (in millions)	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
Cumulative effect of change in accounting principles[(a)]	–	–	–	–
Gross charge-offs	4,805 [(c)]	5,755	346	10,906
Gross recoveries	(508)	(811)	(524)	(1,843)
Net charge-offs	4,297 [(c)]	4,944	(178)	9,063
Provision for loan losses	302	3,444	(359)	3,387
Other	(7)	2	8	3
Ending balance at December 31,	$ 12,292	$ 5,501	$ 4,143	$ 21,936
Allowance for loan losses by impairment methodology				
Asset-specific[(b)]	$ 729	$ 1,681 [(d)]	$ 319	$ 2,729
Formula-based	5,852	3,820	3,824	13,496
PCI	5,711	–	–	5,711
Total allowance for loan losses	$ 12,292	$ 5,501	$ 4,143	$ 21,936
Loans by impairment methodology				
Asset-specific	$ 13,938	$ 4,762	$ 1,475	$ 20,175
Formula-based	218,945	123,231	304,728	646,904
PCI	59,737	–	19	59,756
Total retained loans	$ 292,620	$ 127,993	$ 306,222	$ 726,835
Impaired collateral-dependent loans				
Net charge-offs	$ 973 [(c)]	$ –	$ 77	$ 1,050
Loans measured at fair value of collateral less cost to sell	3,272	–	445	3,717
Allowance for lending-related commitments				
Beginning balance at January 1,	$ 7	$ –	$ 666	$ 673
Cumulative effect of change in accounting principles[(a)]	–	–	–	–
Provision for lending-related commitments	–	–	(2)	(2)
Other	–	–	(3)	(3)
Ending balance at December 31,	$ 7	$ –	$ 661	$ 668
Allowance for lending-related commitments by impairment methodology				
Asset-specific	$ –	$ –	$ 97	$ 97
Formula-based	7	–	564	571
Total allowance for lending-related commitments	$ 7	$ –	$ 661	$ 668
Lending-related commitments by impairment methodology				
Asset-specific	$ –	$ –	$ 355	$ 355
Formula-based	60,156	533,018	434,459	1,027,633
Total lending-related commitments	$ 60,156	$ 533,018	$ 434,814	$ 1,027,988

(a) Effective January 1, 2010, the Firm adopted accounting guidance related to VIEs. Upon adoption of the guidance, the Firm consolidated its Firm-sponsored credit card securitization trusts, its Firm-administered multi-seller conduits and certain other consumer loan securitization entities, primarily mortgage-related. As a result, $7.4 billion, $14 million and $127 million, respectively, of allowance for loan losses were recorded on-balance sheet with the consolidation of these entities. For further discussion, see Note 16 on pages 280–291 of this Annual Report.

(b) Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR.

(c) Consumer, excluding credit card, charge-offs for the year ended December 31, 2012, included $747 million of charge-offs for Chapter 7 residential real estate loans and $53 million of charge-offs for Chapter 7 auto loans.

(d) The asset-specific credit card allowance for loan losses is related to loans that have been modified in a TDR; such allowance is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.

(table continued from previous page)

2011				2010			
Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
$ 16,471	$ 11,034	$ 4,761	$ 32,266	$ 14,785	$ 9,672	$ 7,145	$ 31,602
–	–	–	–	127	7,353	14	7,494
5,419	8,168	916	14,503	8,383	15,410	1,989	25,782
(547)	(1,243)	(476)	(2,266)	(474)	(1,373)	(262)	(2,109)
4,872	6,925	440	12,237	7,909	14,037	1,727	23,673
4,670	2,925	17	7,612	9,458	8,037	(673)	16,822
25	(35)	(22)	(32)	10	9	2	21
$ 16,294	$ 6,999	$ 4,316	$ 27,609	$ 16,471	$ 11,034	$ 4,761	$ 32,266
$ 828	$ 2,727 [d]	$ 516	$ 4,071	$ 1,075	$ 4,069 [d]	$ 1,574	$ 6,718
9,755	4,272	3,800	17,827	10,455	6,965	3,187	20,607
5,711	–	–	5,711	4,941	–	–	4,941
$ 16,294	$ 6,999	$ 4,316	$ 27,609	$ 16,471	$ 11,034	$ 4,761	$ 32,266
$ 9,892	$ 7,214	$ 2,549	$ 19,655	$ 6,220	$ 10,005	$ 5,486	$ 21,711
232,989	124,961	275,825	633,775	248,481	125,519	216,980	590,980
65,546	–	21	65,567	72,763	–	44	72,807
$ 308,427	$ 132,175	$ 278,395	$ 718,997	$ 327,464	$ 135,524	$ 222,510	$ 685,498
$ 110	$ –	$ 128	$ 238	$ 304	$ –	$ 636	$ 940
830	–	833	1,663	890	–	1,269	2,159
$ 6	$ –	$ 711	$ 717	$ 12	$ –	$ 927	$ 939
–	–	–	–	–	–	(18)	(18)
2	–	(40)	(38)	(6)	–	(177)	(183)
(1)	–	(5)	(6)	–	–	(21)	(21)
$ 7	$ –	$ 666	$ 673	$ 6	$ –	$ 711	$ 717
$ –	$ –	$ 150	$ 150	$ –	$ –	$ 180	$ 180
7	–	516	523	6	–	531	537
$ 7	$ –	$ 666	$ 673	$ 6	$ –	$ 711	$ 717
$ –	$ –	$ 865	$ 865	$ –	$ –	$ 1,005	$ 1,005
62,307	530,616	381,874	974,797	65,403	547,227	345,074	957,704
$ 62,307	$ 530,616	$ 382,739	$ 975,662	$ 65,403	$ 547,227	$ 346,079	$ 958,709

Note 16 – Variable interest entities

For a further description of JPMorgan Chase's accounting policies regarding consolidation of VIEs, see Note 1 on pages 193–194 of this Annual Report.

The following table summarizes the most significant types of Firm-sponsored VIEs by business segment. The Firm considers a "sponsored" VIE to include any entity where: (1) JPMorgan Chase is the principal beneficiary of the structure; (2) the VIE is used by JPMorgan Chase to securitize Firm assets; (3) the VIE issues financial instruments with the JPMorgan Chase name; or (4) the entity is a JPMorgan Chase–administered asset-backed commercial paper conduit.

Line-of-Business	*Transaction Type*	*Activity*	*Annual Report page reference*
CCB	Credit card securitization trusts	Securitization of both originated and purchased credit card receivables	281
	Other securitization trusts	Securitization of originated automobile and student loans	281–283
	Mortgage securitization trusts	Securitization of originated and purchased residential mortgages	281–283
CIB	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, automobile and student loans	281–283
	Multi-seller conduits	Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to meet investor needs	284–285
	Investor intermediation activities:		
	Municipal bond vehicles		285–286
	Credit-related note and asset swap vehicles		286–288

The Firm's other business segments are also involved with VIEs, but to a lesser extent, as follows:

- Asset Management: Sponsors and manages certain funds that are deemed VIEs. As asset manager of the funds, AM earns a fee based on assets managed; the fee varies with each fund's investment objective and is competitively priced. For fund entities that qualify as VIEs, AM's interests are, in certain cases, considered to be significant variable interests that result in consolidation of the financial results of these entities.
- Commercial Banking: CB makes investments in and provides lending to community development entities that may meet the definition of a VIE. In addition, CB provides financing and lending related services to certain client-sponsored VIEs. In general, CB does not control the activities of these entities and does not consolidate these entities.
- Corporate/Private Equity: Corporate uses VIEs to issue trust preferred securities. See Note 21 on pages 297–299 of this Annual Report for further information. The Private Equity business, within Corporate/Private Equity, may be involved with entities that are deemed VIEs. However, the Firm's private equity business is subject to specialized investment company accounting, which does not require the consolidation of investments, including VIEs.

The Firm also invests in and provides financing and other services to VIEs sponsored by third parties, as described on page 288 of this Note.

Significant Firm-sponsored variable interest entities

Credit card securitizations

The Card business securitizes originated and purchased credit card loans, primarily through the Chase Issuance Trust (the "Trust"). The Firm's continuing involvement in credit card securitizations includes servicing the receivables, retaining an undivided seller's interest in the receivables, retaining certain senior and subordinated securities and maintaining escrow accounts.

The Firm is considered to be the primary beneficiary of these Firm-sponsored credit card securitization trusts based on the Firm's ability to direct the activities of these VIEs through its servicing responsibilities and other duties, including making decisions as to the receivables that are transferred into those trusts and as to any related modifications and workouts. Additionally, the nature and extent of the Firm's other continuing involvement with the trusts, as indicated above, obligates the Firm to absorb losses and gives the Firm the right to receive certain benefits from these VIEs that could potentially be significant.

The underlying securitized credit card receivables and other assets of the securitization trusts are available only for payment of the beneficial interests issued by the securitization trusts; they are not available to pay the Firm's other obligations or the claims of the Firm's other creditors.

The agreements with the credit card securitization trusts require the Firm to maintain a minimum undivided interest in the credit card trusts (which generally ranges from 4% to 12%). As of December 31, 2012 and 2011, the Firm held undivided interests in Firm-sponsored credit card securitization trusts of $15.8 billion and $13.7 billion, respectively. The Firm maintained an average undivided interest in principal receivables owned by those trusts of approximately 28% and 22% for the years ended December 31, 2012 and 2011, respectively. The Firm also retained $362 million and $541 million of senior securities and $4.6 billion and $3.0 billion of subordinated securities in certain of its credit card securitization trusts as of December 31, 2012 and 2011, respectively. The Firm's undivided interests in the credit card trusts and securities retained are eliminated in consolidation.

Firm-sponsored mortgage and other securitization trusts

The Firm securitizes (or has securitized) originated and purchased residential mortgages, commercial mortgages and other consumer loans (including automobile and student loans) primarily in its CIB and CCB businesses. Depending on the particular transaction, as well as the respective business involved, the Firm may act as the servicer of the loans and/or retain certain beneficial interests in the securitization trusts.

The following table presents the total unpaid principal amount of assets held in Firm-sponsored private-label securitization entities, including those in which the Firm has continuing involvement, and those that are consolidated by the Firm. Continuing involvement includes servicing the loans, holding senior interests or subordinated interests, recourse or guarantee arrangements, and derivative transactions. In certain instances, the Firm's only continuing involvement is servicing the loans. See Securitization activity on page 289 of this Note for further information regarding the Firm's cash flows with and interests retained in nonconsolidated VIEs, and pages 289–290 of this Note for information on the Firm's loan sales to U.S. government agencies.

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs[d][e][f]		
December 31, 2012 [a] (in billions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase
Securitization-related						
Residential mortgage:						
Prime and Alt-A	$ 107.2	$ 2.5	$ 80.6	$ 0.3	$ —	$ 0.3
Subprime	34.5	1.3	31.3	0.1	—	0.1
Option ARMs	26.3	0.2	26.1	—	—	—
Commercial and other[b]	127.8	—	81.8	1.5	2.8	4.3
Total	$ 295.8	$ 4.0	$ 219.8	$ 1.9	$ 2.8	$ 4.7

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs[d][e][f]		
December 31, 2011[a] (in billions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase
Securitization-related						
Residential mortgage:						
Prime and Alt-A	$ 129.9	$ 2.7	$ 101.0	$ 0.6	$ —	$ 0.6
Subprime	39.4	1.4	35.8	—	—	—
Option ARMs	31.4	0.3	31.1	—	—	—
Commercial and other[b]	139.3	—	93.3	1.7	2.0	3.7
Total[c]	$ 340.0	$ 4.4	$ 261.2	$ 2.3	$ 2.0	$ 4.3

(a) Excludes U.S. government agency securitizations. See pages 289–290 of this Note for information on the Firm's loan sales to U.S. government agencies.
(b) Consists of securities backed by commercial loans (predominantly real estate) and non-mortgage-related consumer receivables purchased from third parties. The Firm generally does not retain a residual interest in its sponsored commercial mortgage securitization transactions.
(c) Prior period amounts have been revised to conform with the current presentation methodology.
(d) The table above excludes the following: retained servicing (see Note 17 on pages 291–295 of this Annual Report for a discussion of MSRs); securities retained from loans sales to U.S. government agencies; interest rate and foreign exchange derivatives primarily used to manage interest rate and foreign exchange risks of securitization entities (See Note 6 on pages 218–227 of this Annual Report for further information on derivatives); senior and subordinated securities of $131 million and $45 million, respectively, at December 31, 2012, and $110 million and $8 million, respectively, at December 31, 2011, which the Firm purchased in connection with CIB's secondary market-making activities.
(e) Includes interests held in re-securitization transactions.
(f) As of December 31, 2012 and 2011, 74% and 68%, respectively, of the Firm's retained securitization interests, which are carried at fair value, were risk-rated "A" or better, on an S&P-equivalent basis. The retained interests in prime residential mortgages consisted of $170 million and $136 million of investment-grade and $171 million and $427 million of noninvestment-grade retained interests at December 31, 2012 and 2011, respectively. The retained interests in commercial and other securitizations trusts consisted of $4.1 billion and $3.4 billion of investment-grade and $164 million and $283 million of noninvestment-grade retained interests at December 31, 2012 and 2011, respectively.

Residential mortgage

The Firm securitizes residential mortgage loans originated by CCB, as well as residential mortgage loans purchased from third parties by either CCB or CIB. CCB generally retains servicing for all residential mortgage loans originated or purchased by CCB, and for certain mortgage loans purchased by CIB. For securitizations serviced by CCB, the Firm has the power to direct the significant activities of the VIE because it is responsible for decisions related to loan modifications and workouts. CCB may also retain an interest upon securitization.

In addition, CIB engages in underwriting and trading activities involving securities issued by Firm-sponsored securitization trusts. As a result, CIB at times retains senior and/or subordinated interests (including residual interests) in residential mortgage securitizations upon securitization, and/or reacquires positions in the secondary market in the normal course of business. In certain instances, as a result of the positions retained or reacquired by CIB or held by CCB, when considered together with the servicing arrangements entered into by CCB, the Firm is deemed to be the primary beneficiary of certain securitization trusts. See the table on page 288 of this Note for more information on consolidated residential mortgage securitizations.

The Firm does not consolidate a residential mortgage securitization (Firm-sponsored or third-party-sponsored) when it is not the servicer (and therefore does not have the power to direct the most significant activities of the trust) or does not hold a beneficial interest in the trust that could potentially be significant to the trust. At December 31, 2012 and 2011, the Firm did not consolidate the assets of certain Firm-sponsored residential mortgage securitization VIEs, in which the Firm had continuing involvement, primarily due to the fact that the Firm did not hold an interest in these trusts that could potentially be significant to the trusts. See the table on page 288 of this Note for more information on the consolidated residential mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated residential mortgage securitizations.

Commercial mortgages and other consumer securitizations

CIB originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts. CIB may retain unsold senior and/or subordinated interests in commercial mortgage securitizations at the time of securitization but, generally, the Firm does not service commercial loan securitizations. For commercial mortgage securitizations the power to direct the significant activities of the VIE generally is held by the servicer or investors in a specified class of securities ("controlling class"). See the table on page 288 of this Note for more information on the consolidated commercial mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated securitizations.

The Firm also securitizes automobile and student loans. The Firm retains servicing responsibilities for all originated and certain purchased student and automobile loans and has the power to direct the activities of these VIEs through these servicing responsibilities. See the table on page 288 of this Note for more information on the consolidated student loan securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated securitizations.

Re-securitizations

The Firm engages in certain re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. These transfers occur in connection with both agency (Fannie Mae, Freddie Mac and Ginnie Mae) and nonagency (private-label) sponsored VIEs, which may be backed by either residential or commercial mortgages. The Firm's consolidation analysis is largely dependent on the Firm's role and interest in the re-securitization trusts. During the years ended December 31, 2012, 2011 and 2010, the Firm transferred $10.0 billion, $24.9 billion and $33.9 billion, respectively, of securities to agency VIEs, and $286 million, $381 million and $1.3 billion, respectively, of securities to private-label VIEs.

Most re-securitizations with which the Firm is involved are client-driven transactions in which a specific client or group of clients are seeking a specific return or risk profile. For these transactions, the Firm has concluded that the decision-making power of the entity is shared between the Firm and its client(s), considering the joint effort and decisions in establishing the re-securitization trust and its assets, as well as the significant economic interest the client holds in the re-securitization trust; therefore the Firm does not consolidate the re-securitization VIE.

In more limited circumstances, the Firm creates a re-securitization trust independently and not in conjunction with specific clients. In these circumstances, the Firm is deemed to have the unilateral ability to direct the most significant activities of the re-securitization trust because of the decisions made during the establishment and design of the trust; therefore, the Firm consolidates the re-securitization VIE if the Firm holds an interest that could potentially be significant.

Additionally, the Firm may invest in beneficial interests of third-party securitizations and generally purchases these interests in the secondary market. In these circumstances, the Firm does not have the unilateral ability to direct the most significant activities of the re-securitization trust, either because it wasn't involved in the initial design of the trust, or the Firm is involved with an independent third party sponsor and demonstrates shared power over the creation of the trust; therefore, the Firm does not consolidate the re-securitization VIE.

As of December 31, 2012 and 2011, the Firm did not consolidate any agency re-securitizations. As of December 31, 2012 and 2011, the Firm consolidated $76 million and $348 million, respectively, of assets, and $5 million and $139 million, respectively, of liabilities of private-label re-securitizations. See the table on page 288 of this Note for more information on the consolidated re-securitization transactions.

As of December 31, 2012 and 2011, total assets (including the notional amount of interest-only securities) of nonconsolidated Firm-sponsored private-label re-securitization entities in which the Firm has continuing involvement were $4.6 billion and $3.3 billion, respectively. At December 31, 2012 and 2011, the Firm held approximately $2.0 billion and $3.6 billion, respectively, of interests in nonconsolidated agency re-securitization entities, and $61 million and $14 million, respectively, of senior and subordinated interests in nonconsolidated private-label re-securitization entities. See the table on page 282 of this Note for further information on interests held in nonconsolidated securitizations.

Multi-seller conduits

Multi-seller conduit entities are separate bankruptcy remote entities that purchase interests in, and make loans secured by, pools of receivables and other financial assets pursuant to agreements with customers of the Firm. The conduits fund their purchases and loans through the issuance of highly rated commercial paper. The primary source of repayment of the commercial paper is the cash flows from the pools of assets. In most instances, the assets are structured with deal-specific credit enhancements provided to the conduits by the customers (i.e., sellers) or other third parties. Deal-specific credit enhancements are generally structured to cover a multiple of historical losses expected on the pool of assets, and are typically in the form of overcollateralization provided by the seller. The deal-specific credit enhancements mitigate the Firm's potential losses on its agreements with the conduits.

To ensure timely repayment of the commercial paper, each asset pool financed by the conduits has a minimum 100% deal-specific liquidity facility associated with it provided by JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A. also provides the multi-seller conduit vehicles with uncommitted program-wide liquidity facilities and program-wide credit enhancement in the form of standby letters of credit. The amount of program-wide credit enhancement required is based upon commercial paper issuance and approximates 10% of the outstanding balance.

The Firm consolidates its Firm-administered multi-seller conduits, as the Firm has both the power to direct the significant activities of the conduits and a potentially significant economic interest in the conduits. As administrative agent and in its role in structuring transactions, the Firm makes decisions regarding asset types and credit quality, and manages the commercial paper funding needs of the conduits. The Firm's interests that could potentially be significant to the VIEs include the fees received as administrative agent and liquidity and program-wide credit enhancement provider, as well as the potential exposure created by the liquidity and credit enhancement facilities provided to the conduits. See page 288 of this Note for further information on consolidated VIE assets and liabilities.

In the normal course of business, JPMorgan Chase makes markets in and invests in commercial paper, including commercial paper issued by the Firm-administered multi-seller conduits. The Firm held $8.3 billion and $11.3 billion of the commercial paper issued by the Firm-administered multi-seller conduits at December 31, 2012 and 2011, respectively. The Firm's investments were not driven by market illiquidity and the Firm is not obligated under any agreement to purchase the commercial paper issued by the Firm-administered multi-seller conduits.

Deal-specific liquidity facilities, program-wide liquidity and credit enhancement provided by the Firm have been eliminated in consolidation. The Firm provides lending-related commitments to certain clients of the Firm-administered multi-seller conduits. The unfunded portion of these commitments was $10.8 billion at both December 31, 2012 and 2011, and are reported as off-balance sheet lending-related commitments. For more information on off-balance sheet lending-related commitments, see Note 29 on pages 308–315 of this Annual Report.

VIEs associated with investor intermediation activities

As a financial intermediary, the Firm creates certain types of VIEs and also structures transactions with these VIEs, typically using derivatives, to meet investor needs. The Firm may also provide liquidity and other support. The risks inherent in the derivative instruments or liquidity commitments are managed similarly to other credit, market or liquidity risks to which the Firm is exposed. The principal types of VIEs for which the Firm is engaged in on behalf of clients are municipal bond vehicles, credit-related note vehicles and asset swap vehicles.

Municipal bond vehicles

The Firm has created a series of trusts that provide short-term investors with qualifying tax-exempt investments, and that allow investors in tax-exempt securities to finance their investments at short-term tax-exempt rates. In a typical transaction, the vehicle purchases fixed-rate longer-term highly rated municipal bonds and funds the purchase by issuing two types of securities: (1) puttable floating-rate certificates and (2) inverse floating-rate residual interests ("residual interests"). The maturity of each of the puttable floating-rate certificates and the residual interests is equal to the life of the vehicle, while the maturity of the underlying municipal bonds is typically longer. Holders of the puttable floating-rate certificates may "put," or tender, the certificates if the remarketing agent cannot successfully remarket the floating-rate certificates to another investor. A liquidity facility conditionally obligates the liquidity provider to fund the purchase of the tendered floating-rate certificates. Upon termination of the vehicle, proceeds from the sale of the underlying municipal bonds would first repay any funded liquidity facility or outstanding floating-rate certificates and the remaining amount, if any, would be paid to the residual interests. If the proceeds from the sale of the underlying municipal bonds are not sufficient to repay the liquidity facility, in certain transactions the liquidity provider has recourse to the residual interest holders for reimbursement. Certain residual interest holders may be required to post collateral with the Firm, as liquidity provider, to support such reimbursement obligations should the market value of the municipal bonds decline.

JPMorgan Chase Bank, N.A. often serves as the sole liquidity provider, and J.P. Morgan Securities LLC serves as remarketing agent, of the puttable floating-rate certificates. The liquidity provider's obligation to perform is conditional and is limited by certain termination events, which include bankruptcy or failure to pay by the municipal bond issuer or credit enhancement provider, an event of taxability on the municipal bonds or the immediate downgrade of the municipal bond to below investment grade. In addition, the Firm's exposure as liquidity provider is further limited by the high credit quality of the underlying municipal bonds, the excess collateralization in the vehicle, or in certain transactions, the reimbursement agreements with the residual interest holders. However, a downgrade of JPMorgan Chase Bank, N.A.'s short-term rating does not affect the Firm's obligation under the liquidity facility.

The long-term credit ratings of the puttable floating rate certificates are directly related to the credit ratings of the underlying municipal bonds, the credit rating of any insurer of the underlying municipal bond, and the Firm's short-term credit rating as liquidity provider. A downgrade in any of these ratings would affect the rating of the puttable floating-rate certificates and could cause demand for these certificates by investors to decline or disappear.

As remarketing agent, the Firm may hold puttable floating-rate certificates of the municipal bond vehicles. At December 31, 2012 and 2011, the Firm held $893 million and $637 million, respectively, of these certificates on its Consolidated Balance Sheets. The largest amount held by the Firm at any time during 2012 was $1.8 billion, or 8%, of the municipal bond vehicles' aggregate outstanding puttable floating-rate certificates. The Firm did not have and continues not to have any intent to protect any residual interest holder from potential losses on any of the municipal bond holdings.

The Firm consolidates municipal bond vehicles if it owns the residual interest. The residual interest generally allows the owner to make decisions that significantly impact the economic performance of the municipal bond vehicle, primarily by directing the sale of the municipal bonds owned by the vehicle. In addition, the residual interest owners have the right to receive benefits and bear losses that could potentially be significant to the municipal bond vehicle. The Firm does not consolidate municipal bond vehicles if it does not own the residual interests, since the Firm does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle. See page 288 of this Note for further information on consolidated municipal bond vehicles.

The Firm's exposure to nonconsolidated municipal bond VIEs at December 31, 2012 and 2011, including the ratings profile of the VIEs' assets, was as follows.

December 31, (in billions)	Fair value of assets held by VIEs	Liquidity facilities	Excess/(deficit)[a]	Maximum exposure
Nonconsolidated municipal bond vehicles				
2012	**$ 14.2**	**$ 8.0**	**$ 6.2**	**$ 8.0**
2011	13.5	7.9	5.6	7.9

December 31, (in billions, except where otherwise noted)	Ratings profile of VIE assets[b]					Fair value of assets held by VIEs	Wt. avg. expected life of assets (years)
	Investment-grade				Noninvestment-grade		
	AAA to AAA-	AA+ to AA-	A+ to A-	BBB+ to BBB-	BB+ and below		
2012	**$ 1.6**	**$ 11.8**	**$ 0.8**	**$ –**	**$ –**	**$ 14.2**	**5.9**
2011	1.5	11.2	0.7	–	0.1	13.5	6.6

(a) Represents the excess/(deficit) of the fair values of municipal bond assets available to repay the liquidity facilities, if drawn.
(b) The ratings scale is based on the Firm's internal risk ratings and is presented on an S&P-equivalent basis.

Credit-related note and asset swap vehicles

Credit-related note vehicles

The Firm structures transactions with credit-related note vehicles in which the VIE purchases highly rated assets, such as asset-backed securities, and enters into a credit derivative contract with the Firm to obtain exposure to a referenced credit which the VIE otherwise does not hold. The VIE then issues credit-linked notes ("CLNs") with maturities predominantly ranging from one to ten years in order to transfer the risk of the referenced credit to the VIE's investors. Clients and investors often prefer using a CLN vehicle since the CLNs issued by the VIE generally carry a higher credit rating than such notes would if issued directly by JPMorgan Chase. As a derivative counterparty in a credit-related note structure, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. The collateral purchased by such VIEs is largely investment-grade, with a significant amount being rated "AAA." The Firm divides its credit-related note structures broadly into two types: static and managed.

In a static credit-related note structure, the CLNs and associated credit derivative contract either reference a single credit (e.g., a multi-national corporation), or all or part of a fixed portfolio of credits. In a managed credit-related note structure, the CLNs and associated credit derivative generally reference all or part of an actively managed portfolio of credits. An agreement exists between a portfolio manager and the VIE that gives the portfolio manager the ability to substitute each referenced credit in the portfolio for an alternative credit. The Firm does not act as portfolio manager; its involvement with the VIE is generally limited to being a derivative counterparty. As a net buyer of credit protection, in both static and managed credit-related note structures, the Firm pays a premium to the VIE in return for the receipt of a payment (up to the notional of the derivative) if one or more of the credits within the portfolio defaults, or if the losses resulting from the default of reference credits exceed specified levels. The Firm does not provide any additional contractual financial support to the VIE. In addition, the Firm has not historically provided any financial support to the CLN vehicles over and above its contractual obligations. Since each CLN is established to the specifications of the investors, the investors have the power over the activities of that VIE that most significantly affect the performance of the CLN. Furthermore, the Firm does not generally have a variable interest that could potentially be significant. Accordingly, the Firm does not generally consolidate these credit-related note entities. As a derivative counterparty, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. Substantially all of the assets purchased by such VIEs are investment-grade.

Asset swap vehicles

The Firm structures and executes transactions with asset swap vehicles on behalf of investors. In such transactions, the VIE purchases a specific asset or assets and then enters into a derivative with the Firm in order to tailor the interest rate or foreign exchange currency risk, or both, according to investors' requirements. Generally, the assets are held by the VIE to maturity, and the tenor of the derivatives would match the maturity of the assets. Investors typically invest in the notes issued by such VIEs in order to obtain exposure to the credit risk of the specific assets, as well as exposure to foreign exchange and interest rate risk that is tailored to their specific needs. The derivative transaction between the Firm and the VIE may include currency swaps to hedge assets held by the VIE denominated in foreign currency into the investors' local currency or interest rate swaps to hedge the interest rate risk of assets held by the VIE; to add additional interest rate exposure into the VIE in order to increase the return on the issued notes; or to convert an interest-bearing asset into a zero-coupon bond.

The Firm's exposure to asset swap vehicles is generally limited to its rights and obligations under the interest rate and/or foreign exchange derivative contracts. The Firm historically has not provided any financial support to the asset swap vehicles over and above its contractual obligations. The Firm does not generally consolidate these asset swap vehicles, since the Firm does not have the power to direct the significant activities of these entities and does not have a variable interest that could potentially be significant. As a derivative counterparty, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. Substantially all of the assets purchased by such VIEs are investment-grade.

Exposure to nonconsolidated credit-related note and asset swap VIEs at December 31, 2012 and 2011, was as follows.

December 31, 2012 (in billions)	Net derivative receivables	Total exposure	Par value of collateral held by VIEs[a]
Credit-related notes			
Static structure	**$ 0.5**	**$ 0.5**	**$ 7.3**
Managed structure	**0.6**	**0.6**	**5.6**
Total credit-related notes	**1.1**	**1.1**	**12.9**
Asset swaps	**0.4**	**0.4**	**7.9**
Total	**$ 1.5**	**$ 1.5**	**$ 20.8**

December 31, 2011 (in billions)	Net derivative receivables	Total exposure	Par value of collateral held by VIEs[a]
Credit-related notes			
Static structure	$ 1.0	$ 1.0	$ 9.1
Managed structure	2.7	2.7	7.7
Total credit-related notes	3.7	3.7	16.8
Asset swaps	0.6	0.6	8.6
Total	$ 4.3	$ 4.3	$ 25.4

(a) The Firm's maximum exposure arises through the derivatives executed with the VIEs; the exposure varies over time with changes in the fair value of the derivatives. The Firm relies on the collateral held by the VIEs to pay any amounts due under the derivatives; the vehicles are structured at inception so that the par value of the collateral is expected to be sufficient to pay amounts due under the derivative contracts.

The Firm consolidated Firm-sponsored and third-party credit-related note vehicles with collateral fair values of $483 million and $231 million, at December 31, 2012 and 2011, respectively. The Firm consolidated these vehicles, because it held positions in these entities that provided the Firm with control of certain vehicles. The Firm did not consolidate any asset swap vehicles at December 31, 2012 and 2011.

VIEs sponsored by third parties

VIE used in FRBNY transaction

In conjunction with the Bear Stearns merger in June 2008, the Federal Reserve Bank of New York ("FRBNY") took control, through an LLC formed for this purpose, of a portfolio of $30.0 billion in assets, based on the value of the portfolio as of March 14, 2008. The assets of the LLC were funded by a $28.85 billion term loan from the FRBNY and a $1.15 billion subordinated loan from JPMorgan Chase. The JPMorgan Chase loan was subordinated to the FRBNY loan and bore the first $1.15 billion of any losses of the portfolio. Any remaining assets in the portfolio after repayment of the FRBNY loan, repayment of the JPMorgan Chase loan and the expense of the LLC was for the account of the FRBNY. The extent to which the FRBNY and JPMorgan Chase loans were repaid depended on the value of the assets in the portfolio and the liquidation strategy directed by the FRBNY. The Firm did not consolidate the LLC, as it did not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance. In June 2012, the FRBNY loan was repaid in full and in November 2012, the JPMorgan Chase loan was repaid in full. During the year ended December 31, 2012, JPMorgan Chase recognized a pretax gain of $665 million reflecting the recovery on the $1.15 billion subordinated loan plus contractual interest.

Consolidated VIE assets and liabilities

The following table presents information on assets and liabilities related to VIEs consolidated by the Firm as of December 31, 2012 and 2011.

	Assets				Liabilities		
December 31, 2012 (in billions)[a]	Trading assets – debt and equity instruments	Loans	Other[d]	Total assets[e]	Beneficial interests in VIE assets[f]	Other[g]	Total liabilities
VIE program type							
Firm-sponsored credit card trusts	**$ –**	**$ 51.9**	**$ 0.8**	**$ 52.7**	**$ 30.1**	**$ –**	**$ 30.1**
Firm-administered multi-seller conduits	**–**	**25.4**	**0.1**	**25.5**	**17.2**	**–**	**17.2**
Municipal bond vehicles	**9.8**	**–**	**0.1**	**9.9**	**11.0**	**–**	**11.0**
Mortgage securitization entities[b]	**1.4**	**2.0**	**–**	**3.4**	**2.3**	**1.1**	**3.4**
Other[c]	**0.8**	**3.4**	**1.1**	**5.3**	**2.6**	**0.1**	**2.7**
Total	**$ 12.0**	**$ 82.7**	**$ 2.1**	**$ 96.8**	**$ 63.2**	**$ 1.2**	**$ 64.4**

	Assets				Liabilities		
December 31, 2011 (in billions)[a]	Trading assets – debt and equity instruments	Loans	Other[d]	Total assets[e]	Beneficial interests in VIE assets[f]	Other[g]	Total liabilities
VIE program type							
Firm-sponsored credit card trusts	$ –	$ 50.7	$ 0.8	$ 51.5	$ 32.5	$ –	$ 32.5
Firm-administered multi-seller conduits	–	29.7	0.2	29.9	18.7	–	18.7
Municipal bond vehicles	9.2	–	0.1	9.3	9.2	–	9.2
Mortgage securitization entities[b]	1.4	2.3	–	3.7	2.3	1.3	3.6
Other[c]	1.5	4.1	1.5	7.1	3.3	0.2	3.5
Total	$ 12.1	$ 86.8	$ 2.6	$ 101.5	$ 66.0	$ 1.5	$ 67.5

(a) Excludes intercompany transactions which were eliminated in consolidation.
(b) Includes residential and commercial mortgage securitizations as well as re-securitizations.
(c) Primarily comprises student loan securitization entities. The Firm consolidated $3.3 billion and $4.1 billion of student loan securitization entities as of December 31, 2012 and 2011, respectively.
(d) Includes assets classified as cash, derivative receivables, AFS securities, and other assets within the Consolidated Balance Sheets.
(e) The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those entities. The difference between total assets and total liabilities recognized for consolidated VIEs represents the Firm's interest in the consolidated VIEs for each program type.
(f) The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item on the Consolidated Balance Sheets titled, "Beneficial interests issued by consolidated variable interest entities." The holders of these beneficial interests do not have recourse to the general credit of JPMorgan Chase. Included in beneficial interests in VIE assets are long-term beneficial interests of $35.0 billion and $39.7 billion at December 31, 2012 and 2011, respectively. The maturities of the long-term beneficial interests as of December 31, 2012, were as follows: $11.9 billion under one year, $16.0 billion between one and five years, and $7.1 billion over five years, all respectively.
(g) Includes liabilities classified as accounts payable and other liabilities in the Consolidated Balance Sheets.

Supplemental information on loan securitizations

The Firm securitizes and sells a variety of loans, including residential mortgage, credit card, automobile, student and commercial (primarily related to real estate) loans, as well as debt securities. The primary purposes of these securitization transactions are to satisfy investor demand and to generate liquidity for the Firm.

For loan securitizations in which the Firm is not required to consolidate the trust, the Firm records the transfer of the loan receivable to the trust as a sale when the accounting criteria for a sale are met. Those criteria are: (1) the transferred financial assets are legally isolated from the Firm's creditors; (2) the transferee or beneficial interest holder can pledge or exchange the transferred financial assets; and (3) the Firm does not maintain effective control over the transferred financial assets (e.g., the Firm cannot repurchase the transferred assets before their maturity and it does not have the ability to unilaterally cause the holder to return the transferred assets).

For loan securitizations accounted for as a sale, the Firm recognizes a gain or loss based on the difference between the value of proceeds received (including cash, beneficial interests, or servicing assets received) and the carrying value of the assets sold. Gains and losses on securitizations are reported in noninterest revenue.

Securitization activity

The following tables provide information related to the Firm's securitization activities for the years ended December 31, 2012, 2011 and 2010, related to assets held in JPMorgan Chase-sponsored securitization entities that were not consolidated by the Firm, and where sale accounting was achieved based on the accounting rules in effect at the time of the securitization.

	2012		2011		2010	
Year ended December 31, (in millions, except rates)[a]	Residential mortgage[d][e]	Commercial and other[f][g]	Residential mortgage[d][e]	Commercial and other[f][g]	Residential mortgage[d][e]	Commercial and other[f][g]
Principal securitized	$ —	$ 5,421	$ —	$ 5,961	$ 35	$ 2,237
All cash flows during the period:						
Proceeds from new securitizations[b]	$ —	$ 5,705	$ —	$ 6,142	$ 36	$ 2,369
Servicing fees collected	662	4	755	4	968	4
Purchases of previously transferred financial assets (or the underlying collateral)[c]	222	—	772	—	321	—
Cash flows received on interests	185	163	235	178	319	143

(a) Excludes re-securitization transactions.
(b) Proceeds from commercial mortgage securitizations were received in the form of securities. During 2012, $5.7 billion of commercial mortgage securitizations were classified in level 2 of the fair value hierarchy. During 2011, $4.0 billion and $2.1 billion of commercial mortgage securitizations were classified in levels 2 and 3 of the fair value hierarchy, respectively. During 2010, $2.2 billion and $172 million of residential and commercial mortgage securitizations were classified in levels 2 and 3 of the fair value hierarchy, respectively.
(c) Includes cash paid by the Firm to reacquire assets from off–balance sheet, nonconsolidated entities – for example, loan repurchases due to representation and warranties and servicer clean-up calls
(d) Includes prime, Alt-A, subprime, and option ARMs. Excludes sales for which the Firm did not securitize the loan (including loans sold to Ginnie Mae, Fannie Mae and Freddie Mac).
(e) There were no residential mortgage securitizations during 2012 and 2011.
(f) Includes commercial and student loan securitizations.
(g) Key assumptions used to measure retained interests originated during the year included weighted-average life (in years) of 8.8, 1.7 and 7.1 for the years ended December 31, 2012, 2011, and 2010, respectively, and weighted-average discount rate of 3.6%, 3.5% and 7.7% for the years ended December 31, 2012, 2011, and 2010, respectively.

Loans and excess mortgage servicing rights sold to agencies and other third-party-sponsored securitization entities

In addition to the amounts reported in the securitization activity tables above, the Firm, in the normal course of business, sells originated and purchased mortgage loans and certain originated excess mortgage servicing rights on a nonrecourse basis, predominantly to Ginnie Mae, Fannie Mae and Freddie Mac (the "Agencies"). These loans and excess mortgage servicing rights are sold primarily for the purpose of securitization by the Agencies, which also provide credit enhancement of the loans and excess mortgage servicing rights through certain guarantee provisions. The Firm does not consolidate these securitization vehicles as it is not the primary beneficiary. For a limited number of loan sales, the Firm is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. See Note 29 on pages 308–315 of this Annual Report for additional information about the Firm's loan sales- and securitization-related indemnifications. See Note 17 on pages 291–295 of this Annual Report for additional information about the impact of the Firm's sale of certain excess mortgage servicing rights.

The following table summarizes the activities related to loans sold to U.S. government-sponsored agencies and third-party-sponsored securitization entities.

Year ended December 31, (in millions)	2012	2011	2010
Carrying value of loans sold[(a)]	$ **180,097**	$ 150,632	$ 156,615
Proceeds received from loan sales as cash	$ **1,270**	$ 2,864	$ 3,887
Proceeds from loan sales as securities[(b)]	**176,592**	145,340	149,786
Total proceeds received from loan sales[(c)]	$ **177,862**	$ 148,204	$ 153,673
Gains on loan sales[(d)]	**141**	133	212

(a) Predominantly to U.S. government agencies.
(b) Predominantly includes securities from U.S. government agencies that are generally sold shortly after receipt.
(c) Excludes the value of MSRs retained upon the sale of loans. Gains on loan sales include the value of MSRs.
(d) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale.

Options to repurchase delinquent loans

In addition to the Firm's obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 29 on pages 308–315 of this Annual Report, the Firm also has the option to repurchase delinquent loans that it services for Ginnie Mae loan pools, as well as for other U.S. government agencies under certain arrangements. The Firm typically elects to repurchase delinquent loans from Ginnie Mae loan pools as it continues to service them and/or manage the foreclosure process in accordance with the applicable requirements, and such loans continue to be insured or guaranteed. When the Firm's repurchase option becomes exercisable, such loans must be reported on the Consolidated Balance Sheets as a loan with a corresponding liability. As of December 31, 2012 and 2011, the Firm had recorded on its Consolidated Balance Sheets $15.6 billion and $15.7 billion, respectively, of loans that either had been repurchased or for which the Firm had an option to repurchase. Predominately all of these amounts relate to loans that have been repurchased from Ginnie Mae loan pools. Additionally, real estate owned resulting from voluntary repurchases of loans was $1.6 billion and $1.0 billion as of December 31, 2012 and 2011, respectively. Substantially all of these loans and real estate owned are insured or guaranteed by U.S. government agencies and reimbursement is proceeding normally. For additional information, refer to Note 14 on pages 250–275 of this Annual Report.

JPMorgan Chase's interest in securitized assets held at fair value

The following table outlines the key economic assumptions used to determine the fair value, as of December 31, 2012 and 2011, of certain of the Firm's retained interests in nonconsolidated VIEs (other than MSRs), that are valued using modeling techniques. The table also outlines the sensitivities of those fair values to immediate 10% and 20% adverse changes in assumptions used to determine fair value. For a discussion of MSRs, see Note 17 on pages 291–295 of this Annual Report.

	Commercial and other	
December 31, (in millions, except rates and where otherwise noted)[(a)]	2012	2011[(d)]
JPMorgan Chase interests in securitized assets[(b)]	$ **1,488**	$ 1,585
Weighted-average life (in years)	**6.1**	1.0
Weighted-average discount rate[(c)]	**4.1%**	59.1%
Impact of 10% adverse change	$ **(34)**	$ (45)
Impact of 20% adverse change	**(65)**	(76)

(a) The Firm's interests in prime mortgage securitizations were $341 million and $555 million, as of December 31, 2012 and 2011, respectively. These include retained interests in Alt-A loans and re-securitization transactions. The Firm's interests in subprime mortgage securitizations were $68 million and $31 million, as of December 31, 2012 and 2011, respectively. Additionally, the Firm had interests in option ARM mortgage securitizations of $23 million at December 31, 2011.
(b) Includes certain investments acquired in the secondary market but predominantly held for investment purposes.
(c) Incorporates the Firm's weighted-average loss assumption.
(d) The prior period has been reclassified to conform with the current presentation.

The sensitivity analysis in the preceding table is hypothetical. Changes in fair value based on a 10% or 20% variation in assumptions generally cannot be extrapolated easily, because the relationship of the change in the assumptions to the change in fair value may not be linear. Also, in the table, the effect that a change in a particular assumption may have on the fair value is calculated without changing any other assumption. In reality, changes in one factor may result in changes in another, which might counteract or magnify the sensitivities. The above sensitivities also do not reflect risk management practices the Firm may undertake to mitigate such risks.

Loan delinquencies and liquidation losses

The table below includes information about components of nonconsolidated securitized financial assets, in which the Firm has continuing involvement, and delinquencies as of December 31, 2012 and 2011.

	Securitized assets		90 days past due		Liquidation losses	
As of or for the year ended December 31, (in millions)	**2012**	2011	**2012**	2011	**2012**	2011
Securitized loans[a]						
Residential mortgage:						
Prime mortgage[b]	**$ 80,572**	$ 101,004	**$ 16,270**	$ 24,285	**$ 6,850**	$ 5,650
Subprime mortgage	**31,264**	35,755	**10,570**	14,293	**3,013**	3,086
Option ARMs	**26,095**	31,075	**6,595**	9,999	**2,268**	1,907
Commercial and other	**81,834**	93,336	**4,077**	4,836	**1,265**	1,101
Total loans securitized[c]	**$ 219,765**	$ 261,170	**$ 37,512**	$ 53,413	**$ 13,396**	$ 11,744

(a) Total assets held in securitization-related SPEs were $295.8 billion and $340.0 billion, respectively, at December 31, 2012 and 2011. The $219.8 billion and $261.2 billion, respectively, of loans securitized at December 31, 2012 and 2011, excludes: $72.0 billion and $74.4 billion, respectively, of securitized loans in which the Firm has no continuing involvement, and $4.0 billion and $4.4 billion, respectively, of loan securitizations consolidated on the Firm's Consolidated Balance Sheets at December 31, 2012 and 2011.
(b) Includes Alt-A loans.
(c) Includes securitized loans that were previously recorded at fair value and classified as trading assets.

Note 17 – Goodwill and other intangible assets

Goodwill and other intangible assets consist of the following.

December 31, (in millions)	**2012**	2011	2010
Goodwill	**$ 48,175**	$ 48,188	$ 48,854
Mortgage servicing rights	**7,614**	7,223	13,649
Other intangible assets:			
Purchased credit card relationships	**$ 295**	$ 602	$ 897
Other credit card-related intangibles	**229**	488	593
Core deposit intangibles	**355**	594	879
Other intangibles	**1,356**	1,523	1,670
Total other intangible assets	**$ 2,235**	$ 3,207	$ 4,039

Goodwill

Goodwill is recorded upon completion of a business combination as the difference between the purchase price and the fair value of the net assets acquired. Subsequent to initial recognition, goodwill is not amortized but is tested for impairment during the fourth quarter of each fiscal year, or more often if events or circumstances, such as adverse changes in the business climate, indicate there may be impairment.

The goodwill associated with each business combination is allocated to the related reporting units, which are determined based on how the Firm's businesses are managed and how they are reviewed by the Firm's Operating Committee. The following table presents goodwill attributed to the business segments.

December 31, (in millions)	**2012**	2011	2010
Consumer & Community Banking	**$ 31,048**	$ 30,996	$ 31,018
Corporate & Investment Bank	**6,895**	6,944	6,958
Commercial Banking	**2,863**	2,864	2,866
Asset Management	**6,992**	7,007	7,635
Corporate/Private Equity	**377**	377	377
Total goodwill	**$ 48,175**	$ 48,188	$ 48,854

The following table presents changes in the carrying amount of goodwill.

Year ended December 31, (in millions)	**2012**	2011	2010
Balance at beginning of period[a]	**$ 48,188**	$ 48,854	$ 48,357
Changes during the period from:			
Business combinations	**43**	97	556
Dispositions	**(4)**	(685)	(19)
Other[b]	**(52)**	(78)	(40)
Balance at December 31,[a]	**$ 48,175**	$ 48,188	$ 48,854

(a) Reflects gross goodwill balances as the Firm has not recognized any impairment losses to date.
(b) Includes foreign currency translation adjustments and other tax-related adjustments.

The net reduction in goodwill from 2010 to 2011 was predominantly due to AM's sale of its investment in an asset manager.

Impairment testing

Goodwill was not impaired at December 31, 2012 or 2011, nor was any goodwill written off due to impairment during 2012, 2011 or 2010.

The goodwill impairment test is performed in two steps. In the first step, the current fair value of each reporting unit is compared with its carrying value, including goodwill. If the fair value is in excess of the carrying value (including goodwill), then the reporting unit's goodwill is considered not to be impaired. If the fair value is less than the carrying value (including goodwill), then a second step is performed. In the second step, the implied current fair value of the reporting unit's goodwill is determined by comparing the fair value of the reporting unit (as determined in step one) to the fair value of the net assets of the reporting unit, as if the reporting unit were being acquired in a business combination. The resulting implied current fair value of goodwill is then compared with the carrying value of the reporting unit's goodwill. If the carrying value of the goodwill exceeds its implied current fair value, then an impairment charge is recognized for the excess. If the

carrying value of goodwill is less than its implied current fair value, then no goodwill impairment is recognized.

The Firm uses the reporting units' allocated equity plus goodwill capital as a proxy for the carrying amounts of equity for the reporting units in the goodwill impairment testing. Reporting unit equity is determined on a similar basis as the allocation of equity to the Firm's lines of business, which takes into consideration the capital the business segment would require if it were operating independently, incorporating sufficient capital to address regulatory capital requirements (including Basel III), economic risk measures and capital levels for similarly rated peers. Proposed line of business equity levels are incorporated into the Firm's annual budget process, which is reviewed by the Firm's Board of Directors. Allocated equity is further reviewed on a periodic basis and updated as needed.

The primary method the Firm uses to estimate the fair value of its reporting units is the income approach. The models project cash flows for the forecast period and use the perpetuity growth method to calculate terminal values. These cash flows and terminal values are then discounted using an appropriate discount rate. Projections of cash flows are based on the reporting units' earnings forecasts, which include the estimated effects of regulatory and legislative changes (including, but not limited to the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), the CARD Act, and limitations on non-sufficient funds and overdraft fees), and which are reviewed with the Operating Committee of the Firm. The discount rate used for each reporting unit represents an estimate of the cost of equity for that reporting unit and is determined considering the Firm's overall estimated cost of equity (estimated using the Capital Asset Pricing Model), as adjusted for the risk characteristics specific to each reporting unit (for example, for higher levels of risk or uncertainty associated with the business or management's forecasts and assumptions). To assess the reasonableness of the discount rates used for each reporting unit management compares the discount rate to the estimated cost of equity for publicly traded institutions with similar businesses and risk characteristics. In addition, the weighted average cost of equity (aggregating the various reporting units) is compared with the Firms' overall estimated cost of equity to ensure reasonableness.

The valuations derived from the discounted cash flow models are then compared with market-based trading and transaction multiples for relevant competitors. Trading and transaction comparables are used as general indicators to assess the general reasonableness of the estimated fair values, although precise conclusions generally cannot be drawn due to the differences that naturally exist between the Firm's businesses and competitor institutions. Management also takes into consideration a comparison between the aggregate fair value of the Firm's reporting units and JPMorgan Chase's market capitalization. In evaluating this comparison, management considers several factors, including (a) a control premium that would exist in a market transaction, (b) factors related to the level of execution risk that would exist at the firmwide level that do not exist at the reporting unit level and (c) short-term market volatility and other factors that do not directly affect the value of individual reporting units.

While no impairment of goodwill was recognized, the Firm's mortgage lending business in CCB remain at an elevated risk of goodwill impairment due to its exposure to U.S. consumer credit risk and the effects of economic, regulatory and legislative changes. The valuation of this business is particularly dependent upon economic conditions (including new unemployment claims and home prices), regulatory and legislative changes (for example, those related to residential mortgage servicing, foreclosure and loss mitigation activities), and the amount of equity capital required. 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. The assumptions used in the discounted cash flow valuation models were determined using management's best estimates. The cost of equity reflected the related risks and uncertainties, and was evaluated in comparison to relevant market peers. Deterioration in these assumptions could cause the estimated fair values of these reporting units and their associated goodwill to decline, which may result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

Mortgage servicing rights

Mortgage servicing rights represent the fair value of expected future cash flows for performing servicing activities for others. The fair value considers estimated future servicing fees and ancillary revenue, offset by estimated costs to service the loans, and generally declines over time as net servicing cash flows are received, effectively amortizing the MSR asset against contractual servicing and ancillary fee income. MSRs are either purchased from third parties or recognized upon sale or securitization of mortgage loans if servicing is retained.

As permitted by U.S. GAAP, the Firm elected to account for its MSRs at fair value. The Firm treats its MSRs as a single class of servicing assets based on the availability of market inputs used to measure the fair value of its MSR asset and its treatment of MSRs as one aggregate pool for risk management purposes. The Firm estimates the fair value of MSRs using an option-adjusted spread ("OAS") model, which projects MSR cash flows over multiple interest rate scenarios in conjunction with the Firm's prepayment model, and then discounts these cash flows at risk-adjusted rates. The model considers portfolio characteristics, contractually specified servicing fees, prepayment assumptions, delinquency rates, costs to service, late charges and other ancillary revenue, and other economic factors. The Firm compares fair value estimates and assumptions to observable market data where available, and also considers recent market activity and actual portfolio experience.

The fair value of MSRs is sensitive to changes in interest rates, including their effect on prepayment speeds. MSRs typically decrease in value when interest rates decline because declining interest rates tend to increase prepayments and therefore reduce the expected life of the net servicing cash flows that comprise the MSR asset. Conversely, securities (e.g., mortgage-backed securities), principal-only certificates and certain derivatives (i.e., those for which the Firm receives fixed-rate interest payments) increase in value when interest rates decline. JPMorgan Chase uses combinations of derivatives and securities to manage changes in the fair value of MSRs. The intent is to offset any interest-rate related changes in the fair value of MSRs with changes in the fair value of the related risk management instruments.

The following table summarizes MSR activity for the years ended December 31, 2012, 2011 and 2010.

As of or for the year ended December 31, (in millions, except where otherwise noted)	2012	2011	2010
Fair value at beginning of period	$ 7,223	$ 13,649	$ 15,531
MSR activity			
Originations of MSRs	2,376	2,570	3,153
Purchase of MSRs	457	33	26
Disposition of MSRs	(579) [e]	–	(407)
Changes due to modeled amortization	(1,228)	(1,910)	(2,386)
Net additions and amortization	1,026	693	386
Changes due to market interest rates	(589)	(5,392)	(2,224)
Other changes in valuation due to inputs and assumptions[a]	(46)	(1,727)	(44)
Total change in fair value of MSRs[b]	(635)	(7,119)	(2,268)
Fair value at December 31[c]	$ 7,614	$ 7,223	$ 13,649
Change in unrealized gains/(losses) included in income related to MSRs held at December 31	$ (635)	$ (7,119)	$ (2,268)
Contractual service fees, late fees and other ancillary fees included in income	$ 3,783	$ 3,977	$ 4,484
Third-party mortgage loans serviced at December 31 (in billions)	$ 867	$ 910	$ 976
Servicer advances at December 31 (in billions)[d]	$ 10.9	$ 11.1	$ 9.9

(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.
(b) Includes changes related to commercial real estate of $(8) million, $(9) million and $(1) million for the years ended December 31, 2012, 2011 and 2010, respectively.
(c) Includes $23 million, $31 million and $40 million related to commercial real estate at December 31, 2012, 2011 and 2010, respectively.
(d) Represents amounts the Firm pays as the servicer (e.g., scheduled principal and interest to a trust, taxes and insurance), which will generally be reimbursed within a short period of time after the advance from future cash flows from the trust or the underlying loans. The Firm's credit risk associated with these advances is minimal because reimbursement of the advances is senior to all cash payments to investors. In addition, the Firm maintains the right to stop payment to investors if the collateral is insufficient to cover the advance.
(e) Includes excess mortgage servicing rights transferred to an agency-sponsored trust in exchange for stripped mortgage backed securities ("SMBS"). A portion of the SMBS was acquired by third parties at the transaction date; the Firm acquired and has retained the remaining balance of those SMBS as trading assets.

During the year ended December 31, 2011, the fair value of the MSR decreased by $6.4 billion. This decrease was predominately due to a decline in market interest rates, which resulted in a loss in fair value of $5.4 billion. These losses were offset by gains of $5.6 billion on derivatives used to hedge the MSR asset; these derivatives are recognized on the Consolidated Balance Sheets separately from the MSR asset. Also contributing to the decline in fair value of the MSR asset was a $1.7 billion decrease related to revised cost to service and ancillary income assumptions incorporated in the MSR valuation. The increased cost to service assumptions reflect the estimated impact of higher servicing costs to enhance servicing processes, particularly loan modification and foreclosure procedures, including costs to comply with Consent Orders entered into with banking regulators. The increase in the cost to service assumption contemplates significant and prolonged increases in staffing levels in the core and default servicing functions. The decreased ancillary income assumption is similarly related to a reassessment of business practices in consideration of the Consent Orders and the existing industry-wide regulatory environment, which is broadly affecting market participants.

Also in the fourth quarter of 2011, the Firm revised its OAS assumption and updated its proprietary prepayment model; these changes had generally offsetting effects. The Firm's OAS assumption is based upon capital and return requirements that the Firm believes a market participant would consider, taking into account factors such as the pending Basel III capital rules. Consequently, the OAS assumption for the Firm's portfolio increased by approximately 400 basis points and decreased the fair value of the MSR asset by approximately $1.2 billion.

Since 2009, the Firm has continued to refine its proprietary prepayment model based on a number of market-related factors, including a downward trend in home prices, a general tightening of credit underwriting standards and the associated impact on refinancing activity. In the fourth quarter of 2011, the Firm further enhanced its proprietary prepayment model to incorporate: (i) the impact of the Home Affordable Refinance Program ("HARP") 2.0, and (ii) assumptions that will limit modeled refinancings due to the combined influences of relatively strict underwriting standards and reduced levels of expected home price appreciation. In the aggregate, these refinements increased the fair value of the MSR asset by approximately $1.2 billion.

The decrease in the fair value of the MSR results in a lower asset value that will amortize in future periods against contractual and ancillary fee income received in future periods. While there is expected to be higher levels of noninterest expense associated with higher servicing costs

in those future periods, there will also be less MSR amortization, which will have the effect of increasing mortgage fees and related income. The amortization of the MSR is reflected in the tables above under "Changes due to modeled amortization."

The following table presents the components of mortgage fees and related income (including the impact of MSR risk management activities) for the years ended December 31, 2012, 2011 and 2010.

Year ended December 31, (in millions)	2012	2011	2010
Mortgage fees and related income			
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)
Change in derivative fair value and other	1,252	5,553	3,404
Total risk management	619	(1,564)	1,136
Net mortgage servicing revenue	3,169	666	3,327
All other	7	7	15
Mortgage fees and related income	$8,687	$ 2,721	$3,870

(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.

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSRs at December 31, 2012 and 2011, and outlines the sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

December 31, (in millions, except rates)	2012	2011
Weighted-average prepayment speed assumption ("CPR")	13.04%	18.07%
Impact on fair value of 10% adverse change	$ (517)	$ (585)
Impact on fair value of 20% adverse change	(1,009)	(1,118)
Weighted-average option adjusted spread	7.61%	7.83%
Impact on fair value of 100 basis points adverse change	$ (306)	$ (269)
Impact on fair value of 200 basis points adverse change	(591)	(518)

CPR: Constant prepayment rate.

The sensitivity analysis in the preceding table is hypothetical and should be used with caution. Changes in fair value based on variation in assumptions generally cannot be easily extrapolated, because the relationship of the change in the assumptions to the change in fair value are often highly inter-related and may not be linear. In this table, the effect that a change in a particular assumption may have on the fair value is calculated without changing any other assumption. In reality, changes in one factor may result in changes in another, which would either magnify or counteract the impact of the initial change.

Other intangible assets

Other intangible assets are recorded at their fair value upon completion of a business combination or certain other transactions, and generally represent the value of customer relationships or arrangements. Subsequently, the Firm's intangible assets with finite lives, including core deposit intangibles, purchased credit card relationships, and other intangible assets, are amortized over their useful lives in a manner that best reflects the economic benefits of the intangible asset. The $972 million decrease in other intangible assets during 2012 was due to $957 million in amortization, which included a $214 million impairment write-off of purchased credit card relationships and other credit card-related intangibles, as projected cash flows associated with a non-strategic credit card relationship within CCB had deteriorated.

The components of credit card relationships, core deposits and other intangible assets were as follows.

	2012			2011		
December 31, (in millions)	Gross amount[(a)]	Accumulated amortization[(a)]	Net carrying value	Gross amount	Accumulated amortization	Net carrying value
Purchased credit card relationships	**$ 3,775**	**$ 3,480**	**$ 295**	$ 3,826	$ 3,224	$ 602
Other credit card-related intangibles	**850**	**621**	**229**	844	356	488
Core deposit intangibles	**4,133**	**3,778**	**355**	4,133	3,539	594
Other intangibles[(b)]	**2,390**	**1,034**	**1,356**	2,467	944	1,523

(a) The decrease in the gross amount and accumulated amortization from December 31, 2011, was due to the removal of fully amortized assets.
(b) Includes intangible assets of approximately $600 million consisting primarily of asset management advisory contracts, which were determined to have an indefinite life and are not amortized.

Amortization expense

The following table presents amortization expense related to credit card relationships, core deposits and other intangible assets.

December 31, (in millions)	2012	2011	2010
Purchased credit card relationships	**$ 309**	$ 295	$ 355
Other credit card-related intangibles	**265**	106	111
Core deposit intangibles	**239**	285	328
Other intangibles	**144**	162	142
Total amortization expense	**$ 957**	$ 848	$ 936

Future amortization expense

The following table presents estimated future amortization expense related to credit card relationships, core deposits and other intangible assets at December 31, 2012.

Year ended December 31, (in millions)	Purchased credit card relationships	Other credit card-related intangibles	Core deposit intangibles	Other intangibles	**Total**
2013	$ 192	$ 57	$ 196	$ 132	$ 577
2014	91	49	102	116	358
2015	7	39	26	96	168
2016	4	34	14	89	141
2017	1	29	13	88	131

Impairment testing

The Firm's intangible assets are tested for impairment annually or more often if events or changes in circumstances indicate that the asset might be impaired.

The impairment test for a finite-lived intangible asset compares the undiscounted cash flows associated with the use or disposition of the intangible asset to its carrying value. If the sum of the undiscounted cash flows exceeds its carrying value, then no impairment charge is recorded. If the sum of the undiscounted cash flows is less than its carrying value, then an impairment charge is recognized in amortization expense to the extent the carrying amount of the asset exceeds its fair value.

The impairment test for indefinite-lived intangible assets compares the fair value of the intangible asset to its carrying amount. If the carrying value exceeds the fair value, then an impairment charge is recognized in amortization expense for the difference.

Note 18 – Premises and equipment

Premises and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. JPMorgan Chase computes depreciation using the straight-line method over the estimated useful life of an asset. For leasehold improvements, the Firm uses the straight-line method computed over the lesser of the remaining term of the leased facility or the estimated useful life of the leased asset. JPMorgan Chase has recorded immaterial asset retirement obligations related to asbestos remediation in those cases where it has sufficient information to estimate the obligations' fair value.

JPMorgan Chase capitalizes certain costs associated with the acquisition or development of internal-use software. Once the software is ready for its intended use, these costs are amortized on a straight-line basis over the software's expected useful life and reviewed for impairment on an ongoing basis.

Note 19 – Deposits

At December 31, 2012 and 2011, noninterest-bearing and interest-bearing deposits were as follows.

December 31, (in millions)	2012	2011
U.S. offices		
Noninterest-bearing	**$ 380,320**	$ 346,670
Interest-bearing		
Demand[a]	**53,980**	47,075
Savings[b]	**407,710**	375,051
Time (included **$5,140** and $3,861 at fair value)[c]	**90,416**	82,738
Total interest-bearing deposits	**552,106**	504,864
Total deposits in U.S. offices	**932,426**	851,534
Non-U.S. offices		
Noninterest-bearing	**17,845**	18,790
Interest-bearing		
Demand	**195,395**	188,202
Savings	**1,004**	687
Time (included **$593** and $1,072 at fair value)[c]	**46,923**	68,593
Total interest-bearing deposits	**243,322**	257,482
Total deposits in non-U.S. offices	**261,167**	276,272
Total deposits	**$ 1,193,593**	$ 1,127,806

(a) Includes Negotiable Order of Withdrawal ("NOW") accounts, and certain trust accounts.
(b) Includes Money Market Deposit Accounts ("MMDAs").
(c) Includes structured notes classified as deposits for which the fair value option has been elected. For further discussion, see Note 4 on pages 214–216 of this Annual Report.

At December 31, 2012 and 2011, time deposits in denominations of $100,000 or more were as follows.

December 31, (in millions)	2012	2011
U.S. offices	**$ 70,008**	$ 57,802
Non-U.S. offices	**46,890**	60,066 [a]
Total	**$116,898**	$117,868

(a) The prior period balance has been revised.

At December 31, 2012, the maturities of interest-bearing time deposits were as follows.

December 31, 2012 (in millions)	U.S.	Non-U.S.	Total
2013	$ 74,469	$ 45,731	$ 120,200
2014	3,792	795	4,587
2015	3,374	34	3,408
2016	4,566	188	4,754
2017	1,195	110	1,305
After 5 years	3,020	65	3,085
Total	$ 90,416	$ 46,923	$ 137,339

Note 20 – Accounts payable and other liabilities

The following table details the components of accounts payable and other liabilities.

December 31, (in millions)	2012	2011
Brokerage payables[a]	**$ 108,398**	$ 121,353
Accounts payable and other liabilities[b]	**86,842**	81,542
Total	**$ 195,240**	$ 202,895

(a) Includes payables to customers, brokers, dealers and clearing organizations, and securities fails.
(b) Includes $36 million and $51 million accounted for at fair value at December 31, 2012 and 2011, respectively.

Note 21 – Long-term debt

JPMorgan Chase issues long-term debt denominated in various currencies, although predominantly U.S. dollars, with both fixed and variable interest rates. Included in senior and subordinated debt below are various equity-linked or other indexed instruments, which the Firm has elected to measure at fair value. Changes in fair value are recorded in principal transactions revenue in the Consolidated Statements of Income. The following table is a summary of long-term debt carrying values (including unamortized original issue discount, valuation adjustments and fair value adjustments, where applicable) by remaining contractual maturity as of December 31, 2012.

By remaining maturity at December 31,		2012				2011
(in millions, except rates)		Under 1 year	1-5 years	After 5 years	Total	Total
Parent company						
Senior debt:	Fixed rate[a]	$ 6,876	$ 47,101	$ 45,739	$ 99,716	$ 96,478
	Variable rate[b]	10,049	22,706	6,010	38,765	55,779
	Interest rates[c]	0.43-5.38%	0.35-7.00%	0.26-7.25%	0.26-7.25%	0.32-7.25%
Subordinated debt:	Fixed rate	$ 2,421	$ 8,259	$ 5,632	$ 16,312	$ 19,167
	Variable rate	–	3,431	9	3,440	1,954
	Interest rates[c]	5.25-5.75%	0.61-6.13%	3.88-8.53%	0.61-8.53%	1.09-8.53%
	Subtotal	$ 19,346	$ 81,497	$ 57,390	$ 158,233	$ 173,378
Subsidiaries						
FHLB advances:	Fixed rate	$ 1,510	$ 3,040	$ 162	$ 4,712	$ 4,738
	Variable rate	2,321	23,012	12,000	37,333	13,085
	Interest rates[c]	0.30-1.15%	0.30-2.04%	0.39-0.47%	0.30-2.04%	0.32-2.04%
Senior debt:	Fixed rate	$ 582	$ 2,397	$ 3,782	$ 6,761	$ 6,546
	Variable rate	7,577	11,390	2,640	21,607	28,257
	Interest rates[c]	0.33-2.10%	0.16-3.75%	1.00-7.28%	0.16-7.28%	0.13-14.21%
Subordinated debt:	Fixed rate	$ –	$ 5,651	$ 1,862	$ 7,513	$ 8,755
	Variable rate	–	2,466	–	2,466	1,150
	Interest rates[c]	–%	0.64-6.00%	4.38-8.25%	0.64-8.25%	0.87-8.25%
	Subtotal	$ 11,990	$ 47,956	$ 20,446	$ 80,392	$ 62,531
Junior subordinated debt:	Fixed rate	$ –	$ –	$ 7,131	$ 7,131	$ 15,784
	Variable rate	–	–	3,268	3,268	5,082
	Interest rates[c]	–%	–%	0.81-8.75%	0.81-8.75%	0.93-8.75%
	Subtotal	$ –	$ –	$ 10,399	$ 10,399	$ 20,866
Total long-term debt[d][e][f]		$ 31,336	$ 129,453	$ 88,235	$ 249,024 [h][i]	$ 256,775
Long-term beneficial interests:						
	Fixed rate	$ 1,629	$ 5,502	$ 3,262	$ 10,393	$ 6,261
	Variable rate	10,226	10,551	3,802	24,579	33,473
	Interest rates	0.27-5.40%	0.23-5.63%	0.32-13.91%	0.23-13.91%	0.02-11.00%
Total long-term beneficial interests[g]		$ 11,855	$ 16,053	$ 7,064	$ 34,972	$ 39,734

(a) Included $8.4 billion as of December 31, 2011, that was guaranteed by the FDIC under the Temporary Liquidity Guarantee ("TLG") Program. All long-term debt guaranteed under the TLG Program matured prior to December 31, 2012.
(b) Included $11.9 billion as of December 31, 2011 that was guaranteed by the FDIC under the TLG Program. All long-term debt guaranteed under the TLG Program matured prior to December 31, 2012.
(c) The interest rates shown are the range of contractual rates in effect at year-end, including non-U.S. dollar fixed- and variable-rate issuances, which excludes the effects of the associated derivative instruments used in hedge accounting relationships, if applicable. The use of these derivative instruments modifies the Firm's exposure to the contractual interest rates disclosed in the table above. Including the effects of the hedge accounting derivatives, the range of modified rates in effect at December 31, 2012, for total long-term debt was (0.76)% to 7.86%, versus the contractual range of 0.16% to 8.75% presented in the table above. The interest rate ranges shown exclude structured notes accounted for at fair value.
(d) Included long-term debt of $48.0 billion and $23.8 billion secured by assets totaling $112.8 billion and $89.4 billion at December 31, 2012 and 2011, respectively. The amount of long-term debt secured by assets does not include amounts related to hybrid instruments.
(e) Included $30.8 billion and $34.7 billion of outstanding structured notes accounted for at fair value at December 31, 2012 and 2011, respectively.
(f) Included $1.6 billion and $2.1 billion of outstanding zero-coupon notes at December 31, 2012 and 2011, respectively. The aggregate principal amount of these notes at their respective maturities was $3.0 billion and $5.0 billion, respectively.
(g) Included on the Consolidated Balance Sheets in beneficial interests issued by consolidated VIEs. Also included $1.2 billion and $1.3 billion of outstanding structured notes accounted for at fair value at December 31, 2012 and 2011, respectively. Excluded short-term commercial paper and other short-term beneficial interests of $28.2 billion and $26.2 billion at December 31, 2012 and 2011, respectively.
(h) At December 31, 2012, long-term debt in the aggregate of $22.1 billion was redeemable at the option of JPMorgan Chase, in whole or in part, prior to maturity, based on the terms specified in the respective notes.
(i) The aggregate carrying values of debt that matures in each of the five years subsequent to 2012 is $31.3 billion in 2013, $35.8 billion in 2014, $32.0 billion in 2015, $28.0 billion in 2016 and $33.6 billion in 2017.

The weighted-average contractual interest rates for total long-term debt excluding structured notes accounted for at fair value were 3.09% and 3.57% as of December 31, 2012 and 2011, respectively. In order to modify exposure to interest rate and currency exchange rate movements, JPMorgan Chase utilizes derivative instruments, primarily interest rate and cross-currency interest rate swaps, in conjunction with some of its debt issues. The use of these instruments modifies the Firm's interest expense on the associated debt. The modified weighted-average interest rates for total long-term debt, including the effects of related derivative instruments, were 2.33% and 2.67% as of December 31, 2012 and 2011, respectively.

The Parent Company has guaranteed certain long-term debt of its subsidiaries, including both long-term debt and structured notes sold as part of the Firm's market-making activities. These guarantees rank on parity with all of the Firm's other unsecured and unsubordinated indebtedness. Guaranteed liabilities were $1.7 billion and $3.0 billion at December 31, 2012 and 2011, respectively.

The Firm's unsecured debt does not contain requirements that would call for an acceleration of payments, maturities or changes in the structure of the existing debt, provide any limitations on future borrowings or require additional collateral, based on unfavorable changes in the Firm's credit ratings, financial ratios, earnings or stock price.

Junior subordinated deferrable interest debentures held by trusts that issued guaranteed capital debt securities

On July 12, 2012, JPMorgan Chase redeemed $9.0 billion, or 100% of the liquidation amount, of the following guaranteed capital debt securities ("trust preferred securities"): JPMorgan Chase Capital XV, JPMorgan Chase Capital XVII, JPMorgan Chase Capital XVIII, JPMorgan Chase Capital XX, JPMorgan Chase Capital XXII, JPMorgan Chase Capital XXV, JPMorgan Chase Capital XXVI, JPMorgan Chase Capital XXVII, and JPMorgan Chase Capital XXVIII. Other income for the year ended December 31, 2012, reflected $888 million of pretax extinguishment gains related to adjustments applied to the cost basis of the redeemed trust preferred securities during the period they were in a qualified hedge accounting relationship.

At December 31, 2012, the Firm had outstanding 17 wholly-owned Delaware statutory business trusts ("issuer trusts") that had issued guaranteed capital debt securities.

The junior subordinated deferrable interest debentures issued by the Firm to the issuer trusts, totaling $10.4 billion and $20.9 billion at December 31, 2012 and 2011, respectively, were reflected in the Firm's Consolidated Balance Sheets in long-term debt, and in the table on the preceding page under the caption "Junior subordinated debt" (i.e., trust preferred securities). The Firm also records the common capital securities issued by the issuer trusts in other assets in its Consolidated Balance Sheets at December 31, 2012 and 2011. The debentures issued to the issuer trusts by the Firm, less the common capital securities of the issuer trusts, qualified as Tier 1 capital as of December 31, 2012.

The following is a summary of the outstanding trust preferred securities, including unamortized original issue discount, issued by each trust, and the junior subordinated deferrable interest debenture issued to each trust, as of December 31, 2012.

December 31, 2012 (in millions)	Amount of trust preferred securities issued by trust[(a)]	Principal amount of debenture issued to trust[(b)]	Issue date	Stated maturity of trust preferred securities and debentures	Earliest redemption date	Interest rate of trust preferred securities and debentures	Interest payment/ distribution dates
Bank One Capital III	$474	$757	2000	2030	Any time	8.75%	Semiannually
Bank One Capital VI	100	105	2001	2031	Any time	7.20%	Quarterly
Chase Capital II	482	498	1997	2027	Any time	LIBOR + 0.50%	Quarterly
Chase Capital III	296	305	1997	2027	Any time	LIBOR + 0.55%	Quarterly
Chase Capital VI	241	249	1998	2028	Any time	LIBOR + 0.625%	Quarterly
First Chicago NBD Capital I	249	256	1997	2027	Any time	LIBOR + 0.55%	Quarterly
J.P. Morgan Chase Capital X	1,000	1,018	2002	2032	Any time	7.00%	Quarterly
J.P. Morgan Chase Capital XI	1,075	1,013	2003	2033	Any time	5.88%	Quarterly
J.P. Morgan Chase Capital XII	400	392	2003	2033	Any time	6.25%	Quarterly
JPMorgan Chase Capital XIII	465	480	2004	2034	2014	LIBOR + 0.95%	Quarterly
JPMorgan Chase Capital XIV	600	588	2004	2034	Any time	6.20%	Quarterly
JPMorgan Chase Capital XVI	500	494	2005	2035	Any time	6.35%	Quarterly
JPMorgan Chase Capital XIX	563	564	2006	2036	Any time	6.63%	Quarterly
JPMorgan Chase Capital XXI	836	837	2007	2037	Any time	LIBOR + 0.95%	Quarterly
JPMorgan Chase Capital XXIII	643	643	2007	2047	Any time	LIBOR + 1.00%	Quarterly
JPMorgan Chase Capital XXIV	700	700	2007	2047	Any time	6.88%	Quarterly
JPMorgan Chase Capital XXIX	1,500	1,500	2010	2040	2015	6.70%	Quarterly
Total	$10,124	$10,399					

(a) Represents the amount of trust preferred securities issued to the public by each trust, including unamortized original issue discount.
(b) Represents the principal amount of JPMorgan Chase debentures issued to each trust, including unamortized original-issue discount. The principal amount of debentures issued to the trusts includes the impact of hedging and purchase accounting fair value adjustments that were recorded on the Firm's Consolidated Financial Statements.

Note 22 – Preferred stock

At December 31, 2012 and 2011, JPMorgan Chase was authorized to issue 200 million shares of preferred stock, in one or more series, with a par value of $1 per share.

In the event of a liquidation or dissolution of the Firm, JPMorgan Chase's preferred stock then outstanding takes precedence over the Firm's common stock for the payment of dividends and the distribution of assets.

The following is a summary of JPMorgan Chase's preferred stock outstanding as of December 31, 2012 and 2011.

	Contractual rate in effect at December 31, 2012	Shares at December 31,[a]		Carrying value (in millions) at December 31,		Earliest redemption date	Share value and redemption price per share[b]
		2012	2011	**2012**	2011		
Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series I	7.900%	**600,000**	600,000	$ **6,000**	$ 6,000	4/30/2018	$ 10,000
8.625% Non-Cumulative Perpetual Preferred Stock, Series J	8.625%	**180,000**	180,000	**1,800**	1,800	9/1/2013	10,000
5.50% Non-Cumulative Perpetual Preferred Stock, Series O	5.500%	**125,750**	–	**1,258**	–	9/1/2017	10,000
Total preferred stock		**905,750**	780,000	$ **9,058**	$ 7,800		

(a) Represented by depositary shares.
(b) The redemption price includes the amount shown in the table plus any accrued but unpaid dividends.

Dividends on the Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series I shares are payable semiannually at a fixed annual dividend rate of 7.90% through April 2018, and then become payable quarterly at an annual dividend rate of three-month LIBOR plus 3.47%. Dividends on the 8.625% Non-Cumulative Preferred Stock, Series J and on the 5.50% Non-Cumulative Preferred Stock, Series O are payable quarterly. The 5.50% Non-Cumulative was issued in August 2012.

On August 20, 2010, the Firm redeemed all of the outstanding shares of its 6.15% Cumulative Preferred Stock, Series E; 5.72% Cumulative Preferred Stock, Series F; and 5.49% Cumulative Preferred Stock, Series G at their stated redemption value.

Redemption rights

Each series of the Firm's preferred stock may be redeemed on any dividend payment date on or after the earliest redemption date for that series. The Series O preferred stock may also be redeemed following a capital treatment event, as described in the terms of that series. Any redemption of the Firm's preferred stock is subject to non-objection from the Federal Reserve.

Note 23 – Common stock

At December 31, 2012 and 2011, JPMorgan Chase was authorized to issue 9.0 billion shares of common stock with a par value of $1 per share.

Common shares issued (newly issued or distributed from treasury) by JPMorgan Chase during the years ended December 31, 2012, 2011 and 2010 were as follows.

Year ended December 31, (in millions)	**2012**	2011	2010
Issued – balance at January 1	**4,104.9**	4,104.9	4,104.9
New open market issuances	**–**	–	–
Total issued – balance at December 31	**4,104.9**	4,104.9	4,104.9
Treasury – balance at January 1	**(332.2)**	(194.6)	(162.9)
Purchase of treasury stock	**(33.5)**	(226.9)	(77.9)
Share repurchases related to employee stock-based awards[a]	**(0.2)**	(0.1)	(0.1)
Issued from treasury:			
Employee benefits and compensation plans	**63.7**	88.3	45.3
Employee stock purchase plans	**1.3**	1.1	1.0
Total issued from treasury	**65.0**	89.4	46.3
Total treasury – balance at December 31	**(300.9)**	(332.2)	(194.6)
Outstanding	**3,804.0**	3,772.7	3,910.3

(a) Participants in the Firm's stock-based incentive plans may have shares withheld to cover income taxes.

Pursuant to the U.S. Treasury's Capital Purchase Program, the Firm issued to the U.S. Treasury a Warrant to purchase up to 88,401,697 shares of the Firm's common stock, at an exercise price of $42.42 per share, subject to certain antidilution and other adjustments. The U.S. Treasury exchanged the Warrant for 88,401,697 warrants, each of which was a warrant to purchase a share of the Firm's common stock at an exercise price of $42.42 per share and, on December 11, 2009, sold the warrants in a secondary public offering for $950 million. The warrants are exercisable, in whole or in part, at any time and from time to time until October 28, 2018. As part of its common equity repurchase program discussed below, during 2012 and 2011, the Firm repurchased 18,471,300 and 10,167,698 warrants, for $238 million and $122 million, respectively, which resulted in adjustments to capital surplus. The Firm did not repurchase any of the warrants during 2010. At December 31, 2012 and 2011, respectively, 59,762,699 and 78,233,999 warrants remained outstanding.

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 $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 is approved for repurchases 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.

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. 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.

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.

As of December 31, 2012, approximately 325 million unissued shares of common stock were reserved for issuance under various employee incentive, compensation, option and stock purchase plans, director compensation plans, and the warrants sold by the U.S. Treasury as discussed above.

Note 24 – Earnings per share

Earnings per share ("EPS") is calculated under the two-class method under which all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities based on their respective rights to receive dividends. JPMorgan Chase grants restricted stock and RSUs to certain employees under its stock-based compensation programs, which entitle recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock; these unvested awards meet the definition of participating securities. Options issued under employee benefit plans that have an antidilutive effect are excluded from the computation of diluted EPS.

The following table presents the calculation of basic and diluted EPS for the years ended December 31, 2012, 2011 and 2010.

Year ended December 31, (in millions, except per share amounts)	2012	2011	2010
Basic earnings per share			
Net income	$ 21,284	$ 18,976	$ 17,370
Less: Preferred stock dividends	653	629	642
Net income applicable to common equity	20,631	18,347	16,728
Less: Dividends and undistributed earnings allocated to participating securities	754	779	964
Net income applicable to common stockholders	$ 19,877	$ 17,568	$ 15,764
Total weighted-average basic shares outstanding	3,809.4	3,900.4	3,956.3
Net income per share	$ 5.22	$ 4.50	$ 3.98
Diluted earnings per share			
Net income applicable to common stockholders	$ 19,877	$ 17,568	$ 15,764
Total weighted-average basic shares outstanding	3,809.4	3,900.4	3,956.3
Add: Employee stock options, SARs and warrants[(a)]	12.8	19.9	20.6
Total weighted-average diluted shares outstanding[(b)]	3,822.2	3,920.3	3,976.9
Net income per share	$ 5.20	$ 4.48	$ 3.96

(a) Excluded from the computation of diluted EPS (due to the antidilutive effect) were options issued under employee benefit plans and the warrants originally issued in 2008 under the U.S. Treasury's Capital Purchase Program to purchase shares of the Firm's common stock. The aggregate number of shares issuable upon the exercise of such options and warrants was 148 million, 133 million and 233 million for the full years ended December 31, 2012, 2011 and 2010 respectively.

(b) Participating securities were included in the calculation of diluted EPS using the two-class method, as this computation was more dilutive than the calculation using the treasury stock method.

Note 25 – Accumulated other comprehensive income/(loss)

AOCI includes the after-tax change in unrealized gains and losses on AFS securities, foreign currency translation adjustments (including the impact of related derivatives), cash flow hedging activities, and net loss and prior service costs/(credit) related to the Firm's defined benefit pension and OPEB plans.

Year ended December 31, (in millions)	Unrealized gains/(losses) on AFS securities[b]		Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	Accumulated other comprehensive
Balance at December 31, 2009	$ 2,032		$ (16)	$ 181	$ (2,288)	$ (91)
Cumulative effect of changes in accounting principles[a]	(144)		–	–	–	(144)
Net change	610	(c)	269	25	332	1,236
Balance at December 31, 2010	$ 2,498	(d)	$ 253	$ 206	$ (1,956)	$ 1,001
Net change	1,067	(e)	(279)	(155)	(690)	(57)
Balance at December 31, 2011	$ 3,565	(d)	$ (26)	$ 51	$ (2,646)	$ 944
Net change	**3,303**	(f)	**(69)**	**69**	**(145)**	**3,158**
Balance at December 31, 2012	**$ 6,868**	(d)	**$ (95)**	**$ 120**	**$ (2,791)**	**$ 4,102**

(a) Reflects the effect of the adoption of accounting guidance related to the consolidation of VIEs and to embedded credit derivatives in beneficial interests in securitized financial assets. AOCI decreased by $129 million due to the adoption of the accounting guidance related to VIEs, as a result of the reversal of the fair value adjustments taken on retained AFS securities that were eliminated in consolidation; for further discussion see Note 16 on pages 280–291 of this Annual Report. AOCI decreased by $15 million due to the adoption of guidance related to credit derivatives embedded in certain of the Firm's AFS securities; for further discussion see Note 6 on pages 218–227 of this Annual Report.

(b) Represents the after-tax difference between the fair value and amortized cost of securities accounted for as AFS.

(c) The net change during 2010 was due primarily to the narrowing of spreads on commercial and non-agency MBS as well as on collateralized loan obligations; also reflects increased market value on pass-through MBS due to narrowing of spreads and other market factors.

(d) Included after-tax unrealized losses not related to credit on debt securities for which credit losses have been recognized in income of $(56) million and $(81) million at December 31, 2011 and 2010, respectively. There were no such losses at December 31, 2012.

(e) The net change for 2011 was due primarily to increased market value on agency MBS and municipal securities, partially offset by the widening of spreads on non-U.S. corporate debt and the realization of gains due to portfolio repositioning.

(f) The net change for 2012 was predominantly driven by increased market value on non-U.S. residential MBS, corporate debt securities and obligations of U.S. states and municipalities, partially offset by realized gains.

The following table presents the before- and after-tax changes in the components of other comprehensive income/(loss).

	2012			2011			2010		
Year ended December 31, (in millions)	Pretax	Tax effect	After-tax	Pretax	Tax effect	After-tax	Pretax	Tax effect	After-tax
Unrealized gains/(losses) on AFS securities:									
Net unrealized gains/(losses) arising during the period	**$ 7,521**	**$ (2,930)**	**$ 4,591**	$ 3,361	$ (1,322)	$ 2,039	$ 3,982	$ (1,540)	$ 2,442
Reclassification adjustment for realized (gains)/losses included in net income	**(2,110)**	**822**	**(1,288)**	(1,593)	621	(972)	(2,982)	1,150	(1,832)
Net change	**5,411**	**(2,108)**	**3,303**	1,768	(701)	1,067	1,000	(390)	610
Translation adjustments:									
Translation	**(26)**	**8**	**(18)**	(672)	255	(417)	402	(139)	263
Hedges	**(82)**	**31**	**(51)**	226	(88)	138	11	(5)	6
Net change	**(108)**	**39**	**(69)**	(446)	167	(279)	413	(144)	269
Cash flow hedges:									
Net unrealized gains/(losses) arising during the period	**141**	**(55)**	**86**	50	(19)	31	247	(96)	151
Reclassification adjustment for realized (gains)/losses included in net income	**(28)**	**11**	**(17)**	(301)	115	(186)	(206)	80	(126)
Net change	**113**	**(44)**	**69**	(251)	96	(155)	41	(16)	25
Defined benefit pension and OPEB plans:									
Prior service credits arising during the period	**6**	**(2)**	**4**	–	–	–	10	(4)	6
Net gains/(losses) arising during the period	**(537)**	**228**	**(309)**	(1,290)	502	(788)	262	(84)	178
Reclassification adjustments included in net income:									–
Amortization of net loss	**324**	**(126)**	**198**	214	(83)	131	280	(112)	168
Prior service costs/(credits)	**(41)**	**16**	**(25)**	(52)	20	(32)	(57)	22	(35)
Settlement gain/(loss)	**–**	**–**	**–**	–	–	–	1	–	1
Foreign exchange and other	**(21)**	**8**	**(13)**	(1)	–	(1)	22	(8)	14
Net change	**(269)**	**124**	**(145)**	(1,129)	439	(690)	518	(186)	332
Total other comprehensive income/(loss)	**$ 5,147**	**$ (1,989)**	**$ 3,158**	$ (58)	$ 1	$ (57)	$ 1,972	$ (736)	$ 1,236

Note 26 – Income taxes

JPMorgan Chase and its eligible subsidiaries file a consolidated U.S. federal income tax return. JPMorgan Chase uses the asset and liability method to provide income taxes on all transactions recorded in the Consolidated Financial Statements. This method requires that income taxes reflect the expected future tax consequences of temporary differences between the carrying amounts of assets or liabilities for book and tax purposes. Accordingly, a deferred tax asset or liability for each temporary difference is determined based on the tax rates that the Firm expects to be in effect when the underlying items of income and expense are realized. JPMorgan Chase's expense for income taxes includes the current and deferred portions of that expense. A valuation allowance is established to reduce deferred tax assets to the amount the Firm expects to realize.

Due to the inherent complexities arising from the nature of the Firm's businesses, and from conducting business and being taxed in a substantial number of jurisdictions, significant judgments and estimates are required to be made. Agreement of tax liabilities between JPMorgan Chase and the many tax jurisdictions in which the Firm files tax returns may not be finalized for several years. Thus, the Firm's final tax-related assets and liabilities may ultimately be different from those currently reported.

The components of income tax expense/(benefit) included in the Consolidated Statements of Income were as follows for each of the years ended December 31, 2012, 2011, and 2010.

Income tax expense/(benefit)

Year ended December 31, (in millions)	2012	2011	2010
Current income tax expense			
U.S. federal	$ 3,225	$ 3,719	$ 4,001
Non-U.S.	1,782	1,183	2,712
U.S. state and local	1,496	1,178	1,744
Total current income tax expense	6,503	6,080	8,457
Deferred income tax expense/(benefit)			
U.S. federal	2,238	2,109	(753)
Non-U.S.	(327)	102	169
U.S. state and local	(781)	(518)	(384)
Total deferred income tax expense/(benefit)	1,130	1,693	(968)
Total income tax expense	$ 7,633	$ 7,773	$ 7,489

Total income tax expense includes $200 million, $76 million and $485 million of tax benefits recorded in 2012, 2011, and 2010, respectively, as a result of tax audit resolutions.

The preceding table does not reflect the tax effect of certain items that are recorded each period directly in stockholders' equity and certain tax benefits associated with the Firm's employee stock-based compensation plans. The tax effect of all items recorded directly to stockholders' equity resulted in a decrease of $1.9 billion in 2012, and increases of $927 million and $1.8 billion in 2011 and 2010, respectively.

U.S. federal income taxes have not been provided on the undistributed earnings of certain non-U.S. subsidiaries, to the extent that such earnings have been reinvested abroad for an indefinite period of time. During 2012, as part of JPMorgan Chase's ongoing review of the business requirements and capital needs of certain of its non-U.S. subsidiaries and their associated U.S. parent, the Firm determined that the undistributed earnings of certain of its subsidiaries would no longer be indefinitely reinvested. This determination resulted in the establishment of deferred tax liabilities and the recognition of an income tax expense of $80 million associated with prior years' undistributed earnings. Based on JPMorgan Chase's ongoing review of the business requirements and capital needs of its non-U.S. subsidiaries, combined with the formation of specific strategies and steps taken to fulfill these requirements and needs, the Firm has determined that the undistributed earnings of certain of its subsidiaries would be indefinitely reinvested to fund current and future growth of the related businesses. As management does not intend to use the earnings of these subsidiaries as a source of funding for its U.S. operations, such earnings will not be distributed to the U.S. in the foreseeable future. For 2012, pretax earnings of approximately $3.1 billion were generated and will be indefinitely reinvested in these subsidiaries. At December 31, 2012, the cumulative amount of undistributed pretax earnings in these subsidiaries approximated $25.1 billion. If the Firm were to record a deferred tax liability associated with these undistributed earnings, the amount would be approximately $5.7 billion at December 31, 2012.

Tax expense applicable to securities gains and losses for the years 2012, 2011 and 2010 was $822 million, $617 million, and $1.1 billion, respectively.

A reconciliation of the applicable statutory U.S. income tax rate to the effective tax rate for each of the years ended December 31, 2012, 2011 and 2010, is presented in the following table.

Effective tax rate

Year ended December 31,	2012	2011	2010
Statutory U.S. federal tax rate	**35.0%**	35.0%	35.0%
Increase/(decrease) in tax rate resulting from:			
U.S. state and local income taxes, net of U.S. federal income tax benefit	**1.6**	1.6	3.6
Tax-exempt income	**(2.9)**	(2.1)	(2.4)
Non-U.S. subsidiary earnings[(a)]	**(2.4)**	(2.3)	(2.2)
Business tax credits	**(4.2)**	(4.0)	(3.7)
Other, net	**(0.7)**	0.9	(0.2)
Effective tax rate	**26.4%**	29.1%	30.1%

(a) Includes earnings deemed to be reinvested indefinitely in non-U.S. subsidiaries.

Deferred income tax expense/(benefit) results from differences between assets and liabilities measured for financial reporting purposes versus income tax return purposes. Deferred tax assets are recognized if, in management's judgment, their realizability is determined to be more likely than not. If a deferred tax asset is determined to be unrealizable, a valuation allowance is established. The significant components of deferred tax assets and liabilities are reflected in the following table as of December 31, 2012 and 2011.

Deferred taxes

December 31, (in millions)	2012	2011
Deferred tax assets		
Allowance for loan losses	**$ 8,712**	$ 10,689
Employee benefits	**4,308**	4,570
Accrued expenses and other[(a)]	**12,393**	11,183
Non-U.S. operations	**3,537**	2,943
Tax attribute carryforwards	**1,062**	1,547
Gross deferred tax assets[(a)]	**30,012**	30,932
Valuation allowance	**(689)**	(1,303)
Deferred tax assets, net of valuation allowance[(a)]	**$ 29,323**	$ 29,629
Deferred tax liabilities		
Depreciation and amortization[(a)]	**$ 2,563**	$ 2,799
Mortgage servicing rights, net of hedges [(a)]	**5,336**	4,396
Leasing transactions[(a)]	**2,242**	2,348
Non-U.S. operations	**3,582**	2,790
Other, net[(a)]	**4,340**	2,520
Gross deferred tax liabilities[(a)]	**18,063**	14,853
Net deferred tax assets	**$ 11,260**	$ 14,776

(a) The prior period has been revised to conform with the current presentation.

JPMorgan Chase has recorded deferred tax assets of $1.1 billion at December 31, 2012, in connection with U.S. federal and state and local net operating loss carryforwards and foreign tax credit carryforwards. At December 31, 2012, the U.S. federal net operating loss carryforwards were approximately $1.5 billion; the state and local net operating loss carryforward was approximately $269 million; and the U.S. foreign tax credit carryforward was approximately $525 million. If not utilized, the U.S. federal net operating loss carryforwards and the state and local net operating loss carryforward will expire between 2027 and 2030; and the U.S. foreign tax credit carryforward will expire in 2022.

The valuation allowance at December 31, 2012, was due to losses associated with non-U.S. subsidiaries. During 2012, the valuation allowance decreased by $614 million largely related to the realization of state and local tax benefits.

At December 31, 2012, 2011 and 2010, JPMorgan Chase's unrecognized tax benefits, excluding related interest expense and penalties, were $7.2 billion, $7.2 billion and $7.8 billion, respectively, of which $4.2 billion, $4.0 billion and $3.8 billion, respectively, if recognized, would reduce the annual effective tax rate. Included in the amount of unrecognized tax benefits are certain items that would not affect the effective tax rate if they were recognized in the Consolidated Statements of Income. These unrecognized items include the tax effect of certain temporary differences, the portion of gross state and local unrecognized tax benefits that would be offset by the benefit from associated U.S. federal income tax deductions, and the portion of gross non-U.S. unrecognized tax benefits that would have offsets in other jurisdictions. As JPMorgan Chase is presently under audit by a number of taxing authorities, it is reasonably possible that significant changes in the gross balance of unrecognized tax benefits may occur within the next 12 months. JPMorgan Chase does not expect that any changes over the next 12 months in its gross balance of unrecognized tax benefits caused by such audits would result in a significant change in its annual effective tax rate.

The following table presents a reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2012, 2011 and 2010.

Unrecognized tax benefits

Year ended December 31, (in millions)	2012	2011	2010
Balance at January 1,	$ 7,189	$ 7,767	$ 6,608
Increases based on tax positions related to the current period	680	516	813
Decreases based on tax positions related to the current period	–	(110)	(24)
Increases based on tax positions related to prior periods	234	496	1,681
Decreases based on tax positions related to prior periods	(853)	(1,433)	(1,198)
Decreases related to settlements with taxing authorities	(50)	(16)	(74)
Decreases related to a lapse of applicable statute of limitations	(42)	(31)	(39)
Balance at December 31,	**$ 7,158**	$ 7,189	$ 7,767

After-tax interest expense/(benefit) and penalties related to income tax liabilities recognized in income tax expense were $147 million, $184 million and $(54) million in 2012, 2011 and 2010, respectively.

At December 31, 2012 and 2011, in addition to the liability for unrecognized tax benefits, the Firm had accrued $1.9 billion and $1.7 billion, respectively, for income tax-related interest and penalties.

JPMorgan Chase is continually under examination by the Internal Revenue Service, by taxing authorities throughout the world, and by many states throughout the U.S. The following table summarizes the status of significant income tax examinations of JPMorgan Chase and its consolidated subsidiaries as of December 31, 2012.

December 31, 2012	Periods under examination	Status
JPMorgan Chase – U.S.	2003 - 2005	Field examination completed, JPMorgan Chase intends to file refund claims
JPMorgan Chase – U.S.	2006 - 2010	Field examination
Bear Stearns – U.S.	2006 – 2008	Field examination
JPMorgan Chase – United Kingdom	2006 – 2010	Field examination
JPMorgan Chase – New York State and City	2005 – 2007	Field examination
JPMorgan Chase – California	2006 – 2008	Field examination

The following table presents the U.S. and non-U.S. components of income before income tax expense for the years ended December 31, 2012, 2011 and 2010.

Income before income tax expense - U.S. and non-U.S.

Year ended December 31, (in millions)	2012	2011	2010
U.S.	$ 24,895	$ 16,336	$ 16,568
Non-U.S.[a]	4,022	10,413	8,291
Income before income tax expense	**$ 28,917**	$ 26,749	$ 24,859

(a) For purposes of this table, non-U.S. income is defined as income generated from operations located outside the U.S.

Note 27 – Restrictions on cash and intercompany funds transfers

The business of JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A.") is subject to examination and regulation by the Office of the Comptroller of the Currency ("OCC"). The Bank is a member of the U.S. Federal Reserve System, and its deposits in the U.S. are insured by the FDIC.

The Board of Governors of the Federal Reserve System (the "Federal Reserve") requires depository institutions to maintain cash reserves with a Federal Reserve Bank. The average amount of reserve balances deposited by the Firm's bank subsidiaries with various Federal Reserve Banks was approximately $5.6 billion and $4.4 billion in 2012 and 2011, respectively.

Restrictions imposed by U.S. federal law prohibit JPMorgan Chase and certain of its affiliates from borrowing from banking subsidiaries unless the loans are secured in specified amounts. Such secured loans to the Firm or to other affiliates are generally limited to 10% of the banking subsidiary's total capital, as determined by the risk-based capital guidelines; the aggregate amount of all such loans is limited to 20% of the banking subsidiary's total capital.

The principal sources of JPMorgan Chase's income (on a parent company-only basis) are dividends and interest from JPMorgan Chase Bank, N.A., and the other banking and nonbanking subsidiaries of JPMorgan Chase. In addition to dividend restrictions set forth in statutes and regulations, the Federal Reserve, the OCC and the FDIC have authority under the Financial Institutions Supervisory Act to prohibit or to limit the payment of dividends by the banking organizations they supervise, including JPMorgan Chase and its subsidiaries that are banks or bank holding companies, if, in the banking regulator's opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization.

At January 1, 2013, JPMorgan Chase's banking subsidiaries could pay, in the aggregate, $18.4 billion in dividends to their respective bank holding companies without the prior approval of their relevant banking regulators. The capacity to pay dividends in 2013 will be supplemented by the banking subsidiaries' earnings during the year.

In compliance with rules and regulations established by U.S. and non-U.S. regulators, as of December 31, 2012 and 2011, cash in the amount of $25.1 billion and $25.4 billion, respectively, and securities with a fair value of $0.7 billion and $16.1 billion, respectively, were segregated in special bank accounts for the benefit of securities and futures brokerage customers. In addition, as of December 31, 2012 and 2011, the Firm had other restricted cash of $3.4 billion and $4.2 billion, respectively, primarily representing cash reserves held at non-U.S. central banks and held for other general purposes.

Note 28 – Regulatory capital

The Federal Reserve establishes capital requirements, including well-capitalized standards for the consolidated financial holding company. The OCC establishes similar capital requirements and standards for the Firm's national banks, including JPMorgan Chase Bank, N.A., and Chase Bank USA, N.A.

There are two categories of risk-based capital: Tier 1 capital and Tier 2 capital. Tier 1 capital consists of common stockholders' equity, perpetual preferred stock, noncontrolling interests in subsidiaries and trust preferred securities, less goodwill and certain other adjustments. Tier 2 capital consists of preferred stock not qualifying as Tier 1 capital, subordinated long-term debt and other instruments qualifying as Tier 2 capital, and the aggregate allowance for credit losses up to a certain percentage of risk-weighted assets. Total capital is Tier 1 capital plus Tier 2 capital. Risk-weighted assets ("RWA") consist of on– and off–balance sheet assets that are assigned to one of several broad risk categories and weighted by factors representing their risk and potential for default. On–balance sheet assets are risk-weighted based on the perceived credit risk associated with the obligor or counterparty, the nature of any collateral, and the guarantor, if any. Off–balance sheet assets, such as lending-related commitments, guarantees, and derivatives, are risk-weighted by multiplying the contractual amount by the appropriate credit conversion factor to determine the on–balance sheet credit-equivalent amount, which is then risk-weighted based on the same factors used for on–balance sheet assets. Risk-weighted assets also incorporate a measure for the market risk related to applicable trading assets–debt and equity instruments, and foreign exchange and commodity derivatives. The resulting risk-weighted values for each of the risk categories are then aggregated to determine total risk-weighted assets.

Under the risk-based capital guidelines of the Federal Reserve, JPMorgan Chase is required to maintain minimum ratios of Tier 1 and Total capital to risk-weighted assets, as well as minimum leverage ratios (which are defined as Tier 1 capital divided by adjusted quarterly average assets). Failure to meet these minimum requirements could cause the Federal Reserve to take action. Banking subsidiaries also are subject to these capital requirements by their respective primary regulators. As of December 31, 2012 and 2011, JPMorgan Chase and all of its banking subsidiaries were well-capitalized and met all capital requirements to which each was subject.

The following table presents the regulatory capital, assets and risk-based capital ratios for JPMorgan Chase and its significant banking subsidiaries at December 31, 2012 and 2011. These amounts are determined in accordance with regulations issued by the Federal Reserve and/or OCC. The following table reflects an adjustment to RWA to reflect regulatory guidance regarding a limited number of market risk models used for certain positions held by the Firm and JPMorgan Chase Bank, N.A. 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.

December 31,	JPMorgan Chase & Co.[d]		JPMorgan Chase Bank, N.A.[d]		Chase Bank USA, N.A.[d]		Well-capitalized ratios[e]	Minimum capital ratios[e]
(in millions, except ratios)	**2012**	2011	**2012**	2011	**2012**	2011		
Regulatory capital								
Tier 1[a]	**$ 160,002**	$ 150,384	**$ 111,827**	$ 98,426	**$ 9,648**	$ 11,903		
Total	**194,036**	188,088	**146,870**	136,017	**13,131**	15,448		
Assets								
Risk-weighted[b]	**$1,270,378**	$1,221,198	**$1,094,155**	$1,042,898	**$103,593**	$107,421		
Adjusted average[c]	**2,243,242**	2,202,087	**1,815,816**	1,789,194	**103,688**	106,312		
Capital ratios								
Tier 1[a]	**12.6%**	12.3%	**10.2%**	9.4%	**9.3%**	11.1%	6.0%	4.0%
Total	**15.3**	15.4	**13.4**	13.0	**12.7**	14.4	10.0	8.0
Tier 1 leverage	**7.1**	6.8	**6.2**	5.5	**9.3**	11.2	5.0 [f]	3.0 [g]

(a) JPMorgan Chase redeemed $9.0 billion of trust preferred securities effective July 12, 2012. At December 31, 2012, for JPMorgan Chase and JPMorgan Chase Bank, N.A., trust preferred securities were $10.2 billion and $600 million, respectively. If these securities were excluded from the calculation at December 31, 2012, Tier 1 capital would be $149.8 billion and $111.2 billion, respectively, and the Tier 1 capital ratio would be 11.8% and 10.2%, respectively. At December 31, 2012, Chase Bank USA, N.A. had no trust preferred securities.

(b) Includes off–balance sheet risk-weighted assets at December 31, 2012, of $304.5 billion, $297.1 billion and $16 million, and at December 31, 2011, of $301.1 billion, $291.0 billion and $38 million, for JPMorgan Chase, JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., respectively.

(c) Adjusted average assets, for purposes of calculating the leverage ratio, include total quarterly average assets adjusted for unrealized gains/(losses) on securities, less deductions for disallowed goodwill and other intangible assets, investments in certain subsidiaries, and the total adjusted carrying value of nonfinancial equity investments that are subject to deductions from Tier 1 capital.

(d) Asset and capital amounts for JPMorgan Chase's banking subsidiaries reflect intercompany transactions; whereas the respective amounts for JPMorgan Chase reflect the elimination of intercompany transactions.

(e) As defined by the regulations issued by the Federal Reserve, OCC and FDIC.

(f) Represents requirements for banking subsidiaries pursuant to regulations issued under the FDIC Improvement Act. There is no Tier 1 leverage component in the definition of a well-capitalized bank holding company.

(g) The minimum Tier 1 leverage ratio for bank holding companies and banks is 3% or 4%, depending on factors specified in regulations issued by the Federal Reserve and OCC.

Note: Rating agencies allow measures of capital to be adjusted upward for deferred tax liabilities, which have resulted from both nontaxable business combinations and from tax-deductible goodwill. The Firm had deferred tax liabilities resulting from nontaxable business combinations totaling $291 million and $414 million at December 31, 2012 and 2011, respectively; and deferred tax liabilities resulting from tax-deductible goodwill of $2.5 billion and $2.3 billion at December 31, 2012 and 2011, respectively.

A reconciliation of the Firm's Total stockholders' equity to Tier 1 capital and Total qualifying capital is presented in the table below.

December 31, (in millions)	2012	2011
Tier 1 capital		
Total stockholders' equity	**$ 204,069**	$ 183,573
Effect of certain items in accumulated other comprehensive income/(loss) excluded from Tier 1 capital	**(4,198)**	(970)
Qualifying hybrid securities and noncontrolling interests[a]	**10,608**	19,668
Less: Goodwill[b]	**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	**926**	993
Other intangible assets[b]	**2,311**	2,871
Total Tier 1 capital	**160,002**	150,384
Tier 2 capital		
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

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

Note 29 – Off-balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the counterparty draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm's view, representative of its actual future credit exposure or funding requirements.

To provide for the risk of loss inherent in consumer (excluding credit card) and wholesale contracts, an allowance for credit losses on lending-related commitments is maintained. See Note 15 on pages 276–279 of this Annual Report for further discussion regarding the allowance for credit losses on lending-related commitments. The following table summarizes the contractual amounts and carrying values of off-balance sheet lending-related financial instruments, guarantees and other commitments at December 31, 2012 and 2011. The amounts in the table below for credit card and home equity lending-related commitments represent the total available credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. The Firm can reduce or cancel credit card lines of credit by providing the borrower notice or, in some cases, without notice as permitted by law. The Firm may reduce or close home equity lines of credit when there are significant decreases in the value of the underlying property, or when there has been a demonstrable decline in the creditworthiness of the borrower. Also, the Firm typically closes credit card lines when the borrower is 60 days or more past due.

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

By remaining maturity at December 31, (in millions)	Contractual amount 2012 Expires in 1 year or less	2012 Expires after 1 year through 3 years	2012 Expires after 3 years through 5 years	2012 Expires after 5 years	2012 Total	2011 Total	Carrying value[h] 2012	Carrying value[h] 2011
Lending-related								
Consumer, excluding credit card:								
Home equity – senior lien	$ 2,039	$ 5,208	$ 4,848	$ 3,085	$ 15,180	$ 16,542	$ —	$ —
Home equity – junior lien	3,739	8,343	6,361	3,353	21,796	26,408	—	—
Prime mortgage	4,107	—	—	—	4,107	1,500	—	—
Subprime mortgage	—	—	—	—	—	—	—	—
Auto	6,916	111	127	31	7,185	6,694	1	1
Business banking	10,160	476	94	362	11,092	10,299	6	6
Student and other	128	189	8	471	796	864	—	—
Total consumer, excluding credit card	27,089	14,327	11,438	7,302	60,156	62,307	7	7
Credit card	533,018	—	—	—	533,018	530,616	—	—
Total consumer	560,107	14,327	11,438	7,302	593,174	592,923	7	7
Wholesale:								
Other unfunded commitments to extend credit[a][b]	57,443	81,575	97,394	6,813	243,225	215,251	377	347
Standby letters of credit and other financial guarantees[a][b][c][d]	28,641	31,270	39,076	1,942	100,929	101,899	647	696
Unused advised lines of credit	73,967	10,328	375	417	85,087	60,203	—	—
Other letters of credit[a][d]	4,276	1,169	74	54	5,573	5,386	2	2
Total wholesale	164,327	124,342	136,919	9,226	434,814	382,739	1,026	1,045
Total lending-related	$ 724,434	$ 138,669	$ 148,357	$ 16,528	$1,027,988	$ 975,662	$ 1,033	$ 1,052
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees[e]	$ 166,493	$ —	$ —	$ —	$ 166,493	$ 186,077	NA	NA
Derivatives qualifying as guarantees	2,336	2,441	19,946	37,015	61,738	75,593	$ 42	$ 457
Unsettled reverse repurchase and securities borrowing agreements[f]	34,871	—	—	—	34,871	39,939	—	—
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	NA	NA	NA	NA	NA	NA	2,811	3,557
Loans sold with recourse	NA	NA	NA	NA	9,305	10,397	141	148
Other guarantees and commitments[g]	609	319	1,400	4,452	6,780	6,321	(75)	(5)

(a) At December 31, 2012 and 2011, reflects the contractual amount net of risk participations totaling $473 million and $1.1 billion, respectively, for other unfunded commitments to extend credit; $16.6 billion and $19.8 billion, respectively, for standby letters of credit and other financial guarantees; and $690 million and $974 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.

(b) At December 31, 2012 and 2011, included credit enhancements and bond and commercial paper liquidity commitments to U.S. states and municipalities, hospitals and other non-profit entities of $44.5 billion and $48.6 billion, respectively. These commitments also include liquidity facilities to nonconsolidated municipal bond VIEs; for further information, see Note 16 on pages 280–291 of this Annual Report.

(c) At December 31, 2012 and 2011, included unissued standby letters of credit commitments of $44.4 billion and $44.1 billion, respectively.

(d) At December 31, 2012 and 2011, JPMorgan Chase held collateral relating to $42.7 billion and $41.5 billion, respectively, of standby letters of credit; and $1.1 billion and $1.3 billion, respectively, of other letters of credit.

(e) At December 31, 2012 and 2011, collateral held by the Firm in support of securities lending indemnification agreements was $165.1 billion and $186.3 billion, respectively. Securities lending collateral comprises primarily cash and securities issued by governments that are members of the Organisation for Economic Co-operation and Development ("OECD") and U.S. government agencies.

(f) At December 31, 2012 and 2011, the amount of commitments related to forward-starting reverse repurchase agreements and securities borrowing agreements were $13.2 billion and $14.4 billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular-way settlement periods were $21.7 billion and $25.5 billion, at December 31, 2012 and 2011, respectively.

(g) At December 31, 2012 and 2011, included unfunded commitments of $370 million and $789 million, respectively, to third-party private equity funds; and $1.5 billion and $1.5 billion, respectively, to other equity investments. These commitments included $333 million and $820 million, respectively, related to investments that are generally fair valued at net asset value as discussed in Note 3 on pages 196–214 of this Annual Report. In addition, at December 31, 2012 and 2011, included letters of credit hedged by derivative transactions and managed on a market risk basis of $4.5 billion and $3.9 billion, respectively.

(h) For lending-related products, the carrying value represents the allowance for lending-related commitments and the guarantee liability; for derivative-related products, the carrying value represents the fair value.

Other unfunded commitments to extend credit
Other unfunded commitments to extend credit generally comprise commitments for working capital and general corporate purposes, extensions of credit to support commercial paper facilities and bond financings in the event that those obligations cannot be remarketed to new investors as well as committed liquidity facilities to clearing organizations.

Also included in other unfunded commitments to extend credit are commitments to noninvestment-grade counterparties in connection with leveraged and acquisition finance activities, which were $8.8 billion and $6.1 billion at December 31, 2012 and 2011, respectively. For further information, see Note 3 and Note 4 on pages 196–214 and 214–216 respectively, of this Annual Report.

In addition, the Firm acts as a clearing and custody bank in the U.S. tri-party repurchase transaction market. In its role as clearing and custody bank, the Firm is exposed to intra-day credit risk of the cash borrowers, usually broker-dealers; however, this exposure is secured by collateral and typically extinguished through the settlement process by the end of the day. For the three months ended December 31, 2012, the tri-party repurchase daily balances averaged $409 billion.

Guarantees
U.S. GAAP requires that a guarantor recognize, at the inception of a guarantee, a liability in an amount equal to the fair value of the obligation undertaken in issuing the guarantee. U.S. GAAP defines a guarantee as a contract that contingently requires the guarantor to pay a guaranteed party based upon: (a) changes in an underlying asset, liability or equity security of the guaranteed party; or (b) a third party's failure to perform under a specified agreement. The Firm considers the following off–balance sheet lending-related arrangements to be guarantees under U.S. GAAP: standby letters of credit and financial guarantees, securities lending indemnifications, certain indemnification agreements included within third-party contractual arrangements and certain derivative contracts.

As required by U.S. GAAP, the Firm initially records guarantees at the inception date fair value of the obligation assumed (e.g., the amount of consideration received or the net present value of the premium receivable). For certain types of guarantees, the Firm records this fair value amount in other liabilities with an offsetting entry recorded in cash (for premiums received), or other assets (for premiums receivable). Any premium receivable recorded in other assets is reduced as cash is received under the contract, and the fair value of the liability recorded at inception is amortized into income as lending and deposit-related fees over the life of the guarantee contract. For indemnifications provided in sales agreements, a portion of the sale proceeds is allocated to the guarantee, which adjusts the gain or loss that would otherwise result from the transaction. For these indemnifications, the initial liability is amortized to income as the Firm's risk is reduced (i.e., over time or when the indemnification expires). Any contingent liability that exists as a result of issuing the guarantee or indemnification is recognized when it becomes probable and reasonably estimable. The contingent portion of the liability is not recognized if the estimated amount is less than the carrying amount of the liability recognized at inception (adjusted for any amortization). The recorded amounts of the liabilities related to guarantees and indemnifications at December 31, 2012 and 2011, excluding the allowance for credit losses on lending-related commitments, are discussed below.

Standby letters of credit and other financial guarantees
Standby letters of credit ("SBLC") and other financial guarantees are conditional lending commitments issued by the Firm to guarantee the performance of a customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade and similar transactions. The carrying values of standby and other letters of credit were $649 million and $698 million at December 31, 2012 and 2011, respectively, which were classified in accounts payable and other liabilities on the Consolidated Balance Sheets; these carrying values included $284 million and $319 million, respectively, for the allowance for lending-related commitments, and $365 million and $379 million, respectively, for the guarantee liability and corresponding asset.

The following table summarizes the types of facilities under which standby letters of credit and other letters of credit arrangements are outstanding by the ratings profiles of the Firm's customers, as of December 31, 2012 and 2011.

Standby letters of credit, other financial guarantees and other letters of credit

	2012		2011	
December 31, (in millions)	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade[(a)]	$ 77,081	$ 3,998	$ 78,884	$ 4,105
Noninvestment-grade[(a)]	23,848	1,575	23,015	1,281
Total contractual amount	$ 100,929 [(b)]	$ 5,573	$ 101,899 [(b)]	$ 5,386
Allowance for lending-related commitments	$ 282	$ 2	$ 317	$ 2
Commitments with collateral	42,654	1,145	41,529	1,264

(a) The ratings scale is based on the Firm's internal ratings which generally correspond to ratings as defined by S&P and Moody's.
(b) At December 31, 2012 and 2011, included unissued standby letters of credit commitments of $44.4 billion and $44.1 billion, respectively.

Advised lines of credit
An advised line of credit is a revolving credit line which specifies the maximum amount the Firm may make available to an obligor, on a nonbinding basis. The borrower receives written or oral advice of this facility. The Firm may cancel this facility at any time by providing the borrower notice or, in some cases, without notice as permitted by law.

Securities lending indemnifications
Through the Firm's securities lending program, customers' securities, via custodial and non-custodial arrangements, may be lent to third parties. As part of this program, the Firm provides an indemnification in the lending agreements which protects the lender against the failure of the borrower to return the lent securities. To minimize its liability under these indemnification agreements, the Firm obtains cash or other highly liquid collateral with a market value exceeding 100% of the value of the securities on loan from the borrower. Collateral is marked to market daily to help assure that collateralization is adequate. Additional collateral is called from the borrower if a shortfall exists, or collateral may be released to the borrower in the event of overcollateralization. If a borrower defaults, the Firm would use the collateral held to purchase replacement securities in the market or to credit the lending customer with the cash equivalent thereof.

Derivatives qualifying as guarantees
In addition to the contracts described above, the Firm transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. These contracts include written put options that require the Firm to purchase assets upon exercise by the option holder at a specified price by a specified date in the future. The Firm may enter into written put option contracts in order to meet client needs, or for other trading purposes. The terms of written put options are typically five years or less. Derivative guarantees also include contracts such as stable value derivatives that require the Firm to make a payment of the difference between the market value and the book value of a counterparty's reference portfolio of assets in the event that market value is less than book value and certain other conditions have been met. Stable value derivatives, commonly referred to as "stable value wraps", are transacted in order to allow investors to realize investment returns with less volatility than an unprotected portfolio and are typically longer-term or may have no stated maturity, but allow the Firm to terminate the contract under certain conditions.

Derivative guarantees are recorded on the Consolidated Balance Sheets at fair value in trading assets and trading liabilities. The total notional value of the derivatives that the Firm deems to be guarantees was $61.7 billion and $75.6 billion at December 31, 2012 and 2011, respectively. The notional amount generally represents the Firm's maximum exposure to derivatives qualifying as guarantees. However, exposure to certain stable value contracts is contractually limited to a substantially lower percentage of the notional amount; the notional amount on these stable value contracts was $26.5 billion and $26.1 billion and the maximum exposure to loss was $2.8 billion and $2.8 billion, at December 31, 2012 and 2011, respectively. The fair values of the contracts reflect the probability of whether the Firm will be required to perform under the contract. The fair value related to derivatives that the Firm deems to be guarantees were derivative payables of $122 million and $555 million and derivative receivables of $80 million and $98 million at December 31, 2012 and 2011, respectively. The Firm reduces exposures to these contracts by entering into offsetting transactions, or by entering into contracts that hedge the market risk related to the derivative guarantees. In addition to derivative contracts that meet the characteristics of a guarantee, the Firm is both a purchaser and seller of credit protection in the credit derivatives market. For a further discussion of credit derivatives, see Note 6 on pages 218–227 of this Annual Report.

Unsettled reverse repurchase and securities borrowing agreements

In the normal course of business, the Firm enters into reverse repurchase agreements and securities borrowing agreements that settle at a future date. At settlement, these commitments require that the Firm advance cash to and accept securities from the counterparty. These agreements generally do not meet the definition of a derivative, and therefore, are not recorded on the Consolidated Balance Sheets until settlement date. At December 31, 2012 and 2011, the amount of commitments related to forward starting reverse repurchase agreements and securities borrowing agreements were $13.2 billion and $14.4 billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular way settlement periods were $21.7 billion and $25.5 billion at December 31, 2012 and 2011, respectively.

Loan sales- and securitization-related indemnifications

Mortgage repurchase liability

In connection with the Firm's loan sale and securitization activities with the GSEs and other loan sale and private-label securitization transactions, as described in Note 16 on pages 280–291 of this Annual Report, the Firm has made representations and warranties that the loans sold meet certain requirements. 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. Generally, the maximum amount of future payments the Firm would be required to make for breaches of these representations and warranties would be equal to the unpaid principal balance of such loans that are deemed to have defects that were sold to purchasers (including securitization-related SPEs) plus, in certain circumstances, accrued interest on such loans and certain expense.

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.

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 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.

To estimate the Firm's mortgage repurchase liability arising from breaches of representations and warranties, the Firm considers:

(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, which is reported in accounts payable and other liabilities net of probable recoveries from third-party originators of $441 million and $577 million at December 31, 2012 and 2011, respectively. The Firm's mortgage repurchase liability is intended to cover 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). The liability related to all repurchase demands associated with private-label securitizations is separately evaluated by the Firm in establishing its litigation reserves.

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, the estimation process is inherently uncertain and imprecise and, accordingly, losses in excess of the amounts accrued as of December 31, 2012, are reasonably possible. The Firm believes the estimate of the range of reasonably possible losses, in excess of its established repurchase liability, is from $0 to approximately $0.9 billion at December 31, 2012. This estimated range of reasonably possible loss considers the Firm's GSE-related exposure based on an assumed peak to trough decline in home prices of 40%, which is an additional 10 percentage point decline in home prices beyond the Firm's current assumptions (which were derived from a nationally recognized home price index). Although the Firm does not consider a further decline in home prices of this magnitude likely to occur, such a decline could increase the levels of loan delinquencies, which may, in turn, increase the level of repurchase demands from the GSEs and potentially result in additional repurchases of loans at greater loss severities; each of these factors could affect the Firm's mortgage repurchase liability.

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.

Loans sold with recourse
The Firm provides servicing for mortgages and certain commercial lending products on both a recourse and nonrecourse basis. In nonrecourse servicing, the principal credit risk to the Firm is the cost of temporary servicing advances of funds (i.e., normal servicing advances). In recourse servicing, the servicer agrees to share credit risk with the owner of the mortgage loans, such as Fannie Mae or Freddie Mac or a private investor, insurer or guarantor. Losses on recourse servicing predominantly occur when foreclosure sales proceeds of the property underlying a defaulted loan are less than the sum of the outstanding principal balance, plus accrued interest on the loan and the cost of holding and disposing of the underlying property. The Firm's securitizations are predominantly nonrecourse, thereby effectively transferring the risk of future credit losses to the purchaser of the mortgage-backed securities issued by the trust. At December 31, 2012 and 2011, the unpaid principal balance of loans sold with recourse totaled $9.3 billion and $10.4 billion, respectively. The carrying value of the related liability that the Firm has recorded, which is representative of the Firm's view of the likelihood it will have to perform under its recourse obligations, was $141 million and $148 million at December 31, 2012 and 2011, respectively.

Other off-balance sheet arrangements
Indemnification agreements – general
In connection with issuing securities to investors, the Firm may enter into contractual arrangements with third parties that require the Firm to make a payment to them in the event of a change in tax law or an adverse interpretation of tax law. In certain cases, the contract also may include a termination clause, which would allow the Firm to settle the contract at its fair value in lieu of making a payment under the indemnification clause. The Firm may also enter into indemnification clauses in connection with the licensing of software to clients ("software licensees") or when it sells a business or assets to a third party ("third-party purchasers"), pursuant to which it indemnifies software licensees for claims of liability or damages that may occur subsequent to the licensing of the software, or third-party purchasers for losses they may incur due to actions taken by the Firm prior to the sale of the business or assets. It is difficult to estimate the Firm's maximum exposure under these indemnification arrangements, since this would require an assessment of future changes in tax law and future claims that may be made against the Firm that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

Credit card charge-backs
Chase Paymentech Solutions, Card's merchant services business and a subsidiary of JPMorgan Chase Bank, N.A., is a global leader in payment processing and merchant acquiring.

Under the rules of Visa USA, Inc., and MasterCard International, JPMorgan Chase Bank, N.A., is liable primarily for the amount of each processed credit card sales transaction that is the subject of a dispute between a cardmember and a merchant. If a dispute is resolved in the cardmember's favor, Chase Paymentech will (through the cardmember's issuing bank) credit or refund the amount to the cardmember and will charge back the transaction to the merchant. If Chase Paymentech is unable to collect the amount from the merchant, Chase Paymentech will bear the loss for the amount credited or refunded to the cardmember. Chase Paymentech mitigates this risk by withholding future settlements, retaining cash reserve accounts or by obtaining other security. However, in the unlikely event that: (1) a merchant ceases operations and is unable to deliver products, services or a refund; (2) Chase Paymentech does not have sufficient collateral from the merchant to provide customer refunds; and (3) Chase Paymentech does not have sufficient financial resources to provide customer refunds, JPMorgan Chase Bank, N.A., would be liable for the amount of the transaction. For the year ended December 31, 2012, Chase Paymentech incurred aggregate credit losses of $16 million on $655.2 billion of aggregate volume processed, and at December 31, 2012, it held $203 million of collateral. For the year ended December 31, 2011, Chase Paymentech incurred aggregate credit losses of $13 million on $553.7 billion of aggregate volume processed, and at December 31, 2011, it held $204 million of collateral. For the year ended December 31, 2010, Chase Paymentech incurred aggregate credit losses of $12 million on $469.3 billion of aggregate volume processed, and at December 31, 2010, it held $189 million of collateral. The Firm believes that, based on historical experience and the collateral held by Chase Paymentech, the fair value of the Firm's charge back-related obligations, which are representative of the payment or performance risk to the Firm, is immaterial.

Exchange and clearinghouse guarantees
The Firm is a member of several securities and futures exchanges and clearinghouses, both in the U.S. and other countries. Membership in some of these organizations requires the Firm to pay a pro rata share of the losses incurred by the organization as a result of the default of another member. Such obligations vary with different organizations. These obligations may be limited to members who dealt with the defaulting member or to the amount (or a multiple of the amount) of the Firm's contribution to a member's guarantee fund, or, in a few cases, the obligation may be unlimited. It is difficult to estimate the Firm's maximum exposure under these membership agreements, since this would require an assessment of future claims that may be made against the Firm that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

The Firm clears transactions on behalf of its clients through various clearinghouses, and the Firm stands behind the performance of its clients on such trades. The Firm mitigates its exposure to loss in the event of a client default by requiring that clients provide appropriate amounts of margin at the inception and throughout the life of the transaction, and can cease the provision of clearing services

if clients do not adhere to their obligations under the clearing agreement. It is difficult to estimate the Firm's maximum exposure under such transactions, as this would require an assessment of transactions that clients may execute in the future. However, based upon historical experience, management believes it is unlikely that the Firm will have to make any material payments under these arrangements and the risk of loss is expected to be remote.

Guarantees of subsidiaries

In the normal course of business, JPMorgan Chase & Co. ("Parent Company") may provide counterparties with guarantees of certain of the trading and other obligations of its subsidiaries on a contract-by-contract basis, as negotiated with the Firm's counterparties. The obligations of the subsidiaries are included on the Firm's Consolidated Balance Sheets, or are reflected as off-balance sheet commitments; therefore, the Parent Company has not recognized a separate liability for these guarantees. The Firm believes that the occurrence of any event that would trigger payments by the Parent Company under these guarantees is remote.

The Parent Company has guaranteed certain debt of its subsidiaries, including both long-term debt and structured notes sold as part of the Firm's market-making activities. These guarantees are not included in the table on page 309 of this Note. For additional information, see Note 21 on pages 297–299 of this Annual Report.

Note 30 – Commitments, pledged assets and collateral

Lease commitments

At December 31, 2012, JPMorgan Chase and its subsidiaries were obligated under a number of noncancelable operating leases for premises and equipment used primarily for banking purposes, and for energy-related tolling service agreements. Certain leases contain renewal options or escalation clauses providing for increased rental payments based on maintenance, utility and tax increases, or they require the Firm to perform restoration work on leased premises. No lease agreement imposes restrictions on the Firm's ability to pay dividends, engage in debt or equity financing transactions or enter into further lease agreements.

The following table presents required future minimum rental payments under operating leases with noncancelable lease terms that expire after December 31, 2012.

Year ended December 31, (in millions)		
2013	$	1,788
2014		1,711
2015		1,571
2016		1,431
2017		1,318
After 2017		6,536
Total minimum payments required[(a)]		14,355
Less: Sublease rentals under noncancelable subleases		(1,732)
Net minimum payment required	$	12,623

(a) Lease restoration obligations are accrued in accordance with U.S. GAAP, and are not reported as a required minimum lease payment.

Total rental expense was as follows.

Year ended December 31, (in millions)		**2012**		2011		2010
Gross rental expense	**$**	**2,212**	$	2,228	$	2,212
Sublease rental income		**(288)**		(403)		(545)
Net rental expense	**$**	**1,924**	$	1,825	$	1,667

Pledged assets

At December 31, 2012, assets were pledged to collateralize repurchase and other securities financing agreements, maintain potential borrowing capacity with central banks and for other purposes, including to secure borrowings and public deposits. Certain of these pledged assets may be sold or repledged by the secured parties and are identified as financial instruments owned (pledged to various parties) on the Consolidated Balance Sheets. In addition, at December 31, 2012 and 2011, the Firm had pledged $291.7 billion and $270.3 billion, respectively, of financial instruments it owns that may not be sold or repledged by the secured parties. Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. See Note 16 on pages 280–291 of this Annual Report for additional information on assets and liabilities of consolidated VIEs. For additional information on the Firm's securities financing activities and long-term debt, see Note 13 on page 249, and Note 21 on pages 297–299, respectively, of this Annual report. The significant components of the Firm's pledged assets were as follows.

December 31, (in billions)		**2012**		2011
Securities	**$**	**110.1**	$	134.8
Loans		**207.2**		198.6
Trading assets and other		**155.5**		122.8
Total assets pledged	**$**	**472.8**	$	456.2

Collateral

At December 31, 2012 and 2011, the Firm had accepted assets as collateral that it could sell or repledge, deliver or otherwise use with a fair value of approximately $825.7 billion and $742.1 billion, respectively. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. Of the collateral received, approximately $546.8 billion and $515.8 billion, respectively, were sold or repledged, generally as collateral under repurchase agreements, securities lending agreements or to cover short sales and to collateralize deposits and derivative agreements.

Note 31 – Litigation

Contingencies

As of December 31, 2012, the Firm and its subsidiaries are defendants or putative defendants in numerous legal proceedings, including private, civil litigations and regulatory/government investigations. The litigations range from individual actions involving a single plaintiff to class action lawsuits with potentially millions of class members. Investigations involve both formal and informal proceedings, by both governmental agencies and self-regulatory organizations. These legal proceedings are at varying stages of adjudication, arbitration or investigation, and involve each of the Firm's lines of business and geographies and a wide variety of claims (including common law tort and contract claims and statutory antitrust, securities and consumer protection claims), some of which present novel legal theories.

The Firm believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for its legal proceedings is from $0 to approximately $6.1 billion at December 31, 2012. This estimated aggregate range of reasonably possible losses is based upon currently available information for those proceedings in which the Firm is involved, taking into account the Firm's best estimate of such losses for those cases for which such estimate can be made. For certain cases, the Firm does not believe that an estimate can currently be made. The Firm's estimate involves significant judgment, given the varying stages of the proceedings (including the fact that many are currently in preliminary stages), the existence in many such proceedings of multiple defendants (including the Firm) whose share of liability has yet to be determined, the numerous yet-unresolved issues in many of the proceedings (including issues regarding class certification and the scope of many of the claims) and the attendant uncertainty of the various potential outcomes of such proceedings. Accordingly, the Firm's estimate will change from time to time, and actual losses may be more or less than the current estimate.

Set forth below are descriptions of the Firm's material legal proceedings.

Auction-Rate Securities Investigations and Litigation. Beginning in March 2008, several regulatory authorities initiated investigations of a number of industry participants, including the Firm, concerning possible state and federal securities law violations in connection with the sale of auction-rate securities ("ARS"). The market for many such securities had frozen and a significant number of auctions for those securities began to fail in February 2008.

The Firm, on behalf of itself and affiliates, agreed to a settlement in principle with the New York Attorney General's Office which provided, among other things, that the Firm would offer to purchase at par certain ARS purchased from J.P. Morgan Securities LLC, Chase Investment Services Corp. and Bear, Stearns & Co. Inc. by individual investors, charities and small- to medium-sized businesses. The Firm also agreed to a substantively similar settlement in principle with the Office of Financial Regulation for the State of Florida and the North American Securities Administrators Association ("NASAA") Task Force, which agreed to recommend approval of the settlement to all remaining states, Puerto Rico and the U.S. Virgin Islands. The Firm has finalized the settlement agreements with the New York Attorney General's Office and the Office of Financial Regulation for the State of Florida. The settlement agreements provide for the payment of penalties totaling $25 million to all states and territories. To date, final consent agreements have been reached with all but three of NASAA's members.

The Firm also was named in two putative antitrust class actions. The actions allege that the Firm, along with numerous other financial institution defendants, colluded to maintain and stabilize the ARS market and then to withdraw their support for the ARS market. In January 2010, the District Court dismissed both actions. An appeal is pending in the United States Court of Appeals for the Second Circuit.

Bank Secrecy Act/Anti-Money Laundering. In January 2013, JPMorgan Chase & Co. entered into a Consent Order with the Board of Governors of the Federal Reserve System (the "Federal Reserve") and JPMorgan Chase Bank, N.A., JPMorgan Bank and Trust Company, N.A. and Chase Bank USA, N.A. entered into a Consent Order with the Office of the Comptroller of the Currency (the "OCC") relating principally to JPMorgan Chase & Co.'s and such banks' policies, procedures and controls relating to compliance with Bank Secrecy Act and Anti-Money Laundering requirements. The Firm neither admitted nor denied the regulatory agencies' findings in the orders.

Bear Stearns Hedge Fund Matters. The Bear Stearns Companies LLC (formerly The Bear Stearns Companies Inc.) ("Bear Stearns"), certain current or former subsidiaries of Bear Stearns, including Bear Stearns Asset Management, Inc. ("BSAM") and Bear, Stearns & Co. Inc., and certain individuals formerly employed by Bear Stearns are named defendants (collectively the "Bear Stearns defendants") in multiple civil actions and arbitrations relating to alleged

losses resulting from the failure of the Bear Stearns High Grade Structured Credit Strategies Master Fund, Ltd. (the "High Grade Fund") and the Bear Stearns High Grade Structured Credit Strategies Enhanced Leverage Master Fund, Ltd. (the "Enhanced Leverage Fund") (collectively the "Funds"). BSAM served as investment manager for both of the Funds, which were organized such that there were U.S. and Cayman Islands "feeder funds" that invested substantially all their assets, directly or indirectly, in the Funds. The Funds are in liquidation.

There are currently three civil actions pending in the United States District Court for the Southern District of New York relating to the Funds. One of these actions involves a derivative lawsuit brought on behalf of purchasers of partnership interests in the U.S. feeder fund to the Enhanced Leverage Fund, alleging that the Bear Stearns defendants mismanaged the Funds. This action seeks, among other things, unspecified compensatory damages based on alleged investor losses. The parties have reached an agreement to settle this derivative action, pursuant to which BSAM would pay a maximum of approximately $18 million. In April 2012, the District Court granted final approval of this settlement. In May 2012, objectors representing certain interests in the U.S. feeder fund filed a notice of appeal to the United States Court of Appeals for the Second Circuit from the District Court's final approval of the settlement. That appeal is currently pending.

The second pending action, brought by the Joint Voluntary Liquidators of the Cayman Islands feeder funds, makes allegations similar to those asserted in the derivative lawsuits related to the U.S. feeder funds. This action alleges net losses of approximately $700 million and seeks compensatory and punitive damages. The parties recently reached an agreement in principle to resolve the litigation contingent on the execution of a written settlement agreement. The third action was brought by Bank of America and Banc of America Securities LLC (together "BofA") alleging breach of contract, fraud and breach of fiduciary duty in connection with a $4 billion securitization in May 2007 known as a "CDO-squared," for which BSAM served as collateral manager. This securitization was composed of certain collateralized debt obligation holdings that were purchased by BofA from the Funds. BofA currently seeks damages up to approximately $540 million. Motions for summary judgment are pending.

Bear Stearns Shareholder Litigation and Related Matters. Various shareholders of Bear Stearns have commenced purported class actions against Bear Stearns and certain of its former officers and/or directors on behalf of all persons who purchased or otherwise acquired common stock of Bear Stearns between December 14, 2006, and March 14, 2008 (the "Class Period"). The actions alleged that the defendants issued materially false and misleading statements regarding Bear Stearns' business and financial results and that, as a result of those false statements, Bear Stearns' common stock traded at artificially inflated prices during the Class Period. In November 2012, the United States District Court for the Southern District of New York granted final approval of a $275 million settlement.

Bear Stearns, former members of Bear Stearns' Board of Directors and certain of Bear Stearns' former executive officers have also been named as defendants in a shareholder derivative and class action suit which is pending in the United States District Court for the Southern District of New York. Plaintiffs assert claims for breach of fiduciary duty, violations of federal securities laws, waste of corporate assets and gross mismanagement, unjust enrichment, abuse of control, and indemnification and contribution in connection with the losses sustained by Bear Stearns as a result of its purchases of subprime loans and certain repurchases of its own common stock. Certain individual defendants are also alleged to have sold their holdings of Bear Stearns common stock while in possession of material nonpublic information. Plaintiffs seek compensatory damages in an unspecified amount. The District Court dismissed the action in January 2011, and plaintiffs have appealed. The appeal has been withdrawn pursuant to a stipulation that gives plaintiffs until March 1, 2013 to reinstate.

CIO Investigations and Litigation. The Firm is responding to a consolidated shareholder class action, a consolidated class action brought under the Employee Retirement Income Security Act ("ERISA"), shareholder derivative actions, shareholder demands and government investigations relating to losses in the synthetic credit portfolio managed by the Firm's Chief Investment Office ("CIO"). The Firm has received requests for documents and information in connection with governmental inquiries and investigations by Congress, the OCC, the Federal Reserve, the U.S. Department of Justice (the "DOJ"), the Securities and Exchange Commission (the "SEC"), the Commodity Futures Trading Commission (the "CFTC"), the UK Financial Services Authority, the State of Massachusetts and other government agencies. The Firm is cooperating with these investigations.

Four putative class actions alleging violations of Sections 10 (b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 thereunder were filed on behalf of purchasers of the Firm's common stock. The cases were consolidated, lead plaintiffs were appointed pursuant to the Private Securities Litigation Reform Act, and a consolidated amended complaint was filed in November 2012 that defines the putative class as purchasers of the Firm's common stock between February 24, 2010 and May 21, 2012. The consolidated amended complaint alleges that the Firm and certain current and former officers made false or misleading statements concerning CIO's role, the Firm's risk management practices and the Firm's financial results, as well as in connection with the disclosure of losses in the synthetic credit portfolio in 2012.

Separately, two putative class actions were filed on behalf of participants who held the Firm's common stock in the Firm's retirement plans. These actions assert claims under ERISA for alleged breaches of fiduciary duties by the Firm, certain affiliates and certain current and former directors

and officers in connection with the management of those plans. The complaints generally allege that defendants breached the duty of prudence by allowing investment in the Firm's common stock when they knew or should have known that such stock was unsuitable for the plans and that the Firm and certain current and former officers made false or misleading statements concerning the Firm's financial condition. These actions have been consolidated, and a consolidated amended complaint was filed in December 2012 which alleges a class period of December 20, 2011 to July 12, 2012. The consolidated amended complaint contains allegations similar to those in the original complaints, but now asserts claims only on behalf of participants in the Firm's 401(k) Savings Plan.

Four shareholder derivative actions have also been filed, purportedly on behalf of the Firm, against certain of the Firm's current and former directors and officers for alleged breaches of their fiduciary duties. These actions generally allege that defendants failed to exercise adequate oversight over CIO and to manage the risk of CIO's trading activities, which allegedly led to CIO's losses. Two of these four actions have been consolidated, and a consolidated amended complaint was filed in December 2012. An amended complaint in one of the other derivative actions was filed in January 2013.

The consolidated securities action, consolidated ERISA action and the consolidated shareholder derivative action are pending in the United States District Court for the Southern District of New York, while the two other derivative actions are pending in New York State court. In October 2012, defendants moved to dismiss one of the two shareholder derivative actions pending in New York State court on the ground that plaintiff failed to make a demand on the Firm's Board of Directors or adequately allege demand futility, as required by applicable Delaware law. Defendants have not yet responded to the complaints in any of the other actions.

In January 2013, JPMorgan Chase & Co. entered into a Consent Order with the Federal Reserve and JPMorgan Chase Bank, N.A. entered into a Consent Order with the OCC arising out of the Federal Reserve's and the OCC's reviews of the CIO, including the synthetic credit portfolio previously held by the CIO. The Consent Orders 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 have already been, or are in the process of being, implemented by the Firm.

City of Milan Litigation and Criminal Investigation. In January 2009, the City of Milan, Italy (the "City") issued civil proceedings against (among others) JPMorgan Chase Bank, N.A. and J.P. Morgan Securities plc (together, "JPMorgan Chase") in the District Court of Milan. The proceedings relate to (a) a bond issue by the City in June 2005 (the "Bond"), and (b) an associated swap transaction, which was subsequently restructured on a number of occasions between 2005 and 2007 (the "Swap"). The City seeks damages and/or other remedies against JPMorgan Chase (among others) on the grounds of alleged "fraudulent and deceitful acts" and alleged breach of advisory obligations in connection with the Swap and the Bond, together with related swap transactions with other counterparties. The Firm has entered into a settlement agreement with the City to resolve the City's civil proceedings.

In March 2010, a criminal judge directed four current and former JPMorgan Chase personnel and JPMorgan Chase Bank, N.A. (as well as other individuals and three other banks) to go forward to a full trial that started in May 2010. The verdict, rendered in December 2012, acquitted two of the JPMorgan Chase personnel and found the other two guilty of aggravated fraud with sanctions of prison sentences (that were automatically suspended under applicable law), fines and a ban from dealing with Italian public bodies for one year. In addition, JPMorgan Chase (along with other banks involved) was found liable for breaches of Italian administrative law, fined €1 million and was ordered to forfeit its profit from the transaction, which totaled €24.7 million. JPMorgan Chase and the individuals plan to appeal the verdict, and none of the sanctions will take effect until all appeal avenues have been exhausted.

Enron Litigation. JPMorgan Chase and certain of its officers and directors are involved in two lawsuits seeking damages arising out of the Firm's banking relationships with Enron Corp. and its subsidiaries ("Enron"). Motions to dismiss are pending in both of these lawsuits: an individual action by Enron investors and an action by an Enron counterparty. A number of actions and other proceedings against the Firm previously were resolved, including a class action lawsuit captioned Newby v. Enron Corp. and adversary proceedings brought by Enron's bankruptcy estate.

FERC Matters. The Federal Energy Regulatory Commission (the "FERC") is investigating the Firm's bidding practices in certain organized power markets. Additionally, in November 2012, the FERC issued an Order suspending a JPMorgan Chase energy subsidiary's market-based rate authority for six months commencing on April 1, 2013, based on its finding that statements concerning discovery obligations made in submissions related to the FERC investigation violated FERC rules regarding misleading information.

Interchange Litigation. A group of merchants and retail associations filed a series of putative class action complaints relating to interchange in several federal courts. The complaints allege, among other claims, that Visa and MasterCard, as well as certain other banks, conspired to set the price of credit and debit card interchange fees, enacted respective rules in violation of antitrust laws, and engaged in tying/bundling and exclusive dealing. All cases were consolidated in the United States District Court for the Eastern District of New York for pretrial proceedings.

In October 2012, Visa, Inc., its wholly-owned subsidiaries Visa U.S.A. Inc. and Visa International Service Association, MasterCard Incorporated, MasterCard International Incorporated and various United States financial institution defendants, including JPMorgan Chase & Co., JPMorgan

Chase Bank, N.A., Chase Bank USA, N.A., Chase Paymentech Solutions, LLC and certain predecessor institutions, entered into a settlement agreement (the "Settlement Agreement") to resolve the claims of the U.S. merchant and retail association plaintiffs (the "Class Plaintiffs") in the multi-district litigation. In November 2012, the Court entered an order preliminarily approving the Settlement Agreement, which provides for, among other things, a cash payment of $6.05 billion to the Class Plaintiffs (of which the Firm's share is approximately 20%), and an amount equal to ten basis points of credit card interchange for a period of eight months to be measured from a date within 60 days of the end of the opt-out period. The Settlement Agreement also provides for modifications to each credit card network's rules, including those that prohibit surcharging credit card transactions. The rule modifications became effective in January 2013. The Settlement Agreement is subject to final approval by the Court.

Investment Management Litigation. The Firm is defending three pending cases that allege that investment portfolios managed by J.P. Morgan Investment Management Inc. were inappropriately invested in securities backed by residential real estate collateral. Plaintiffs claim that JPMorgan Investment Management is liable for losses of more than $1 billion in market value of these securities. In the case filed by Assured Guaranty (U.K.) and the case filed by Ambac Assurance UK Limited in New York state court, discovery is proceeding on claims for breach of contract, breach of fiduciary duty and gross negligence. The third case, filed by CMMF LLP in New York state court, asserts claims under New York law for breach of fiduciary duty, negligence, breach of contract and negligent misrepresentation. Trial of the CMMF action was completed in February 2013, and the Court's decision is pending.

Lehman Brothers Bankruptcy Proceedings. In May 2010, Lehman Brothers Holdings Inc. ("LBHI") and its Official Committee of Unsecured Creditors (the "Committee") filed a complaint (and later an amended complaint) against JPMorgan Chase Bank, N.A. in the United States Bankruptcy Court for the Southern District of New York that asserts both federal bankruptcy law and state common law claims, and seeks, among other relief, to recover $8.6 billion in collateral that was transferred to JPMorgan Chase Bank, N.A. in the weeks preceding LBHI's bankruptcy. The amended complaint also seeks unspecified damages on the grounds that JPMorgan Chase Bank, N.A.'s collateral requests hastened LBHI's bankruptcy. The Firm moved to dismiss plaintiffs' amended complaint in its entirety, and also moved to transfer the litigation from the Bankruptcy Court to the United States District Court for the Southern District of New York. In April 2012, the Bankruptcy Court issued a decision granting in part and denying in part the Firm's motion to dismiss. The Court dismissed the counts of the amended complaint seeking avoidance of the allegedly constructively fraudulent and preferential transfers made to the Firm during the months of August and September 2008. The Court denied the Firm's motion to dismiss as to the other claims, including claims that allege intentional misconduct. In September 2012, the District Court denied the transfer motion without prejudice to its renewal in the future, but stated that any trial would likely have to be conducted before the District Court.

The Firm also filed counterclaims against LBHI alleging that LBHI fraudulently induced the Firm to make large clearing advances to Lehman against inappropriate collateral, which left the Firm with more than $25 billion in claims (the "Clearing Claims") against the estate of Lehman Brothers Inc. ("LBI"), LBHI's broker-dealer subsidiary. These claims have been paid in full, subject to the outcome of the litigation. Discovery is ongoing.

LBHI and the Committee have filed an objection to the deficiency claims asserted by JPMorgan Chase Bank, N.A. against LBHI with respect to the Clearing Claims, principally on the grounds that the Firm had not conducted the sale of the securities collateral held for such claims in a commercially reasonable manner. The Firm responded to LBHI's objection in November 2011. Discovery is ongoing.

LBHI and several of its subsidiaries that had been Chapter 11 debtors have filed a separate complaint and objection to derivatives claims asserted by the Firm alleging that the amount of the derivatives claims had been overstated and challenging certain set-offs taken by JPMorgan Chase entities to recover on the claims. The Firm has not yet responded to the amended derivatives complaint and objection, and discovery has not begun.

LIBOR Investigations and Litigation. JPMorgan Chase has received subpoenas and requests for documents and, in some cases, interviews, from federal and state agencies and entities, including the DOJ, CFTC, SEC, and various state attorneys general, as well as the European Commission, UK Financial Services Authority, Canadian Competition Bureau, Swiss Competition Commission and other regulatory authorities and banking associations around the world. The documents and information sought relate primarily to the process by which interest rates were submitted to the British Bankers Association ("BBA") in connection with the setting of the BBA's London Interbank Offered Rate ("LIBOR") for various currencies, principally in 2007 and 2008. Some of the inquiries also relate to similar processes by which information on rates is submitted to European Banking Federation ("EBF") in connection with the setting of the EBF's Euro Interbank Offered Rates ("EURIBOR") and to the Japanese Bankers' Association for the setting of Tokyo Interbank Offered Rates ("TIBOR") as well as to other processes for the setting of other reference rates in various parts of the world during similar time periods. The Firm is cooperating with these inquiries.

In addition, the Firm has been named as a defendant along with other banks in a series of individual and class actions filed in various United States District Courts in which plaintiffs make varying allegations that in various periods, starting in 2000 or later, defendants either individually or collectively manipulated the U.S. dollar LIBOR, Yen LIBOR and Euroyen TIBOR rates by submitting rates that were artificially low or high. Plaintiffs allege that they transacted

in loans, derivatives or other financial instruments whose values are impacted by changes in U.S. dollar LIBOR, Yen LIBOR, or Euroyen TIBOR and assert a variety of claims including antitrust claims seeking treble damages.

In 2011, a number of class actions were filed against LIBOR panel banks, including the Firm, asserting various federal and state law claims relating to the alleged manipulation of U.S. dollar LIBOR. These purported class actions were consolidated for pre-trial purposes in the United States District Court for the Southern District of New York before District Judge Buchwald, who appointed interim lead counsel for three proposed classes: (i) direct purchasers of U.S. dollar LIBOR-based financial instruments in the over-the-counter market; (ii) purchasers of U.S. dollar LIBOR-based financial instruments on an exchange; and (iii) purchasers of debt securities that pay an interest rate linked to U.S. dollar LIBOR. The defendants moved to dismiss all claims in these three putative class actions and three related individual actions pending before the Court. The Court has not yet ruled on the defendants' motions to dismiss.

Since April 2012, a number of additional U.S. dollar LIBOR putative class actions and individual actions have been filed in various courts. Defendants have moved to transfer each of these cases to the consolidated action pending in the Southern District of New York. To date, all but three of these actions have been transferred. The actions that have been transferred are stayed until the Court rules on the defendants' pending motions to dismiss.

The Firm also has been named as a defendant in a purported class action filed in the United States District Court for the Southern District of New York which seeks to bring claims on behalf of plaintiffs who purchased or sold exchange-traded Euroyen futures and options contracts. The plaintiff has been granted leave to file a Second Amended Complaint, and defendants will have 60 days after the filing of that amended pleading to respond.

Madoff Litigation. JPMorgan Chase & Co., JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC, and J.P. Morgan Securities plc have been named as defendants in a lawsuit brought by the trustee (the "Trustee") for the liquidation of Bernard L. Madoff Investment Securities LLC ("Madoff"). The Trustee has served an amended complaint in which he has asserted 28 causes of action against JPMorgan Chase, 20 of which seek to avoid certain transfers (direct or indirect) made to JPMorgan Chase that are alleged to have been preferential or fraudulent under the federal Bankruptcy Code and the New York Debtor and Creditor Law. The remaining causes of action involve claims for, among other things, aiding and abetting fraud, aiding and abetting breach of fiduciary duty, conversion, contribution and unjust enrichment in connection with Madoff's Ponzi scheme. The complaint asserts common law claims that purport to seek approximately $19 billion in damages, together with bankruptcy law claims to recover approximately $425 million in transfers that JPMorgan Chase allegedly received directly or indirectly from Bernard Madoff's brokerage firm. In October 2011, the United States District Court for the Southern District of New York granted JPMorgan Chase's motion to dismiss the common law claims asserted by the Trustee, and returned the remaining claims to the Bankruptcy Court for further proceedings. The Trustee appealed this decision and oral argument on the appeal was held in November 2012. The Firm is awaiting the Court's decision.

Separately, J.P. Morgan Trust Company (Cayman) Limited, JPMorgan (Suisse) SA, J.P. Morgan Securities plc, Bear Stearns Alternative Assets International Ltd., J.P. Morgan Clearing Corp., J.P. Morgan Bank Luxembourg SA, and J.P. Morgan Markets Limited (formerly Bear Stearns International Limited) have been named as defendants in lawsuits presently pending in Bankruptcy Court in New York arising out of the liquidation proceedings of Fairfield Sentry Limited and Fairfield Sigma Limited (together, "Fairfield"), so-called Madoff feeder funds. These actions are based on theories of mistake and restitution, among other theories, and seek to recover payments made to defendants by the funds totaling approximately $155 million. Pursuant to an agreement with the Trustee, the liquidators of Fairfield have voluntarily dismissed their action against J.P. Morgan Securities plc without prejudice to refiling. The other actions remain outstanding. In addition, a purported class action was brought by investors in certain feeder funds against JPMorgan Chase in the United States District Court for the Southern District of New York, as was a motion by separate potential class plaintiffs to add claims against JPMorgan Chase & Co., JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC and J.P. Morgan Securities plc to an already-pending purported class action in the same court. The allegations in these complaints largely track those raised by the Trustee. The Court dismissed these complaints and plaintiffs have appealed.

The Firm is a defendant in five other Madoff-related actions pending in New York state court and one purported class action in federal District Court in New York. The allegations in all of these actions are essentially identical, and involve claims against the Firm for, among other things, aiding and abetting breach of fiduciary duty, conversion and unjust enrichment. The Firm has moved to dismiss both the state and federal actions.

The Firm is also responding to various governmental inquiries concerning the Madoff matter.

MF Global. JPMorgan Chase & Co. was named as one of several defendants in a number of putative class action lawsuits brought by former customers of MF Global in federal District Courts in New York, Illinois and Montana. The lawsuits have been consolidated before the United States District Court for the Southern District of New York. The actions alleged, among other things, that the Firm aided and abetted MF Global's alleged misuse of customer money and breaches of fiduciary duty and was unjustly enriched by the transfer of certain customer segregated funds by MF Global. The Firm has entered into a tolling agreement with counsel for the customer class plaintiffs

and an individual plaintiff, pursuant to which the plaintiffs have agreed not to pursue any such claims against the Firm in these actions for so long as the tolling agreement remains in effect.

J.P. Morgan Securities LLC has been named as one of several defendants in a number of purported class actions filed by purchasers of MF Global's publicly traded securities, including the securities issued pursuant to MF Global's June 2010 secondary offering of common stock and February 2011 and August 2011 convertible note offerings. The actions have been consolidated before the United States District Court for the Southern District of New York. In August 2012, the lead plaintiffs filed an amended complaint which asserts violations of the Securities Act of 1933 against the underwriter defendants and alleges that the offering documents contained materially false and misleading statements and omissions regarding MF Global's financial position, internal controls and risk management, as such topics relate to its exposure to European sovereign debt. Defendants moved to dismiss in October 2012. Those motions remain pending.

In June 2012, the Securities Investor Protection Act ("SIPA") Trustee issued a Report of the Trustee's Investigation and Recommendations, and stated that he is considering potential claims against the Firm with respect to certain transfers identified in the Report. Discussions regarding possible resolution of potential SIPA Trustee claims and customer claims against the Firm are ongoing.

The Firm has responded to and continues to respond to inquiries from the CFTC, SEC, SIPA Trustee and Bankruptcy Trustee concerning MF Global.

Mortgage-Backed Securities and Repurchase Litigation and Mortgage-Related Regulatory Investigations. JPMorgan Chase and affiliates, Bear Stearns and affiliates and Washington Mutual affiliates have been named as defendants in a number of cases in their various roles as issuer, originator or underwriter in MBS offerings. These cases include purported class action suits, actions by individual purchasers of securities or by trustees for the benefit of purchasers of securities, an action by the New York State Attorney General and actions by monoline insurance companies that guaranteed payments of principal and interest for particular tranches of securities offerings. Although the allegations vary by lawsuit, these cases generally allege that the offering documents for securities issued by numerous securitization trusts contained material misrepresentations and omissions, including with regard to the underwriting standards pursuant to which the underlying mortgage loans were issued, or assert that various representations or warranties relating to the loans were breached at the time of origination. There are currently pending and tolled investor claims involving approximately $170 billion of such securities. In addition, and as described below, there are pending and threatened claims by monoline insurers and by and on behalf of trustees that involve some of these and other securitizations.

In the actions against the Firm as an MBS issuer (and, in some cases, also as an underwriter of its own MBS offerings), three purported class actions are pending against JPMorgan Chase and Bear Stearns, and/or certain of their affiliates and current and former employees, in the United States District Courts for the Eastern and Southern Districts of New York. Motions to dismiss have been largely denied in these cases, although in certain cases defendants have sought to appeal aspects of the decision, and they are in various stages of litigation. A settlement of a fourth purported class action that is pending in the United States District Court for the Western District of Washington against Washington Mutual affiliates, WaMu Asset Acceptance Corp. and WaMu Capital Corp. and certain former officers or directors of WaMu Asset Acceptance Corp., has received final court approval.

In addition to class actions, the Firm is also a defendant in individual actions brought against certain affiliates of JPMorgan Chase, Bear Stearns and Washington Mutual as issuers (and, in some cases, as underwriters) of MBS. These actions involve claims by or to benefit various institutional investors and governmental agencies. These actions are pending in federal and state courts across the United States and are in various stages of litigation.

In actions against the Firm solely as an underwriter of other issuers' MBS offerings, the Firm has contractual rights to indemnification from the issuers. However, those indemnity rights may prove effectively unenforceable where the issuers are now defunct, such as in pending cases where the Firm has been named involving affiliates of IndyMac Bancorp. A settlement of a purported class action involving Thornburg Mortgage MBS offerings that was pending against the Firm has received preliminary court approval. The Firm may also be contractually obligated to indemnify underwriters in certain deals it issued.

EMC Mortgage LLC (formerly EMC Mortgage Corporation) ("EMC"), an indirect subsidiary of JPMorgan Chase & Co., and certain other JPMorgan Chase entities currently are defendants in nine pending actions commenced by bond insurers that guaranteed payments of principal and interest on certain classes of 19 different MBS offerings. These actions are pending in federal and state courts in New York and are in various stages of litigation. Certain JPMorgan Chase entities, in their capacities as alleged successors in interest to Bear Stearns and EMC, have been named as defendants in a civil suit filed by the New York State Attorney General in New York state court in connection with Bear Stearns' due diligence and quality control practices relating to MBS.

The Firm or its affiliates are defendants in actions brought by trustees or master servicers of various MBS trusts and others on behalf of the purchasers of securities issued by those trusts. The first action was commenced by Deutsche Bank National Trust Company, acting as trustee for various

MBS trusts, against the Firm and the FDIC based on MBS issued by Washington Mutual Bank and its affiliates; that case is described in the Washington Mutual Litigations section below. The other actions are at various initial stages of litigation in the New York and Delaware state courts, including actions brought by MBS trustees, each specific to one or more MBS transactions, against EMC and/or JPMorgan Chase. These cases generally allege breaches of various representations and warranties regarding securitized loans and seek repurchase of those loans, as well as indemnification of attorneys' fees and costs and other remedies.

There is no assurance that the Firm will not be named as a defendant in additional MBS-related litigation, and the Firm has entered into agreements with a number of entities that purchased such securities that toll applicable limitations periods with respect to their claims. In addition, the Firm has received several demands by securitization trustees that threaten litigation, as well as demands by investors directing or threatening to direct trustees to investigate claims or bring litigation, based on purported obligations to repurchase loans out of securitization trusts and alleged servicing deficiencies. These include but are not limited to a demand from a law firm, as counsel to a group of purchasers of MBS that purport to have 25% or more of the voting rights in as many as 191 different trusts sponsored by the Firm or its affiliates with an original principal balance of more than $174 billion (excluding 52 trusts sponsored by Washington Mutual, with an original principal balance of more than $58 billion), made to various trustees to investigate potential repurchase and servicing claims. Further, there have been repurchase and servicing claims made in litigation against trustees not affiliated with the Firm, but involving trusts that the Firm sponsored.

In April 2012, the New York state court granted the Firm's motion to dismiss a shareholder complaint against the Firm and two affiliates, members of the boards of directors thereof and certain employees, asserting claims based on alleged wrongful actions and inactions relating to residential mortgage originations and securitizations. The plaintiff has appealed the order. A second shareholder complaint has been filed in New York state court against current and former members of the Firm's Board of Directors and the Firm, as nominal defendant, alleging that the Board allowed the Firm to engage in wrongful conduct regarding the sale of residential MBS and failed to implement adequate internal controls to prevent such wrongdoing.

In addition to the above-described litigation, the Firm has also received, and responded to, a number of subpoenas and informal requests for information from federal and state authorities concerning mortgage-related matters, including inquiries concerning a number of transactions involving the Firm and its affiliates' origination and purchase of whole loans, underwriting and issuance of MBS, treatment of early payment defaults, potential breaches of securitization representations and warranties, reserves and due diligence in connection with securitizations. In November 2012, the Firm settled with the SEC over its investigations of J.P. Morgan Securities LLC and J.P. Morgan Acceptance Corporation I relating to delinquency disclosures, and of Bear Stearns entities and J.P. Morgan Securities LLC relating to disclosures concerning settlements of claims against originators involving loans included in a number of Bear Stearns securitizations. Pursuant to the settlement, the named entities, without admitting or denying the SEC's allegations, consented to the entry of a final judgment ordering certain relief, including an injunction and the payment of approximately $296.9 million in disgorgement, penalties and interest. The United States District Court for the District of Columbia approved the settlement and entered the judgment in January 2013. The Firm continues to respond to other MBS-related regulatory inquiries.

Mortgage Foreclosure-Related Investigations and Litigation. The Attorneys General of Massachusetts and New York have separately filed lawsuits against the Firm, other servicers and a mortgage recording company asserting claims for various alleged wrongdoings relating to mortgage assignments and use of the industry's electronic mortgage registry. The court granted in part and denied in part the defendants' motion to dismiss the Massachusetts action and the Firm has moved to dismiss the New York action.

Six purported class action lawsuits were filed against the Firm relating to its mortgage foreclosure procedures. Two of the class actions have been dismissed with prejudice and one settled on an individual basis. Of the remaining active actions, two are in the discovery phase and a motion to dismiss is pending in the remaining action. Additionally, a purported class action brought against Bank of America involving an EMC loan has been dismissed.

Two shareholder derivative actions have been filed in New York Supreme Court against the Firm's Board of Directors alleging that the Board failed to exercise adequate oversight as to wrongful conduct by the Firm regarding mortgage servicing. These actions seek declaratory relief and damages. In July 2012, the Court granted defendants' motion to dismiss the complaint in the first-filed action and gave plaintiff 45 days in which to file an amended complaint. In October 2012, the Court entered a stipulated order consolidating the actions and staying all proceedings pending the plaintiffs' decision whether to file a consolidated complaint after the Firm completes its response to a demand submitted by one of the plaintiffs under Section 220 of the Delaware General Corporation Law.

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.

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 the Independent Foreclosure Review programs that had been required under the Consent Orders with such banking regulators relating to each bank's residential mortgage servicing, foreclosure and loss-mitigation activities. 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 under the settlement, which will be fulfilled through credits given to the Firm for modifications, short sales and other types of borrower relief.

Municipal Derivatives Investigations and Litigation. Purported class action lawsuits and individual actions have been filed against JPMorgan Chase and Bear Stearns, as well as numerous other providers and brokers, alleging antitrust violations in the market for financial instruments related to municipal bond offerings referred to collectively as "municipal derivatives." In July 2011, the Firm settled with federal and state governmental agencies to resolve their investigations into similar alleged conduct. The municipal derivatives actions were consolidated and/or coordinated in the United States District Court for the Southern District of New York. In December 2012, the District Court granted final approval of a settlement calling for payment of approximately $43 million. Certain class members opted out of the settlement, including 27 plaintiffs named in individual actions already pending against JPMorgan.

In addition, civil actions have been commenced against the Firm relating to certain Jefferson County, Alabama (the "County") warrant underwritings and swap transactions. In November 2009, J.P. Morgan Securities LLC settled with the SEC to resolve its investigation into those transactions. Following that settlement, the County filed an action against the Firm and several other defendants in Alabama state court. An action on behalf of a purported class of sewer rate payers has also been filed in Alabama state court. The suits allege that the Firm made payments to certain third parties in exchange for being chosen to underwrite more than $3 billion in warrants issued by the County and to act as the counterparty for certain swaps executed by the County. The complaints also allege that the Firm concealed these third-party payments and that, but for this concealment, the County would not have entered into the transactions. The Court denied the Firm's motions to dismiss the complaints in both proceedings. In November and December 2011, the County filed notices of bankruptcy with the trial court in each of the cases and with the Alabama Supreme Court stating that it was a Chapter 9 Debtor in the U.S. Bankruptcy Court for the Northern District of Alabama. Subsequently, the portion of the sewer rate payer action involving claims against the Firm was removed by certain defendants to the United States District Court for the Northern District of Alabama. In its order finding that removal of this action was proper, the District Court referred the action to the District's Bankruptcy Court, where the action remains pending. Limited discovery has taken place in the County's action and additional discovery may take place in 2013.

In September 2012, a group of purported creditors of the County initiated an adversary proceeding and filed a purported class action complaint alleging that certain warrants were issued unlawfully and were thus null and void and seeking $1.6 billion in damages from the Firm and other defendants involved in the Jefferson County financing transactions. The Firm, along with a number of other defendants, moved to dismiss the complaint in November 2012. Plaintiffs subsequently agreed to dismiss their tort claims seeking damages and are solely pursuing their claims relating to the validity of the warrants. The motion to dismiss these claims remains pending.

Two insurance companies that guaranteed the payment of principal and interest on warrants issued by the County have filed separate actions against the Firm in New York state court. Their complaints assert that the Firm fraudulently misled them into issuing insurance based upon substantially the same alleged conduct described above and other alleged non-disclosures. One insurer claims that it insured an aggregate principal amount of nearly $1.2 billion and seeks unspecified damages in excess of $400 million as well as unspecified punitive damages. The other insurer claims that it insured an aggregate principal amount of more than $378 million and seeks recovery of $4 million allegedly paid under the policies to date as well as any future payments and unspecified punitive damages. In December 2010, the court denied the Firm's motions to dismiss each of the complaints. The Firm has filed a cross-claim and a third party claim against the County for indemnity and contribution. The County moved to dismiss, which the court denied in August 2011. In consequence of its November 2011 bankruptcy filing, the County has asserted that these actions are stayed. In February 2012, one of the insurers filed a motion for a declaration that its action is not stayed as against the Firm or, in the alternative, for an order lifting the stay as against the Firm. The Firm and the County opposed the motion, which remains pending.

Option Adjustable Rate Mortgage Litigation. The Firm is defending one purported and three certified class actions, all pending in federal courts in California, which assert that several JPMorgan Chase entities violated the federal Truth in Lending Act and state unfair business practice statutes in failing to provide adequate disclosures in Option Adjustable Rate Mortgage ("ARM") loans regarding the resetting of introductory interest rates and that negative amortization was certain to occur if a borrower made the minimum monthly payment. With respect to the former Washington Mutual and Bear Stearns defendants who purchased Option ARM loans from third-party originators, plaintiffs allege that those entities aided and abetted the original lenders' alleged violations. Classes have been certified in three of the actions. In one of the certified class actions, the Firm has moved for decertification of the class and for summary

judgment. The Firm was unsuccessful in seeking permission to appeal the remaining class certification decisions.

Overdraft Fee/Debit Posting Order Litigation. JPMorgan Chase Bank, N.A. has been named as a defendant in several purported class actions relating to its practices in posting debit card transactions to customers' deposit accounts. Plaintiffs allege that the Firm improperly re-ordered debit card transactions from the highest amount to the lowest amount before processing these transactions in order to generate unwarranted overdraft fees. Plaintiffs contend that the Firm should have processed such transactions in the chronological order in which they were authorized. Plaintiffs seek the disgorgement of all overdraft fees paid to the Firm by plaintiffs since approximately 2003 as a result of the re-ordering of debit card transactions. The claims against the Firm have been consolidated with numerous complaints against other national banks in multi-District litigation pending in the United States District Court for the Southern District of Florida. The Firm reached an agreement to settle this matter in exchange for the Firm paying $110 million and agreeing to change certain overdraft fee practices. In December 2012, the Court granted final approval of the settlement.

Petters Bankruptcy and Related Matters. JPMorgan Chase and certain of its affiliates, including One Equity Partners ("OEP"), have been named as defendants in several actions filed in connection with the receivership and bankruptcy proceedings pertaining to Thomas J. Petters and certain affiliated entities (collectively, "Petters") and the Polaroid Corporation. The principal actions against JPMorgan Chase and its affiliates have been brought by a court-appointed receiver for Petters and the trustees in bankruptcy proceedings for three Petters entities. These actions generally seek to avoid, on fraudulent transfer and preference grounds, certain purported transfers in connection with (i) the 2005 acquisition by Petters of Polaroid, which at the time was majority-owned by OEP; (ii) two credit facilities that JPMorgan Chase and other financial institutions entered into with Polaroid; and (iii) a credit line and investment accounts held by Petters. The actions collectively seek recovery of approximately $450 million. Defendants have moved to dismiss the complaints in the actions filed by the Petters bankruptcy trustees and the parties have agreed to stay the action brought by the Receiver until after the Bankruptcy Court rules on the pending motions.

Securities Lending Litigation. JPMorgan Chase Bank, N.A. was named as a defendant in a putative class action asserting ERISA and other claims pending in the United States District Court for the Southern District of New York brought by participants in the Firm's securities lending business.

The action concerns investments of approximately $500 million in Lehman Brothers medium-term notes. The Court granted the Firm's motion to dismiss all claims in April 2012. The plaintiff filed a third amended complaint, and the Firm's motion to dismiss this complaint is pending. Discovery has been stayed until the Firm's motion to dismiss is decided.

Washington Mutual Litigations. Proceedings related to Washington Mutual's failure are pending before the United States District Court for the District of Columbia and include a lawsuit brought by Deutsche Bank National Trust Company, initially against the FDIC, asserting an estimated $6 billion to $10 billion in damages based upon alleged breach of various mortgage securitization agreements and alleged violation of certain representations and warranties given by certain Washington Mutual, Inc. ("WMI") subsidiaries in connection with those securitization agreements. The case includes assertions that JPMorgan Chase may have assumed liabilities for alleged breaches of representations and warranties in the mortgage securitization agreements. The District Court denied as premature motions by the Firm and the FDIC that sought a ruling on whether the FDIC retained liability for Deutsche Bank's claims. Discovery is underway.

In addition, JPMorgan Chase was sued in an action originally filed in state court in Texas (the "Texas Action") by certain holders of WMI common stock and debt of WMI and Washington Mutual Bank who seek unspecified damages alleging that JPMorgan Chase acquired substantially all of the assets of Washington Mutual Bank from the FDIC at a price that was allegedly too low. The Texas Action was transferred to the United States District Court for the District of Columbia, which ultimately granted JPMorgan Chase's and the FDIC's motions to dismiss the complaint, but the United States Court of Appeals for the District of Columbia Circuit reversed the District Court's dismissal and remanded the case for further proceedings. Plaintiffs, who sue now only as holders of Washington Mutual Bank debt following their voluntary dismissal of claims brought as holders of WMI common stock and debt, have filed an amended complaint alleging that JPMorgan Chase caused the closure of Washington Mutual Bank and damaged them by causing their bonds issued by Washington Mutual Bank, which had a total face value of $38 million, to lose substantially all of their value. JPMorgan Chase and the FDIC moved to dismiss this action and the District Court dismissed the case except as to the plaintiffs' claim that the Firm tortiously interfered with the plaintiffs' bond contracts with Washington Mutual Bank prior to its closure.

* * *

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries are named as defendants or are otherwise involved in a substantial number of other legal proceedings. The Firm believes it has meritorious defenses to the claims asserted against it in its currently outstanding legal proceedings and it intends to defend itself vigorously in all such matters. Additional legal proceedings may be initiated from time to time in the future.

The Firm has established reserves for several hundred of its currently outstanding legal proceedings. The Firm accrues for potential liability arising from such proceedings when it

is probable that such liability has been incurred and the amount of the loss can be reasonably estimated. The Firm evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upwards or downwards, as appropriate, based on management's best judgment after consultation with counsel. During the years ended December 31, 2012, 2011 and 2010, the Firm incurred $5.0 billion, $4.9 billion and $7.4 billion, respectively, of litigation expense. There is no assurance that the Firm's litigation reserves will not need to be adjusted in the future.

In view of the inherent difficulty of predicting the outcome of legal proceedings, particularly where the claimants seek very large or indeterminate damages, or where the matters present novel legal theories, involve a large number of parties or are in early stages of discovery, the Firm cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or impact related to those matters. JPMorgan Chase believes, based upon its current knowledge, after consultation with counsel and after taking into account its current litigation reserves, that the legal proceedings currently pending against it should not have a material adverse effect on the Firm's consolidated financial condition. The Firm notes, however, that in light of the uncertainties involved in such proceedings, there is no assurance the ultimate resolution of these matters will not significantly exceed the reserves it has currently accrued; as a result, the outcome of a particular matter may be material to JPMorgan Chase's operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of JPMorgan Chase's income for that period.

Note 32 – International operations

The following table presents income statement-related and balance sheet-related information for JPMorgan Chase by major international geographic area. The Firm defines international activities for purposes of this footnote presentation as business transactions that involve clients residing outside of the U.S., and the information presented below is based predominantly on the domicile of the client, the location from which the client relationship is managed, or the location of the trading desk. However, many of the Firm's U.S. operations serve international businesses.

As the Firm's operations are highly integrated, estimates and subjective assumptions have been made to apportion revenue and expense between U.S. and international operations. These estimates and assumptions are consistent with the allocations used for the Firm's segment reporting as set forth in Note 33 on pages 326–329 of this Annual Report.

The Firm's long-lived assets for the periods presented are not considered by management to be significant in relation to total assets. The majority of the Firm's long-lived assets are located in the United States.

As of or for the year ended December 31, (in millions)	Revenue[c]	Expense[d]	Income before income tax expense	Net income	Total assets
2012					
Europe/Middle East and Africa	**$ 10,522**	**$ 9,326**	**$ 1,196**	**$ 1,508**	**$ 553,147** [e]
Asia and Pacific	**5,605**	**3,952**	**1,653**	**1,048**	**167,955**
Latin America and the Caribbean	**2,328**	**1,580**	**748**	**454**	**53,984**
Total international	**18,455**	**14,858**	**3,597**	**3,010**	**775,086**
North America[a]	**78,576**	**53,256**	**25,320**	**18,274**	**1,584,055**
Total	**$ 97,031**	**$ 68,114**	**$ 28,917**	**$ 21,284**	**$ 2,359,141**
2011					
Europe/Middle East and Africa	$ 16,212	$ 9,157	$ 7,055	$ 4,844	$ 566,866 [e]
Asia and Pacific	5,992	3,802	2,190	1,380	156,411
Latin America and the Caribbean	2,273	1,711	562	340	51,481
Total international	24,477	14,670	9,807	6,564	774,758
North America[a]	72,757	55,815	16,942	12,412	1,491,034
Total	$ 97,234	$ 70,485	$ 26,749	$ 18,976	$ 2,265,792
2010[b]					
Europe/Middle East and Africa	$ 14,135	$ 8,777	$ 5,358	$ 3,635	$ 446,547 [e]
Asia and Pacific	6,073	3,677	2,396	1,614	151,379
Latin America and the Caribbean	1,750	1,181	569	362	33,192
Total international	21,958	13,635	8,323	5,611	631,118
North America[a]	80,736	64,200	16,536	11,759	1,486,487
Total	$ 102,694	$ 77,835	$ 24,859	$ 17,370	$ 2,117,605

(a) Substantially reflects the U.S.
(b) The regional allocation of revenue, expense and net income for 2010 has been modified to conform with current allocation methodologies.
(c) Revenue is composed of net interest income and noninterest revenue.
(d) Expense is composed of noninterest expense and the provision for credit losses.
(e) Total assets for the U.K. were approximately $498 billion, $510 billion, and $419 billion at December 31, 2012, 2011 and 2010, respectively.

Note 33 – Business segments

The Firm is managed on a line of business basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset Management. In addition, there is a Corporate/Private Equity segment. The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by management. Results of these lines of business are presented on a managed basis. For a definition of managed basis, see Explanation and Reconciliation of the Firm's use of non-GAAP financial measures, on pages 76–77 of this Annual Report. For a further discussion concerning JPMorgan Chase's business segments, see Business Segment Results on pages 78–79 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.

The following is a description of each of the Firm's business segments, and the products and services they provide to their respective client bases.

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

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

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

Asset Management
AM, with client assets of $2.1 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.

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.

Segment results

The following tables provide a summary of the Firm's segment results for 2012, 2011 and 2010 on a managed basis. Total net revenue (noninterest revenue and net interest income) for each of the segments is presented on a fully taxable-equivalent ("FTE") basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented on a basis comparable to taxable investments and securities; this non-GAAP financial measure allows management to assess the comparability of revenue arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense/(benefit).

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.

Segment results and reconciliation(a)

As of or the year ended December 31, (in millions, except ratios)	Consumer & Community Banking			Corporate & Investment Bank			Commercial Banking			Asset Management		
	2012	2011	2010	**2012**	2011	2010	**2012**	2011	2010	**2012**	2011	2010
Noninterest revenue	**$ 20,795**	$ 15,306	$ 15,513	**$ 23,104**	$ 22,523	$ 22,889	**$ 2,283**	$ 2,195	$ 2,200	**$ 7,847**	$ 7,895	$ 7,485
Net interest income	**29,150**	30,381	33,414	**11,222**	11,461	10,588	**4,542**	4,223	3,840	**2,099**	1,648	1,499
Total net revenue	**49,945**	45,687	48,927	**34,326**	33,984	33,477	**6,825**	6,418	6,040	**9,946**	9,543	8,984
Provision for credit losses	**3,774**	7,620	17,489	**(479)**	(285)	(1,247)	**41**	208	297	**86**	67	86
Noninterest expense	**28,790**	27,544	23,706	**21,850**	21,979	22,869	**2,389**	2,278	2,199	**7,104**	7,002	6,112
Income/(loss) before income tax expense/ (benefit)	**17,381**	10,523	7,732	**12,955**	12,290	11,855	**4,395**	3,932	3,544	**2,756**	2,474	2,786
Income tax expense/ (benefit)	**6,770**	4,321	3,154	**4,549**	4,297	4,137	**1,749**	1,565	1,460	**1,053**	882	1,076
Net income/(loss)	**$ 10,611**	$ 6,202	$ 4,578	**$ 8,406**	$ 7,993	$ 7,718	**$ 2,646**	$ 2,367	$ 2,084	**$ 1,703**	$ 1,592	$ 1,710
Average common equity	**$ 43,000**	$ 41,000	$ 43,000	**$ 47,500**	$ 47,000	$ 46,500	**$ 9,500**	$ 8,000	$ 8,000	**$ 7,000**	$ 6,500	$ 6,500
Total assets	**463,608**	483,307	508,775	**876,107**	845,095	870,631	**181,502**	158,040	142,646	**108,999**	86,242	68,997
Return on average common equity	**25%**	15%	11%	**18%**	17%	17%	**28%**	30%	26%	**24%**	25%	26%
Overhead ratio	**58**	60	48	**64**	65	68	**35**	35	36	**71**	73	68

(a) Managed basis starts with the reported U.S. GAAP results and includes certain reclassifications as discussed below that do not have any impact on net income as reported by the lines of business or by the Firm as a whole.

(b) Segment managed results reflect revenue on a FTE basis with the corresponding income tax impact recorded within income tax expense/(benefit). These adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results. FTE adjustments for the years ended December 31, 2012, 2011, and 2010, were as follows.

Year ended December 31, (in millions)	**2012**	2011	2010
Noninterest revenue	**$ 2,116**	$ 2,003	$ 1,745
Net interest income	**743**	530	403
Income tax expense	**2,859**	2,533	2,148

(table continued from previous page)

Corporate/Private Equity			Reconciling Items[b]			Total		
2012	2011	2010	**2012**	2011	2010	**2012**	2011	2010
$ 208	$ 3,629	$ 5,351	**$ (2,116)**	$ (2,003)	$ (1,745)	**$ 52,121**	$ 49,545	$ 51,693
(1,360)	506	2,063	**(743)**	(530)	(403)	**44,910**	47,689	51,001
(1,152)	4,135	7,414	**(2,859)**	(2,533)	(2,148)	**97,031**	97,234	102,694
(37)	(36)	14	**–**	–	–	**3,385**	7,574	16,639
4,596	4,108	6,310	**–**	–	–	**64,729**	62,911	61,196
(5,711)	63	1,090	**(2,859)**	(2,533)	(2,148)	**28,917**	26,749	24,859
(3,629)	(759)	(190)	**(2,859)**	(2,533)	(2,148)	**7,633**	7,773	7,489
$ (2,082)	$ 822	$ 1,280	**$ –**	$ –	$ –	**$ 21,284**	$ 18,976	$ 17,370
$ 77,352	$ 70,766	$ 57,520	**$ –**	$ –	$ –	**$ 184,352**	$ 173,266	$ 161,520
728,925	693,108	526,556	**NA**	NA	NA	**2,359,141**	2,265,792	2,117,605
NM	NM	NM	**NM**	NM	NM	**11%**	11%	10%
NM	NM	NM	**NM**	NM	NM	**67**	65	60

Note 34 – Parent company

Parent company – Statements of income

Year ended December 31, (in millions)	2012	2011	2010
Income			
Dividends from subsidiaries and affiliates:			
Bank and bank holding company	$ 4,828	$ 10,852	$ 16,554
Nonbank[a]	1,972	2,651	932
Interest income from subsidiaries	1,041	1,099	985
Other interest income	293	384	294
Other income from subsidiaries, primarily fees:			
Bank and bank holding company	939	809	680
Nonbank	1,207	92	312
Other income/(loss)	579	(85)	157
Total income	10,859	15,802	19,914
Expense			
Interest expense to subsidiaries and affiliates[a]	836	1,121	1,263
Other interest expense	4,679	4,447	3,782
Other noninterest expense	2,399	649	540
Total expense	7,914	6,217	5,585
Income before income tax benefit and undistributed net income of subsidiaries	2,945	9,585	14,329
Income tax benefit	1,665	1,089	511
Equity in undistributed net income of subsidiaries	16,674	8,302	2,530
Net income	$ 21,284	$ 18,976	$ 17,370

Parent company – Balance sheets

December 31, (in millions)	2012	2011
Assets		
Cash and due from banks	$ 216	$ 132
Deposits with banking subsidiaries	75,521	91,622
Trading assets	8,128	18,485
Available-for-sale securities	3,541	3,657
Loans	2,101	1,880
Advances to, and receivables from, subsidiaries:		
Bank and bank holding company	39,773	39,888
Nonbank	86,904	83,138
Investments (at equity) in subsidiaries and affiliates:		
Bank and bank holding company	170,276	157,160
Nonbank[a]	45,305	42,231
Goodwill and other intangibles	1,018	1,027
Other assets	16,481	15,506
Total assets	$ 449,264	$ 454,726
Liabilities and stockholders' equity		
Borrowings from, and payables to, subsidiaries and affiliates[a]	$ 16,744	$ 30,231
Other borrowed funds, primarily commercial paper	62,010	59,891
Other liabilities	8,208	7,653
Long-term debt[b][c]	158,233	173,378
Total liabilities[c]	245,195	271,153
Total stockholders' equity	204,069	183,573
Total liabilities and stockholders' equity	$ 449,264	$ 454,726

Parent company – Statements of cash flows

Year ended December 31, (in millions)	2012	2011	2010
Operating activities			
Net income	$ 21,284	$ 18,976	$ 17,370
Less: Net income of subsidiaries and affiliates[a]	23,474	21,805	20,016
Parent company net loss	(2,190)	(2,829)	(2,646)
Cash dividends from subsidiaries and affiliates[a]	6,798	13,414	17,432
Other, net	2,401	889	1,685
Net cash provided by operating activities	7,009	11,474	16,471
Investing activities			
Net change in:			
Deposits with banking subsidiaries	16,100	20,866	7,692
Available-for-sale securities:			
Purchases	(364)	(1,109)	(1,387)
Proceeds from sales and maturities	621	886	745
Loans, net	(350)	153	(90)
Advances to subsidiaries, net	5,951	(28,105)	8,051
Investments (at equity) in subsidiaries and affiliates, net[a]	3,546	(1,530)	(871)
Net cash provided by/(used in) investing activities	25,504	(8,839)	14,140
Financing activities			
Net change in borrowings from subsidiaries and affiliates[a]	(14,038)	2,827	(2,039)
Net change in other borrowed funds	3,736	16,268	(11,843)
Proceeds from the issuance of long-term debt	28,172	33,566	21,610
Repayments of long-term debt	(44,240)	(41,747)	(32,893)
Excess tax benefits related to stock-based compensation	255	867	26
Redemption of preferred stock	–	–	(352)
Proceeds from issuance of preferred stock	1,234	–	–
Treasury stock and warrants repurchased	(1,653)	(8,863)	(2,999)
Dividends paid	(5,194)	(3,895)	(1,486)
All other financing activities, net	(701)	(1,622)	(641)
Net cash used in financing activities	(32,429)	(2,599)	(30,617)
Net increase/(decrease) in cash and due from banks	84	36	(6)
Cash and due from banks at the beginning of the year, primarily with bank subsidiaries	132	96	102
Cash and due from banks at the end of the year, primarily with bank subsidiaries	$ 216	$ 132	$ 96
Cash interest paid	$ 5,690	$ 5,800	$ 5,090
Cash income taxes paid, net	3,080	5,885	7,001

(a) Affiliates include trusts that issued guaranteed capital debt securities ("issuer trusts"). The Parent received dividends of $12 million, $13 million and $13 million from the issuer trusts in 2012, 2011 and 2010, respectively. For further discussion on these issuer trusts, see Note 21 on pages297–299 of this Annual Report.

(b) At December 31, 2012, long-term debt that contractually matures in 2013 through 2017 totaled $19.3 billion, $25.1 billion, $21.6 billion, $17.5 billion and $17.3 billion, respectively.

(c) For information regarding the Firm's guarantees of its subsidiaries' obligations, see Note 21 and Note 29 on pages 297–299 and 308–315, respectively, of this Annual Report.

Selected quarterly financial data (unaudited)

(Table continued on next page)

As of or for the period ended	2012				2011			
(in millions, except per share, ratio and headcount data)	4th quarter	3rd quarter	2nd quarter	1st quarter	4th quarter	3rd quarter	2nd quarter	1st quarter
Selected income statement data								
Total net revenue	$ 23,653	$ 25,146	$ 22,180	$ 26,052	$ 21,471	$ 23,763	$ 26,779	$ 25,221
Total noninterest expense	16,047	15,371	14,966	18,345	14,540	15,534	16,842	15,995
Pre-provision profit	7,606	9,775	7,214	7,707	6,931	8,229	9,937	9,226
Provision for credit losses	656	1,789	214	726	2,184	2,411	1,810	1,169
Income before income tax expense	6,950	7,986	7,000	6,981	4,747	5,818	8,127	8,057
Income tax expense	1,258	2,278	2,040	2,057	1,019	1,556	2,696	2,502
Net income	$ 5,692	$ 5,708	$ 4,960	$ 4,924	$ 3,728	$ 4,262	$ 5,431	$ 5,555
Per common share data								
Net income per share: Basic	$ 1.40	$ 1.41	$ 1.22	$ 1.20	$ 0.90	$ 1.02	$ 1.28	$ 1.29
Diluted	1.39	1.40	1.21	1.19	0.90	1.02	1.27	1.28
Cash dividends declared per share[(a)]	0.30	0.30	0.30	0.30	0.25	0.25	0.25	0.25
Book value per share	51.27	50.17	48.40	47.48	46.59	45.93	44.77	43.34
Tangible book value per share[(b)]	38.75	37.53	35.71	34.79	33.69	33.05	32.01	30.77
Common shares outstanding								
Average: Basic	3,806.7	3,803.3	3,808.9	3,818.8	3,801.9	3,859.6	3,958.4	3,981.6
Diluted	3,820.9	3,813.9	3,820.5	3,833.4	3,811.7	3,872.2	3,983.2	4,014.1
Common shares at period-end	3,804.0	3,799.6	3,796.8	3,822.0	3,772.7	3,798.9	3,910.2	3,986.6
Share price[(c)]								
High	$ 44.54	$ 42.09	$ 46.35	$ 46.49	$ 37.54	$ 42.55	$ 47.80	$ 48.36
Low	38.83	33.10	30.83	34.01	27.85	28.53	39.24	42.65
Close	43.97	40.48	35.73	45.98	33.25	30.12	40.94	46.10
Market capitalization	167,260	153,806	135,661	175,737	125,442	114,422	160,083	183,783
Selected ratios								
Return on common equity	11%	12%	11%	11%	8%	9%	12%	13%
Return on tangible common equity[(b)]	15	16	15	15	11	13	17	18
Return on assets	0.98	1.01	0.88	0.88	0.65	0.76	0.99	1.07
Return on risk-weighted assets[(d)]	1.76	1.74	1.52	1.57	1.21	1.40	1.82	1.90
Overhead ratio	68	61	67	70	68	65	63	63
Deposits-to-loans ratio	163	158	153	157	156	157	152	145
Tier 1 capital ratio	12.6	11.9	11.3	11.9	12.3	12.1	12.4	12.3
Total capital ratio	15.3	14.7	14.0	14.9	15.4	15.3	15.7	15.6
Tier 1 leverage ratio	7.1	7.1	6.7	7.1	6.8	6.8	7.0	7.2
Tier 1 common capital ratio[(e)]	11.0	10.4	9.9	9.8	10.1	9.9	10.1	10.0
Selected balance sheet data (period-end)								
Trading assets	$ 450,028	$ 447,053	$ 417,324	$ 455,633	$ 443,963	$ 461,531	$ 458,722	$ 501,148
Securities	371,152	365,901	354,595	381,742	364,793	339,349	324,741	334,800
Loans	733,796	721,947	727,571	720,967	723,720	696,853	689,736	685,996
Total assets	2,359,141	2,321,284	2,290,146	2,320,164	2,265,792	2,289,240	2,246,764	2,198,161
Deposits	1,193,593	1,139,611	1,115,886	1,128,512	1,127,806	1,092,708	1,048,685	995,829
Long-term debt	249,024	241,140	239,539	255,831	256,775	273,688	279,228	269,616
Common stockholders' equity	195,011	190,635	183,772	181,469	175,773	174,487	175,079	172,798
Total stockholders' equity	204,069	199,639	191,572	189,269	183,573	182,287	182,879	180,598
Headcount	258,965	259,547	262,882	261,453	260,157	256,663	250,095	242,929

(Table continued from previous page)

As of or for the period ended	2012				2011			
(in millions, except ratio data)	4th quarter	3rd quarter	2nd quarter	1st quarter	4th quarter	3rd quarter	2nd quarter	1st quarter
Credit quality metrics								
Allowance for credit losses	**$ 22,604**	**$ 23,576**	**$ 24,555**	**$ 26,621**	$ 28,282	$ 29,036	$ 29,146	$ 30,438
Allowance for loan losses to total retained loans	**3.02%**	**3.18%**	**3.29%**	**3.63%**	3.84%	4.09%	4.16%	4.40%
Allowance for loan losses to retained loans excluding purchased credit-impaired loans[f]	**2.43**	**2.61**	**2.74**	**3.11**	3.35	3.74	3.83	4.10
Nonperforming assets	**$ 11,734**	**$ 12,481**	**$ 11,397**	**$ 11,953**	$ 11,315	$ 12,468	$ 13,435	$ 15,149
Net charge-offs	**1,628**	**2,770**	**2,278**	**2,387**	2,907	2,507	3,103	3,720
Net charge-off rate	**0.90%**	**1.53%**	**1.27%**	**1.35%**	1.64%	1.44%	1.83%	2.22%

(a) On March 13, 2012, the Firm's quarterly stock dividend was increased from $0.25 to $0.30 per share.
(b) 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.
(c) 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.
(d) Return on Basel I risk-weighted assets is the annualized earnings of the Firm divided by its average risk-weighted assets.
(e) Basel I Tier 1 common capital ratio ("Tier 1 common ratio") is Tier 1 common capital ("Tier 1 common") divided by risk-weighted assets. The Firm uses Tier 1 common capital along with the other capital measures to assess and monitor its capital position. For further discussion of the Tier 1 common ratio, see Regulatory capital on pages 117–120 of this Annual Report.
(f) Excludes the impact of residential real estate PCI loans. For further discussion, see Allowance for credit losses on pages 159–162 of this Annual Report.

Active mobile customers: Retail banking users of all mobile platforms who have been active in the past 90 days.

Allowance for loan losses to total loans: Represents period-end allowance for loan losses divided by retained loans.

Assets under management: Represent assets actively managed by AM on behalf of its Private Banking, Institutional and Retail clients. Includes "Committed capital not Called," on which AM earns fees. Excludes assets managed by American Century Companies, Inc., in which the Firm sold its ownership interest on August 31, 2011.

Assets under supervision: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities, or other obligations, issued by VIEs that JPMorgan Chase consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

Client advisors: Investment product specialists, including Private Client Advisors, Financial Advisors, Financial Advisor Associates, Senior Financial Advisors, Independent Financial Advisors and Financial Advisor Associate trainees, who advise clients on investment options, including annuities, mutual funds, stock trading services, etc., sold by the Firm or by third party vendors through retail branches, Chase Private Client branches and other channels.

Client investment managed accounts: Assets actively managed by Chase Wealth Management on behalf of clients. The percentage of managed accounts is calculated by dividing managed account assets by total client investment assets.

Contractual credit card charge-off: In accordance with the Federal Financial Institutions Examination Council policy, credit card loans are charged off at the earlier of: (i) the end of the month in which the account becomes 180 days past due or (ii) within 60 days from receiving notification about a specific event (e.g., bankruptcy of the borrower).

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third party issuer (the reference entity) which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Upon the occurrence of a credit event, which may include, among other events, the bankruptcy or failure to pay by, or certain restructurings of the debt of, the reference entity, neither party has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value of the reference obligation at the time of settling the credit derivative contract. The determination as to whether a credit event has occurred is generally made by the relevant International Swaps and Derivatives Association ("ISDA") Determinations Committee, comprised of 10 sell-side and five buy-side ISDA member firms.

Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again (or vice versa). The duration of a credit cycle can vary from a couple of years to several years.

CUSIP number: A CUSIP (i.e., Committee on Uniform Securities Identification Procedures) number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security and is assigned by the American Bankers Association and operated by Standard & Poor's. This system facilitates the clearing and settlement process of securities. A similar system is used to identify non-U.S. securities (CUSIP International Numbering System).

Deposit margin: Represents net interest income expressed as a percentage of average deposits.

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

Forward points: Represents the interest rate differential between two currencies, which is either added to or subtracted from the current exchange rate (i.e., "spot rate") to determine the forward exchange rate.

Group of Seven ("G7") nations: Countries in the G7 are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

G7 government bonds: Bonds issued by the government of one of countries in the G7 nations.

Headcount-related expense: Includes salary and benefits (excluding performance-based incentives), and other noncompensation costs related to employees.

Home equity - senior lien: Represents loans where JP Morgan Chase holds the first security interest on the property.

Home equity - junior lien: Represents loans where JP Morgan Chase holds a security interest that is subordinate in rank to other liens.

Interchange income: A fee paid to a credit card issuer in the clearing and settlement of a sales or cash advance transaction.

Investment-grade: An indication of credit quality based on JPMorgan Chase's internal risk assessment system. "Investment grade" generally represents a risk profile similar to a rating of a "BBB-"/"Baa3" or better, as defined by independent rating agencies.

LLC: Limited Liability Company.

Loan-to-value ("LTV") ratio: For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Origination date LTV ratio

The LTV ratio at the origination date of the loan. Origination date LTV ratios are calculated based on the actual appraised values of collateral (i.e., loan-level data) at the origination date.

Current estimated LTV ratio

An estimate of the LTV as of a certain date. The current estimated LTV ratios are calculated using estimated collateral values derived from a nationally recognized home price index measured at the metropolitan statistical area ("MSA") level. These MSA-level home price indices comprise actual data to the extent available and forecasted data where actual data is not available. As a result, the estimated collateral values used to calculate these ratios do not represent actual appraised

loan-level collateral values; as such, the resulting LTV ratios are necessarily imprecise and should therefore be viewed as estimates.

Combined LTV ratio

The LTV ratio considering all lien positions related to the property. Combined LTV ratios are used for junior lien home equity products.

Managed basis: A non-GAAP presentation of financial results that includes reclassifications to present revenue on a fully taxable-equivalent basis. Management uses this non- GAAP financial measure at the segment level, because it believes this provides information to enable investors to understand the underlying operational performance and trends of the particular business segment and facilitates a comparison of the business segment with the performance of competitors.

Master netting agreement: An agreement between two counterparties who have multiple derivative contracts with each other that provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default on or termination of any one contract.

Mortgage product types:

Alt-A

Alt-A loans are generally higher in credit quality than subprime loans but have characteristics that would disqualify the borrower from a traditional prime loan. Alt-A lending characteristics may include one or more of the following: (i) limited documentation; (ii) a high combined loan-to-value ("CLTV") ratio; (iii) loans secured by non-owner occupied properties; or (iv) a debt-to-income ratio above normal limits. A substantial proportion of the Firm's Alt-A loans are those where a borrower does not provide complete documentation of his or her assets or the amount or source of his or her income.

Option ARMs

The option ARM real estate loan product is an adjustable-rate mortgage loan that provides the borrower with the option each month to make a fully amortizing, interest-only or minimum payment. The minimum payment on an option ARM loan is based on the interest rate charged during the introductory period. This introductory rate is usually significantly below the fully indexed rate. The fully indexed rate is calculated using an index rate plus a margin. Once the introductory period ends, the contractual interest rate charged on the loan increases to the fully indexed rate and adjusts monthly to reflect movements in the index. The minimum payment is typically insufficient to cover interest accrued in the prior month, and any unpaid interest is deferred and added to the principal balance of the loan. Option ARM loans are subject to payment recast, which converts the loan to a variable-rate fully amortizing loan upon meeting specified loan balance and anniversary date triggers.

Prime

Prime mortgage loans are made to borrowers with good credit records and a monthly income at least three to four times greater than their monthly housing expense (mortgage payments plus taxes and other debt payments). These borrowers provide full documentation and generally have reliable payment histories.

Subprime

Subprime loans are loans to customers with one or more high risk characteristics, including but not limited to: (i) unreliable or poor payment histories; (ii) a high LTV ratio of greater than 80% (without borrower-paid mortgage insurance); (iii) a high debt-to-income ratio; (iv) an occupancy type for the loan is other than the borrower's primary residence; or (v) a history of delinquencies or late payments on the loan.

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

Multi-asset: Any fund or account that allocates assets under management to more than one asset class.

NA: Data is not applicable or available for the period presented.

Net charge-off rate: Represents net charge-offs (annualized) divided by average retained loans for the reporting period.

Net yield on interest-earning assets: The average rate for interest-earning assets less the average rate paid for all sources of funds.

NM: Not meaningful.

Overhead ratio: Noninterest expense as a percentage of total net revenue.

Participating securities: Represents unvested stock-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings per share calculation using the two-class method. JPMorgan Chase grants restricted stock and RSUs to certain employees under its stock-based compensation programs, which entitle the recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

Personal bankers: Retail branch office personnel who acquire, retain and expand new and existing customer relationships by assessing customer needs and recommending and selling appropriate banking products and services.

Portfolio activity: Describes changes to the risk profile of existing lending-related exposures and their impact on the allowance for credit losses from changes in customer profiles and inputs used to estimate the allowances.

Pre-provision profit: Represents total net revenue less noninterest expense. The Firm believes that this financial measure is useful in assessing the ability of a lending institution to generate income in excess of its provision for credit losses.

Pretax margin: Represents income before income tax expense divided by total net revenue, which is, in management's view, a comprehensive measure of pretax performance derived by

measuring earnings after all costs are taken into consideration. It is one basis upon which management evaluates the performance of AM against the performance of their respective competitors.

Principal transactions revenue: Principal transactions revenue includes realized and unrealized gains and losses recorded on derivatives, other financial instruments, private equity investments, and physical commodities used in market making and client-driven activities. In addition, Principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk management activities including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specified risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk, and (c) other derivatives, including the synthetic credit portfolio.

Purchased credit-impaired ("PCI") loans: Represents loans that were acquired in the Washington Mutual transaction and deemed to be credit-impaired on the acquisition date in accordance with FASB guidance. The guidance allows purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools, provided that the loans have common risk characteristics (e.g., product type, LTV ratios, FICO scores, past due status, geographic location). A pool is then accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows.

Real assets: Real assets include investments in productive assets such as agriculture, energy rights, mining and timber properties and exclude raw land to be developed for real estate purposes.

Real estate investment trust ("REIT"): A special purpose investment vehicle that provides investors with the ability to participate directly in the ownership or financing of real-estate related assets by pooling their capital to purchase and manage income property (i.e., equity REIT) and/or mortgage loans (i.e., mortgage REIT). REITs can be publicly-or privately-held and they also qualify for certain favorable tax considerations.

Receivables from customers: Primarily represents margin loans to prime and retail brokerage customers which are included in accrued interest and accounts receivable on the Consolidated Balance Sheets for the wholesale lines of business.

Reported basis: Financial statements prepared under U.S. GAAP, which excludes the impact of taxable-equivalent adjustments.

Retained loans: Loans that are held-for-investment (i.e. excludes loans held-for-sale and loans at fair value).

Risk-weighted assets ("RWA"): Risk-weighted assets consist of on- and off-balance sheet assets that are assigned to one of several broad risk categories and weighted by factors representing their risk and potential for default. On-balance sheet assets are risk-weighted based on the estimated credit risk associated with the obligor or counterparty, the nature of any collateral, and the guarantor, if any. Off-balance sheet assets such as lending-related commitments, guarantees, derivatives and other applicable off-balance sheet positions are risk-weighted by multiplying the contractual amount by the appropriate credit conversion factor to determine the on-balance sheet credit equivalent amount, which is then risk-weighted based on the same factors used for on-balance sheet assets. Risk-weighted assets also incorporate a measure for market risk related to applicable trading assets-debt and equity instruments, and foreign exchange and commodity derivatives. The resulting risk-weighted values for each of the risk categories are then aggregated to determine total risk-weighted assets.

Sales specialists: Retail branch office and field personnel, including Business Bankers, Relationship Managers and Loan Officers, who specialize in marketing and sales of various business banking products (i.e., business loans, letters of credit, deposit accounts, Chase Paymentech, etc.) and mortgage products to existing and new clients.

Seed capital: Initial JPMorgan capital invested in products, such as mutual funds, with the intention of ensuring the fund is of sufficient size to represent a viable offering to clients, enabling pricing of its shares, and allowing the manager to develop a track record. After these goals are achieved, the intent is to remove the Firm's capital from the investment.

Short sale: A short sale is a sale of real estate in which proceeds from selling the underlying property are less than the amount owed the Firm under the terms of the related mortgage and the related lien is released upon receipt of such proceeds.

Taxable-equivalent basis: In presenting managed results, the total net revenue for each of the business segments and the Firm is presented on a tax-equivalent basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities; the corresponding income tax impact related to tax-exempt items is recorded within income tax expense.

Troubled debt restructuring ("TDR"): A TDR is deemed to occur when the Firm modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty.

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

U.S. GAAP: Accounting principles generally accepted in the United States of America.

U.S. government-sponsored enterprise obligations: Obligations of agencies originally established or chartered by the U.S. government to serve public purposes as specified by the U.S. Congress; these obligations are not explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government.

U.S. Treasury: U.S. Department of the Treasury.

Value-at-risk ("VaR"): A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

Washington Mutual transaction: On September 25, 2008, JPMorgan Chase acquired certain of the assets of the banking operations of Washington Mutual Bank ("Washington Mutual") from the FDIC.