JPMORGAN CHASE BANK,
NATIONAL ASSOCIATION

(a wholly-owned subsidiary of JPMorgan Chase & Co.)

CONSOLIDATED FINANCIAL STATEMENTS

For the three years ended December 31, 2013

FOR THE THREE YEARS ENDED DECEMBER 31, 2013

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Independent Auditor's Report

To the Board of Directors and Stockholder of JPMorgan Chase Bank, National Association

We have audited the accompanying consolidated financial statements of JPMorgan Chase Bank, National Association and its subsidiaries, which comprise the consolidated balance sheets as of December 31, 2013 and December 31, 2012 and the related consolidated statements of income, comprehensive income, changes in stockholder's equity and cash flows for the years then ended.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of JPMorgan Chase Bank, National Association and its subsidiaries at December 31, 2013 and December 31, 2012, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

March 7, 2014

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

Consolidated statements of income

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)

Year ended December 31, (in millions)	2013	2012	2011
Revenue			
Investment banking fees	**$ 1,808**	$ 1,795	$ 2,931
Principal transactions	**6,589**	997	7,248
Lending- and deposit-related fees	**5,941**	6,187	6,442
Asset management, administration and commissions	**10,096**	9,554	9,753
Securities gains[(a)]	**643**	2,018	1,459
Mortgage fees and related income	**5,206**	8,688	2,669
Card income	**4,036**	3,517	3,854
Other income	**4,365**	4,465	3,217
Noninterest revenue	**38,684**	37,221	37,573
Interest income	**38,475**	40,476	43,709
Interest expense	**5,509**	6,027	8,010
Net interest income	**32,966**	34,449	35,699
Total net revenue	**71,650**	71,670	73,272
Provision for credit losses	**(1,247)**	686	5,344
Noninterest expense			
Compensation expense	**24,212**	23,847	22,279
Occupancy expense	**3,342**	3,516	3,405
Technology, communications and equipment expense	**4,935**	4,697	4,429
Professional and outside services	**5,875**	5,754	5,519
Marketing	**759**	797	872
Other expense	**10,794**	13,498	14,591
Amortization of intangibles	**308**	638	483
Total noninterest expense	**50,225**	52,747	51,578
Income before income tax expense	**22,672**	18,237	16,350
Income tax expense	**7,234**	4,282	3,894
Net income	**$ 15,438**	$ 13,955	$ 12,456

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

Year ended December 31, (in millions)	2013	2012	2011
Debt securities JPMorgan Chase Bank, N.A. does not intend to sell that have credit losses			
Total other-than-temporary impairment losses	**$ (1)**	$ (113)	$ (27)
Losses recorded in/(reclassified from) other comprehensive income	**–**	85	(49)
Total credit losses recognized in income	**(1)**	(28)	(76)
Securities JPMorgan Chase Bank, N.A. intends to sell	**(20)**	(15)	–
Total other-than-temporary impairment losses recognized in income	**$ (21)**	$ (43)	$ (76)

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

Consolidated statements of comprehensive income

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)

Year ended December 31, (in millions)	2013	2012	2011
Net income	**$ 15,438**	$ 13,955	$ 12,456
Other comprehensive income/(loss), after-tax			
Unrealized gains/(losses) on AFS securities	**(3,916)**	3,213	927
Translation adjustments, net of hedges	**(51)**	(68)	(259)
Cash flow hedges	**(404)**	(66)	(23)
Defined benefit pension and OPEB plans	**39**	(87)	(2)
Total other comprehensive income/(loss), after-tax	**(4,332)**	2,992	643
Comprehensive income	**$ 11,106**	$ 16,947	$ 13,099

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

Consolidated balance sheets

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)

December 31, (in millions, except share data)		**2013**		2012
Assets				
Cash and due from banks	**$**	**38,955**	$	52,662
Deposits with banks		**308,181**		118,429
Federal funds sold and securities purchased under resale agreements (included **$13,002** and $14,335 at fair value)		**184,500**		229,717
Securities borrowed (included **$3,739** and $10,177 at fair value)		**39,857**		55,574
Trading assets (included assets pledged of **$54,187** and $41,613)		**259,823**		319,113
Securities (included **$310,919** and $361,112 at fair value and assets pledged of **$23,446** and $52,063)		**334,945**		361,119
Loans (included **$1,182** and $1,562 at fair value)		**631,982**		623,281
Allowance for loan losses		**(13,134)**		(17,191)
Loans, net of allowance for loan losses		**618,848**		606,090
Accrued interest and accounts receivable		**47,121**		43,468
Premises and equipment		**12,814**		12,343
Goodwill		**27,344**		27,431
Mortgage servicing rights		**9,614**		7,614
Other intangible assets		**543**		849
Other assets (included **$6,566** and $7,309 at fair value and assets pledged of **$921** and $940)		**62,922**		62,364
Total assets[(a)]	**$**	**1,945,467**	$	1,896,773
Liabilities				
Deposits (included **$6,624** and $5,733 at fair value)	**$**	**1,326,036**	$	1,246,327
Federal funds purchased and securities loaned or sold under repurchase agreements (included **$5,120** and $2,569 at fair value)		**112,595**		158,532
Other borrowed funds (included **$7,068** and $7,293 at fair value)		**27,428**		21,823
Trading liabilities		**109,419**		110,788
Accounts payable and other liabilities (included **$25** and $36 at fair value)		**74,853**		84,152
Beneficial interests issued by consolidated variable interest entities (included **$40** and $35 at fair value)		**19,755**		28,568
Long-term debt (included **$16,027** and $17,462 at fair value)		**106,304**		100,558
Total liabilities[(a)]		**1,776,390**		1,750,748
Commitments and contingencies (see Notes 27, 28 and 29 of these Consolidated Financial Statements)				
Stockholder's equity				
Preferred stock ($1 par value; authorized 15,000,000 shares: issued **zero** shares)		**—**		—
Common stock ($12 par value; authorized 150,000,000 shares; issued **148,761,243** shares)		**1,785**		1,785
Capital surplus		**90,479**		77,533
Retained earnings		**74,634**		60,196
Accumulated other comprehensive income		**2,179**		6,511
Total stockholder's equity		**169,077**		146,025
Total liabilities and stockholder's equity	**$**	**1,945,467**	$	1,896,773

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by JPMorgan Chase Bank, N.A. at December 31, 2013 and 2012. The difference between total VIE assets and liabilities represents JPMorgan Chase Bank, N.A.'s interests in those entities, which were eliminated in consolidation.

December 31, (in millions)		**2013**		2012
Assets				
Trading assets	**$**	**3,122**	$	7,903
Loans		**22,301**		30,421
All other assets		**724**		654
Total assets	**$**	**26,147**	$	38,978
Liabilities				
Beneficial interests issued by consolidated variable interest entities	**$**	**19,755**	$	28,568
All other liabilities		**968**		1,217
Total liabilities	**$**	**20,723**	$	29,785

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 Bank, N.A. At December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. provided limited program-wide credit enhancement of $2.6 billion and $3.1 billion, respectively, related to its JPMorgan Chase Bank, N.A.-administered multi-seller conduits, which are eliminated in consolidation. For further discussion, see Note 17 on pages 98-108 of these Consolidated Financial Statements.

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

Consolidated statements of changes in stockholder's equity

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)

Year ended December 31, (in millions)	**2013**	2012	2011
Common stock			
Balance at January 1 and December 31	**$ 1,785**	$ 1,785	$ 1,785
Capital surplus			
Balance at January 1	**77,533**	77,232	76,771
Cash capital contribution from JPMorgan Chase & Co.	**12,752**	243	92
Adjustments to capital due to transactions with JPMorgan Chase & Co.	**194**	58	365
Other	**—**	—	4
Balance at December 31	**90,479**	77,533	77,232
Retained earnings			
Balance at January 1	**60,196**	48,241	41,785
Net income	**15,438**	13,955	12,456
Cash dividends paid to JPMorgan Chase & Co.	**(1,000)**	(2,000)	(6,000)
Balance at December 31	**74,634**	60,196	48,241
Accumulated other comprehensive income/(loss)			
Balance at January 1	**6,511**	3,519	2,876
Other comprehensive (loss)/income	**(4,332)**	2,992	643
Balance at December 31	**2,179**	6,511	3,519
Total stockholder's equity	**$ 169,077**	$ 146,025	$ 130,777

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

Consolidated statements of cash flows

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)

Year ended December 31, (in millions)	**2013**	2012	2011
Operating activities			
Net income	**$ 15,438**	$ 13,955	$ 12,456
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:			
Provision for credit losses	**(1,247)**	686	5,344
Depreciation and amortization	**4,666**	3,478	3,364
Amortization of intangibles	**308**	638	483
Deferred tax expense/(benefit)	**7,813**	784	(1,779)
Investment securities gains	**(643)**	(2,018)	(1,459)
Originations and purchases of loans held-for-sale	**(75,927)**	(34,026)	(51,121)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	**73,565**	33,199	52,646
Net change in:			
Trading assets	**74,384**	3,890	26,000
Securities borrowed	**15,727**	18,969	(17,224)
Accrued interest and accounts receivable	**(1,804)**	2,526	(8,743)
Other assets	**6,612**	(5,227)	(19,704)
Trading liabilities	**(12,070)**	(3,565)	11,043
Accounts payable and other liabilities	**(14,103)**	3,224	14,194
Other operating adjustments	**(1,115)**	(2,200)	5,907
Net cash provided by operating activities	**91,604**	34,313	31,407
Investing activities			
Net change in:			
Deposits with banks	**(189,752)**	(34,216)	(63,775)
Federal funds sold and securities purchased under resale agreements	**44,893**	(49,230)	(5,059)
Held-to-maturity securities:			
Proceeds from paydowns and maturities	**189**	4	5
Purchases	**(24,214)**	–	–
Available-for-sale securities:			
Proceeds from paydowns and maturities	**87,291**	110,900	87,165
Proceeds from sales	**69,189**	77,552	64,973
Purchases	**(114,582)**	(181,368)	(197,081)
Proceeds from sales and securitizations of loans held-for-investment	**11,850**	5,560	6,455
Other changes in loans, net	**(23,965)**	(40,264)	(58,759)
Net cash (used in)/received from business acquisitions or dispositions	**(12)**	(2)	45
All other investing activities, net	**(2,778)**	(2,753)	(2,000)
Net cash used in investing activities	**(141,891)**	(113,817)	(168,031)
Financing activities			
Net change in:			
Deposits	**67,308**	57,418	177,375
Federal funds purchased and securities loaned or sold under repurchase agreements	**(45,878)**	(10,639)	(9,308)
Other borrowed funds	**6,554**	6,306	(4,583)
Beneficial interests issued by consolidated variable interest entities	**(8,509)**	6,229	(2,681)
Proceeds from long-term borrowings and trust preferred securities	**45,559**	58,714	32,409
Payments of long-term borrowings and trust preferred securities	**(40,829)**	(43,358)	(18,935)
Cash capital contribution from JPMorgan Chase & Co.	**12,752**	243	92
Dividends paid to JPMorgan Chase & Co.	**(1,000)**	(2,000)	(6,000)
All other financing activities, net	**348**	501	103
Net cash provided by financing activities	**36,305**	73,414	168,472
Effect of exchange rate changes on cash and due from banks	**275**	1,158	(858)
Net (decrease)/increase in cash and due from banks	**(13,707)**	(4,932)	30,990
Cash and due from banks at the beginning of the period	**52,662**	57,594	26,604
Cash and due from banks at the end of the period	**$ 38,955**	$ 52,662	$ 57,594
Cash interest paid	**$ 4,969**	$ 6,081	$ 8,497
Cash income taxes paid/(refund), net	**3,576**	(1,150)	6,427

(a) Includes $3.0 billion, $212 million and $4.8 billion paid to JPMorgan Chase & Co. in 2013, 2012 and 2011, respectively.

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

Note 1 – Overview and basis of presentation

JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), is a wholly-owned bank subsidiary of JPMorgan Chase & Co. ("JPMorgan Chase"), which 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. JPMorgan Chase Bank, N.A. is a national banking association that is chartered by the Office of the Comptroller of the Currency ("OCC"), a bureau of the United States Department of the Treasury. JPMorgan Chase Bank, N.A.'s main office is located in Columbus, Ohio, and it has retail branches in 23 states. JPMorgan Chase Bank, N.A. operates nationally as well as through overseas branches and subsidiaries, representative offices and subsidiary foreign banks. One of its principal wholly-owned operating subsidiaries in the United Kingdom ("U.K.") is J.P. Morgan Securities plc (formerly J.P. Morgan Securities Ltd.) JPMorgan Chase Bank, N.A. either directly or through such offices, branches and subsidiaries offers a wide range of banking services to its U.S. and non-U.S. customers including investment banking, financial services for consumers and small businesses, commercial banking, financial transactions processing and asset management. Under the J.P. Morgan and Chase brands, JPMorgan Chase Bank, N.A. serves millions of customers in the U.S. and many of the world's most prominent corporate, institutional and governmental clients.

The JPMorgan Chase Bank, N.A. Board of Directors is responsible for the oversight of the management of JPMorgan Chase Bank N.A. The JPMorgan Chase Bank, N.A. Board accomplishes this function acting directly and through the principal standing committees of the Firm's Board of Directors.

The accounting and financial reporting policies of JPMorgan Chase Bank, N.A. 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 Bank, N.A. and other entities in which JPMorgan Chase Bank, N.A. has a controlling financial interest. All material intercompany balances and transactions have been eliminated. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A.'s determination of whether it has a controlling interest is primarily based on the amount of voting equity interests held. Entities in which JPMorgan Chase Bank, N.A. has a controlling financial interest, through ownership of the majority of the entities' voting equity interests, or through other contractual rights that give JPMorgan Chase Bank, N.A. control, are consolidated by JPMorgan Chase Bank, N.A.

Investments in companies in which JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. to recognize its proportionate share of the entity's net earnings), or (ii) at fair value if the fair value option was elected. These investments are generally included in other assets, with income or loss included in other income.

Certain JPMorgan Chase Bank, N.A.-sponsored asset management funds are structured as limited partnerships or limited liability companies. While JPMorgan Chase Bank, N.A. acts as investment advisor for these structures and is responsible for day to day decision-making, equity interests held in the structures, if any, are insignificant and the non-affiliated members of the Boards of Directors have the ability to remove JPMorgan Chase Bank, N.A. as advisor without cause. Accordingly, JPMorgan Chase Bank, N.A. does not consolidate these funds.

JPMorgan Chase Bank, N.A.'s investment companies make investments in both publicly-held and privately-held entities. 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 JPMorgan Chase Bank, N.A. has the power to direct the activities of a VIE that most significantly impact the VIE's economic performance, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s involvement with a VIE cause JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. are not assets of JPMorgan Chase Bank, N.A. 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 Bank, N.A. 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 stockholder's equity. Gains and losses relating to nonfunctional currency transactions, including non-U.S. operations where the functional currency is the U.S. dollar, are reported in the Consolidated Statements of Income.

Offsetting assets and liabilities

U.S. GAAP permits entities to present derivative receivables and derivative payables with the same counterparty and the related cash collateral receivables and payables on a net basis on the balance sheet when a legally enforceable master netting agreement exists. U.S. GAAP also permits securities sold and purchased under repurchase agreements to be presented net when specified conditions are met, including the existence of a legally enforceable master netting agreement. JPMorgan Chase Bank, N.A. has elected to net such balances when the specified conditions are met.

JPMorgan Chase Bank, N.A. uses master netting agreements to mitigate counterparty credit risk in certain transactions, including derivatives transactions, repurchase and reverse repurchase agreements, and securities borrowed and loaned agreements. A master netting agreement is a single contract with a counterparty that permits multiple transactions governed by that contract to be terminated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due after expiration of any grace period). Upon the exercise of termination rights by the non-defaulting party, (i) all transactions are terminated, (ii) all transactions are valued and the positive value or "in the money" transactions are netted against the negative value or "out of the money" transactions and (iii) the only remaining payment obligation is of one of the parties to pay the netted termination amount. Upon exercise of repurchase agreement and securities loaned default rights (i) all securities loan transactions are terminated and accelerated, (ii) all values of securities or cash held or to be delivered are calculated, and all such sums are netted against each other and (iii) the only remaining payment

obligation is of one of the parties to pay the netted termination amount.

Typical master netting agreements for these types of transactions also often contain a collateral/margin agreement that provides for a security interest in or title transfer of securities or cash collateral/margin to the party that has the right to demand margin (the "demanding party"). The collateral/margin agreement typically requires a party to transfer collateral/margin to the demanding party with a value equal to the amount of the margin deficit on a net basis across all transactions governed by the master netting agreement, less any threshold. The collateral/margin agreement grants to the demanding party, upon default by the counterparty, the right to set-off any amounts payable by the counterparty against any posted collateral or the cash equivalent of any posted collateral/margin. It also grants to the demanding party the right to liquidate collateral/margin and to apply the proceeds to an amount payable by the counterparty.

For further discussion of JPMorgan Chase Bank, N.A.'s derivative instruments, see Note 7 on pages 36–49 of these Consolidated Financial Statements. For further discussion of JPMorgan Chase Bank, N.A.'s repurchase and reverse repurchase agreements, and securities borrowing and lending agreements, see Note 14 on pages 65–67 of these Consolidated Financial Statements.

Statements of cash flows

For JPMorgan Chase Bank, N.A.'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 Bank, N.A.'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 3	Page 10
Fair value measurement	Note 4	Page 14
Fair value option	Note 5	Page 32
Derivative instruments	Note 7	Page 36
Noninterest revenue	Note 8	Page 50
Interest income and interest expense	Note 9	Page 51
Pension and other postretirement employee benefit plans	Note 10	Page 52
Employee stock-based incentives	Note 11	Page 57
Securities	Note 13	Page 59
Securities financing activities	Note 14	Page 65
Loans	Note 15	Page 68
Allowance for credit losses	Note 16	Page 94
Variable interest entities	Note 17	Page 98
Goodwill and other intangible assets	Note 18	Page 108
Premises and equipment	Note 19	Page 112
Long-term debt	Note 21	Page 113
Income taxes	Note 24	Page 117
Off-balance sheet lending-related financial instruments, guarantees and other commitments	Note 27	Page 122
Litigation	Note 29	Page 129

Note 2 – Accounting and reporting developments

Presentation of other comprehensive income

In June 2011, the FASB issued guidance that modifies the presentation of other comprehensive income in the Consolidated Financial Statements. The guidance requires that items of net income, items of other comprehensive income, and total comprehensive income be presented in one continuous statement or in two separate but consecutive statements. The guidance was effective in the first quarter of 2012, and JPMorgan Chase Bank, N.A. adopted the new guidance by electing the two-statement approach, effective January 1, 2012. The application of this guidance only affected the presentation of the Consolidated Financial Statements and had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or results of operations.

In February 2013, the FASB issued guidance that requires enhanced disclosures of any reclassifications out of accumulated other comprehensive income. The guidance was effective in the first quarter of 2013. The application of this guidance had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or results of operations. For further information, see Note 23 on page 116 of these Consolidated Financial Statements.

Balance sheet netting

In December 2011, the FASB issued guidance that requires enhanced disclosures about certain financial assets and liabilities that are subject to enforceable master netting agreements or similar agreements, or that have otherwise been offset on the balance sheet under certain specific conditions that permit net presentation. In January 2013, the FASB clarified that the scope of this guidance is limited to derivatives, repurchase and reverse repurchase agreements, and securities borrowing and lending transactions. JPMorgan Chase Bank, N.A. adopted the new guidance effective the first quarter of 2013. The application of this guidance had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or results of operations. For further information, see Notes 1, 7, and 14 on pages 7–9, 36–49, and 65–67, respectively, of these Consolidated Financial Statements.

Inclusion of the Fed funds effective swap rate

In July 2013, the FASB issued guidance that amends the acceptable U.S. benchmark interest rates for hedge accounting involving interest rate risk. In addition to interest rates on direct U.S. Treasury obligations and the LIBOR swap rate, the guidance also permits the overnight index swap rate ("OIS") to be designated as a benchmark interest rate for hedge accounting purposes. The amendments are effective prospectively for qualifying new or redesignated hedging relationships entered into on or after July 17, 2013. For further information on JPMorgan Chase Bank, N.A.'s benchmark interest rate hedges, see Note 7 on pages 36–49 of these Consolidated Financial Statements.

Investment companies

In June 2013, the FASB issued guidance that clarifies the characteristics of an investment company and requires new disclosures for investment companies. Under the guidance, a company regulated under the Investment Company Act of 1940 is considered an investment company for accounting purposes. All other companies must meet all of the fundamental characteristics described in the guidance and consider other typical characteristics to qualify as an investment company. An investment company will be required to provide additional disclosures, including the fact that the company is an investment company, information about changes, if any, in a company's status as an investment company, and information about financial support provided or contractually required to be provided by an investment company to any of its investees. The guidance will become effective in the first quarter of 2014. The adoption of the guidance is not expected to have a material impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or results of operations.

Investments in qualified affordable housing projects

In January 2014, the FASB issued guidance regarding the accounting for investments in affordable housing projects that qualify for the low-income housing tax credit. The guidance replaces the effective yield method and allows companies to make an accounting policy election to amortize the cost of its investments in proportion to the tax benefits received if certain criteria are met, and present the amortization as a component of income tax expense. The guidance will become effective in the first quarter of 2015, with early adoption permitted in the first quarter of 2014. JPMorgan Chase Bank, N.A. is currently evaluating this guidance to determine any potential impact on its Consolidated Financial Statements.

Note 3 – Business changes and developments

This Note relates to JPMorgan Chase and its subsidiaries, including, but not limited to, JPMorgan Chase Bank, N.A. unless otherwise noted.

Student loan business

In September 2013, JPMorgan Chase announced it ceased student loan originations.

Physical commodities businesses

On July 26, 2013, JPMorgan Chase announced that it is pursuing strategic alternatives for its physical commodities businesses. Pursuant to that announcement, JPMorgan Chase is exploring the sale of certain physical commodities operations, including physical oil, gas, power, warehousing facilities and transportation operations. During this process, JPMorgan Chase will continue to run its physical commodities business as a going concern. JPMorgan Chase remains fully committed to its traditional banking activities in the commodities markets, including financial derivatives and the trading of precious metals, which are not part of these strategic alternatives.

Visa B Shares
In December 2013, JPMorgan Chase sold 20 million Visa Class B shares, resulting in a net pre-tax gain of approximately $1.3 billion recorded in other income (JPMorgan Chase Bank, N.A.'s portion of the gain was $857 million). In conjunction with the sale, JPMorgan Chase Bank, N.A. entered into a derivative instrument with the purchaser under which JPMorgan Chase Bank, N.A. will (a) make periodic fixed payments, calculated by reference to the market price of Visa Class A common shares and (b) make or receive payments based on subsequent changes in the conversion rate of Visa Class B shares into Visa Class A shares. The payments under the derivative continue as long as Class B shares remain "restricted". The derivative is accounted for as a trading liability. The fair value of the derivative is estimated using a discounted cash flow methodology and is dependent upon the final resolution of certain Visa litigation matters; changes in fair value will be recognized in other income.

After the sale, JPMorgan Chase continues to own approximately 40 million Visa Class B shares. These shares will be converted into Visa Class A shares upon final resolution of certain Visa litigation matters; the conversion rate of Visa Class B shares to Visa Class A shares is 0.4206 as of December 31, 2013 and will be adjusted by Visa depending on developments related to certain Visa litigation matters.

One Chase Manhattan Plaza
On December 17, 2013, JPMorgan Chase sold One Chase Manhattan Plaza, an office building located in New York City, and recognized a pretax gain of $493 million in Other Income, which was recorded by JPMorgan Chase Bank, N.A.

Settlement with the President's Task Force on Residential Mortgage-Backed Securities ("RMBS")
On November 19, 2013, JPMorgan Chase announced a resolution of actual and potential civil claims by a number of federal and state government agencies, including the U.S. Department of Justice and several State Attorneys General, as well as litigation by the Federal Deposit Insurance Corporation, the National Credit Union Administration and the Federal Housing Finance Agency relating to residential mortgage-backed securities activities by JPMorgan Chase, Bear Stearns and Washington Mutual (the "RMBS settlement"). Under the settlement, JPMorgan Chase paid a total of $9 billion in cash, and committed to provide $4 billion in borrower relief. The cash portion consists of a $2 billion civil monetary penalty and $7 billion in compensatory payments, including $4 billion to resolve the Federal Housing Finance Agency litigation (see "Mortgage-backed securities settlements with the Federal Housing Finance Agency, Freddie Mac, and Fannie Mae" below). The $4 billion of borrower relief will be in the form of principal reduction, forbearance and other direct benefits from various relief programs. JPMorgan Chase has committed to complete the delivery of the relief to borrowers before the end of 2017.

JPMorgan Chase's 2013 results of operations reflected the estimated costs of the settlement (i.e., the cash payments as well as the borrower relief). The estimated impact of the cash settlement has been considered in JPMorgan Chase's legal reserve, whereas the impact of the borrower relief portion of the settlement has been considered in the allowance for loan losses.

RMBS Trust Settlement
On November 15, 2013, JPMorgan Chase announced it had reached a $4.5 billion agreement with 21 major institutional investors to make a binding offer to the trustees of 330 residential mortgage-backed securities trusts issued by J.P. Morgan, Chase, and Bear Stearns ("RMBS Trust Settlement") to resolve all representation and warranty claims, as well as all servicing claims, on all trusts issued by J.P. Morgan, Chase, and Bear Stearns between 2005 and 2008. The RMBS Trust Settlement is under consideration by the trustees and may be subject to court approval. This agreement does not resolve claims on trusts issued by Washington Mutual. For further information about the RMBS Trust Settlement, see Note 29 on pages 129–136 of these Consolidated Financial Statements.

Mortgage-backed securities settlements with the Federal Housing Finance Agency, Freddie Mac and Fannie Mae
On October 25, 2013, JPMorgan Chase announced that it had reached a $4.0 billion agreement to resolve all of its mortgage-backed securities ("MBS") litigation with the Federal Housing Finance Agency ("FHFA") as conservator for Freddie Mac and Fannie Mae. JPMorgan Chase also simultaneously agreed to resolve, for $1.1 billion, other than certain limited types of exposures, outstanding and future mortgage repurchase demands associated with loans sold to the GSEs from 2000 to 2008 ("FHFA Settlement Agreement").

Mortgage foreclosure settlement agreement with the Office of the Comptroller of the Currency and the Board of Governors of the Federal Reserve System
On January 7, 2013, JPMorgan Chase announced that it and a number of other financial institutions entered into a settlement agreement with the Office of the Comptroller of the Currency ("OCC") and the Board of Governors of the Federal Reserve System ("Federal Reserve") providing for the termination of the independent foreclosure review programs (the "Independent Foreclosure Review"). Under this settlement, JPMorgan Chase made a cash payment of approximately $760 million into a settlement fund for distribution to qualified borrowers. JPMorgan Chase has also committed $1.2 billion to foreclosure prevention actions, which will be fulfilled through credits given to JPMorgan Chase 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

JPMorgan Chase to earn credit under the global settlement entered into by JPMorgan Chase with state and federal agencies (see "Global settlement on servicing and origination of mortgages" below). The estimated impact of the foreclosure prevention actions required under the Independent Foreclosure Review settlement have been considered in JPMorgan Chase's allowance for loan losses. JPMorgan Chase recognized a pretax charge of approximately $700 million in the fourth quarter of 2012 related to the Independent Foreclosure Review settlement.

Washington Mutual, Inc. bankruptcy plan confirmation

On March 19, 2012, a bankruptcy court approved the joint plan containing the global settlement agreement resolving numerous disputes among Washington Mutual, Inc. ("WMI"), JPMorgan Chase and the Federal Deposit Insurance Corporation ("FDIC") as well as significant creditor groups (the "WaMu Global Settlement"). JPMorgan Chase recognized additional assets, including certain pension-related assets, as well as tax refunds, resulting in a pretax gain of $1.1 billion in 2012.

Global settlement on servicing and origination of mortgages

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

The global settlement releases JPMorgan Chase 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, JPMorgan Chase entered into agreements with the Federal Reserve and the OCC for the payment of civil money penalties related to conduct that was the subject of consent orders entered into with the banking regulators in April 2011.

Heightened expectations

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

Other internal transfers of legal entities under common control

JPMorgan Chase Bank, N.A. transferred various wholly-owned subsidiaries to JPMorgan Chase during 2013. The total assets for these subsidiaries were $9 million and these assets were predominantly deposits with banks. There were no wholly-owned subsidiaries transferred from JPMorgan Chase Bank, N.A. to JPMorgan Chase in 2012 and no significant transfers in 2011.

In 2013 and 2011, JPMorgan Chase transferred various wholly-owned subsidiaries to JPMorgan Chase Bank, N.A. In 2013, total assets for these subsidiaries were $49 million, which were largely premises and equipment and accrued interest and accounts receivable. In 2011 the total assets for these subsidiaries were $375 million, which were predominantly cash and due from banks, federal funds sold and securities purchased under resale agreements and goodwill. There were no wholly-owned subsidiaries transferred from JPMorgan Chase to JPMorgan Chase Bank, N.A. in 2012.

The internal transfers of the above legal entities were accounted for at historical cost in accordance with U.S. GAAP. However, all of the transfers were reflected in the Consolidated Financial Statements prospectively, and not as of the beginning of all periods presented, because the impact of these transfers was not material to JPMorgan Chase Bank, N.A.'s Consolidated Financial Statements for the years ended December 31, 2013, 2012 or 2011.

Subsequent events

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

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

Madoff Litigation and Investigations

On January 7, 2014, JPMorgan Chase announced that certain of its bank subsidiaries had entered into settlements with various governmental agencies in resolution of investigations relating to Bernard L. Madoff Investment Securities LLC ("BLMIS"). JPMorgan Chase and certain of its subsidiaries also entered into settlements with several private parties in resolution of civil litigation relating to BLMIS. At the same time, certain bank subsidiaries of JPMorgan Chase consented to the assessment of a civil money penalty by the OCC in connection with various Bank Secrecy Act/Anti-Money Laundering deficiencies, including with relation to the BLMIS fraud, and JPMorgan Chase Bank, N.A. additionally agreed to the assessment of a civil money penalty by the Financial Crimes Enforcement Network for failure to detect and adequately report suspicious transactions relating to BLMIS. For further information on these settlements, see Note 29 on pages 129–136 of these Consolidated Financial Statements.

Basel III parallel exit

On February 21, 2014, the OCC approved JPMorgan Chase Bank, N.A.'s exit from the Basel III Advanced Approach parallel run beginning with the second quarter of 2014. For further information on the Basel III Advanced Approach and JPMorgan Chase Bank, N.A.'s regulatory capital requirements, see Note 26 on pages 120–122 of these Consolidated Financial Statements.

In preparing these consolidated financial statements, JPMorgan Chase Bank, N.A. performed an evaluation of material events subsequent to December 31, 2013, and through March 7, 2014, the date these financial statements were available to be issued.

Note 4 – Fair value measurement

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s businesses and portfolios.

JPMorgan Chase Bank, N.A. uses various methodologies and assumptions in the determination of fair value. The use of different methodologies or assumptions to those used by JPMorgan Chase Bank, N.A. 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. JPMorgan Chase's valuation control function, which is part of JPMorgan Chase'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 JPMorgan Chase Bank, N.A.'s positions are recorded at fair value. In addition, JPMorgan Chase has a firmwide Valuation Governance Forum ("VGF") comprising senior finance and risk executives to oversee the management of risks arising from valuation activities conducted across JPMorgan Chase. The VGF is chaired by the firmwide head of the valuation control function, and also includes sub-forums for the corporate & investment banking business, mortgage banking business, and certain corporate functions including Treasury and the Chief Investment Office.

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 JPMorgan Chase Bank, N.A.:

- Liquidity valuation adjustments are considered when JPMorgan Chase Bank, N.A. may not be able to observe a recent market price for a financial instrument that trades in an inactive (or less active) market. JPMorgan Chase Bank, N.A. estimates the amount of uncertainty in the initial fair value estimate based on the degree of liquidity in the market. Factors that may be considered in determining the liquidity adjustment include: (1) the amount of time since the last relevant pricing point; (2) whether there was an actual trade or relevant external quotes or alternatively pricing points for similar instruments in active markets; and (3) the volatility of the principal risk component of the financial instrument.

  JPMorgan Chase Bank, N.A. manages certain portfolios of financial instruments on the basis of net open risk exposure and, as permitted by US GAAP, has elected to estimate the fair value of such portfolios on the basis of a transfer of the entire net open risk position in an orderly transaction. Where this is the case, valuation adjustments may be necessary to reflect the cost of exiting a larger-than-normal market-size net open risk position. Where

applied, such adjustments are based on factors that a relevant market participant would consider in the transfer of the net open risk position including the size of the adverse market move that is likely to occur during the period required to reduce the net open risk position to a normal market-size.

- Unobservable parameter valuation adjustments may be made when positions are valued using internally developed models that incorporate unobservable parameters – that is, parameters that must be estimated and are, therefore, subject to management judgment. Unobservable parameter valuation adjustments are applied to reflect the uncertainty inherent in the valuation estimate provided by the model.

Credit and funding adjustments

Where appropriate, JPMorgan Chase Bank, N.A. also applies adjustments to its estimates of fair value in order to appropriately reflect counterparty credit quality and JPMorgan Chase Bank, N.A.'s own creditworthiness, applying a consistent framework across JPMorgan Chase Bank, N.A.

Impact of funding on valuation estimates

JPMorgan Chase Bank, N.A. incorporates the impact of funding in its valuation estimates where there is evidence that a market participant in the principal market would incorporate it in a transfer of the instrument. As a result, the fair value of collateralized derivatives is estimated by discounting expected future cash flows at the relevant overnight indexed swap ("OIS") rate given the underlying collateral agreement with the counterparty. Prior to the fourth quarter of 2013, JPMorgan Chase Bank, N.A. did not incorporate the impact of funding in its valuation of uncollateralized (including partially collateralized) derivatives and structured notes. However, during the fourth quarter of 2013, JPMorgan Chase Bank, N.A. implemented a funding valuation adjustment ("FVA") framework to incorporate its best estimate of the funding cost or benefit that a relevant market participant would consider in the transfer of an OTC derivative or structured note. As a result, JPMorgan Chase Bank, N.A. recorded a one time $1.0 billion loss in principal transactions revenue in the fourth quarter, which was recorded in the corporate & investment banking business.

The FVA framework applies to both assets and liabilities, but the adjustment in the fourth quarter largely relates to uncollateralized derivative receivables given that the impact of JPMorgan Chase Bank, N.A.'s own credit risk, which is a significant component of funding costs, is already incorporated in the valuation of liabilities through the application of debit valuation adjustment ("DVA").

Valuation model review and approval

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

JPMorgan Chase's Model Risk function within JPMorgan Chase's Model Risk and Development Group, which in turn reports to the Chief Risk Officer, reviews and approves valuation models used by JPMorgan Chase Bank, N.A. 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 JPMorgan Chase-wide 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 JPMorgan Chase Bank, N.A. to measure its more significant products/instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/instrument	Valuation methodology	Classifications in the valuation hierarchy
Securities financing agreements	Valuations are based on discounted cash flows, which consider: • Derivative features. For further information refer to the discussion of derivatives below. • Market rates for the respective maturity • Collateral	Level 2
Loans and lending-related commitments - wholesale		
Trading portfolio	Where observable market data is available, valuations are based on: • Observed market prices (circumstances are limited) • Relevant broker quotes • Observed market prices for similar instruments Where observable market data is unavailable or limited, valuations are based on discounted cash flows, which consider the following: • Yield • Lifetime credit losses • Loss severity • Prepayment speed • Servicing costs	Level 2 or 3
Loans held for investment and associated lending related commitments	Valuations are based on discounted cash flows, which consider: • Credit spreads, derived from the cost of credit default swaps ("CDS"); or benchmark credit curves developed by JPMorgan Chase Bank, N.A., 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 JPMorgan Chase Bank, N.A.'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 15 on pages 68-93 of these Consolidated Financial Statements.	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 15 on pages 68-93 of these Consolidated Financial Statements.	Predominantly level 3
Held for investment credit card receivables	Valuations are based on discounted cash flows, which consider: • Projected interest income and late fee revenue, funding, servicing and credit costs, and loan repayment rates • Estimated life of receivables (based on projected loan payment rates) • Discount rate - based on expected return on receivables • Credit costs - allowance for loan losses is considered a reasonable proxy for the credit cost based on the short-term nature of credit card receivables	Level 3
Trading loans - Conforming residential mortgage loans expected to be sold	Fair value is based upon observable prices for mortgage-backed securities with similar collateral and incorporates adjustments to these prices to account for differences between the securities and the value of the underlying loans, which include credit characteristics, portfolio composition, and liquidity.	Predominantly level 2

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Securities	Quoted market prices are used where available.	Level 1
	In the absence of quoted market prices, securities are valued based on: • Observable market prices for similar securities • Relevant broker quotes • Discounted cash flows In addition, the following inputs to discounted cash flows are used for the following products: *Mortgage- and asset-backed securities specific inputs:* • Collateral characteristics • Deal-specific payment and loss allocations • Current market assumptions related to yield, prepayment speed, conditional default rates and loss severity *Collateralized loan obligations ("CLOs"), specific inputs:* • Collateral characteristics • Deal-specific payment and loss allocations • Expected prepayment speed, conditional default rates, loss severity • Credit spreads • Credit rating data	Level 2 or 3
Physical commodities	Valued using observable market prices or data	Predominantly Level 1 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 that are valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models, that use observable or unobservable valuation inputs (e.g., plain vanilla options and interest rate and credit default swaps). Inputs include: • Contractual terms including the period to maturity • Readily observable parameters including interest rates and volatility • Credit quality of the counterparty and of JPMorgan Chase Bank, N.A. • Market funding levels • Correlation levels In addition, the following specific inputs are used for the following derivatives that are valued based on models with significant unobservable inputs: *Structured credit derivatives specific inputs include:* • CDS spreads and recovery rates • Credit correlation between the underlying debt instruments (levels are modeled on a transaction basis and calibrated to liquid benchmark tranche indices) • Actual transactions, where available, are used to regularly recalibrate unobservable parameters *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 • Cross commodity correlation Adjustments to reflect counterparty credit quality (credit valuation adjustments or "CVA"), JPMorgan Chase Bank, N.A.'s own creditworthiness (debit valuation adjustments or "DVA"), and FVA to incorporate the impact of funding.	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 18 on pages 108-111 of these Consolidated Financial Statements.	Level 3
Retained interests in credit card securitizations	*Valuations are based on discounted cash flows, which consider:* • Expected credit losses • Average payment rate • Yield	Level 3
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 • JPMorgan Chase Bank, N.A.'s own creditworthiness (DVA)	Predominantly level 2
Structured notes (included in deposits, other borrowed funds and long-term debt)	• Valuations are based on discounted cash flow analyses that consider the embedded derivative and the terms and payment structure of the note. • The embedded derivative features are considered using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that use observable or unobservable valuation inputs, depending on the embedded derivative. The specific inputs used vary according to the nature of the embedded derivative features, as described in the discussion above regarding derivative valuation. Adjustments are then made to this base valuation to reflect JPMorgan Chase Bank, N.A.'s own credit risk (DVA) and to incorporate the impact of funding (FVA).	Level 2 or 3

The following table presents the asset and liabilities measured at fair value as of December 31, 2013 and 2012 by major product category and fair value hierarchy.

Asset and liabilities measured at fair value on a recurring basis

	Fair value hierarchy				
December 31, 2013 (in millions)	Level 1	Level 2	Level 3	Netting adjustments	Total fair value
Federal funds sold and securities purchased under resale agreements	$ —	$ 13,002	$ —	$ —	$ 13,002
Securities borrowed	—	3,739	—	—	3,739
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies[a]	—	2	912	—	914
Residential – nonagency	—	877	273	—	1,150
Commercial – nonagency	—	206	89	—	295
Total mortgage-backed securities	—	1,085	1,274	—	2,359
U.S. Treasury and government agencies[a]	9,501	21	—	—	9,522
Obligations of U.S. states and municipalities	—	3,912	75	—	3,987
Certificates of deposit, bankers' acceptances and commercial paper	—	254	—	—	254
Non-U.S. government debt securities	26,619	22,322	143	—	49,084
Corporate debt securities	—	15,652	5,631	—	21,283
Loans	—	17,291	10,476	—	27,767
Asset-backed securities	—	440	283	—	723
Total debt instruments	36,120	60,977	17,882	—	114,979
Equity securities	65,924	200	145	—	66,269
Physical commodities[b]	4,952	2,383	—	—	7,335
Other	—	4,872	1,996	—	6,868
Total debt and equity instruments[c]	106,996	68,432	20,023	—	195,451
Derivative receivables:					
Interest rate	199	849,501	5,375	(828,295)	26,780
Credit	—	79,940	3,785	(82,003)	1,722
Foreign exchange	416	151,585	1,637	(136,577)	17,061
Equity	—	43,775	7,179	(38,862)	12,092
Commodity	320	29,323	213	(23,139)	6,717
Total derivative receivables[d]	935	1,154,124	18,189	(1,108,876)	64,372
Total trading assets	107,931	1,222,556	38,212	(1,108,876)	259,823
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies[a]	—	77,815	—	—	77,815
Residential – nonagency	—	61,761	709	—	62,470
Commercial – nonagency	—	14,916	483	—	15,399
Total mortgage-backed securities	—	154,492	1,192	—	155,684
U.S. Treasury and government agencies[a]	8,992	297	—	—	9,289
Obligations of U.S. states and municipalities	—	26,229	—	—	26,229
Certificates of deposit	—	1,041	—	—	1,041
Non-U.S. government debt securities	25,648	30,599	—	—	56,247
Corporate debt securities	—	21,509	—	—	21,509
Asset-backed securities:					
Collateralized loan obligations	—	27,409	821	—	28,230
Other	—	12,208	191	—	12,399
Equity securities	291	—	—	—	291
Total available-for-sale securities	34,931	273,784	2,204	—	310,919
Loans	—	80	1,102	—	1,182
Mortgage servicing rights	—	—	9,614	—	9,614
Other assets	4	—	6,562	—	6,566
Total assets measured at fair value on a recurring basis	$ 142,866	$ 1,513,161[e]	$ 57,694[e]	$ (1,108,876)	$ 604,845
Deposits	$ —	$ 4,369	$ 2,255	$ —	$ 6,624
Federal funds purchased and securities loaned or sold under repurchase agreements	—	5,120	—	—	5,120
Other borrowed funds	—	5,601	1,467	—	7,068
Trading liabilities:					
Debt and equity instruments[c]	44,750	10,985	89	—	55,824
Derivative payables:					
Interest rate	123	821,292	3,487	(811,652)	13,250
Credit	—	79,039	3,697	(80,121)	2,615
Foreign exchange	434	156,688	3,070	(144,178)	16,014
Equity	—	44,714	8,013	(38,094)	14,633
Commodity	398	29,144	308	(22,767)	7,083
Total derivative payables[d]	955	1,130,877	18,575	(1,096,812)	53,595
Total trading liabilities	45,705	1,141,862	18,664	(1,096,812)	109,419
Accounts payable and other liabilities	—	—	25	—	25
Beneficial interests issued by consolidated VIEs	—	—	40	—	40
Long-term debt	—	9,410	6,617	—	16,027
Total liabilities measured at fair value on a recurring basis	$ 45,705	$ 1,166,362	$ 29,068	$ (1,096,812)	$ 144,323

December 31, 2012 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Netting adjustments	Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 14,335	$ –	$ –	$ 14,335
Securities borrowed	–	10,177	–	–	10,177
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies[(a)]	–	45	438	–	483
Residential – nonagency	–	710	152	–	862
Commercial – nonagency	–	695	82	–	777
Total mortgage-backed securities	–	1,450	672	–	2,122
U.S. Treasury and government agencies[(a)(f)]	6,705	29	–	–	6,734
Obligations of U.S. states and municipalities	–	8,364	308	–	8,672
Certificates of deposit, bankers' acceptances and commercial paper	–	1,068	–	–	1,068
Non-U.S. government debt securities[(f)]	28,026	43,973	67	–	72,066
Corporate debt securities[(f)]	–	22,934	5,082	–	28,016
Loans	–	30,463	8,583	–	39,046
Asset-backed securities	–	844	1,788	–	2,632
Total debt instruments	34,731	109,125	16,500	–	160,356
Equity securities	71,365	711	253	–	72,329
Physical commodities[(b)]	10,048	2,173	–	–	12,221
Other	–	2,915	825	–	3,740
Total debt and equity instruments[(c)]	116,144	114,924	17,578	–	248,646
Derivative receivables:					
Interest rate[(f)]	140	1,293,540	6,589	(1,262,501)	37,768
Credit	–	93,832	6,512	(98,575)	1,769
Foreign exchange[(f)]	450	143,260	3,042	(132,654)	14,098
Equity[(f)]	–	37,841	4,922	(33,413)	9,350
Commodity[(f)]	316	33,799	402	(27,035)	7,482
Total derivative receivables[(d)]	906	1,602,272	21,467	(1,554,178)	70,467
Total trading assets	117,050	1,717,196	39,045	(1,554,178)	319,113
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies[(a)]	–	98,388	–	–	98,388
Residential – nonagency	–	74,139	450	–	74,589
Commercial – nonagency	–	11,698	255	–	11,953
Total mortgage-backed securities	–	184,225	705	–	184,930
U.S. Treasury and government agencies[(a)(f)]	10,994	1,041	–	–	12,035
Obligations of U.S. states and municipalities	35	17,952	–	–	17,987
Certificates of deposit	–	2,783	–	–	2,783
Non-U.S. government debt securities[(f)]	29,038	34,186	–	–	63,224
Corporate debt securities	–	38,556	–	–	38,556
Asset-backed securities:					
Collateralized loan obligations	–	–	27,896	–	27,896
Other	–	13,319	–	–	13,319
Equity securities	354	28	–	–	382
Total available-for-sale securities	40,421	292,090	28,601	–	361,112
Loans	–	241	1,321	–	1,562
Mortgage servicing rights	–	–	7,614	–	7,614
Other assets	6	–	7,303	–	7,309
Total assets measured at fair value on a recurring basis	$ 157,477	$ 2,034,039[(e)]	$ 83,884[(e)]	$ (1,554,178)	$ 721,222
Deposits	$ –	$ 3,757	$ 1,976	$ –	$ 5,733
Federal funds purchased and securities loaned or sold under repurchase agreements	–	2,569	–	–	2,569
Other borrowed funds	–	5,978	1,315	–	7,293
Trading liabilities:					
Debt and equity instruments[(c)(f)]	32,798	9,352	189	–	42,339
Derivative payables:					
Interest rate[(f)]	149	1,257,931	3,939	(1,235,805)	26,214
Credit	–	95,913	4,642	(97,523)	3,032
Foreign exchange[(f)]	428	155,461	5,046	(142,011)	18,924
Equity[(f)]	–	37,249	6,957	(32,716)	11,490
Commodity[(f)]	176	36,176	552	(28,115)	8,789
Total derivative payables[(d)]	753	1,582,730	21,136	(1,536,170)	68,449
Total trading liabilities	33,551	1,592,082	21,325	(1,536,170)	110,788
Accounts payable and other liabilities	–	–	36	–	36
Beneficial interests issued by consolidated VIEs	–	6	29	–	35
Long-term debt	–	11,392	6,070	–	17,462
Total liabilities measured at fair value on a recurring basis	$ 33,551	$ 1,615,784	$ 30,751	$ (1,536,170)	$ 143,916

(a) At December 31, 2013 and 2012, included total U.S. government-sponsored enterprise obligations of $67.8 billion and $84.5 billion, respectively, which were predominantly mortgage-related.

(b) Physical commodities inventories are generally accounted for at the lower of cost or market. "Market" is a term defined in U.S. GAAP as not exceeding fair value less costs to sell ("transaction costs"). Transaction costs for JPMorgan Chase Bank, N.A.'s physical commodities inventories are either not applicable or immaterial to the value of the inventory. Therefore, market approximates fair value for JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s hedge accounting relationships, see Note 7 on pages 36–49 of these Consolidated Financial Statements. To provide consistent fair value disclosure information, all physical commodities inventories have been included in each period presented.

(c) 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").

(d) As permitted under U.S. GAAP, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. were to net such balances within level 3, the reduction in the level 3 derivative receivables and payables balances would be $7.6 billion and $7.5 billion at December 31, 2013 and 2012, respectively; this is exclusive of the netting benefit associated with cash collateral, which would further reduce the level 3 balances.

(e) Includes investments in hedge funds, private equity funds, real estate and other funds that do not have readily determinable fair values. JPMorgan Chase Bank, N.A. uses net asset value per share when measuring the fair value of these investments. At December 31, 2013 and 2012, the fair values of these investments were $237 million and $576 million, respectively, of which $218 million and $535 million, respectively were classified in level 2, and $19 million and $41 million, respectively, in level 3.

(f) The prior period amounts have been revised. This revision had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or its results of operations.

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

For the year ended December 31, 2013 and 2011, there were no significant transfers between levels 1 and 2.

During the year ended December 31, 2013, transfers from level 3 to level 2 included certain highly rated CLOs, including $27.4 billion held in JPMorgan Chase Bank, N.A.'s available-for-sale ("AFS") securities portfolio and $1.3 billion held in the trading portfolio, based on increased liquidity and price transparency; $2.0 billion of gross derivatives payables, primarily driven by an increase in observability of certain structured equity derivatives; and $1.1 billion of long-term debt, largely driven by an increase in observability of certain equity structured notes. Transfers from level 2 to level 3 included $1.3 billion of corporate debt securities in the trading portfolio largely driven by a decrease in observability for certain credit instruments.

For the year ended December 31, 2012, $86.5 billion of settled U.S. government agency mortgage-backed securities were transferred from level 1 to level 2. While the U.S. government agency mortgage-backed securities market remained highly liquid and transparent, the transfer reflected greater market price differentiation between settled securities based on certain underlying loan specific factors. There were no significant transfers from level 2 to level 1 for the year ended December 31, 2012.

For the years ended December 31, 2012 and 2011, there were no significant transfers from level 2 into level 3. For the year ended December 31, 2012, transfers from level 3 into level 2 included $1.6 billion of derivative payables based on increased observability of certain structured equity derivatives; and 1.2 billion of long-term debt due to increased observability of certain equity structured notes. For the year ended December 31, 2011, transfers from level 3 into level 2 included $2.2 billion of long-term debt due to a decrease in valuation uncertainty of certain structured notes.

All transfers are assumed to occur at the beginning of the quarterly reporting period in which they occur.

During 2012 the liquidity for certain collateralized loan obligations increased and price transparency improved. Accordingly, JPMorgan Chase Bank, N.A. incorporated a revised valuation model into its valuation process for CLOs to better calibrate to market data where available. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s CLO positions. As previously described, a portion of the CLOs that were subject to the revised valuation model (namely certain highly rated CLOs) were transferred from level 3 to level 2 of the fair value hierarchy during the year ended December 31, 2013.

Level 3 valuations

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s valuation process and a detailed discussion of the determination of fair value for individual financial instruments, see pages 15–18 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 JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A.'s creditworthiness, the impact of funding, constraints on liquidity and unobservable parameters, where relevant. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole.

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

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

Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value. In JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. at each balance sheet date.

For JPMorgan Chase Bank, N.A.'s derivatives and structured notes positions classified within level 3, the equity and interest rate correlation inputs used in estimating fair value were concentrated at the upper end of the range presented, while the credit correlation inputs were distributed across the range presented and the foreign exchange correlation inputs were concentrated at the lower end of the range presented. In addition, the interest rate volatility inputs used in estimating fair value were concentrated at the upper end of the range presented, while equity volatilities were concentrated at the lower end of the range. The cross commodity correlation used in estimating the fair value of commodity derivatives were concentrated within the lower end of the range presented.

Level 3 inputs[a]

December 31, 2013 (in millions, except for ratios and basis points)

Product/Instrument	Fair value	Principal valuation technique	Unobservable inputs	Range of input values	Weighted average
Residential mortgage-backed securities and loans	$ 7,807	Discounted cash flows	Yield	4 % - 11%	7%
			Prepayment speed	0 % - 14%	7%
			Conditional default rate	0 % - 100%	25%
			Loss severity	0 % - 36%	12%
Commercial mortgage-backed securities and loans[b]	787	Discounted cash flows	Yield	6 % - 29%	21%
			Conditional default rate	0 % - 2%	0%
			Loss severity	0 % - 40%	18%
Corporate debt securities, obligations of U.S. states and municipalities, and other[c]	10,455	Discounted cash flows	Credit spread	88 bps - 255 bps	155 bps
			Yield	5 % - 29%	10%
	4,028	Market comparables	Price	3 - 115	96
Net interest rate derivatives	1,888	Option pricing	Interest rate correlation	(75)% - 95%	
			Interest rate spread volatility	0 % - 60%	
Net credit derivatives[b][c]	88	Discounted cash flows	Credit correlation	34 % - 82%	
Net foreign exchange derivatives	(1,433)	Option pricing	Foreign exchange correlation	45 % - 75%	
Net equity derivatives	(834)	Option pricing	Equity volatility	20 % - 55%	
Net commodity derivatives	(95)	Option pricing	Cross commodity correlation	20 % - 100%	
Collateralized loan obligations	821	Discounted cash flows	Credit spread	214 bps - 575 bps	234 bps
			Prepayment speed	20%	20%
			Conditional default rate	2%	2%
			Loss severity	40%	40%
	79	Market comparables	Price	0 - 106	67
Mortgage servicing rights ("MSRs")	9,614	Discounted cash flows	Refer to Note 18 on pages 108–111 of these Consolidated Financial Statements.		
Retained interests in credit card securitization trusts	5,914	Discounted cash flows	Refer to Note 17 on pages 98–108 of these Consolidated Financial Statements.		
Long-term debt, other borrowed funds, and deposits[d]	9,331	Option pricing	Interest rate correlation	(75)% - 95%	
			Foreign exchange correlation	0 % - 50%	
			Equity correlation	(50)% - 85%	
	1,008	Discounted cash flows	Credit correlation	34 % - 82%	

(a) The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the Consolidated Balance Sheets.

(b) The unobservable inputs and associated input ranges for approximately $735 million of credit derivative receivables and $644 million of credit derivative payables with underlying mortgage risk have been included in the inputs and ranges provided for commercial mortgage-backed securities and loans.

(c) The unobservable inputs and associated input ranges for approximately $1.0 billion of credit derivative receivables and $890 million of credit derivative payables with underlying asset-backed securities risk have been included in the inputs and ranges provided for corporate debt securities, obligations of U.S. states and municipalities and other.

(d) Long-term debt, other borrowed funds and deposits include structured notes issued by JPMorgan Chase Bank, N.A. that are predominantly financial instruments containing embedded derivatives. The estimation of the fair value of structured notes is predominantly based on the derivative features embedded within the instruments. The significant unobservable inputs are broadly consistent with those presented for derivative receivables.

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 JPMorgan Chase Bank, N.A.'s positions.

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

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

The yield and the credit spread of a particular mortgage-backed security primarily reflect the risk inherent in the instrument. The yield is also impacted by the absolute level of the coupon paid by the instrument (which may not correspond directly to the level of inherent risk). Therefore, the range of yield and credit spreads reflects the range of risk inherent in various instruments owned by JPMorgan Chase Bank, N.A. The risk inherent in mortgage-backed securities is driven by the subordination of the security being valued and the characteristics of the underlying mortgages within the collateralized pool, including borrower FICO scores, loan-to-value ratios for residential mortgages and the nature of the property and/or any tenants for commercial mortgages. For corporate debt securities, obligations of U.S. states and municipalities and other similar instruments, credit spreads reflect the credit quality of the obligor and the tenor of the obligation.

Prepayment speed – The prepayment speed is a measure of the voluntary unscheduled principal repayments of a prepayable obligation in a collateralized pool. Prepayment speeds generally decline as borrower delinquencies rise. An increase in prepayment speeds, in isolation, would result in a decrease in a fair value measurement of assets valued at a premium to par and an increase in a fair value measurement of assets valued at a discount to par.

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

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

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

The loss severity applied in valuing a mortgage-backed security investment depends on a host of factors relating to the underlying mortgages. This includes the loan-to-value ratio, the nature of the lender's charge over the property and various other instrument-specific factors.

Correlation – Correlation is a measure of the relationship between the movements of two variables (e.g., how the change in one variable influences the change in the other). Correlation is a pricing input for a derivative product where the payoff is driven by one or more underlying risks. Correlation inputs are related to the type of derivative (e.g., interest rate, credit, equity, foreign exchange and

commodity) due to the nature of the underlying risks. When parameters are positively correlated, an increase in one parameter will result in an increase in the other parameter. When parameters are negatively correlated, an increase in one parameter will result in a decrease in the other parameter. An increase in correlation can result in an increase or a decrease in a fair value measurement. Given a short correlation position, an increase in correlation, in isolation, would generally result in a decrease in a fair value measurement. Correlation inputs between risks within the same asset class are generally narrower than those between underlying risks across asset classes. In addition, the ranges of credit correlation inputs tend to be narrower than those affecting other asset classes.

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

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

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

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 JPMorgan Chase Bank, N.A. within level 3 of the fair value hierarchy for the years ended December 31, 2013, 2012 and 2011. When a determination is made to classify a financial instrument within level 3, the determination is based on the significance of the unobservable parameters to the overall fair value measurement. However, level 3 financial instruments typically include, in addition to the unobservable or level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, JPMorgan Chase Bank, N.A. risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains and losses in the following tables do not reflect the effect of JPMorgan Chase Bank, N.A.'s risk management activities related to such level 3 instruments.

Year ended December 31, 2013 (in millions)	Fair value measurements using significant unobservable inputs							
	Fair value at January 1, 2013	Total realized/ unrealized gains/ (losses)	Purchases[g]	Sales	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2013	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2013
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	$ 438	$ 194	$ 734	$ (347)	$ (107)	$ –	$ 912	$ 194
Residential – nonagency	152	77	167	(107)	(11)	(5)	273	52
Commercial – nonagency	82	10	156	(138)	(21)	–	89	3
Total mortgage-backed securities	672	281	1,057	(592)	(139)	(5)	1,274	249
Obligations of U.S. states and municipalities	308	53	6	(25)	(267)	–	75	3
Non-U.S. government debt securities	67	4	1,448	(1,479)	(7)	110	143	(4)
Corporate debt securities	5,082	206	7,498	(5,867)	(1,781)	493	5,631	463
Loans	8,583	124	10,304	(6,537)	(1,736)	(262)	10,476	(8)
Asset-backed securities	1,788	71	288	(520)	(96)	(1,248)	283	49
Total debt instruments	16,500	739	20,601	(15,020)	(4,026)	(912)	17,882	752
Equity securities	253	(49)	133	(114)	(59)	(19)	145	64
Other	825	860	837	(207)	(448)	129	1,996	1,085
Total trading assets – debt and equity instruments	17,578	1,550 [c]	21,571	(15,341)	(4,533)	(802)	20,023	1,901 [c]
Net derivative receivables:[a]								
Interest rate	2,650	1,436	347	(186)	(2,349)	(10)	1,888	267
Credit	1,870	(1,697)	115	(12)	(365)	177	88	(1,455)
Foreign exchange	(2,004)	(49)	4	(3)	650	(31)	(1,433)	157
Equity	(2,035)	2,645	3,091	(3,953)	(1,079)	497	(834)	859
Commodity	(150)	192	59	(3)	(190)	(3)	(95)	79
Total net derivative receivables	331	2,527 [c]	3,616	(4,157)	(3,333)	630	(386)	(93) [c]
Available-for-sale securities:								
Asset-backed securities	27,896	(1)	579	–	(57)	(27,405)	1,012	(1)
Other	705	14	508	(17)	(48)	30	1,192	25
Total available-for-sale securities	28,601	13 [d]	1,087	(17)	(105)	(27,375)	2,204	24 [d]
Loans	1,321	80 [c]	820	(97)	(1,022)	–	1,102	20 [c]
Mortgage servicing rights	7,614	1,610 [e]	2,216	(725)	(1,101)	–	9,614	1,610 [e]
Other assets	7,303	(123) [f]	41	(4,111)	3,452	–	6,562	(134) [f]

Year ended December 31, 2013 (in millions)	Fair value measurements using significant unobservable inputs								
	Fair value at January 1, 2013	Total realized/ unrealized (gains)/ losses	Purchases[g]	Sales	Issuances	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2013	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2013
Liabilities:[b]									
Deposits	$ 1,976	$ (82) [c]	$ –	$ –	$ 1,234	$ (201)	$ (672)	$ 2,255	$ (88) [c]
Other borrowed funds	1,315	(134) [c]	–	–	6,399	(6,530)	417	1,467	281 [c]
Trading liabilities – debt and equity instruments	189	(82) [c]	(2,373)	2,552	–	(52)	(145)	89	(102) [c]
Accounts payable and other liabilities	36	(2) [f]	–	–	–	(9)	–	25	(2) [f]
Beneficial interests issued by consolidated VIEs	29	11 [c]	–	–	–	–	–	40	11 [c]
Long-term debt	6,070	110 [c]	–	–	4,884	(4,037)	(410)	6,617	39 [c]

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	$ –	$ (15)	$ 556	$ (87)	$ (16)	$ –	$ 438	$ (15)
Residential – nonagency	192	47	96	(148)	(12)	(23)	152	32
Commercial – nonagency	110	6	92	(91)	(26)	(9)	82	(6)
Total mortgage-backed securities	302	38	744	(326)	(54)	(32)	672	11
Obligations of U.S. states and municipalities	300	7	36	(32)	(3)	–	308	(6)
Non-U.S. government debt securities	104	(6)	653	(660)	(24)	–	67	(5)
Corporate debt securities	6,061	483	8,311	(6,169)	(3,182)	(422)	5,082	937
Loans	10,257	334	4,327	(2,823)	(2,978)	(534)	8,583	242
Asset-backed securities	6,167	187	595	(4,655)	(497)	(9)	1,788	165
Total debt instruments	23,191	1,043	14,666	(14,665)	(6,738)	(997)	16,500	1,344
Equity securities	209	(241)	315	(74)	16	28	253	(120)
Other	700	163	58	(79)	(17)	–	825	169
Total trading assets – debt and equity instruments	24,100	965 [c]	15,039	(14,818)	(6,739)	(969)	17,578	1,393 [c]
Net derivative receivables:[a]								
Interest rate	2,616	6,806	416	(199)	(6,739)	(250)	2,650	491
Credit	7,728	(4,488)	124	(84)	(1,414)	4	1,870	(3,271)
Foreign exchange	(1,534)	(720)	115	(184)	371	(52)	(2,004)	(692)
Equity	(3,989)	72	1,814	(2,953)	1,594	1,427	(2,035)	127
Commodity	(791)	(151)	(12)	36	499	269	(150)	27
Total net derivative receivables	4,030	1,519 [c]	2,457	(3,384)	(5,689)	1,398	331	(3,318) [c]
Available-for-sale securities:								
Asset-backed securities	24,745	118	9,280	(3,265)	(3,098)	116	27,896	118
Other	340	52	667	(113)	(241)	–	705	59
Total available-for-sale securities	25,085	170 [d]	9,947	(3,378)	(3,339)	116	28,601	177 [d]
Loans	175	15 [c]	1,228	(22)	(194)	119	1,321	11 [c]
Mortgage servicing rights	7,223	(635) [e]	2,833	(579)	(1,228)	–	7,614	(635) [e]
Other assets	6,791	(138) [f]	79	(5,793)	6,364	–	7,303	(143) [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]	$ –	$ –	$ 1,229	$ (380)	$ (503)	$ 1,976	$ 185 [c]
Other borrowed funds	1,153	176 [c]	–	–	1,375	(1,406)	17	1,315	162 [c]
Trading liabilities – debt and equity instruments	155	(15) [c]	(2,834)	2,939	–	(51)	(5)	189	(10) [c]
Accounts payable and other liabilities	51	1 [f]	–	–	–	(16)	–	36	1 [f]
Beneficial interests issued by consolidated VIEs	–	3 [c]	–	–	26	–	–	29	3 [c]
Long-term debt	6,456	316 [c]	–	–	2,949	(2,797)	(854)	6,070	(221) [c]

	Fair value measurements using significant unobservable inputs							
Year ended December 31, 2011 (in millions)	Fair value at January 1, 2011	Total realized/ unrealized gains/ (losses)	Purchases[g]	Sales	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2011	Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2011
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Residential – nonagency	187	70	125	(97)	(50)	(43)	192	12
Commercial – nonagency	200	8	215	(259)	(54)	–	110	–
Total mortgage-backed securities	387	78	340	(356)	(104)	(43)	302	12
Obligations of U.S. states and municipalities	244	(12)	78	(5)	(5)	–	300	(12)
Non-U.S. government debt securities	202	35	552	(531)	(80)	(74)	104	38
Corporate debt securities	4,844	(162)	7,893	(5,894)	(796)	176	6,061	31
Loans	10,423	(114)	4,506	(2,720)	(1,602)	(236)	10,257	36
Asset-backed securities	6,368	60	2,238	(2,241)	(277)	19	6,167	(189)
Total debt instruments	22,468	(115)	15,607	(11,747)	(2,864)	(158)	23,191	(84)
Equity securities	344	(2)	105	(98)	(44)	(96)	209	26
Other	750	41	18	(37)	(72)	–	700	69
Total trading assets – debt and equity instruments	23,562	(76) [c]	15,730	(11,882)	(2,980)	(254)	24,100	11 [c]
Net derivative receivables:[a]								
Interest rate	2,189	5,129	521	(218)	(4,302)	(703)	2,616	1,390
Credit	5,340	2,273	22	(13)	125	(19)	7,728	2,772
Foreign exchange	(636)	(1,969)	171	5	688	207	(1,534)	(1,889)
Equity	(2,701)	(14)	803	(1,873)	(249)	45	(3,989)	(459)
Commodity	(757)	196	126	(61)	(354)	59	(791)	(165)
Total net derivative receivables	3,435	5,615 [c]	1,643	(2,160)	(4,092)	(411)	4,030	1,649 [c]
Available-for-sale securities:								
Asset-backed securities	13,470	(108)	15,268	(1,388)	(2,497)	–	24,745	(106)
Other	323	(2)	56	(11)	(26)	–	340	8
Total available-for-sale securities	13,793	(110) [d]	15,324	(1,399)	(2,523)	–	25,085	(98) [d]
Loans	551	(8) [c]	55	(9)	(414)	–	175	(22) [c]
Mortgage servicing rights	13,440	(7,133) [e]	2,816	–	(1,900)	–	7,223	(7,133) [e]
Other assets	8,126	25 [f]	75	(710)	(725)	–	6,791	14 [f]

	Fair value measurements using significant unobservable inputs								
Year ended December 31, 2011 (in millions)	Fair value at January 1, 2011	Total realized/ unrealized (gains)/ losses	Purchases[g]	Sales	Issuances	Settlements	Transfers into and/or out of level 3[h]	Fair value at Dec. 31, 2011	Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2011
Liabilities:[b]									
Deposits	$ 773	$ 15 [c]	$ –	$ –	$ 441	$ (394)	$ 583	$ 1,418	$ 4 [c]
Other borrowed funds	1,133	(239) [c]	–	–	1,443	(808)	(376)	1,153	(83) [c]
Trading liabilities – debt and equity instruments	2	22 [c]	(341)	577	–	(109)	4	155	2 [c]
Accounts payable and other liabilities	127	5 [f]	–	–	–	(81)	–	51	5 [f]
Beneficial interests issued by consolidated VIEs	175	57 [c]	–	–	–	(232)	–	–	– [c]
Long-term debt	9,558	121 [c]	–	–	1,872	(2,997)	(2,098)	6,456	111 [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 JPMorgan Chase Bank, N.A. liabilities accounted for at fair value (including liabilities measured at fair value on a nonrecurring basis) were 20%, 21% and 24% at December 31, 2013, 2012 and 2011, respectively.
(c) Predominantly reported in principal transactions revenue, except for changes in fair value for mortgage loans, lending-related commitments originated with the intent to sell, and mortgage loan purchase commitments within the consumer & community banking business, 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 $4.8 million, $126 million, and $(242) million for the years ended December 31, 2013, 2012 and 2011, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were $7.8 million, $44 million and $132 million for the years ended December 31, 2013, 2012 and 2011, respectively.
(e) Changes in fair value for the consumer & community banking business's mortgage servicing rights are reported in mortgage fees and related income.
(f) Largely reported in other income.
(g) Loan originations are included in purchases.
(h) All transfers into and/or out of level 3 are assumed to occur at the beginning of the quarterly reporting period in which they occur.

Level 3 analysis

Consolidated Balance Sheets changes

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were 3.2% of total JPMorgan Chase Bank, N.A. assets and 10.3% of total assets measured at fair value at December 31, 2013, compared with 4.6% and 12.1%, respectively, at December 31, 2012. The following describes significant changes to level 3 assets since December 31, 2012, for those items measured at fair value on a recurring basis. For further information on changes impacting items measured at fair value on a nonrecurring basis, see Assets and liabilities measured at fair value on a nonrecurring basis on page 30 of these Consolidated Financial Statements.

For the year ended December 31, 2013

Level 3 assets were $57.7 billion at December 31, 2013, reflecting a decrease of $26.2 billion from December 31, 2012, due to the following:

- $26.9 billion decrease in asset-backed AFS securities, predominantly driven by transfers of highly rated CLOs from level 3 into level 2 during the year ended 2013, based on increased liquidity and price transparency;
- $3.3 billion decrease in gross derivative receivables, predominantly driven by a $2.7 billion decrease from the impact of tightening reference entity credit spreads and risk reductions of credit derivatives, $1.4 billion decrease in foreign exchange derivatives due to market movements, and $1.2 billion decrease in interest rate derivatives due to the increase in interest rates, partially offset by $2.3 billion increase in equity derivatives due to client-driven market-making activity; and

  The decreases above are partially offset by:

- $2.0 billion increase in MSRs. For further discussion of the change, refer to Note 18 on pages 108–111 of these Consolidated Financial Statements; and
- $2.4 billion increase in trading assets – debt and equity instruments, largely driven by net purchases of trading loans, new client-driven financing transactions, and partially offset by transfers of highly rated CLOs from level 3 to into level 2 during the year ended 2013, based on increased liquidity and price transparency.

Gains and Losses

The following describes significant components of total realized/unrealized gains/(losses) for instruments measured at fair value on a recurring basis for the years ended 2013, 2012 and 2011. For further information on these instruments, see Changes in level 3 recurring fair value measurements rollforward tables on pages 25–28 of these Consolidated Financial Statements.

2013

- $2.5 billion of net gains on derivatives, largely driven by $2.6 billion of gains on equity derivatives, primarily related to client-driven market-making activity and a rise in equity markets; and $1.4 billion of gains, predominantly on interest rate lock and mortgage loan purchase commitments; partially offset by $1.7 billion of losses on credit derivatives from the impact of tightening reference entity credit spreads;
- $1.6 billion of net gains on trading assets debt and equity instruments, predominantly driven by the impact of market movements on client-driven financing transactions, mortgage-backed securities and corporate debt securities; and
- $1.6 billion of net gains on MSRs. For further discussion of the change, refer to Note 18 on pages 108–111 of these Consolidated Financial Statements.

2012

- $1.0 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
- $1.5 billion of net gains on derivatives, driven by $6.8 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 18 on pages 108–111 of these Consolidated Financial Statements; and
- $5.6 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.

Assets and liabilities measured at fair value on a nonrecurring basis

At December 31, 2013 and 2012, assets measured at fair value on a nonrecurring basis were $5.8 billion and $4.7 billion, respectively, comprised predominantly of loans. At December 31, 2013, $339 million and $5.4 billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. At December 31, 2012, $667 million and $4.0 billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. Liabilities measured at fair value on a nonrecurring basis were not significant at December 31, 2013 and 2012. For the years ended December 31, 2013, 2012 and 2011, there were no significant transfers between levels 1, 2, and 3.

Of the $5.8 billion of assets measured at fair value on a nonrecurring basis, $3.6 billion related to trade finance loans that were reclassified to held-for-sale during the fourth quarter of 2013 and subject to a lower of cost or fair value adjustment. These loans were classified as level 3, as they are valued based on the indicative pricing received from external investors, which ranged from a spread of 30 bps to 78 bps, with a weighted average of 60 bps.

At December 31, 2013, assets measured at fair value on a nonrecurring basis also included $1.5 billion related to residential real estate loans measured at the net realizable value of the underlying collateral (i.e., collateral-dependent loans and other loans charged off in accordance with regulatory guidance). These amounts are classified as level 3, as they are valued using a broker's price opinion and discounted based upon JPMorgan Chase Bank, N.A.'s experience with actual liquidation values. These discounts to the broker price opinions ranged from 17% to 62%, with a weighted average of 29%.

The total change in the value of assets and liabilities for which a fair value adjustment has been included in the Consolidated Statements of Income for the years ended December 31, 2013, 2012 and 2011, related to financial instruments held at those dates were losses of $678 million, $1.5 billion and $2.0 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 15 on page 77 of these Consolidated Financial Statements.

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 15 on pages 68–93 of these Consolidated Financial Statements.

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 Bank, N.A.'s assets and liabilities. For example, JPMorgan Chase Bank, N.A. 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 Bank, N.A., but their fair value is not disclosed in this Note.

Financial instruments for which carrying value approximates fair value

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

The following table presents the carrying values and estimated fair values at December 31, 2013 and 2012, of financial assets and liabilities, excluding financial instruments which are carried at fair value on a recurring basis, and information is provided on their classification within the fair value hierarchy. For additional information regarding the financial instruments within the scope of this disclosure, and the methods and significant assumptions used to estimate their fair value, see pages 15–18 of this Note.

	December 31, 2013					December 31, 2012				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value
Financial assets										
Cash and due from banks	**$ 39.0**	**$ 39.0**		**$ –**	**$ 39.0**	$ 52.7	$ 52.7	$ –	$ –	$ 52.7
Deposits with banks	**308.2**	**301.2**	**7.0**	**–**	**308.2**	118.4	110.0	8.4	–	118.4
Accrued interest and accounts receivable	**47.1**	**–**	**46.8**	**0.3**	**47.1**	43.5	–	43.2	0.3	43.5
Federal funds sold and securities purchased under resale agreements	**171.5**	**–**	**171.5**	**–**	**171.5**	215.4	–	215.4	–	215.4
Securities borrowed	**36.1**	**–**	**36.1**	**–**	**36.1**	45.4	–	45.4	–	45.4
Securities, held-to-maturity[(a)]	**24.0**	**–**	**23.7**	**–**	**23.7**	–	–	–	–	–
Loans, net of allowance for loan losses[(b)]	**617.7**	**–**	**26.0**	**590.6**	**616.6**	604.5	–	29.5	576.0	605.5
Other	**37.4**	**–**	**35.1**	**2.8**	**37.9**	35.0	–	30.2	5.0	35.2
Financial liabilities										
Deposits	**$ 1,319.4**	**$ –**	**$ 1,318.3**	**$ 1.2**	**$ 1,319.5**	$ 1,240.6	$ –	$ 1,239.4	$ 1.2	$ 1,240.6
Federal funds purchased and securities loaned or sold under repurchase agreements	**107.5**	**–**	**107.5**	**–**	**107.5**	156.0	–	156.0	–	156.0
Other borrowed funds	**20.4**	**–**	**20.4**	**–**	**20.4**	14.5	–	14.5	–	14.5
Accounts payable and other liabilities	**53.8**	**–**	**52.4**	**1.4**	**53.8**	54.1	–	52.2	1.8	54.0
Beneficial interests issued by consolidated VIEs	**19.7**	**–**	**17.5**	**2.2**	**19.7**	28.5	–	25.8	2.7	28.5
Long-term debt and junior subordinated deferrable interest debentures[(c)]	**90.3**	**–**	**83.7**	**6.0**	**89.7**	83.1	–	76.4	5.4	81.8

(a) Carrying value includes unamortized discount or premium.
(b) Fair value is typically estimated using a discounted cash flow model that incorporates the characteristics of the underlying loans (including principal, contractual interest rate and contractual fees) and other key inputs, including expected lifetime credit losses, interest rates, prepayment rates, and primary origination or secondary market spreads. For certain loans, the fair value is measured based on the value of the underlying collateral. The difference between the estimated fair value and carrying value of a financial asset or liability is the result of the different methodologies used to determine fair value as compared with carrying value. For example, credit losses are estimated for a financial asset's remaining life in a fair value calculation but are estimated for a loss emergence period in the allowance for loan loss calculation; future loan income (interest and fees) is incorporated in a fair value calculation but is generally not considered in the allowance for loan losses. For a further discussion of JPMorgan Chase Bank, N.A.'s methodologies for estimating the fair value of loans and lending-related commitments, see Valuation hierarchy on pages 15–18 of these Consolidated Financial Statements.
(c) Carrying value includes unamortized original issue discount and other valuation adjustments.

The majority of JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s wholesale lending-related commitments were as follows for the periods indicated.

	December 31, 2013					December 31, 2012				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value[(a)]	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value[(a)]	Level 1	Level 2	Level 3	Total estimated fair value
Wholesale lending-related commitments	**$ 0.7**	**$ –**	**$ –**	**$ 1.0**	**$ 1.0**	$ 0.6	$ –	$ –	$ 1.9	$ 1.9

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

JPMorgan Chase Bank, N.A. does not estimate the fair value of consumer lending-related commitments. In many cases, JPMorgan Chase Bank, N.A. 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 16 of this Note.

Trading assets and liabilities

Trading assets include debt and equity instruments owned by JPMorgan Chase Bank, N.A. ("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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. has sold to other parties but does not own ("short" positions). JPMorgan Chase Bank, N.A. is obligated to purchase instruments at a future date to cover the short positions. Included in trading assets and trading liabilities are the reported receivables (unrealized gains) and payables (unrealized losses) related to derivatives. Trading assets and liabilities are carried at fair value on the Consolidated Balance Sheets. Balances reflect the reduction of securities owned (long positions) by the amount of identical securities sold but not yet purchased (short positions).

Trading assets and liabilities – average balances

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

Year ended December 31, (in millions)	**2013**	2012	2011
Trading assets – debt and equity instruments	**$ 217,809**	$ 230,907	$ 278,942
Trading assets – derivative receivables	**68,400**	78,924	80,814
Trading liabilities – debt and equity instruments[(a)]	**52,633**	48,044	56,615
Trading liabilities – derivative payables	**60,379**	78,783	74,867

(a) Primarily represent securities sold, not yet purchased.

Note 5 – 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 JPMorgan Chase Bank, N.A. 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 corporate & investment banking business's client-driven activities. (Structured notes are predominantly financial instruments that contain embedded derivatives.)
- Long-term beneficial interests issued by corporate & investment banking business'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, 2013, 2012 and 2011, for items for which the fair value option was elected. The profit and loss information presented below only includes the financial instruments that were elected to be measured at fair value; related risk management instruments, which are required to be measured at fair value, are not included in the table.

	2013			2012			2011		
December 31, (in millions)	Principal transactions	Other income	Total changes in fair value recorded	Principal transactions	Other income	Total changes in fair value recorded	Principal transactions	Other income	Total changes in fair value recorded
Federal funds sold and securities purchased under resale agreements	**$ (324)**	**$ –**	**$ (324)**	$ 2	$ –	$ 2	$ 260	$ –	$ 260
Securities borrowed	**10**	**–**	**10**	10	–	10	(61)	–	(61)
Trading assets:									
Debt and equity instruments, excluding loans	**274**	**7** [c]	**281**	398	7 [c]	405	(25)	(6) [c]	(31)
Loans reported as trading assets:									
Changes in instrument-specific credit risk	**829**	**23** [c]	**852**	1,078	81 [c]	1,159	411	(174) [c]	237
Other changes in fair value	**(239)**	**1,833** [c]	**1,594**	(185)	7,670 [c]	7,485	127	5,263 [c]	5,390
Loans:									
Changes in instrument-specific credit risk	**22**	**–**	**22**	(35)	–	(35)	13	–	13
Other changes in fair value	**23**	**–**	**23**	3	–	3	19	–	19
Other assets	**–**	**(144)** [d]	**(144)**	–	(158) [d]	(158)	(49)	(6) [d]	(55)
Deposits[a]	**260**	**–**	**260**	(197)	–	(197)	(238)	–	(238)
Federal funds purchased and securities loaned or sold under repurchase agreements	**59**	**–**	**59**	(21)	–	(21)	(6)	–	(6)
Other borrowed funds[a]	**941**	**–**	**941**	361	–	361	3,161	–	3,161
Trading liabilities	**(46)**	**–**	**(46)**	(41)	–	(41)	(57)	–	(57)
Beneficial interests issued by consolidated VIEs	**(15)**	**–**	**(15)**	(4)	–	(4)	(56)	–	(56)
Other liabilities	**–**	**2** [d]	**2**	–	–	–	–	(5) [d]	(5)
Long-term debt:									
Changes in instrument-specific credit risk[a]	**(271)**	**–**	**(271)**	(835)	–	(835)	926	–	926
Other changes in fair value[b]	**(68)**	**–**	**(68)**	(813)	–	(813)	(82)	–	(82)

(a) Total changes in instrument-specific credit risk related to structured notes were $(337) million, $(340) million, and $899 million for the years ended December 31, 2013, 2012 and 2011, respectively. These totals include adjustments for structured notes classified within deposits and other borrowed funds, as well as long-term debt.

(b) Structured notes are predominantly financial instruments containing embedded derivatives. Where present, the embedded derivative is the primary driver of risk. Although the risk associated with the structured notes is actively managed, the gains/(losses) reported in this table do not include the income statement impact of the risk management instruments used to manage such risk.

(c) Reported in mortgage fees and related income.

(d) Reported in other income.

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

The following describes how the gains and losses included in earnings during December 31, 2013, 2012 and 2011, which were attributable to changes in instrument-specific credit risk, were determined.

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

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

The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of December 31, 2013 and 2012, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

	2013			2012		
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	**$ 2,833**	**$ 899**	**$ (1,934)**	$ 2,414	$ 588	$ (1,826)
Loans	**7**	**3**	**(4)**	90	64	(26)
Subtotal	**2,840**	**902**	**(1,938)**	2,504	652	(1,852)
All other performing loans						
Loans reported as trading assets	**27,785**	**26,868**	**(917)**	39,052	38,458	(594)
Loans	**1,204**	**1,179**	**(25)**	1,563	1,498	(65)
Total loans	**$ 31,829**	**$ 28,949**	**$ (2,880)**	$ 43,119	$ 40,608	$ (2,511)
Long-term debt						
Principal-protected debt	**$ 3,943** (c)	**$ 3,641**	**$ (302)**	$ 4,824 (c)	$ 4,393	$ (431)
Nonprincipal-protected debt[(b)]	**NA**	**12,386**	**NA**	NA	13,069	NA
Total long-term debt	**NA**	**$ 16,027**	**NA**	NA	$ 17,462	NA
Long-term beneficial interests						
Nonprincipal-protected debt[(b)]	**NA**	**$ 40**	**NA**	NA	$ 35	NA
Total long-term beneficial interests	**NA**	**$ 40**	**NA**	NA	$ 35	NA

(a) There were no performing loans that were ninety days or more past due as of December 31, 2013 and 2012, respectively.
(b) Remaining contractual principal is not applicable to nonprincipal-protected notes. Unlike principal-protected structured notes, for which JPMorgan Chase Bank, N.A. is obligated to return a stated amount of principal at the maturity of the note, nonprincipal-protected structured notes do not obligate JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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, 2013 and 2012, the contractual amount of letters of credit for which the fair value option was elected was $4.5 billion and $4.5 billion, respectively, with a corresponding fair value of $(99) million and $(75) million, respectively. For further information regarding off-balance sheet lending-related financial instruments, see Note 27 on pages 122–128 of these Consolidated Financial Statements.

Note 6 – 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 Bank, N.A. regularly monitors various segments of its credit portfolios to assess potential concentration risks and to obtain collateral when deemed necessary. Senior management is significantly involved in the credit approval and review process, and risk levels are adjusted as needed.

In JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s wholesale exposure is accomplished through loan syndications and participations, loan sales, securitizations, credit derivatives, use of master netting agreements, and collateral and other risk-reduction techniques. For additional information on loans see Note 15 on pages 68–93 of these Consolidated Financial Statements.

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s assessment when extending credit and establishing its allowance for loan losses.

The table below presents both on–balance sheet and off–balance sheet consumer and wholesale-related credit exposure by JPMorgan Chase Bank, N.A.'s three credit portfolio segments as of December 31, 2013 and 2012.

	2013				2012			
	Credit exposure	On-balance sheet		Off-balance sheet[(b)]	Credit exposure	On-balance sheet		Off-balance sheet[(b)]
December 31, (in millions)		Loans	Derivatives			Loans	Derivatives	
Total consumer, excluding credit card	**$ 337,064**	**$ 280,995**	**$ –**	**$ 56,069**	$ 343,129	$ 282,913	$ –	$ 60,216
Total credit card	**64,794**	**30,950**	**–**	**33,844**	63,240	28,869	–	34,371
Total consumer	**401,858**	**311,945**	**–**	**89,913**	406,369	311,782	–	94,587
Wholesale-related								
Real Estate	**86,988**	**69,037**	**460**	**17,491**	76,036	60,580	1,086	14,370
Banks & Finance Cos	**66,840**	**25,456**	**18,888**	**22,496**	70,919	26,568	19,095	25,256
Oil & Gas	**45,421**	**14,215**	**875**	**30,331**	40,985	14,556	915	25,514
Healthcare	**45,078**	**12,514**	**3,202**	**29,362**	48,000	11,314	3,275	33,411
State & Municipal Govt	**33,642**	**6,901**	**3,171**	**23,570**	39,431	6,506	4,827	28,098
Consumer Products	**34,081**	**9,070**	**704**	**24,307**	32,709	9,140	792	22,777
Asset Managers	**31,423**	**5,576**	**7,173**	**18,674**	30,496	6,120	8,359	16,017
Utilities	**27,694**	**5,378**	**1,163**	**21,153**	27,724	6,395	1,467	19,862
Retail & Consumer Services	**24,876**	**7,379**	**242**	**17,255**	25,440	7,800	404	17,236
Technology	**20,358**	**4,396**	**1,392**	**14,570**	17,445	3,776	1,194	12,475
Central Govt	**21,049**	**1,754**	**9,998**	**9,297**	21,210	1,333	11,219	8,658
Machinery & Equipment Mfg	**19,070**	**5,961**	**476**	**12,633**	18,503	6,304	591	11,608
Metals/Mining	**17,429**	**5,821**	**560**	**11,048**	20,935	6,054	606	14,275
Business Services	**14,549**	**4,467**	**594**	**9,488**	13,515	4,508	190	8,817
Transportation	**13,868**	**6,769**	**621**	**6,478**	19,673	12,658	646	6,369
All other[(a)]	**309,398**	**122,871**	**14,852**	**171,675**	302,010	121,919	15,801	164,290
Subtotal	**811,764**	**307,565**	**64,371**	**439,828**	805,031	305,531	70,467	429,033
Loans held-for-sale and loans at fair value	**12,472**	**12,472**	**–**	**–**	5,968	5,968	–	–
Receivables from customers and other	**528**	**–**	**–**	**–**	668	–	–	–
Total wholesale-related	**824,764**	**320,037**	**64,371**	**439,828**	811,667	311,499	70,467	429,033
Total exposure[(c)]	**$ 1,226,622**	**$ 631,982**	**$ 64,371**	**$ 529,741**	$ 1,218,036	$ 623,281	$ 70,467	$ 523,620

(a) For more information on exposures to SPEs included within All other see Note 17 on pages 98-108 of these Consolidated Financial Statements.
(b) Represents lending-related financial instruments.
(c) For further information regarding on–balance sheet credit concentrations by major product and/or geography, see Notes 7, 15 and 16 on pages 36–49, 68–93 and 94–97, respectively, of these Consolidated Financial Statements. For information regarding concentrations of off–balance sheet lending-related financial instruments by major product, see Note 27 on pages 122–128 of these Consolidated Financial Statements.

Note 7 – 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 Bank, N.A. makes markets in derivatives for customers and also uses derivatives to hedge or manage its own risk exposures. Predominantly all of JPMorgan Chase Bank, N.A.'s derivatives are entered into for market-making or risk management purposes.

Market-making derivatives
The majority of JPMorgan Chase Bank, N.A.'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. JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. also seeks to earn a spread between the client derivatives and offsetting positions, and from the remaining open risk positions.

Risk management derivatives
JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'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.

JPMorgan Chase Bank, N.A. 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 47–49 of this Note.

For more information about risk management derivatives, see the risk management derivatives gains and losses table on page 47 of this Note, and the hedge accounting gains and losses tables on pages 45–47 of this Note.

Derivative counterparties and settlement types
JPMorgan Chase Bank, N.A. enters into over-the-counter ("OTC") derivatives, which are negotiated and settled bilaterally with the derivative counterparty. JPMorgan Chase Bank, N.A. also enters into, as principal, certain exchange traded derivatives ("ETD") such as futures and options, and "cleared" over-the-counter ("OTC-cleared") derivative contracts with central counterparties ("CCPs"). ETD contracts are generally standardized contracts traded on an exchange and cleared by the CCP, which is the counterparty from the inception of the transactions. OTC-cleared derivatives are traded on a bilateral basis and then novated to the CCP for clearing.

Accounting for derivatives
All free-standing derivatives that JPMorgan Chase Bank, N.A. executes for its own account are required to be recorded on the Consolidated Balance Sheets at fair value. For information on the derivatives that JPMorgan Chase Bank, N.A. clears for its clients' accounts, see Note 27 on pages 122–128 of these Consolidated Financial Statements.

As permitted under U.S. GAAP, JPMorgan Chase Bank, N.A. nets derivative assets and liabilities, and the related cash collateral receivables and payables, when a legally enforceable master netting agreement exists between JPMorgan Chase Bank, N.A. and the derivative counterparty. For further discussion of the offsetting of assets and liabilities, see Note 1 on pages 7–9 of these Consolidated Financial Statements. 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 39–49 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 4 and 5 on pages 14–32 and 32–34, respectively, of these Consolidated Financial Statements.

Derivatives designated as hedges

JPMorgan Chase Bank, N.A. applies hedge accounting to certain derivatives executed for risk management purposes – generally interest rate, foreign exchange and commodity derivatives. However, JPMorgan Chase Bank, N.A. does not seek to apply hedge accounting to all of the derivatives involved in its risk management activities. For example, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 Bank, N.A. 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 Bank, N.A. uses cash flow hedges primarily to hedge the exposure to variability in forecasted cash flows from floating-rate assets and liabilities and foreign currency–denominated revenue and expense. For qualifying cash flow hedges, the effective portion of the change in the fair value of the derivative is recorded in OCI and recognized in the Consolidated Statements of Income when the hedged cash flows affect earnings. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item – primarily interest income, interest expense, noninterest revenue and compensation expense. The ineffective portions of cash flow hedges are immediately recognized in earnings. If the hedge relationship is terminated, then the value of the derivative recorded in accumulated other comprehensive income/(loss) ("AOCI") is recognized in earnings when the cash flows that were hedged affect earnings. For hedge relationships that are discontinued because a forecasted transaction is expected to not occur according to the original hedge forecast, any related derivative values recorded in AOCI are immediately recognized in earnings.

JPMorgan Chase Bank, N.A. uses foreign currency hedges to protect the value of its 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 JPMorgan Chase Bank, N.A.'s primary uses of derivatives and the related hedge accounting designation or disclosure category.

Type of Derivative	Use of Derivative	Designation and disclosure	Affected business 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/ Private equity	45
◦ Interest rate	Hedge floating rate assets and liabilities	Cash flow hedge	Corporate/ Private equity	46
◦ Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	Corporate/ Private equity	45
◦ Foreign exchange	Hedge forecasted revenue and expense	Cash flow hedge	Corporate/ Private equity	46
◦ Foreign exchange	Hedge the value of JPMorgan Chase Bank, N.A.'s investments in non-U.S. subsidiaries	Net investment hedge	Corporate/ Private equity	47
◦ Commodity	Hedge commodity inventory	Fair value hedge	Corporate & Investment banking	45
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	Consumer & community banking	47
◦ Credit	Manage the credit risk of wholesale lending exposures	Specified risk management	Corporate & Investment banking	47
◦ Credit[(a)]	Manage the credit risk of certain AFS securities	Specified risk management	Corporate/ Private equity	47
◦ Commodity	Manage the risk of certain commodities-related contracts and investments	Specified risk management	Corporate & Investment banking	47
◦Interest rate and foreign exchange	Manage the risk of certain other specified assets and liabilities	Specified risk management	Corporate/ Private equity	47
Market-making derivatives and other activities:				
◦ Various	Market-making and related risk management	Market-making and other	Corporate & Investment banking	47
◦ Various[(b)]	Other derivatives, including the synthetic credit portfolio	Market-making and other	Corporate & Investment banking, Corporate/ Private equity	47

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

(b) The synthetic credit portfolio is a portfolio of index credit derivatives, including short and long positions, that was held by the Chief Investment Office ("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 the corporate & investment banking business. 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 the corporate & investment banking business, have been included in the gains and losses on derivatives related to market-making activities and other derivatives category discussed on page 47 of this Note.

Notional amount of derivative contracts

The following table summarizes the notional amount of derivative contracts outstanding as of December 31, 2013 and 2012.

	Notional amounts[c]	
December 31, (in billions)	**2013**	2012
Interest rate contracts[a]		
Swaps	**$ 35,378**	$ 33,193
Futures and forwards	**10,835**	11,125
Written options	**3,997**	3,862
Purchased options	**4,191**	3,908
Total interest rate contracts	**54,401**	52,088
Credit derivatives[b]	**5,389**	5,983
Foreign exchange contracts		
Cross-currency swaps[a]	**3,498**	3,420
Spot, futures and forwards[a]	**3,779**	4,016
Written options	**659**	652
Purchased options[a]	**652**	662
Total foreign exchange contracts	**8,588**	8,750
Equity contracts		
Swaps	**270**	204
Futures and forwards[a]	**33**	29
Written options[a]	**392**	447
Purchased options[a]	**339**	405
Total equity contracts	**1,034**	1,085
Commodity contracts		
Swaps[a]	**137**	166
Spot, futures and forwards[a]	**172**	282
Written options	**198**	275
Purchased options	**193**	270
Total commodity contracts	**700**	993
Total derivative notional amounts	**$ 70,112**	$ 68,899

(a) The prior period amounts have been revised. This revision had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or its results of operations.
(b) Primarily consists of credit default swaps. For more information on volumes and types of credit derivative contracts, see the Credit derivatives discussion on pages 47–49 of this Note.
(c) Represents the sum of gross long and gross short notional derivative contracts with third-parties and JPMorgan Chase affiliates. For additional information on related party derivatives, see Note 22 on page 115 of these Consolidated Financial Statements.

While the notional amounts disclosed above give an indication of the volume of JPMorgan Chase Bank, N.A.'s derivatives activity, the notional amounts significantly exceed, in JPMorgan Chase Bank, N.A.'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.

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 JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets as of December 31, 2013 and 2012, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables[a]

	Gross derivative receivables				Gross derivative payables			
December 31, 2013 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[c]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[c]
Trading assets and liabilities								
Interest rate	**$ 853,199**	**$ 1,876**	**$ 855,075**	**$ 26,780**	**$ 823,863**	**$ 1,039**	**$ 824,902**	**$ 13,250**
Credit	**83,725**	**—**	**83,725**	**1,722**	**82,736**	**—**	**82,736**	**2,615**
Foreign exchange	**152,987**	**651**	**153,638**	**17,061**	**158,989**	**1,203**	**160,192**	**16,014**
Equity	**50,954**	**—**	**50,954**	**12,092**	**52,727**	**—**	**52,727**	**14,633**
Commodity	**28,470**	**1,385**	**29,855**	**6,716**	**29,846**	**4**	**29,850**	**7,083**
Total fair value of trading assets and liabilities	**$ 1,169,335**	**$ 3,912**	**$ 1,173,247**	**$ 64,371**	**$ 1,148,161**	**$ 2,246**	**$ 1,150,407**	**$ 53,595**

	Gross derivative receivables				Gross derivative payables			
December 31, 2012 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[c]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[c]
Trading assets and liabilities								
Interest rate[b]	$ 1,297,863	$ 2,406	$ 1,300,269	$ 37,768	$ 1,259,422	$ 2,597	$ 1,262,019	$ 26,214
Credit	100,344	—	100,344	1,769	100,555	—	100,555	3,032
Foreign exchange[b]	146,278	474	146,752	14,098	158,828	2,107	160,935	18,924
Equity[b]	42,763	—	42,763	9,350	44,206	—	44,206	11,490
Commodity[b]	34,146	371	34,517	7,482	36,278	626	36,904	8,789
Total fair value of trading assets and liabilities	$ 1,621,394	$ 3,251	$ 1,624,645	$ 70,467	$ 1,599,289	$ 5,330	$ 1,604,619	$ 68,449

(a) Balances exclude structured notes for which the fair value option has been elected. See Note 5 on pages 32–34 of these Consolidated Financial Statements for further information.
(b) The prior period amounts have been revised. This revision had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or its results of operations.
(c) As permitted under U.S. GAAP, JPMorgan Chase Bank, N.A. has elected to net derivative receivables and derivative payables and the related cash collateral receivables and payables when a legally enforceable master netting agreement exists.

The following table presents, as of December 31, 2013 and 2012, the gross and net derivative receivables by contract and settlement type. Derivative receivables have been netted on the Consolidated Balance Sheets against derivative payables to the same counterparty with respect to derivative contracts for which JPMorgan Chase Bank, N.A. has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, the receivables are not eligible under U.S. GAAP for netting against related derivative payables on the Consolidated Balance Sheets, and are shown separately in the table below.

	2013			2012		
December 31, (in millions)	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables
U.S. GAAP nettable derivative receivables						
Interest rate contracts:						
Over-the-counter ("OTC")[a]	**$ 487,151**	**$ (466,428)**	**$ 20,723**	$ 793,154	$ (770,824)	$ 22,330
OTC-cleared	**362,011**	**(361,867)**	**144**	491,947	(491,677)	270
Exchange traded[b]	**–**	**–**	**–**	–	–	–
Total interest rate contracts	**849,162**	**(828,295)**	**20,867**	1,285,101	(1,262,501)	22,600
Credit contracts:						
OTC	**66,463**	**(65,724)**	**739**	90,780	(90,104)	676
OTC-cleared	**16,841**	**(16,279)**	**562**	8,471	(8,471)	–
Total credit contracts	**83,304**	**(82,003)**	**1,301**	99,251	(98,575)	676
Foreign exchange contracts:						
OTC[a]	**149,007**	**(136,531)**	**12,476**	140,826	(132,631)	8,195
OTC-cleared	**46**	**(46)**	**–**	23	(23)	–
Exchange traded[b]	**–**	**–**	**–**	–	–	–
Total foreign exchange contracts	**149,053**	**(136,577)**	**12,476**	140,849	(132,654)	8,195
Equity contracts:						
OTC[a]	**31,956**	**(29,289)**	**2,667**	26,574	(24,645)	1,929
OTC-cleared	**–**	**–**	**–**	–	–	–
Exchange traded[b]	**15,678**	**(9,573)**	**6,105**	13,229	(8,768)	4,461
Total equity contracts	**47,634**	**(38,862)**	**8,772**	39,803	(33,413)	6,390
Commodity contracts:						
OTC[a]	**20,079**	**(15,393)**	**4,686**	17,118	(14,628)	2,490
OTC-cleared	**–**	**–**	**–**	–	–	–
Exchange traded[b]	**8,973**	**(7,746)**	**1,227**	15,616	(12,407)	3,209
Total commodity contracts	**29,052**	**(23,139)**	**5,913**	32,734	(27,035)	5,699
Derivative receivables with appropriate legal opinion	**$ 1,158,205**	**$ (1,108,876)** [c]	**$ 49,329**	$ 1,597,738	$ (1,554,178) [c]	$ 43,560
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	**15,042**		**15,042**	26,907		26,907
Total derivative receivables recognized on the Consolidated Balance Sheets	**$ 1,173,247**		**$ 64,371**	$ 1,624,645		$ 70,467

(a) The prior period amounts have been revised. This revision had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or its results of operations.

(b) Exchange traded derivative amounts that relate to futures contracts are settled daily.

(c) Included netted cash collateral payables of $63.5 billion and $77.8 billion at December 31, 2013 and 2012, respectively.

The following table presents, as of December 31, 2013 and 2012, the gross and net derivative payables by contract and settlement type. Derivative payables have been netted on the Consolidated Balance Sheets against derivative receivables to the same counterparty with respect to derivative contracts for which JPMorgan Chase Bank, N.A. has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, the payables are not eligible under U.S. GAAP for netting against related derivative receivables on the Consolidated Balance Sheets, and are shown separately in the table below.

	2013			2012		
December 31, (in millions)	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables
U.S. GAAP nettable derivative payables						
Interest rate contracts:						
OTC[a]	**$ 467,852**	**$ (458,078)**	**$ 9,774**	$ 776,051	$ (754,079)	$ 21,972
OTC-cleared	**354,282**	**(353,574)**	**708**	482,017	(481,726)	291
Exchange traded[b]	**—**	**—**	**—**	—	—	—
Total interest rate contracts	**822,134**	**(811,652)**	**10,482**	1,258,068	(1,235,805)	22,263
Credit contracts:						
OTC	**64,959**	**(63,671)**	**1,288**	89,698	(89,670)	28
OTC-cleared	**17,107**	**(16,450)**	**657**	9,372	(7,853)	1,519
Total credit contracts	**82,066**	**(80,121)**	**1,945**	99,070	(97,523)	1,547
Foreign exchange contracts:						
OTC[a]	**155,226**	**(144,119)**	**11,107**	153,621	(141,988)	11,633
OTC-cleared	**61**	**(59)**	**2**	30	(23)	7
Exchange traded[b]	**—**	**—**	**—**	—	—	—
Total foreign exchange contracts	**155,287**	**(144,178)**	**11,109**	153,651	(142,011)	11,640
Equity contracts:						
OTC[a]	**33,233**	**(28,521)**	**4,712**	28,708	(23,948)	4,760
OTC-cleared	**—**	**—**	**—**	—	—	—
Exchange traded[b]	**15,507**	**(9,573)**	**5,934**	11,285	(8,768)	2,517
Total equity contracts	**48,740**	**(38,094)**	**10,646**	39,993	(32,716)	7,277
Commodity contracts:						
OTC[a]	**20,368**	**(15,021)**	**5,347**	17,809	(15,708)	2,101
OTC-cleared	**—**	**—**	**—**	—	—	—
Exchange traded[b]	**8,756**	**(7,746)**	**1,010**	14,704	(12,407)	2,297
Total commodity contracts	**29,124**	**(22,767)**	**6,357**	32,513	(28,115)	4,398
Derivative payables with appropriate legal opinions	**$ 1,137,351**	**$ (1,096,812)** [c]	**$ 40,539**	$ 1,583,295	$ (1,536,170) [c]	$ 47,125
Derivative payables where an appropriate legal opinion has not been either sought or obtained	**13,056**		**13,056**	21,324		21,324
Total derivative payables recognized on the Consolidated Balance Sheets	**$ 1,150,407**		**$ 53,595**	$ 1,604,619		$ 68,449

(a) The prior period amounts have been revised. This revision had no impact on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets or its results of operations.
(b) Exchange traded derivative balances that relate to futures contracts are settled daily.
(c) Included netted cash collateral receivables of $51.4 billion and $59.8 billion related to OTC and OTC-cleared derivatives at December 31, 2013 and 2012, respectively.

In addition to the cash collateral received and transferred that is presented on a net basis with net derivative receivables and payables, JPMorgan Chase Bank, N.A. receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with JPMorgan Chase Bank, N.A.'s derivative instruments but are not eligible for net presentation, because (a) the collateral is non-cash financial instruments (generally U.S. government and agency securities and other G7 government bonds), (b) the amount of collateral held or transferred exceeds the fair value exposure, at the individual counterparty level, as of the date presented, or (c) the collateral relates to derivative receivables or payables where an appropriate legal opinion has not been either sought or obtained.

The following tables present information regarding certain financial instrument collateral received and transferred as of December 31, 2013 and 2012, that is not eligible for net presentation under U.S. GAAP. The collateral included in these tables relates only to the derivative instruments for which appropriate legal opinions have been obtained; excluded are (i) additional collateral that exceeds the fair value exposure and (ii) all collateral related to derivative instruments where an appropriate legal opinion has not been either sought or obtained.

Derivative receivable collateral

	2013			2012		
December 31, (in millions)	Net derivative receivables	Collateral not nettable on the Consolidated balance sheets	Net exposure	Net derivative receivables	Collateral not nettable on the Consolidated balance sheets	Net exposure
Derivative receivables with appropriate legal opinions	**$ 49,329**	**$ (12,065)** [a]	**$ 37,264**	$ 43,560	$ (7,538) [a]	$ 36,022

Derivative payable collateral[b]

	2013			2012		
December 31, (in millions)	Net derivative payables	Collateral not nettable on the Consolidated balance sheets	Net amount[c]	Net derivative payables	Collateral not nettable on the Consolidated balance sheets	Net amount[c]
Derivative payables with appropriate legal opinions	**$ 40,539**	**$ (6,872)** [a]	**$ 33,667**	$ 47,125	$ (18,608) [a]	$ 28,517

(a) Represents liquid security collateral as well as cash collateral held at third party custodians. For some counterparties, the collateral amounts of financial instruments may exceed the derivative receivables and derivative payables balances. Where this is the case, the total amount reported is limited to the net derivative receivables and net derivative payables balances with that counterparty.
(b) Derivative payable collateral relates only to OTC and OTC-cleared derivative instruments. Amounts exclude collateral transferred related to exchange-traded derivative instruments.
(c) Net amount represents exposure of counterparties to JPMorgan Chase Bank, N.A.

Liquidity risk and credit-related contingent features

In addition to the specific market risks introduced by each derivative contract type, derivatives expose JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. proves to be of insufficient value to cover the payment obligation. It is the policy of JPMorgan Chase Bank, N.A. to actively pursue, where possible, the use of legally enforceable master netting arrangements and collateral agreements to mitigate derivative counterparty credit risk. The amount of derivative receivables reported on the Consolidated Balance Sheets is the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and cash collateral held by JPMorgan Chase Bank, N.A.

While derivative receivables expose JPMorgan Chase Bank, N.A. to credit risk, derivative payables expose JPMorgan Chase Bank, N.A. to liquidity risk, as the derivative contracts typically require JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s and its subsidiaries' respective credit ratings. Certain derivative contracts also provide for termination of the contract, generally upon a downgrade of either JPMorgan Chase Bank, N.A. or the counterparty, at the fair value of the derivative contracts. The following table shows the aggregate fair value of net derivative payables related to OTC and OTC-cleared derivatives that contain contingent collateral or termination features that may be triggered upon a ratings downgrade, and the associated collateral JPMorgan Chase Bank, N.A. has posted in the normal course of business, at December 31, 2013 and 2012.

OTC and OTC-cleared derivative payables containing downgrade triggers

December 31, (in millions)	**2013**	2012
Aggregate fair value of net derivative payables	**$ 23,903**	$ 39,128
Collateral posted	**19,923**	33,691

The following table shows the impact of a single-notch and two-notch downgrade of the long-term issuer ratings of JPMorgan Chase Bank, N.A. and its subsidiaries at December 31, 2013 and 2012, related to OTC and OTC-cleared derivative contracts with contingent collateral or termination features that may be triggered upon a ratings downgrade. Derivatives contracts generally require additional collateral to be posted or terminations to be triggered when the predefined threshold rating is breached. A downgrade by a single rating agency that does not result in a rating lower than a preexisting corresponding rating provided by another major rating agency will generally not result in additional collateral, except in certain instances in which additional initial margin may be required upon a ratings downgrade, or termination payment requirements. The liquidity impact in the table is calculated based upon a downgrade below the lowest current rating of the rating agencies referred to in the derivative contract.

Liquidity impact of downgrade triggers on OTC and OTC-cleared derivatives

	2013		2012	
December 31, (in millions)	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade[(a)]	**$ 944**	**$ 3,226**	$ 1,222	$ 4,062
Amount required to settle contracts with termination triggers upon downgrade[(b)]	**540**	**876**	857	1,270

(a) Includes the additional collateral to be posted for initial margin. Prior period amounts have been revised to conform with the current presentation.
(b) Amounts represent fair value of derivative payables, and do not reflect collateral posted.

Impact of derivatives on the Consolidated Statements of Income

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

Fair value hedge gains and losses

The following tables present derivative instruments, by contract type, used in fair value hedge accounting relationships, as well as pretax gains/(losses) recorded on such derivatives and the related hedged items for the years ended December 31, 2013, 2012 and 2011, respectively. JPMorgan Chase Bank, N.A. includes gains/(losses) on the hedging derivative and the related hedged item in the same line item in the Consolidated Statements of Income.

	Gains/(losses) recorded in income			Income statement impact due to:	
Year ended December 31, 2013 (in millions)	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness[e]	Excluded components[f]
Contract type					
Interest rate[a]	**$ 2,011**	**$ (2,363)**	**$ (352)**	**$ 2**	**$ (354)**
Foreign exchange[b]	**(556)** [d]	**293**	**(263)**	**–**	**(263)**
Commodity[c]	**316**	**(1,160)**	**(844)**	**42**	**(886)**
Total	**$ 1,771**	**$ (3,230)**	**$ (1,459)**	**$ 44**	**$ (1,503)**

	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]	$ (1,187)	$ 1,152	$ (35)	$ 59	$ (94)
Foreign exchange[b]	(3,082) [d]	2,911	(171)	–	(171)
Commodity[c]	(2,550)	1,167	(1,383)	117	(1,500)
Total	$ (6,819)	$ 5,230	$ (1,589)	$ 176	$ (1,765)

	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]	$ (772)	$ 695	$ (77)	$ (45)	$ (32)
Foreign exchange[b]	4,905 [d]	(3,329)	1,576	–	1,576
Commodity[c]	1,872	(2,998)	(1,126)	–	(1,126)
Total	$ 6,005	$ (5,632)	$ 373	$ (45)	$ 418

(a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate ("LIBOR")) interest rate risk of fixed-rate long-term debt and AFS securities. Gains and losses were recorded in net interest income. The current presentation excludes accrued interest.
(b) Primarily consists of hedges of the foreign currency risk of long-term debt and AFS securities for changes in spot foreign currency rates. Gains and losses related to the derivatives and the hedged items, due to changes in foreign currency rates, were recorded in principal transactions revenue and net interest income.
(c) Consists of overall fair value hedges of physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value). Gains and losses were recorded in principal transactions revenue.
(d) Gains and losses are 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, 2013, 2012 and 2011, respectively. JPMorgan Chase Bank, N.A. includes the gain/(loss) on the hedging derivative and the change in cash flows on the hedged item in the same line item in the Consolidated Statements of Income.

	Gains/(losses) recorded in income and other comprehensive income/(loss)[c]				
Year ended December 31, 2013 (in millions)	Derivatives – effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income[d]	Total income statement impact	Derivatives – effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate[a]	**$ 149**	**$ –**	**$ 149**	**$ (547)**	**$ (696)**
Foreign exchange[b]	**7**	**–**	**7**	**40**	**33**
Total	**$ 156**	**$ –**	**$ 156**	**$ (507)**	**$ (663)**

	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]	$ 390	$ 5	$ 395	$ 186	$ (204)
Foreign exchange[b]	31	–	31	129	98
Total	$ 421	$ 5	$ 426	$ 315	$ (106)

	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]	$ 547	$ 19	$ 566	$ 560	$ 13
Foreign exchange[b]	(9)	–	(9)	(58)	(49)
Total	$ 538	$ 19	$ 557	$ 502	$ (36)

(a) Primarily consists of benchmark interest rate hedges of LIBOR-indexed floating-rate assets and floating-rate liabilities. Gains and losses were recorded in net interest income.
(b) Primarily consists of hedges of the foreign currency risk of non-U.S. dollar-denominated revenue and expense. The income statement classification of gains and losses follows the hedged item – primarily noninterest revenue and compensation expense.
(c) JPMorgan Chase Bank, N.A. did not experience any forecasted transactions that failed to occur for the years ended December 31, 2013, 2012 or 2011.
(d) Hedge ineffectiveness is the amount by which the cumulative gain or loss on the designated derivative instrument exceeds the present value of the cumulative expected change in cash flows on the hedged item attributable to the hedged risk.

Over the next 12 months, JPMorgan Chase Bank, N.A. expects that $56 million (after-tax) of net gains recorded in AOCI at December 31, 2013, related to cash flow hedges will be recognized in income. The maximum length of time over which forecasted transactions are hedged is 10 years, and such transactions primarily relate to core lending and borrowing activities.

Net investment hedge gains and losses

The following tables present hedging instruments, by contract type, that were used in net investment hedge accounting relationships, and the pretax gains/(losses) recorded on such instruments for the years ended December 31, 2013, 2012 and 2011.

	Gains/(losses) recorded in income and other comprehensive income/(loss)					
	2013		2012		2011	
Year ended December 31, (in millions)	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI
Contract type						
Foreign exchange derivatives	**$ (340)**	**$ 817**	$ (277)	$ (9)	$ (220)	$ 205
Total	**$ (340)**	**$ 817**	$ (277)	$ (9)	$ (220)	$ 205

(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. JPMorgan Chase Bank, N.A. measures the ineffectiveness of net investment hedge accounting relationships based on changes in spot foreign currency rates, and therefore there was no ineffectiveness for net investment hedge accounting relationships during 2013, 2012 and 2011.

Gains and losses on derivatives used for specified risk management purposes

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

	Derivatives gains/(losses) recorded in income		
Year ended December 31, (in millions)	**2013**	2012	2011
Contract type			
Interest rate[(a)]	**$ 617**	$ 5,367	$ 8,030
Credit[(b)]	**(142)**	(145)	(57)
Foreign exchange[(c)]	**(18)**	(35)	(146)
Total	**$ 457**	$ 5,187	$ 7,827

(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 JPMorgan Chase Bank, N.A.'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.

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

JPMorgan Chase Bank, N.A. 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 its market-making activities, including the counterparty credit risk arising from derivative receivables. These derivatives, as well as all other derivatives (including the synthetic credit portfolio) that are not included in the hedge accounting or specified risk management categories above, are included in this category. Gains and losses on these derivatives are primarily recorded in principal transactions revenue. See Note 8 on pages 50–51 of these Consolidated Financial Statements for information on principal transactions revenue.

Credit derivatives

Credit derivatives are financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity) and which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Credit derivatives expose the protection purchaser to the creditworthiness of the protection seller, as the protection seller is required to make payments under the contract when the reference entity experiences a credit event, such as a bankruptcy, a failure to pay its obligation or a restructuring. The seller of credit protection receives a premium for providing protection but has the risk that the underlying instrument referenced in the contract will be subject to a credit event.

JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. uses credit derivatives to manage credit risk associated with lending exposures

(loans and unfunded commitments) and derivatives counterparty exposures in JPMorgan Chase Bank, N.A.'s wholesale businesses, and to manage the credit risk arising from certain AFS securities and from certain financial instruments in JPMorgan Chase Bank, N.A.'s market-making businesses. For more information on the synthetic credit portfolio, see the discussion on page 38 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. JPMorgan Chase Bank, N.A. purchases and sells protection on both single- name and index-reference obligations. Single-name CDS and index CDS contracts are typically OTC-cleared derivative contracts. Single-name CDS are used to manage the default risk of a single reference entity, while index CDS contracts are used to manage the credit risk associated with the broader credit markets or credit market segments. Like the S&P 500 and other market indices, a CDS index comprises a portfolio of CDS across many reference entities. New series of CDS indices are periodically established with a new underlying portfolio of reference entities to reflect changes in the credit markets. If one of the reference entities in the index experiences a credit event, then the reference entity that defaulted is removed from the index. CDS can also be referenced against specific portfolios of reference names or against customized exposure levels based on specific client demands: for example, to provide protection against the first $1 million of realized credit losses in a $10 million portfolio of exposure. Such structures are commonly known as tranche CDS.

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

Credit-related notes
A credit-related note is a funded credit derivative where the issuer of the credit-related note purchases from the note investor credit protection on a reference entity or an index. Under the contract, the investor pays the issuer the par value of the note at the inception of the transaction, and in return, the issuer pays periodic payments to the investor, based on the credit risk of the referenced entity. The issuer also repays the investor the par value of the note at maturity unless the reference entity experiences a specified credit event (or one of the entities that makes up a reference index). If a credit event occurs, the issuer is not obligated to repay the par value of the note, but rather, the issuer pays the investor the difference between the par value of the note and the fair value of the defaulted reference obligation at the time of settlement. Neither party to the credit-related note has recourse to the defaulting reference entity. For a further discussion of credit-related notes, see Note 17 on pages 98-108 of these Consolidated Financial Statements.

The following tables present a summary of the notional amounts of credit derivatives and credit-related notes JPMorgan Chase Bank, N.A. sold and purchased as of December 31, 2013 and 2012. Upon a credit event, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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.

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s view, the risks associated with such derivatives.

Total credit derivatives and credit-related notes

	Maximum payout/Notional amount			
December 31, 2013 (in millions)	Protection sold	Protection purchased with identical underlyings[b]	Net protection (sold)/purchased[c]	Other protection purchased[d]
Credit derivatives				
Credit default swaps	**$ (2,603,798)**	**$ 2,611,146**	**$ 7,348**	**$ 9,060**
Other credit derivatives[a]	**(95,089)**	**45,921**	**(49,168)**	**24,213**
Total credit derivatives	**(2,698,887)**	**2,657,067**	**(41,820)**	**33,273**
Credit-related notes	**(128)**	**–**	**(128)**	**2,515**
Total	**$ (2,699,015)**	**$ 2,657,067**	**$ (41,948)**	**$ 35,788**

	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	$ (2,955,988)	$ 2,879,382	$ (76,606)	$ 42,460
Other credit derivatives[a]	(66,235)	5,649	(60,586)	33,174
Total credit derivatives	(3,022,223)	2,885,031	(137,192)	75,634
Credit-related notes	(233)	–	(233)	3,255
Total	$ (3,022,456)	$ 2,885,031	$ (137,425)	$ 78,889

(a) Other credit derivatives predominantly consists of put options on fixed income portfolios.
(b) Represents the total notional amount of protection purchased where the underlying reference instrument is identical to the reference instrument on protection sold; the notional amount of protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.
(c) Does not take into account the fair value of the reference obligation at the time of settlement, which would generally reduce the amount the seller of protection pays to the buyer of protection in determining settlement value.
(d) Represents protection purchased by JPMorgan Chase Bank, N.A. on referenced instruments (single-name, portfolio or index) where JPMorgan Chase Bank, N.A. has not sold any protection on the identical reference instrument.

The following tables summarize the notional and fair value amounts of credit derivatives and credit-related notes as of December 31, 2013 and 2012, where JPMorgan Chase Bank, N.A. 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 Bank, N.A. is the purchaser of protection are comparable to the profile reflected below.

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

December 31, 2013 (in millions)	<1 year	1–5 years	>5 years	Total notional amount	Fair value of receivables[b]	Fair value of payables[b]	Net fair value
Risk rating of reference entity							
Investment-grade	**$ (365,823)**	**$ (1,487,181)**	**$ (131,365)**	**$ (1,984,369)**	**$ 31,743**	**$ (5,638)**	**$ 26,105**
Noninvestment-grade	**(140,557)**	**(544,776)**	**(29,313)**	**(714,646)**	**27,590**	**(16,922)**	**10,668**
Total	**$ (506,380)**	**$ (2,031,957)**	**$ (160,678)**	**$ (2,699,015)**	**$ 59,333**	**$ (22,560)**	**$ 36,773**

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)	$ (1,383,727)	$ (224,768)	$ (2,018,243)	$ 16,690	$ (22,416)	$ (5,726)
Noninvestment-grade	(214,949)	(722,121)	(67,143)	(1,004,213)	22,355	(37,107)	(14,752)
Total	$ (624,697)	$ (2,105,848)	$ (291,911)	$ (3,022,456)	$ 39,045	$ (59,523)	$ (20,478)

(a) The ratings scale is based on JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.

Note 8 – Noninterest revenue

Investment banking fees

This revenue category includes equity and debt underwriting and advisory fees. Underwriting fees are recognized as revenue when JPMorgan Chase Bank, N.A. 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; JPMorgan Chase Bank, N.A. recognizes credit arrangement and syndication fees as revenue after satisfying certain retention, timing and yield criteria. Advisory fees are recognized as revenue when the related services have been performed and the fee has been earned.

The following table presents the components of investment banking fees.

Year ended December 31, (in millions)	2013	2012	2011
Underwriting			
Equity	**$ 432**	$ 346	$ 376
Debt	**839**	858	1,759
Total underwriting	**1,271**	1,204	2,135
Advisory	**537**	591	796
Total investment banking fees	**$ 1,808**	$ 1,795	$ 2,931

Principal transactions

Principal transactions revenue includes realized and unrealized gains and losses recorded on derivatives, other financial instruments, and private equity investments.

Principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk management activities disclosed separately in Note 7, including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specific risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk, and (c) other derivatives, including the synthetic credit portfolio. See Note 7 on pages 36–49 of these Consolidated Financial Statements for information on the income statement classification of gains and losses on derivatives.

Principal transactions revenue also includes revenue associated with market-making and client-driven activities that involve physical commodities. JPMorgan Chase Bank, N.A., through its global commodities group within its corporate & investment banking business ("commodities group") generally provides risk management, investment and financing solutions to clients globally both through financial derivatives transactions, as well as through physical commodities transactions. On the financial side, the commodities group engages in OTC derivatives transactions (e.g., swaps, forwards, options) and exchange-traded derivatives referencing various types of commodities (see below and Note 7 on pages 36–49 of these Consolidated Financial Statements for further information). On the physical side, the commodities group engages in the purchase, sale, and storage of precious metals. The commodities group also uses physical base metals to hedge certain customer-driven derivatives. Realized gains and losses and unrealized losses arising from market-making and client-driven activities involving physical commodities inventories that are generally carried at the lower of cost or market (market approximates fair value), subject to any applicable fair value hedge accounting adjustments, are recorded in principal transactions revenue. Fees relating to storage and transportation are recorded in other income. These fees are generally recognized over the arrangement period. Expenses relating to such activities are recorded in other expense (see Note 12 on page 59 of these Consolidated Financial Statements for further information). Additional information on the physical commodities business can be found in Note 3 on pages 10–13 of these Consolidated Financial Statements.

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 JPMorgan Chase Bank, N.A.'s client-driven market-making activities.

Year ended December 31, (in millions)	2013	2012	2011
Trading revenue by risk exposure			
Interest rate	**$ 1,413**	$ 3,533	$ 135
Credit[a]	**652**	(6,687)	2,541
Foreign exchange	**1,479**	1,420	1,043
Equity	**2,116**	1,709	2,404
Commodity[b]	**942**	1,069	1,147
Total trading revenue[c]	**6,602**	1,044	7,270
Private equity losses[d]	**(13)**	(47)	(22)
Principal transactions	**$ 6,589**	$ 997	$ 7,248

(a) 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.
(b) 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 JPMorgan Chase Bank, N.A.'s risk exposure to its physical commodities inventories. Gains/(losses) related to commodity fair value hedges were $(844) million, $(1.4) billion and $(1.1) billion for the years ended December 31, 2013, 2012 and 2011, respectively.
(c) During the fourth quarter of 2013, JPMorgan Chase Bank, N.A. implemented a funding valuation adjustment ("FVA") framework in order to incorporate the impact of funding into its valuation estimates for over-the-counter ("OTC") derivatives and structured notes. As a result JPMorgan Chase Bank, N.A. recorded a $1.0 billion loss in principal transactions revenue in the fourth quarter of 2013, reported in the corporate & investment banking business. This reflects an industry migration towards incorporating the cost of unsecured funding in the valuation of such instruments.
(d) Includes revenue on private equity investments.

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 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. JPMorgan Chase Bank, N.A. has contractual arrangements with third parties to provide certain services in connection with its asset management activities. Amounts paid to third-party service providers are predominantly expensed, such that asset management fees are recorded gross of payments made to third parties.

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

Year ended December 31, (in millions)	2013	2012	2011
Asset management			
Investment management fees[(a)]	**$ 1,754**	$ 1,488	$ 1,406
All other asset management fees[(b)]	**38**	16	10
Total asset management fees	**1,792**	1,504	1,416
Total administration fees[(c)]	**2,120**	2,111	2,065
Commission and other fees			
Brokerage commissions	**1,258**	1,135	1,274
All other commissions and fees[(d)]	**4,926**	4,804	4,998
Total commissions and fees	**6,184**	5,939	6,272
Total asset management, administration and commissions	**$ 10,096**	$ 9,554	$ 9,753

(a) Represents fees earned from managing assets on behalf of JPMorgan Chase Bank, N.A. clients, including investors in JPMorgan Chase Bank, N.A.-sponsored funds and owners of separately managed investment accounts.
(b) Represents fees for services that are ancillary to investment management services, such as commissions earned on the sales or distribution of mutual funds to clients.
(c) Predominantly includes fees for custody, securities lending, funds services and securities clearance.
(d) Includes fees for services provided by JPMorgan Chase Bank, N.A. to related party affiliates.

Mortgage fees and related income

This revenue category primarily reflects consumer & community banking business'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 the consumer & community banking business's MSRs are reported in mortgage fees and related income. Net interest income from mortgage loans is recorded in interest income. For a further discussion of MSRs, see Note 18 on pages 108–111 of these Consolidated Financial Statements.

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. The card income earned by JPMorgan Chase Bank, N.A. primarily results from a participation arrangement with a bank affiliate of JPMorgan Chase Bank, N.A., and also from the credit card business in Canada.

Other income

Included in other income is operating lease income of $1.5 billion, $1.3 billion and $1.2 billion for the years ended December 31, 2013, 2012 and 2011, respectively. Additionally, included in other income is a net pre-tax gain of approximately $857 million, from the sale of the Visa B Shares. See Note 3 on pages 10–13 of these Consolidated Financial Statements for more information.

Note 9 – Interest income and Interest expense

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

included within interest income or interest expense, as applicable.

Details of interest income and interest expense were as follows.

Year ended December 31, (in millions)	2013	2012	2011
Interest income			
Loans	**$ 22,627**	$ 24,009	$ 23,927
Securities	**7,622**	7,745	9,036
Trading assets	**5,573**	5,864	7,390
Federal funds sold and securities purchased under resale agreements	**1,437**	1,956	2,303
Securities borrowed	**209**	390	428
Deposits with banks	**912**	567	588
Other assets	**95**	(55)	37
Total interest income	**38,475**	40,476	43,709
Interest expense			
Interest-bearing deposits	**2,292**	2,924	4,306
Short-term and other liabilities	**2,008**	1,863	2,567
Long-term debt	**1,094**	1,111	1,005
Beneficial interests issued by consolidated VIEs	**115**	129	132
Total interest expense	**5,509**	6,027	8,010
Net interest income	**32,966**	34,449	35,699
Provision for credit losses	**(1,247)**	686	5,344
Net interest income after provision for credit losses	**$ 34,213**	$ 33,763	$ 30,355

Note 10 – Pension and other postretirement employee benefit plans

JPMorgan Chase Bank, N.A.'s defined benefit pension plans are accounted for in accordance with U.S. GAAP for retirement benefits.

Defined benefit pension plans and other postretirement employee benefit plans

Substantially all of JPMorgan Chase Bank, N.A.'s U.S. employees are provided benefits through JPMorgan Chase's qualified noncontributory, U.S. defined benefit pension plan. JPMorgan Chase Bank, N.A. also offers benefits through defined benefit pension plans to qualifying employees in certain non-U.S. locations. In addition, JPMorgan Chase Bank, N.A. offers postretirement medical and life insurance benefits to certain retirees and postretirement medical benefits to qualifying U.S. employees through JPMorgan Chase plans. These JPMorgan Chase plans are discussed in the JPMorgan Chase pension and other postretirement employee benefit ("OPEB") plans section on pages 56–57 of this Note.

JPMorgan Chase Bank, N.A. also offers certain qualifying employees in the U.S. the ability to participate in 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 U.S. 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 U.S. Excess Retirement Plan had an unfunded projected benefit obligation in the amount of $203 million and $227 million, at December 31, 2013 and 2012, respectively.

It is JPMorgan Chase Bank, N.A.'s policy to fund the pension plans in amounts sufficient to meet the requirements under applicable laws. In 2014, the cost of funding benefits under the U.S. Excess Retirement Plan is expected to be $27 million. The 2014 contributions to the non-U.S. defined benefit pension plans are expected to be $49 million of which $32 million is contractually required.

Defined contribution plans

JPMorgan Chase Bank, N.A.'s employees may also participate in one of the two qualified defined contribution plans offered by JPMorgan Chase in the U.S. and other similar arrangements offered by JPMorgan Chase Bank, N.A. 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.

JPMorgan Chase Bank, N.A. 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.

The following table presents the changes in benefit obligations, plan assets and funded status amounts reported on the Consolidated Balance Sheets for JPMorgan Chase Bank, N.A.'s defined benefit pension plans.

As of or for the year ended December 31,	Defined benefit pension plans			
	U.S.		Non-U.S.	
(in millions)	**2013**	2012	**2013**	2012
Change in benefit obligation				
Benefit obligation, beginning of year	**$ (407)**	$ (380)	**$ (3,235)**	$ (2,827)
Benefits earned during the year	**(5)**	(3)	**(32)**	(37)
Interest cost on benefit obligations	**(15)**	(18)	**(116)**	(119)
Plan amendments	**—**	—	**—**	6
Employee contributions	**NA**	NA	**(7)**	(5)
Net gain/(loss)	**37**	(32)	**(62)**	(244)
Benefits paid	**27**	26	**106**	108
Foreign exchange impact and other	**(2)**	—	**(84)**	(117)
Benefit obligation, end of year	**$ (365)**	$ (407)	**$ (3,430)**	$ (3,235)
Change in plan assets				
Fair value of plan assets, beginning of year	**$ —**	$ —	**$ 3,330**	$ 2,989
Actual return on plan assets	**—**	—	**187**	237
JPMorgan Chase Bank, N.A. contributions	**27**	26	**45**	86
Employee contributions	**—**	—	**7**	5
Benefits paid	**(27)**	(26)	**(106)**	(108)
Foreign exchange impact and other	**—**	—	**69**	121
Fair value of plan assets, end of year	**$ —**	$ —	**$ 3,532** (b)	$ 3,330 (b)
Funded/(unfunded) status(a)	**$ (365)**	$ (407)	**$ 102**	$ 95
Accumulated benefit obligation, end of year	**$ (365)**	$ (407)	**$ (3,406)**	$ (3,221)

(a) Represents plans with an aggregate underfunded balance of $438 million and $497 million at December 31, 2013 and 2012, respectively, and plans with an aggregate overfunded balance of $175 million and $185 million at December 31, 2013 and 2012, respectively.
(b) At December 31, 2012, non-U.S. defined benefit pension plan amounts not measured at fair value included $47 million of accrued receivables, and $46 million of accrued liabilities.

Gains and losses

For JPMorgan Chase Bank, N.A.'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. Excess Retirement Plan is currently eight years and for the non-U.S. defined benefit pension plans is the period appropriate for the affected plan. 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 following table presents pretax pension amounts recorded in AOCI related to JPMorgan Chase Bank, N.A.'s significant defined benefit pension plans.

December 31,	Defined benefit pension plans			
	U.S.		Non-U.S.	
(in millions)	**2013**	2012	**2013**	2012
Net gain/(loss)	**$ (78)**	$ (126)	**$ (652)**	$ (672)
Prior service credit/(cost)	**(1)**	(1)	**15**	18
Accumulated other comprehensive income/(loss), pretax, end of year	**$ (79)**	$ (127)	**$ (637)**	$ (654)

The following table presents the components of net periodic benefit costs reported in the Consolidated Statements of Income and other comprehensive income for JPMorgan Chase Bank, N.A.'s significant defined benefit pension and defined contribution plans.

	Pension plans					
	U.S.			Non-U.S.		
Year ended December 31, (in millions)	**2013**	2012	2011	**2013**	2012	2011
Components of net periodic benefit cost						
Benefits earned during the year	**$ 5**	$ 3	$ 3	**$ 32**	$ 37	$ 33
Interest cost on benefit obligations	**15**	18	18	**116**	119	125
Expected return on plan assets	**—**	—	—	**(141)**	(137)	(141)
Amortization:						
Net (gain)/loss	**11**	8	5	**49**	35	48
Prior service cost/(credit)	**—**	—	—	**(2)**	—	(1)
Net periodic defined benefit cost	**31**	29	26	**54**	54	64
Other defined benefit pension plans[(a)]	**14**	14	20	**4**	3	5
Total defined benefit plans	**45**	43	46	**58**	57	69
Total defined contribution plans	**440**	411	347	**278**	264	248
Total pension and OPEB cost included in compensation expense	**$ 485**	$ 454	$ 393	**$ 336**	$ 321	$ 317
Changes in plan assets and benefit obligations recognized in other comprehensive income						
Net (gain)/loss arising during the year	**$ (37)**	$ 32	$ 33	**$ 20**	$ 143	$ 25
Prior service credit arising during the year	**—**	—	—	**—**	(6)	—
Amortization of net loss	**(11)**	(8)	(5)	**(49)**	(35)	(48)
Amortization of prior service (cost)/credit	**—**	—	—	**2**	—	1
Foreign exchange impact and other[(a)]	**—**	—	—	**10**	20	1
Total recognized in other comprehensive income	**$ (48)**	$ 24	$ 28	**$ (17)**	$ 122	$ (21)
Total recognized in net periodic benefit cost and other comprehensive income	**$ (17)**	$ 53	$ 54	**$ 37**	$ 176	$ 43

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

It is expected that $47 million and $2 million, pretax, of net loss and prior service credit, respectively, related to non-U.S. defined benefit pension plans and $7 million, pretax, of net loss related to U.S. defined benefit pension plans, recorded in AOCI at December 31, 2013, will be recognized in earnings during 2014.

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

Year ended December 31,	**2013**	2012	2011
Actual rate of return	**3.74 - 23.80%**	7.21 - 11.72%	(4.29)-13.12%

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. For the U.K. defined benefit pension plans, which represent the most significant of JPMorgan Chase Bank, N.A.'s non-U.S. defined benefit pension plans, procedures 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. Excess Retirement Plan was selected by reference to the yields on portfolios of bonds with maturity dates and coupons that closely match 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 plans 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 benefit obligations and the components of net periodic benefit costs, for JPMorgan Chase Bank, N.A.'s significant U.S. and non-U.S. defined benefit pension plans, as of and for the periods indicated.

Weighted-average assumptions used to determine benefit obligations

	U.S.		Non-U.S.	
December 31,	**2013**	2012	**2013**	2012
Discount rate	**5.00%**	3.90%	**1.10 - 4.40%**	1.40 - 4.40%
Rate of compensation increase	**NA**	NA	**2.75 - 4.60**	2.75 - 4.10

Weighted-average assumptions used to determine net periodic benefit costs

	U.S.			Non-U.S.		
Year ended December 31,	**2013**	2012	2011	**2013**	2012	2011
Discount rate	**3.90%**	4.60%	5.50%	**1.40 - 4.40%**	1.50 - 4.80%	1.60-5.50%
Expected long-term rate of return on plan assets	**NA**	NA	NA	**2.40 - 4.90**	2.50 - 4.60	2.40-5.40
Rate of compensation increase	**NA**	NA	NA	**2.75 - 4.10**	2.75 - 4.20	3.00-4.50

At December 31, 2013, JPMorgan Chase Bank, N.A. increased the discount rates used to determine its benefit obligations for the U.S. Excess Retirement Plan in light of current market interest rates, which will result in an decrease in expense of approximately $1 million for 2014. To indicate the sensitivity of the U.S. Excess Retirement Plan to changes in the discount rate, a 25-basis point decline in the discount rate would result in an immaterial increase in expense for 2014 and a $4 million increase in the related projected benefit obligation.

As of December 31, 2013, the interest crediting rate assumption remained at 5.00%. A 25-basis point decrease in the interest crediting rate for the U.S. Excess Retirement Plan would result in an immaterial decrease in 2014 for both the U.S. defined benefit pension expense and the related projected benefit obligation.

JPMorgan Chase Bank, N.A.'s non-U.S. defined benefit pension plans expense is also sensitive to changes in the discount rate. A 25-basis point decline in the discount rates for the non-U.S. plans would result in an increase in the 2014 non-U.S. defined benefit pension plan expense of approximately $15 million.

Investment strategy and asset allocation

The investment policy for the U.K. defined benefit pension plans, which represent the most significant of the non-U.S. defined benefit pension plans, is 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. Asset allocations and asset managers for the U.K. defined benefit pension plans are reviewed regularly and the portfolio is rebalanced when deemed necessary.

As of December 31, 2013, assets held by JPMorgan Chase Bank, N.A.'s non-U.S. defined benefit pension plans do not include JPMorgan Chase common stock, except in connection with the investments in third-party stock-index funds. The non-U.S. plans hold investments in funds that are sponsored or managed by affiliates of JPMorgan Chase Bank, N.A. in the amount of $242 million and $220 million as of December 31, 2013 and 2012, respectively.

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

	Target	% of plan assets	
December 31,	Allocation	**2013**	2012
Asset category			
Debt securities[(a)]	64%	**63%**	72%
Equity securities	35	**36**	27
Alternatives	1	**1**	1
Total	100%	**100%**	100%

(a) Debt securities primarily include corporate debt and non-U.S. government debt securities.

Fair value measurement of the plans' assets and liabilities

For information on fair value measurements, including descriptions of level 1 and 2 of the fair value hierarchy and the valuation methods employed by JPMorgan Chase Bank, N.A., see Note 4 on pages 14–32 of these Consolidated Financial Statements.

Pension and OPEB plan assets and liabilities measured at fair value

	Non-U.S. defined benefit pension plans[f]					
	2013			2012		
December 31, (in millions)	Level 1	Level 2	Total fair value	Level 1	Level 2	Total fair value
Cash and cash equivalents	$ 221	$ 3	$ 224	$ 142	$ –	$ 142
Equity securities:						
Capital equipment	86	17	103	115	15	130
Consumer goods	225	50	275	136	32	168
Banks and finance companies	233	29	262	94	23	117
Business services	209	14	223	125	8	133
Energy	64	20	84	54	12	66
Materials	36	9	45	30	6	36
Real Estate	–	1	1	10	–	10
Other	25	103	128	19	71	90
Total equity securities	878	243	1,121	583	167	750
Common/collective trust funds	98	248	346	62	192	254
Corporate debt securities[a]	–	787	787	–	765	765
Non-U.S. government debt securities	–	777	777	–	1,237	1,237
Mortgage-backed securities	73	–	73	100	–	100
Derivative receivables	–	302	302	109	–	109
Other[b]	148	52	200	21	67	88
Total assets measured at fair value[c][d]	$ 1,418	$ 2,412	$ 3,830	$ 1,017	$ 2,428	$ 3,445
Derivative payables	–	(298)	(298)	(116)	–	(116)
Total liabilities measured at fair value[e]	$ –	$ (298)	$ (298)	$ (116)	$ –	$ (116)

(a) Corporate debt securities include debt securities of U.S. and non-U.S. corporations.
(b) Other primarily consists of money markets and exchange-traded funds and insurance contracts. Money markets and exchange-traded funds are primarily classified within level 1 of the fair value hierarchy given they are valued using observable market prices. Insurance contracts are guaranteed return investments subject to the credit risk of the insurance company and are classified in level 2 of the valuation hierarchy.
(c) At December 31, 2013 and 2012, the fair value of investments valued at NAV were $346 million and $254 million, respectively, which were classified within the valuation hierarchy as follows: $98 million and $62 million in level 1 and $248 million and $192 million in level 2.
(d) At December 31, 2012, excluded defined benefit pension plan receivables for investments sold and dividends and interest receivables of $47 million.
(e) At December 31, 2012, excluded defined benefit pension plan payables for investments purchased of $46 million.
(f) There were no assets or liabilities classified as level 3 for the non-U.S. defined benefit pension plans as of December 31, 2013 and 2012.

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.

Year ended December 31, (in millions)	U.S. defined benefit pension plans	Non-U.S. defined benefit pension plans
2014	$ 31	$ 112
2015	28	118
2016	28	123
2017	29	129
2018	28	140
Years 2019–2023	138	785

JPMorgan Chase defined benefit pension and OPEB plans

JPMorgan Chase Bank, N.A.'s U.S. employees are eligible to participate in JPMorgan Chase's U.S. qualified noncontributory defined benefit pension plan. In addition, qualifying U.S. employees may receive postretirement medical and life insurance benefits that are provided through JPMorgan Chase's U.S. OPEB plan. Benefits vary with length of service and date of hire and provide for limits on JPMorgan Chase Bank, N.A.'s share of covered medical benefits. The medical and life insurance benefits are both contributory. Defined benefit pension expense and postretirement medical benefit expense are determined based upon employee participation in the JPMorgan Chase plans and effected through an intercompany charge from JPMorgan Chase, which is cash settled monthly.

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.

JPMorgan Chase Bank, N.A. was charged $260 million, $183 million and $204 million in 2013, 2012 and 2011, respectively, for its share of the U.S. qualified defined benefit pension plan expense; and it was charged $1 million, $1 million and $1 million in 2013, 2012 and 2011, respectively, for its share of the U.S. OPEB plan expense.

Consolidated disclosures of information about the defined benefit pension and OPEB plans of JPMorgan Chase, including the funded status of the plans, components of benefit cost and weighted-average actuarial assumptions are included in Note 9 on pages 237–246 of JPMorgan Chase's 2013 Annual Report on Form 10-K.

Note 11 – Employee stock-based incentives

Employee stock-based awards

JPMorgan Chase Bank, N.A.'s employees receive annual incentive compensation based on their performance, the performance of their business and JPMorgan Chase's consolidated operating results. JPMorgan Chase Bank, N.A.'s employees participate, to the extent they meet minimum eligibility requirements, in various stock-based incentive plans sponsored by JPMorgan Chase. For additional information regarding JPMorgan Chase's employee stock-based incentives, see Note 10 on pages 247–248 of JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2013.

In 2013, 2012 and 2011, JPMorgan Chase granted long-term stock-based awards to certain employees under its Long-Term Incentive Plan, which was last amended in May 2011 ("LTIP"). Under the terms of the LTIP, as of December 31, 2013, 266 million shares of JPMorgan Chase's common stock are available for issuance through May 2015. The LTIP is the only active plan under which JPMorgan Chase is currently granting stock-based incentive awards. In the following discussion, the LTIP, plus prior JPMorgan Chase plans and plans assumed as the result of acquisitions, are referred to collectively as the "LTI Plans," and such plans constitute JPMorgan Chase's stock-based incentive plans.

Restricted stock units ("RSUs") are awarded at no cost to the recipient upon their grant. Generally, RSUs are granted annually and vest at a rate of 50% after two years and 50% after three years and are converted into shares of common stock as of the vesting date. In addition, RSUs typically include full-career eligibility provisions, which allow employees to continue to vest upon voluntary termination, subject to post-employment and other restrictions based on age or service-related requirements. All RSUs awards are subject to forfeiture until vested and contain clawback provisions that may result in cancellation under certain specified circumstances. RSUs entitle the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSUs are outstanding and, as such, are considered participating securities as discussed in Note 24 on page 311 of JPMorgan Chase's 2013 Annual Report on Form 10-K.

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. JPMorgan Chase typically awards SARs to certain key employees once per year; it also periodically grants employee stock options and SARs to individual employees. The 2013, 2012 and 2011 grants of SARs become exercisable ratably over five years (i.e., 20% per year) and contain clawback provisions similar to RSUs. The 2013, 2012 and 2011 grants of SARs contain full-career eligibility provisions. SARs generally expire ten years after the grant date.

JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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.

In January 2008, JPMorgan Chase 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 JPMorgan Chase. 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 JPMorgan Chase to make progress against JPMorgan Chase's strategic priorities and performance goals, including remediation relating to the CIO matter. The SARs, which will expire in January 2018, will become exercisable no earlier than July 22, 2014, and have an exercise price of $39.83 (the price of JPMorgan Chase common stock on the date of grant). Vesting will be subject to a Board determination taking into consideration the extent of such progress and such other factors as it deems relevant. The expense related to this award is dependent on changes in fair value of the SARs through the date when the vested number of SARs are determined, if any, and the cumulative expense is

recognized ratably over the service period, which was initially assumed to be five years but, effective in the first quarter of 2013, has been extended to six and one-half years. JPMorgan Chase Bank, N.A. recognized $14 million, $5 million and $(4) million in compensation expense in 2013, 2012 and 2011, 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 Bank, N.A.'s RSUs, employee stock options and SARs activity for 2013.

	RSUs		Options/SARs			
Year ended December 31, 2013 (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	92,572	$ 40.42	90,600	$ 39.48		
Granted	30,803	46.96	10,941	46.79		
Exercised or vested	(42,050)	43.18	(29,385)	37.52		
Forfeited	(3,445)	40.66	(3,706)	39.52		
Canceled	NA	NA	(1,077)	52.40		
Transferred	1,273	40.42	1,891	39.48		
Outstanding, December 31	79,153	$ 41.46	69,264	$ 41.09	5.5	$ 1,302,543
Exercisable, December 31	NA	NA	36,590	41.53	4.1	723,649

The total fair value of RSUs that vested during the years ended December 31, 2013, 2012 and 2011, was $2.0 billion, $1.9 billion and $3.6 billion, respectively. The weighted-average grant date per share fair value of stock options and SARs granted during the years ended December 31, 2013, 2012 and 2011, was $9.58, $8.89 and $13.03, respectively. The total intrinsic value of options exercised during the years ended December 31, 2013, 2012 and 2011, was $407 million, $227 million and $156 million, respectively.

Compensation expense

JPMorgan Chase Bank, N.A. recognized the following compensation expense related to JPMorgan Chase's various employee stock-based incentive plans in its Consolidated Statements of Income.

Year ended December 31, (in millions)	2013	2012	2011
Cost of prior grants of RSUs and SARs that are amortized over their applicable vesting periods	**$ 942**	$ 1,184	$ 1,321
Accrual of estimated costs of RSUs and SARs to be granted in future periods including those to full-career eligible employees	**519**	474	442
Total noncash compensation expense related to employee stock-based incentive plans	**$ 1,461**	$ 1,658	$ 1,763

At December 31, 2013, approximately $573 million (pretax) of compensation cost related to unvested awards had not yet been charged to net income. That cost is expected to be amortized into compensation expense over a weighted-average period of 1.0 year. JPMorgan Chase Bank, N.A. does not capitalize any compensation cost related to share-based compensation awards to employees.

Tax benefits

Income tax benefits related to stock-based incentive arrangements recognized in JPMorgan Chase Bank, N.A.'s Consolidated Statements of Income for the years ended December 31, 2013, 2012 and 2011, were $570 million, $646 million and $688 million, respectively. Excess tax benefits related to stock-based incentive awards are recognized by JPMorgan Chase. Pursuant to a tax sharing agreement between JPMorgan Chase Bank, N.A. and its parent, JPMorgan Chase, cash payments were made by JPMorgan Chase to JPMorgan Chase Bank, N.A.

Valuation assumptions

The following table presents the assumptions used to value employee stock options and SARs granted during the years ended December 31, 2013, 2012 and 2011, under the Black-Scholes valuation model.

Year ended December 31,	2013	2012	2011
Weighted-average annualized valuation assumptions			
Risk-free interest rate	**1.18%**	1.19%	2.58%
Expected dividend yield	**2.66**	3.15	2.20
Expected common stock price volatility	**28**	35	34
Expected life (in years)	**6.6**	6.6	6.5

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

Note 12 – Noninterest expense

The following table presents the components of noninterest expense.

Year ended December 31, (in millions)	2013	2012	2011
Compensation expense	$ 24,212	$ 23,847	$ 22,279
Noncompensation expense:			
Occupancy expense	3,342	3,516	3,405
Technology, communications and equipment expense	4,935	4,697	4,429
Professional and outside services	5,875	5,754	5,519
Marketing	759	797	872
Other expense[(a)(b)]	10,794	13,498	14,591
Amortization of intangibles	308	638	483
Total noncompensation expense	26,013	28,900	29,299
Total noninterest expense	$ 50,225	$ 52,747	$ 51,578

(a) Included JPMorgan Chase Bank, N.A. legal expense of $2.2 billion, $4.3 billion and $4.1 billion for the years ended December 31, 2013, 2012 and 2011, respectively.
(b) Included FDIC-related expense of $1.4 billion, $1.5 billion and $1.4 billion for the years ended December 31, 2013, 2012 and 2011, respectively.

Note 13 – Securities

Securities are classified as AFS, held-to-maturity ("HTM") or trading. Securities classified as trading assets are discussed in Note 4 on pages 14–32 of these Consolidated Financial Statements. Predominantly all of JPMorgan Chase Bank, N.A.'s AFS and HTM investment securities (the "investment securities portfolio") is held by CIO in connection with its asset-liability management objectives. At December 31, 2013, the average credit rating of the debt securities comprising the investment securities portfolio was AA+ (based upon external ratings where available, and where not available, based primarily upon internal ratings which correspond to ratings as defined by S&P and Moody's). AFS securities are carried at fair value on the Consolidated Balance Sheets. Unrealized gains and losses, after any applicable hedge accounting adjustments, are reported as net increases or decreases to accumulated other comprehensive income/(loss). The specific identification method is used to determine realized gains and losses on AFS securities, which are included in securities gains/(losses) on the Consolidated Statements of Income. HTM debt securities, which management has the intent and ability to hold until maturity, are carried at amortized cost on the Consolidated Balance Sheets. For both AFS and HTM debt securities, purchase discounts or premiums are amortized into interest income.

Other-than-temporary impairment

AFS debt and equity securities and HTM debt securities in unrealized loss positions are analyzed as part of JPMorgan Chase Bank, N.A.'s ongoing assessment of other-than-temporary impairment ("OTTI"). For most types of debt

securities, JPMorgan Chase Bank, N.A. considers a decline in fair value to be other-than-temporary when JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. would not recover substantially all of its recorded investment, JPMorgan Chase Bank, N.A. considers an OTTI to have occurred when there is an adverse change in expected cash flows. For AFS equity securities, JPMorgan Chase Bank, N.A. considers a decline in fair value to be other-than-temporary if it is probable that JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.’s intent and ability to hold the security until recovery.

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

JPMorgan Chase Bank, N.A.’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, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. intends to sell the security. In other cases JPMorgan Chase Bank, N.A. considers the relevant factors noted above, as well as JPMorgan Chase Bank, N.A.’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)	**2013**	2012	2011
Realized gains	**$ 1,277**	$ 2,514	$ 1,669
Realized losses	**(613)**	(453)	(134)
Net realized gains[a]	**664**	2,061	1,535
OTTI losses			
Credit-related	**(1)**	(28)	(76)
Securities JPMorgan Chase Bank, N.A. intends to sell	**(20)** [b]	(15) [b]	–
Total OTTI losses recognized in income	**(21)**	(43)	(76)
Net securities gains	**$ 643**	$ 2,018	$ 1,459

(a) Proceeds from securities sold were within approximately 2% of amortized cost in 2013, and within approximately 4% of amortized cost in 2012 and 2011.
(b) Excludes realized losses of $12 million and $24 million for the years ended December 31, 2013 and 2012, respectively, that had been previously reported as an OTTI loss due to the intention to sell the securities.

The amortized costs and estimated fair values of the investment securities portfolio were as follows for the dates indicated.

December 31, (in millions)	2013				2012			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale debt securities								
Mortgage-backed securities:								
U.S. government agencies[a]	**$ 76,428**	**$ 2,364**	**$ 977**	**$ 77,815**	$ 93,693	$ 4,708	$ 13	$ 98,388
Residential:								
Prime and Alt-A	**2,744**	**61**	**27**	**2,778**	1,853	83	3	1,933
Subprime	**908**	**23**	**1**	**930**	825	28	–	853
Non-U.S.	**57,448**	**1,314**	**1**	**58,761**	70,308	1,524	29	71,803
Commercial	**14,881**	**542**	**24**	**15,399**	11,065	900	12	11,953
Total mortgage-backed securities	**152,409**	**4,304**	**1,030**	**155,683**	177,744	7,243	57	184,930
U.S. Treasury and government agencies[a]	**9,203**	**382**	**296**	**9,289**	11,927	116	8	12,035
Obligations of U.S. states and municipalities	**26,688**	**510**	**969**	**26,229**	16,575	1,422	10	17,987
Certificates of deposit	**1,041**	**1**	**1**	**1,041**	2,781	4	2	2,783
Non-U.S. government debt securities	**55,507**	**863**	**122**	**56,248**	62,348	900	24	63,224
Corporate debt securities	**21,043**	**495**	**29**	**21,509**	37,948	692	84	38,556
Asset-backed securities:								
Collateralized loan obligations	**28,130**	**236**	**136**	**28,230**	27,483	465	52	27,896
Other	**12,225**	**177**	**3**	**12,399**	13,156	174	11	13,319
Total available-for-sale debt securities	**306,246**	**6,968**	**2,586**	**310,628**	349,962	11,016	248	360,730
Available-for-sale equity securities	**280**	**11**	**–**	**291**	364	18	–	382
Total available-for-sale securities	**$ 306,526**	**$ 6,979**	**$ 2,586**	**$ 310,919**	$ 350,326	$ 11,034	$ 248	$ 361,112
Total held-to-maturity securities[b]	**$ 24,026**	**$ 22**	**$ 317**	**$ 23,731**	$ 7	$ 1	$ –	$ 8

(a) Includes total U.S. government-sponsored enterprise obligations with fair values of $67.0 billion and $84.0 billion at December 31, 2013 and 2012, respectively, which were predominantly mortgage-related.

(b) As of December 31, 2013, consists of MBS issued by U.S. government-sponsored enterprises with an amortized cost of $23.1 billion and obligations of U.S. states and municipalities with an amortized cost of $920 million.

Securities impairment

The following tables present the fair value and gross unrealized losses for the investment securities portfolio by aging category at December 31, 2013 and 2012.

	Securities with gross unrealized losses					
	Less than 12 months		12 months or more			
December 31, 2013 (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	**$ 20,293**	**$ 895**	**$ 1,150**	**$ 82**	**$ 21,443**	**$ 977**
Residential:						
Prime and Alt-A	**1,061**	**27**	**–**	**–**	**1,061**	**27**
Subprime	**152**	**1**	**–**	**–**	**152**	**1**
Non-U.S.	**–**	**–**	**158**	**1**	**158**	**1**
Commercial	**3,488**	**24**	**–**	**–**	**3,488**	**24**
Total mortgage-backed securities	**24,994**	**947**	**1,308**	**83**	**26,302**	**1,030**
U.S. Treasury and government agencies	**1,805**	**240**	**237**	**56**	**2,042**	**296**
Obligations of U.S. states and municipalities	**14,877**	**957**	**55**	**12**	**14,932**	**969**
Certificates of deposit	**988**	**1**	**–**	**–**	**988**	**1**
Non-U.S. government debt securities	**11,286**	**110**	**821**	**12**	**12,107**	**122**
Corporate debt securities	**1,580**	**21**	**505**	**8**	**2,085**	**29**
Asset-backed securities:						
Collateralized loan obligations	**18,369**	**129**	**393**	**7**	**18,762**	**136**
Other	**1,114**	**3**	**–**	**–**	**1,114**	**3**
Total available-for-sale debt securities	**75,013**	**2,408**	**3,319**	**178**	**78,332**	**2,586**
Available-for-sale equity securities	**–**	**–**	**–**	**–**	**–**	**–**
Held-to-maturity securities	**20,745**	**317**	**–**	**–**	**20,745**	**317**
Total securities with gross unrealized losses	**$ 95,758**	**$ 2,725**	**$ 3,319**	**$ 178**	**$ 99,077**	**$ 2,903**

	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	1,142	7	312	5	1,454	12
Total mortgage-backed securities	6,242	28	1,122	29	7,364	57
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	12,884	20	1,727	4	14,611	24
Corporate debt securities	2,601	10	5,641	74	8,242	84
Asset-backed securities:						
Collateralized loan obligations	6,328	17	2,063	35	8,391	52
Other	2,073	7	266	4	2,339	11
Total available-for-sale debt securities	35,974	102	10,819	146	46,793	248
Available-for-sale equity securities	–	–	–	–	–	–
Held-to-maturity securities	–	–	–	–	–	–
Total securities with gross unrealized losses	$ 35,974	$ 102	$ 10,819	$ 146	$ 46,793	$ 248

Other-than-temporary impairment

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

Year ended December 31, (in millions)	2013	2012	2011
Debt securities JPMorgan Chase Bank, N.A. does not intend to sell that have credit losses			
Total OTTI[a]	**$ (1)**	$ (113)	$ (27)
Losses recorded in/ (reclassified from) AOCI	**–**	85	(49)
Total credit losses recognized in income[b]	**(1)**	(28)	(76)
Securities JPMorgan Chase Bank, N.A. intends to sell	**(20)** [c]	(15) [c]	–
Total OTTI losses recognized in income	**$ (21)**	$ (43)	$ (76)

(a) For initial OTTI, represents the excess of the amortized cost over the fair value of AFS debt securities. For subsequent impairments of the same security, represents additional declines in fair value subsequent to previously recorded OTTI, if applicable.
(b) Subsequent credit losses may be recorded on securities without a corresponding further decline in fair value if there has been a decline in expected cash flows.
(c) Excludes realized losses of $12 million and $24 million for the years ended December 31, 2013 and 2012, respectively, that had been previously reported as an OTTI loss due to the intention to sell the securities.

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

The following table presents a rollforward for the years ended December 31, 2013, 2012 and 2011, of the credit loss component of OTTI losses that have been recognized in income, related to AFS debt securities that JPMorgan Chase Bank, N.A. does not intend to sell.

Year ended December 31, (in millions)	2013	2012	2011
Balance, beginning of period	**$ 3**	$ 189	$ 113
Additions:			
Newly credit-impaired securities	**1**	21	4
Losses reclassified from other comprehensive income on previously credit-impaired securities	**–**	7	72
Reductions:			
Sales and redemptions of credit-impaired securities	**(3)**	(214)	–
Balance, end of period	**$ 1**	$ 3	$ 189

Gross unrealized losses

Gross unrealized losses, including those that have been in an unrealized loss position for 12 months or more, have generally increased since December 31, 2012. JPMorgan Chase Bank, N.A. has recognized the unrealized losses on securities it intends to sell. As of December 31, 2013, JPMorgan Chase Bank, N.A. does not intend to sell any securities with a loss position in AOCI, and it is not likely that JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. believes that the securities with an unrealized loss in AOCI are not other-than-temporarily impaired as of December 31, 2013.

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at December 31, 2013, of JPMorgan Chase Bank, N.A.'s investment securities portfolio by contractual maturity.

By remaining maturity December 31, 2013 (in millions)	Due in one year or less	Due after one year through five years	Due after five years through 10 years	Due after 10 years[c]	Total
Available-for-sale debt securities					
Mortgage-backed securities[a]					
Amortized cost	$ 209	$ 13,689	$ 8,239	$ 130,272	$ 152,409
Fair value	210	14,117	8,489	132,867	155,683
Average yield[b]	2.17%	2.10%	2.83%	2.93%	2.85%
U.S. Treasury and government agencies[a]					
Amortized cost	$ 6,170	$ 750	$ 1,425	$ 858	$ 9,203
Fair value	6,180	769	1,425	915	9,289
Average yield[b]	0.44%	2.06%	0.34%	0.59%	0.57%
Obligations of U.S. states and municipalities					
Amortized cost	$ 39	$ 436	$ 1,267	$ 24,946	$ 26,688
Fair value	39	460	1,247	24,483	26,229
Average yield[b]	2.16%	4.81%	3.61%	6.04%	5.90%
Certificates of deposit					
Amortized cost	$ 990	$ 51	$ –	$ –	$ 1,041
Fair value	988	53	–	–	1,041
Average yield[b]	6.37%	3.28%	–%	–%	6.22%
Non-U.S. government debt securities					
Amortized cost	$ 11,210	$ 16,999	$ 24,735	$ 2,563	$ 55,507
Fair value	11,223	17,191	25,166	2,668	56,248
Average yield[b]	2.72%	2.26%	1.39%	1.64%	1.94%
Corporate debt securities					
Amortized cost	$ 2,871	$ 12,318	$ 5,854	$ –	$ 21,043
Fair value	2,873	12,635	6,001	–	21,509
Average yield[b]	1.94%	2.41%	2.60%	–%	2.40%
Asset-backed securities					
Amortized cost	$ 42	$ 2,628	$ 15,143	$ 22,542	$ 40,355
Fair value	42	2,659	15,267	22,661	40,629
Average yield[b]	2.17%	2.23%	1.74%	1.80%	1.81%
Total available-for-sale debt securities					
Amortized cost	$ 21,531	$ 46,871	$ 56,663	$ 181,181	$ 306,246
Fair value	21,555	47,884	57,595	183,594	310,628
Average yield[b]	2.12%	2.27%	1.84%	3.19%	2.73%
Available-for-sale equity securities					
Amortized cost	$ –	$ –	$ –	$ 280	$ 280
Fair value	–	–	–	291	291
Average yield[b]	–%	–%	–%	0.72%	0.72%
Total available-for-sale securities					
Amortized cost	$ 21,531	$ 46,871	$ 56,663	$ 181,461	$ 306,526
Fair value	21,555	47,884	57,595	183,885	310,919
Average yield[b]	2.12%	2.27%	1.84%	3.19%	2.72%
Total held-to-maturity securities					
Amortized cost	$ –	$ 3	$ 1	$ 24,022	$ 24,026
Fair value	–	4	1	23,726	23,731
Average yield[b]	–%	6.84%	6.47%	3.53%	3.53%

(a) U.S. government-sponsored enterprises were the only issuers whose securities exceeded 10% of JPMorgan Chase Bank, N.A.'s total stockholder's equity at December 31, 2013.

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

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

Note 14 – Securities financing activities

JPMorgan Chase Bank, N.A. enters into resale agreements, repurchase agreements, securities borrowed transactions and securities loaned transactions (collectively, "securities financing agreements") primarily to finance JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets. Resale and repurchase agreements are generally carried at the amounts at which the securities will be subsequently sold or repurchased. Securities borrowed and securities loaned transactions are generally carried at the amount of cash collateral advanced or received. Where appropriate under applicable accounting guidance, resale and repurchase agreements with the same counterparty are reported on a net basis. For further discussion of the offsetting of assets and liabilities, see Note 1 on pages 7–9 of these Consolidated Financial Statements. Fees received and paid in connection with securities financing agreements are recorded in interest income and interest expense on the Consolidated Statements of Income.

JPMorgan Chase Bank, N.A. has elected the fair value option for certain securities financing agreements. For further information regarding the fair value option, see Note 5 on pages 32–34 of these Consolidated Financial Statements. The securities financing agreements for which the fair value option has been elected are reported within securities purchased under resale agreements; securities loaned or sold under repurchase agreements; and securities borrowed on the Consolidated Balance Sheets. Generally, for agreements carried at fair value, current-period interest accruals are recorded within interest income and interest expense, with changes in fair value reported in principal transactions revenue. However, for financial instruments containing embedded derivatives that would be separately accounted for in accordance with accounting guidance for hybrid instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue.

The following table presents as of December 31, 2013 and 2012, the gross and net securities purchased under resale agreements and securities borrowed. Securities purchased under resale agreements have been presented on the Consolidated Balance Sheets net of securities sold under repurchase agreements where JPMorgan Chase Bank, N.A. has obtained an appropriate legal opinion with respect to the master netting agreement, and where the other relevant criteria have been met. Where such a legal opinion has not been either sought or obtained, the securities purchased under resale agreements are not eligible for netting and are shown separately in the table below. Securities borrowed are presented on a gross basis on the Consolidated Balance Sheets.

December 31, (in millions)	2013 Gross asset balance	2013 Amounts netted on the Consolidated Balance Sheets	2013 Net asset balance	2012 Gross asset balance	2012 Amounts netted on the Consolidated Balance Sheets	2012 Net asset balance
Securities purchased under resale agreements						
Securities purchased under resale agreements with an appropriate legal opinion	**$ 238,916**	**$ (65,587)**	**$ 173,329**	$ 293,695	$ (73,493)	$ 220,202
Securities purchased under resale agreements where an appropriate legal opinion has not been either sought or obtained	**10,739**		**10,739**	8,631		8,631
Total securities purchased under resale agreements	**$ 249,655**	**$ (65,587)**	**$ 184,068** (a)	$ 302,326	$ (73,493)	$ 228,833 (a)
Securities borrowed	**$ 39,857**	**N/A**	**$ 39,857** (b)(c)	$ 55,574	N/A	$ 55,574 (b)(c)

(a) At December 31, 2013 and 2012, included securities purchased under resale agreements of $13.0 billion and $14.3 billion, respectively, accounted for at fair value.
(b) At December 31, 2013 and 2012, included securities borrowed of $3.7 billion and $10.2 billion, respectively, accounted for at fair value.
(c) Included $4.3 billion and $3.0 billion at December 31, 2013 and 2012, respectively, of securities borrowed where an appropriate legal opinion has not been either sought or obtained with respect to the master netting agreement.

The following table presents information as of December 31, 2013 and 2012, regarding the securities purchased under resale agreements and securities borrowed for which an appropriate legal opinion has been obtained with respect to the master netting agreement. The below table excludes information related to resale agreements and securities borrowed where such a legal opinion has not been either sought or obtained.

	2013				2012			
		Amounts not nettable on the Consolidated Balance Sheets[(a)]				Amounts not nettable on the Consolidated Balance Sheets[(a)]		
December 31, (in millions)	Net asset balance	Financial instruments[(b)]	Cash collateral	Net exposure	Net asset balance	Financial instruments[(b)]	Cash collateral	Net exposure
Securities purchased under resale agreements with an appropriate legal opinion	**$ 173,329**	**$ (167,394)**	**$ (49)**	**$ 5,886**	$ 220,202	$ (216,209)	$ (994)	$ 2,999
Securities borrowed	**$ 35,561**	**$ (34,439)**	**$ —**	**$ 1,122**	$ 52,614	$ (52,506)	$ —	$ 108

(a) For some counterparties, the sum of the financial instruments and cash collateral not nettable on the Consolidated Balance Sheets may exceed the net asset balance. Where this is the case the total amounts reported in these two columns are limited to the balance of the net reverse repurchase agreement or securities borrowed asset with that counterparty. As a result a net exposure amount is reported even though JPMorgan Chase Bank, N.A., on an aggregate basis for its securities purchased under resale agreements and securities borrowed, has received securities collateral with a total fair value that is greater than the funds provided to counterparties.

(b) Includes financial instrument collateral received, repurchase liabilities and securities loaned liabilities with an appropriate legal opinion with respect to the master netting agreement; these amounts are not presented net on the Consolidated Balance Sheets because other U.S. GAAP netting criteria are not met.

The following table presents as of December 31, 2013 and 2012, the gross and net securities sold under repurchase agreements and securities loaned. Securities sold under repurchase agreements have been presented on the Consolidated Balance Sheets net of securities purchased under resale agreements where JPMorgan Chase Bank, N.A. has obtained an appropriate legal opinion with respect to the master netting agreement, and where the other relevant criteria have been met. Where such a legal opinion has not been either sought or obtained, the securities sold under repurchase agreements are not eligible for netting and are shown separately in the table below. Securities loaned are presented on a gross basis on the Consolidated Balance Sheets.

	2013			2012		
December 31, (in millions)	Gross liability balance	Amounts netted on the Consolidated Balance Sheets	Net liability balance	Gross liability balance	Amounts netted on the Consolidated Balance Sheets	Net liability balance
Securities sold under repurchase agreements						
Securities sold under repurchase agreements with an appropriate legal opinion	**$ 141,526**	**$ (65,587)**	**$ 75,939**	$ 193,661	$ (73,493)	$ 120,168
Securities sold under repurchase agreements where an appropriate legal opinion has not been either sought or obtained[(a)]	**9,169**		**9,169**	7,374		7,374
Total securities sold under repurchase agreements	**$ 150,695**	**$ (65,587)**	**$ 85,108** [(c)]	$ 201,035	$ (73,493)	$ 127,542 [(c)]
Securities loaned[(b)]	**$ 25,960**	**N/A**	**$ 25,960** [(d)(e)]	$ 26,158	N/A	$ 26,158 [(d)(e)]

(a) Includes repurchase agreements that are not subject to a master netting agreement but do provide rights to collateral.
(b) Included securities-for-securities borrow vs. pledge transactions of $492 million and $825 million at December 31, 2013 and 2012, respectively, when acting as lender and as presented within other liabilities in the Consolidated Balance Sheets.
(c) At December 31, 2013 and 2012, included securities sold under repurchase agreements of $4.6 billion and $2.1 billion, respectively, accounted for at fair value.
(d) At December 31, 2013 and 2012, included securities loaned of $483 million and $457 million, respectively, accounted for at fair value.
(e) Included $356 million and $120 million at December 31, 2013 and 2012, respectively, of securities loaned where an appropriate legal opinion has not been either sought or obtained with respect to the master netting agreement.

The following table presents information as of December 31, 2013 and 2012, regarding the securities sold under repurchase agreements and securities loaned for which an appropriate legal opinion has been obtained with respect to the master netting agreement. The below table excludes information related to repurchase agreements and securities loaned where such a legal opinion has not been either sought or obtained.

	2013				2012			
		Amounts not nettable on the Consolidated balance sheets[a]				Amounts not nettable on the Consolidated balance sheets[a]		
December 31, (in millions)	Net liability balance	Financial instruments[b]	Cash collateral	Net amount[c]	Net liability balance	Financial instruments[b]	Cash collateral	Net amount[c]
Securities sold under repurchase agreements with an appropriate legal opinion	**$ 75,939**	**$ (71,984)**	**$ (38)**	**$ 3,917**	$ 120,168	$ (117,002)	$ (162)	$ 3,004
Securities loaned	**$ 25,604**	**$ (24,774)**	**$ –**	**$ 830**	$ 26,038	$ (25,866)	$ –	$ 172

(a) For some counterparties the sum of the financial instruments and cash collateral not nettable on the Consolidated Balance Sheets may exceed the net liability balance. Where this is the case the total amounts reported in these two columns are limited to the balance of the net repurchase agreement or securities loaned liability with that counterparty.
(b) Includes financial instrument collateral transferred, reverse repurchase assets and securities borrowed assets with an appropriate legal opinion with respect to the master netting agreement; these amounts are not presented net on the Consolidated Balance Sheets because other U.S. GAAP netting criteria are not met.
(c) Net amount represents exposure of counterparties to JPMorgan Chase Bank, N.A.

JPMorgan Chase Bank, N.A.'s policy is to take possession, where possible, of securities purchased under resale agreements and of securities borrowed. JPMorgan Chase Bank, N.A. 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 Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s credit risk mitigation practices with respect to resale and securities borrowed agreements as described above, JPMorgan Chase Bank, N.A. did not hold any reserves for credit impairment with respect to these agreements as of December 31, 2013 and 2012.

For further information regarding assets pledged and collateral received in securities financing agreements, see Note 28 on pages 128–129 of these Consolidated Financial Statements.

Transfers not qualifying for sale accounting

In addition, at December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. held $13.9 billion and $9.5 billion, respectively, of financial assets for which the rights have been transferred to third parties; however, the transfers did not qualify as a sale in accordance with U.S. GAAP. These transfers have been recognized as collateralized financing transactions. The transferred assets are recorded in trading assets, other assets and loans, and the corresponding liabilities are recorded in other borrowed funds, accounts payable and other liabilities, and long-term debt, on the Consolidated Balance Sheets.

Note 15 – 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. JPMorgan Chase Bank, N.A. accounts for loans based on the following categories:

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

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

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

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

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

On the date a loan is placed on nonaccrual status, all interest accrued but not collected is reversed against interest income. In addition, the amortization of deferred amounts is suspended. Interest income on nonaccrual loans may be recognized as cash interest payments are received (i.e., on a cash basis) if the recorded loan balance is deemed fully collectible; however, if there is doubt regarding the ultimate collectibility of the recorded loan balance, all interest cash receipts are applied to reduce the carrying value of the loan (the cost recovery method). For consumer loans, application of this policy typically results in JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. separately establishes an allowance for the estimated uncollectible portion of accrued interest and fee income on credit card loans. The allowance is established with a charge to interest income and is reported as an offset to loans.

Allowance for loan losses
The allowance for loan losses represents the estimated probable credit losses inherent in the held-for-investment loan portfolio at the balance sheet date. Changes in the allowance for loan losses are recorded in the provision for credit losses on JPMorgan Chase Bank, N.A.'s Consolidated Statements of Income. See Note 16 on pages 94–97 of these Consolidated Financial Statements for further information on JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. historically has not recognized 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 JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s policies. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A.'s nonaccrual, allowance for loan losses, and charge-off policies do not apply to these loans.

See Note 5 on pages 32–34 of these Consolidated Financial Statements for further information on JPMorgan Chase Bank, N.A.'s elections of fair value accounting under the fair value option. See Note 4 and Note 5 on pages 14–32 and

32–34 of these Consolidated Financial Statements 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 84 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 JPMorgan Chase Bank, N.A.'s allowance methodology. For a further discussion of the methodologies used in establishing JPMorgan Chase Bank, N.A.'s allowance for loan losses, see Note 16 on pages 94–97 of these Consolidated Financial Statements.

Loan modifications

JPMorgan Chase Bank, N.A. seeks to modify certain loans in conjunction with its loss-mitigation activities. Through the modification, JPMorgan Chase Bank, N.A. grants one or more concessions to a borrower who is experiencing financial difficulty in order to minimize JPMorgan Chase Bank, N.A.'s economic loss, avoid foreclosure or repossession of the collateral, and to ultimately maximize payments received by JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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) JPMorgan Chase Bank, N.A. has an expectation that repayment of the modified loan is reasonably assured based on, for example, the borrower's debt capacity and level of future earnings, collateral values, loan-to-value ("LTV") ratios, and other current market considerations. In certain limited and well-defined circumstances in which the loan is current at the modification date, such loans are not placed on nonaccrual status at the time of modification.

Because loans modified in TDRs are considered to be impaired, these loans are measured for impairment using JPMorgan Chase Bank, N.A.'s established asset-specific allowance methodology, which considers the expected re-default rates for the modified loans. A loan modified in a TDR remains subject to the asset-specific allowance methodology throughout its remaining life, regardless of whether the loan is performing and has been returned to accrual status and/or the loan has been removed from the impaired loans disclosures (i.e., loans restructured at market rates). For further discussion of the methodology used to estimate JPMorgan Chase Bank, N.A.'s asset-specific allowance, see Note 16 on pages 94–97 of these Consolidated Financial Statements.

Foreclosed property

JPMorgan Chase Bank, N.A. acquires property from borrowers through loan restructurings, workouts, and foreclosures. Property acquired may include real property (e.g., residential real estate, land, buildings) and commercial and personal property (e.g., automobiles, aircraft, railcars, and ships).

JPMorgan Chase Bank, N.A. recognizes foreclosed property upon receiving assets in satisfaction of a loan (e.g., by taking legal title or physical possession). For loans collateralized by real property, JPMorgan Chase Bank, N.A. 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

JPMorgan Chase Bank, N.A.'s loan portfolio is divided into three portfolio segments, which are the same segments used by JPMorgan Chase Bank, N.A. to determine the allowance for loan losses: Consumer, excluding credit card; Credit card; and Wholesale. Within each portfolio segment, JPMorgan Chase Bank, N.A. 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[(d)]

(a) Includes loans held in the consumer & community banking business, and prime mortgage loans held in the asset management business and in the corporate/private equity business.
(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 the consumer & community banking business, and therefore, for consistency in presentation, are included with the other consumer loan classes.
(c) Includes loans held in the corporate & investment banking, commercial banking and asset management businesses segments and in the corporate/private equity business. Classes are internally defined and may not align with regulatory definitions.
(d) Other primarily includes loans to SPEs and loans to private banking clients. See Note 1 on pages 7–9 of these Consolidated Financial Statements for additional information on SPEs.

The following tables summarize JPMorgan Chase Bank, N.A.'s loan balances by portfolio segment.

December 31, 2013 (in millions)	Consumer, excluding credit card	Credit card[(a)]	Wholesale	Total
Retained	**$ 280,381**	**$ 30,877**	**$ 307,565**	**$ 618,823** [(b)]
Held-for-sale	**614**	**73**	**11,290**	**11,977**
At fair value	**–**	**–**	**1,182**	**1,182**
Total	**$ 280,995**	**$ 30,950**	**$ 320,037**	**$ 631,982**

December 31, 2012 (in millions)	Consumer, excluding credit card	Credit card[(a)]	Wholesale	Total
Retained	$ 282,913	$ 28,869	$ 305,531	$ 617,313 [(b)]
Held-for-sale	–	–	4,406	4,406
At fair value	–	–	1,562	1,562
Total	$ 282,913	$ 28,869	$ 311,499	$ 623,281

(a) Includes billed finance charges and fees net of an allowance for uncollectible amounts.
(b) Loans (other than PCI loans and those for which the fair value option has been elected) are presented net of unearned income, unamortized discounts and premiums, and net deferred loan costs of $1.9 billion and $2.4 billion at December 31, 2013 and 2012, respectively.

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

	2013				2012			
Years ended December 31, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	**$ 7,616** [a][b]	**$ –**	**$ 697**	**$ 8,313**	$ 11,915 [a][b]	$ –	$ 821	$ 12,736
Sales	**4,829**	**–**	**4,287**	**9,116**	1,852	–	3,423	5,275
Retained loans reclassified to held-for-sale	**1,261**	**68**	**5,641**	**6,970**	–	239	504	743

(a) Purchases predominantly represent JPMorgan Chase Bank, N.A.'s voluntary repurchase of certain delinquent loans from loan pools as permitted by Ginnie Mae guidelines. JPMorgan Chase Bank, N.A. typically elects to repurchase these delinquent loans as it continues to service them and/or manage the foreclosure process in accordance with applicable requirements of Ginnie Mae, the Federal Housing Administration ("FHA"), Rural Housing Services ("RHS") and/or the U.S. Department of Veterans Affairs ("VA").
(b) Excluded retained loans purchased from correspondents that were originated in accordance with JPMorgan Chase Bank, N.A.'s underwriting standards. Such purchases were $5.7 billion and $1.4 billion for the years ended December 31, 2013 and 2012, respectively.

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

Year ended December 31, (in millions)	**2013**	2012	2011
Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)[a]			
Consumer, excluding credit card	**$ 313**	$ 122	$ 131
Credit card	**–**	(5)	(2)
Wholesale	**(78)**	167	112
Total net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)	**$ 235**	$ 284	$ 241

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

Consumer, excluding credit card, loan portfolio

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

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

December 31, (in millions)	**2013**	2012
Residential real estate – excluding PCI		
Home equity:		
Senior lien	**$ 16,730**	$ 18,935
Junior lien	**38,932**	45,784
Mortgages:		
Prime, including option ARMs	**82,255**	70,348
Subprime	**6,218**	7,210
Other consumer loans		
Auto	**52,757**	49,913
Business banking	**18,946**	18,875
Student and other	**11,488**	12,111
Residential real estate – PCI		
Home equity	**18,927**	20,971
Prime mortgage	**12,038**	13,674
Subprime mortgage	**4,175**	4,626
Option ARMs	**17,915**	20,466
Total retained loans	**$ 280,381**	$ 282,913

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

- For residential real estate loans, including both non-PCI and PCI portfolios, the current estimated LTV ratio, or the combined LTV ratio in the case of junior lien loans, is an indicator of the potential loss severity in the event of default. Additionally, LTV or combined LTV can provide insight into a borrower's continued willingness to pay, as the delinquency rate of high-LTV loans tends to be greater than that for loans where the borrower has equity in the collateral. The geographic distribution of the loan collateral also provides insight as to the credit quality of the portfolio, as factors such as the regional economy, home price changes and specific events such as natural disasters, will affect credit quality. The borrower's current or "refreshed" FICO score is a secondary credit-quality indicator for certain loans, as FICO scores are an indication of the borrower's credit payment history. Thus, a loan to a borrower with a low FICO score (660 or below) is considered to be of higher risk than a loan to a borrower with a high FICO score. Further, a loan to a borrower with a high LTV ratio and a low FICO score is at greater risk of default than a loan to a borrower that has both a high LTV ratio and a high FICO score.
- For scored auto, scored business banking and student loans, geographic distribution is an indicator of the credit performance of the portfolio. Similar to residential real estate loans, geographic distribution provides insights into the portfolio performance based on regional economic activity and events.
- Risk-rated business banking and auto loans are similar to wholesale loans in that the primary credit quality indicators are the risk rating that is assigned to the loan and whether the loans are considered to be criticized and/or nonaccrual. Risk ratings are reviewed on a regular and ongoing basis by Credit Risk Management and are adjusted as necessary for updated information about borrowers' ability to fulfill their obligations. For further information about risk-rated wholesale loan credit quality indicators, see page 89 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 JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets.

Residential real estate – excluding PCI loans

December 31, (in millions, except ratios)	Home equity			
	Senior lien		Junior lien	
	2013	2012	**2013**	2012
Loan delinquency[a]				
Current	**$ 16,100**	$ 18,247	**$ 38,064**	$ 44,608
30–149 days past due	**292**	324	**650**	946
150 or more days past due	**338**	364	**218**	230
Total retained loans	**$ 16,730**	$ 18,935	**$ 38,932**	$ 45,784
% of 30+ days past due to total retained loans	**3.77%**	3.63%	**2.23%**	2.57%
90 or more days past due and still accruing	**$ —**	$ —	**$ —**	$ —
90 or more days past due and government guaranteed[b]	**—**	—	**—**	—
Nonaccrual loans	**917**	921	**1,838**	2,234
Current estimated LTV ratios[c][d][e]				
Greater than 125% and refreshed FICO scores:				
Equal to or greater than 660	**$ 40**	$ 192	**$ 1,097**	$ 4,351
Less than 660	**22**	91	**345**	1,276
101% to 125% and refreshed FICO scores:				
Equal to or greater than 660	**212**	479	**4,622**	6,762
Less than 660	**106**	187	**1,401**	1,880
80% to 100% and refreshed FICO scores:				
Equal to or greater than 660	**837**	1,467	**7,697**	9,160
Less than 660	**324**	473	**2,087**	2,174
Less than 80% and refreshed FICO scores:				
Equal to or greater than 660	**12,877**	13,664	**18,424**	17,409
Less than 660	**2,312**	2,382	**3,259**	2,772
U.S. government-guaranteed	**—**	—	**—**	—
Total retained loans	**$ 16,730**	$ 18,935	**$ 38,932**	$ 45,784
Geographic region				
California	**$ 2,384**	$ 2,721	**$ 8,995**	$ 10,462
New York	**2,667**	2,781	**8,079**	9,303
Illinois	**1,200**	1,326	**2,641**	3,115
Florida	**828**	872	**2,106**	2,454
Texas	**2,036**	2,449	**1,106**	1,433
New Jersey	**606**	637	**2,296**	2,707
Arizona	**985**	1,156	**1,758**	2,051
Washington	**553**	636	**1,342**	1,554
Michigan	**776**	888	**939**	1,115
Ohio	**1,245**	1,479	**835**	1,041
All other[f]	**3,450**	3,990	**8,835**	10,549
Total retained loans	**$ 16,730**	$ 18,935	**$ 38,932**	$ 45,784

(a) Individual delinquency classifications included mortgage loans insured by U.S. government agencies as follows: current included $4.7 billion and $3.8 billion; 30–149 days past due included $2.4 billion and $2.3 billion; and 150 or more days past due included $6.6 billion and $9.5 billion at December 31, 2013 and 2012, respectively.
(b) These balances, which are 90 days or more past due but insured by U.S. government agencies, are excluded from nonaccrual loans. In predominantly all cases, 100% of the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting agreed-upon servicing guidelines. These amounts have been excluded from nonaccrual loans based upon the government guarantee. At December 31, 2013 and 2012, these balances included $4.6 billion and $6.8 billion, respectively, of loans that are no longer accruing interest because interest has been curtailed by the U.S. government agencies although, in predominantly all cases, 100% of the principal is still insured. For the remaining balance, interest is being accrued at the guaranteed reimbursement rate.
(c) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. These property values do not represent actual appraised loan level collateral values; as such, the resulting ratios are necessarily imprecise and should be viewed as estimates.
(d) Junior lien represents combined LTV, which considers all available lien positions, as well as unused lines, related to the property. All other products are presented without consideration of subordinate liens on the property.
(e) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by JPMorgan Chase Bank, N.A. on at least a quarterly basis.
(f) At December 31, 2013 and 2012, included mortgage loans insured by U.S. government agencies of $13.7 billion and $15.6 billion, respectively.
(g) At December 31, 2013 and 2012, excluded mortgage loans insured by U.S. government agencies of $9.0 billion and $11.8 billion, respectively. These amounts have been excluded from nonaccrual loans based upon the government guarantee.

(table continued from previous page)

Mortgages					
Prime, including option ARMs		Subprime		Total residential real estate – excluding PCI	
2013	2012	**2013**	2012	**2013**	2012
$ 71,491	$ 55,972	**$ 5,193**	$ 5,765	**$ 130,848**	$ 124,592
3,047	3,084	**584**	661	**4,573**	5,015
7,717	11,292	**441**	784	**8,714**	12,670
$ 82,255	$ 70,348	**$ 6,218**	$ 7,210	**$ 144,135**	$ 142,277
2.11% [g]	3.69% [g]	**16.48%**	20.04%	**2.95%** [g]	4.15% [g]
$ —	$ —	**$ —**	$ —	**$ —**	$ —
7,819	10,619	**—**	—	**7,819**	10,619
2,299	2,984	**1,252**	1,652	**6,306**	7,791
$ 1,084	$ 2,323	**$ 52**	$ 206	**$ 2,273**	$ 7,072
303	895	**194**	570	**864**	2,832
1,409	3,339	**245**	399	**6,488**	10,979
671	1,242	**587**	861	**2,765**	4,170
4,182	6,385	**596**	634	**13,312**	17,646
1,447	1,912	**1,108**	1,175	**4,966**	5,734
55,031	34,569	**1,556**	1,566	**87,888**	67,208
4,439	4,108	**1,880**	1,799	**11,890**	11,061
13,689	15,575	**—**	—	**13,689**	15,575
$ 82,255	$ 70,348	**$ 6,218**	$ 7,210	**$ 144,135**	$ 142,277
$ 19,788	$ 15,838	**$ 882**	$ 1,083	**$ 32,049**	$ 30,104
13,446	10,105	**836**	944	**25,028**	23,133
5,034	3,611	**255**	282	**9,130**	8,334
4,263	3,948	**766**	900	**7,963**	8,174
3,456	2,643	**215**	224	**6,813**	6,749
2,506	1,925	**292**	349	**5,700**	5,618
1,318	1,049	**135**	144	**4,196**	4,400
1,674	1,572	**133**	155	**3,702**	3,917
974	783	**146**	177	**2,835**	2,963
450	366	**137**	167	**2,667**	3,053
29,346	28,508	**2,421**	2,785	**44,052**	45,832
$ 82,255	$ 70,348	**$ 6,218**	$ 7,210	**$ 144,135**	$ 142,277

The following tables represent JPMorgan Chase Bank, N.A.'s delinquency statistics for junior lien home equity loans and lines as of December 31, 2013 and 2012.

December 31, 2013 (in millions, except ratios)	Delinquencies				
	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]	**$ 332**	**$ 103**	**$ 157**	**$ 30,313**	**1.95%**
Beyond the revolving period	**83**	**21**	**46**	**4,909**	**3.06**
HELOANs	**86**	**25**	**15**	**3,710**	**3.40**
Total	**$ 501**	**$ 149**	**$ 218**	**$ 38,932**	**2.23%**

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]	$ 507	$ 191	$ 179	$ 38,902	2.25%
Beyond the revolving period	48	18	27	2,088	4.45
HELOANs	124	58	24	4,794	4.30
Total	$ 679	$ 267	$ 230	$ 45,784	2.57%

(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) JPMorgan Chase Bank, N.A. manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are experiencing financial difficulty or when the collateral does not support the loan amount.

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

Impaired loans

The table below sets forth information about JPMorgan Chase Bank, N.A.'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 16 on pages 94–97 of these Consolidated Financial Statements.

December 31, (in millions)	Home equity				Mortgages				Total residential real estate – excluding PCI	
	Senior lien		Junior lien		Prime, including option ARMs		Subprime			
	2013	2012	**2013**	2012	**2013**	2012	**2013**	2012	**2013**	2012
Impaired loans										
With an allowance	**$ 564**	$ 540	**$ 721**	$ 673	**$ 4,947**	$ 4,872	**$ 2,845**	$ 2,933	**$ 9,077**	$ 9,018
Without an allowance[(a)]	**571**	546	**579**	537	**998**	1,152	**648**	670	**2,796**	2,905
Total impaired loans[(b)]	**$ 1,135**	$ 1,086	**$ 1,300**	$ 1,210	**$ 5,945**	$ 6,024	**$ 3,493**	$ 3,603	**$ 11,873**	$ 11,923
Allowance for loan losses related to impaired loans	**$ 94**	$ 158	**$ 161**	$ 187	**$ 125**	$ 63	**$ 94**	$ 166	**$ 474**	$ 574
Unpaid principal balance of impaired loans[(c)]	**1,503**	1,400	**2,594**	2,333	**7,753**	7,835	**5,170**	5,413	**17,020**	16,981
Impaired loans on nonaccrual status[(d)]	**633**	602	**651**	588	**1,515**	1,641	**1,035**	1,205	**3,834**	4,036

(a) Represents collateral-dependent residential mortgage loans that are charged off to the fair value of the underlying collateral less cost to sell. JPMorgan Chase Bank, N.A. reports, in accordance with regulatory guidance, residential real estate loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status.

(b) At both December 31, 2013 and 2012, $7.5 billion of loans modified subsequent to repurchase from Government National Mortgage Association ("Ginnie Mae") in accordance with the standards of the appropriate government agency (i.e., FHA, VA, RHS) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure.

(c) Represents the contractual amount of principal owed at December 31, 2013 and 2012. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs, net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.

(d) As of December 31, 2013 and 2012, nonaccrual loans included $2.8 billion and $2.6 billion, respectively, of TDRs for which the borrowers were less than 90 days past due. For additional information about loans modified in a TDR that are on nonaccrual status refer to the Loan accounting framework on pages 68–70 of this Note.

The following table presents average impaired loans and the related interest income reported by JPMorgan Chase Bank, N.A.

Year ended December 31, (in millions)	Average impaired loans			Interest income on impaired loans[(a)]			Interest income on impaired loans on a cash basis[(a)]		
	2013	2012	2011	**2013**	2012	2011	**2013**	2012	2011
Home equity									
Senior lien	**$ 1,142**	$ 598	$ 287	**$ 58**	$ 26	$ 10	**$ 39**	$ 11	$ 1
Junior lien	**1,280**	834	520	**82**	41	18	**54**	16	2
Mortgages									
Prime, including option ARMs	**6,138**	4,971	3,206	**241**	201	124	**53**	25	12
Subprime	**3,586**	3,314	2,961	**189**	176	143	**51**	29	15
Total residential real estate – excluding PCI	**$ 12,146**	$ 9,717	$ 6,974	**$ 570**	$ 444	$ 295	**$ 197**	$ 81	$ 30

(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

As required under the terms of certain settlements, JPMorgan Chase Bank, N.A. is required to provide borrower relief, which will include, for example, reductions of principal and forbearance. For further information on the global and RMBS settlements, see Business changes and developments in Note 3 on pages 10–13 of these Consolidated Financial Statements.

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.

	Home equity						Mortgages								
Year ended December 31,	Senior lien			Junior lien			Prime, including option ARMs			Subprime			Total residential real estate – excluding PCI		
(in millions)	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011
Beginning balance of TDRs	**$ 1,086**	$ 334	$ 226	**$1,210**	$ 656	$ 283	**$6,024**	$3,997	$1,944	**$3,603**	$3,078	$2,668	**$ 11,923**	$ 8,065	$ 5,121
New TDRs	**203**	829	136	**375**	700	517	**677**	2,616	2,472	**297**	956	812	**1,552**	5,101	3,937
Charge-offs post-modification[(a)]	**(30)**	(30)	(15)	**(97)**	(4)	(77)	**(42)**	(120)	(106)	**(90)**	(199)	(228)	**(259)**	(353)	(426)
Foreclosures and other liquidations (e.g., short sales)	**(17)**	(5)	(1)	**(24)**	(20)	(11)	**(134)**	(127)	(106)	**(71)**	(113)	(83)	**(246)**	(265)	(201)
Principal payments and other	**(107)**	(42)	(12)	**(164)**	(122)	(56)	**(580)**	(342)	(207)	**(246)**	(119)	(91)	**(1,097)**	(625)	(366)
Ending balance of TDRs	**$ 1,135**	$ 1,086	$ 334	**$1,300**	$1,210	$ 656	**$5,945**	$6,024	$3,997	**$3,493**	$3,603	$3,078	**$ 11,873**	$ 11,923	$ 8,065
Permanent modifications	**$ 1,096**	$ 1,052	$ 285	**$1,294**	$1,205	$ 633	**$5,801**	$5,780	$3,770	**$3,414**	$3,477	$2,909	**$ 11,605**	$ 11,514	$ 7,597
Trial modifications	**$ 39**	$ 34	$ 49	**$ 6**	$ 5	$ 23	**$ 144**	$ 244	$ 227	**$ 79**	$ 126	$ 169	**$ 268**	$ 409	$ 468

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

Nature and extent of modifications

Making Home Affordable ("MHA"), as well as JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s loss mitigation programs during the periods presented. This table excludes Chapter 7 loans where the sole concession granted is the discharge of debt. At December 31, 2013, there were approximately 35,000 of such Chapter 7 loans, consisting of approximately 8,700 senior lien home equity loans, 21,300 junior lien home equity loans, 2,600 prime mortgage, including option ARMs, and 2,400 subprime mortgages.

	Home equity						Mortgages								
Year ended	Senior lien			Junior lien			Prime, including option ARMs			Subprime			Total residential real estate - excluding PCI		
December 31,	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011
Number of loans approved for a trial modification[(a)]	**1,701**	1,665	1,173	**870**	914	1,306	**2,579**	3,583	4,279	**3,887**	4,335	5,917	**9,037**	10,497	12,675
Number of loans permanently modified	**1,741**	4,367	1,000	**4,970**	7,357	9,119	**3,974**	8,275	7,028	**5,063**	9,599	4,528	**15,748**	29,598	21,675
Concession granted:[(a)(b)]															
Interest rate reduction	**71%**	83%	80%	**88%**	88%	95%	**73%**	73%	62%	**71%**	68%	80%	**77%**	77%	81%
Term or payment extension	**76**	46	88	**80**	76	81	**72**	55	73	**59**	42	72	**71**	55	77
Principal and/or interest deferred	**12**	6	10	**24**	17	21	**30**	16	22	**13**	7	20	**21**	12	21
Principal forgiveness	**38**	11	7	**32**	23	20	**38**	28	3	**50**	43	14	**40**	29	12
Other[(c)]	**—**	—	29	**—**	—	7	**24**	29	63	**14**	8	26	**10**	11	30

(a) Prior period amounts have been revised to conform with the current presentation.
(b) Represents concessions granted in permanent modifications as a percentage of the number of loans permanently modified. The sum of the percentages exceeds 100% because predominantly all of the modifications include more than one type of concession. A significant portion of trial modifications include interest rate reductions and/or term or payment extensions.
(c) Represents variable interest rate to fixed interest rate modifications.

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 JPMorgan Chase Bank, N.A.'s loss mitigation programs and about redefaults of certain loans modified in TDRs for the periods presented. Because the specific types and amounts of concessions offered to borrowers frequently change between the trial modification and the permanent modification, the following tables present only the financial effects of permanent modifications. These tables also exclude Chapter 7 loans where the sole concession granted is the discharge of debt.

Year ended December 31, (in millions, except weighted-average data and number of loans)	Home equity						Mortgages								
	Senior lien			Junior lien			Prime, including option ARMs			Subprime			Total residential real estate – excluding PCI		
	2013	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011
Weighted-average interest rate of loans with interest rate reductions – before TDR	**6.35%**	7.21%	7.25%	**5.06%**	5.46%	5.46%	**5.24%**	6.13%	5.98%	**7.35%**	7.76%	8.30%	**5.88%**	6.59%	6.48%
Weighted-average interest rate of loans with interest rate reductions – after TDR	**3.23**	4.61	3.51	**2.13**	1.93	1.49	**2.78**	3.70	3.27	**3.54**	4.18	3.45	**2.93**	3.72	3.01
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	**19**	18	18	**19**	20	21	**25**	25	25	**24**	24	24	**23**	23	24
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	**31**	28	30	**34**	32	34	**37**	36	35	**35**	32	35	**36**	34	35
Charge-offs recognized upon permanent modification	**$ 7**	$ 8	$ 1	**$ 69**	$ 65	$ 116	**$ 16**	$ 32	$ 49	**$ 5**	$ 27	$ 19	**$ 97**	$ 132	$ 185
Principal deferred	**7**	4	4	**24**	23	35	**116**	124	152	**41**	39	60	**188**	190	251
Principal forgiven	**30**	20	1	**51**	58	62	**189**	229	19	**215**	322	45	**485**	629	127
Number of loans that redefaulted within one year of permanent modification[(a)]	**401**	374	222	**1,061**	1,430	1,310	**619**	834	1,016	**999**	1,342	1,859	**3,080**	3,980	4,407
Balance of loans that redefaulted within one year of permanent modification[(a)]	**$ 26**	$ 30	$ 18	**$ 20**	$ 46	$ 52	**$ 142**	$ 225	$ 289	**$ 99**	$ 147	$ 266	**$ 287**	$ 448	$ 625

(a) Represents loans permanently modified in TDRs that experienced a payment default in the periods presented, and for which the payment default occurred within one year of the modification. The dollar amounts presented represent the balance of such loans at the end of the reporting period in which such loans defaulted. For residential real estate loans modified in TDRs, payment default is deemed to occur when the loan becomes two contractual payments past due. In the event that a modified loan redefaults, it is probable that the loan will ultimately be liquidated through foreclosure or another similar type of liquidation transaction. 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, 2013, the cumulative redefault rates of residential real estate loans that have been modified under JPMorgan Chase Bank, N.A.'s loss mitigation programs, excluding PCI loans, based upon permanent modifications that were completed after October 1, 2009, and that are seasoned more than six months, are 20% for senior lien home equity, 20% for junior lien home equity, 16% for

prime mortgages, including option ARMs, and 26% for subprime mortgages.

Default rates of Chapter 7 loans vary significantly based on the delinquency status of the loan and overall economic conditions at the time of discharge. Default rates for Chapter 7 residential real estate loans that were less than 60 days past due at the time of discharge have ranged between approximately 10% and 40% in recent years based on the economic conditions at the time of discharge. At December 31, 2013, Chapter 7 residential real estate loans included approximately 20% of senior lien home equity, 11% of junior lien home equity, 34% of prime mortgages, including option ARMs, and 24% of subprime mortgages that were 30 days or more past due.

At December 31, 2013, the weighted-average estimated remaining lives of residential real estate loans, excluding PCI loans, permanently modified in TDRs were 6 years for senior lien home equity, 7 years for junior lien home equity, 10 years for prime mortgages, including option ARMs and 8 years for subprime mortgage. The estimated remaining lives of these loans reflect estimated prepayments, both voluntary and involuntary (i.e., foreclosures and other forced liquidations).

Other consumer loans

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

December 31, (in millions, except ratios)	Auto		Business banking		Student and other		Total other consumer	
	2013	2012	**2013**	2012	**2013**	2012	**2013**	2012
Loan delinquency[(a)]								
Current	**$52,152**	$49,290	**$18,506**	$ 18,474	**$10,464**	$ 10,959	**$ 81,122**	$ 78,723
30–119 days past due	**599**	616	**280**	263	**656**	708	**1,535**	1,587
120 or more days past due	**6**	7	**160**	138	**368**	444	**534**	589
Total retained loans	**$52,757**	$49,913	**$18,946**	$ 18,875	**$11,488**	$ 12,111	**$ 83,191**	$ 80,899
% of 30+ days past due to total retained loans	**1.15%**	1.25%	**2.32%**	2.12%	**2.50%** (d)	2.13% (d)	**1.60%** (d)	1.58% (d)
90 or more days past due and still accruing[(b)]	**$ —**	$ —	**$ —**	$ —	**$ 428**	$ 525	**$ 428**	$ 525
Nonaccrual loans	**161**	163	**385**	481	**85**	70	**631**	714
Geographic region								
California	**$ 5,615**	$ 4,962	**$ 2,374**	$ 1,983	**$ 1,111**	$ 1,100	**$ 9,100**	$ 8,045
New York	**3,898**	3,742	**3,084**	2,980	**1,158**	1,179	**8,140**	7,901
Illinois	**2,917**	2,738	**1,341**	1,404	**739**	745	**4,997**	4,887
Florida	**2,012**	1,922	**646**	526	**538**	554	**3,196**	3,002
Texas	**5,310**	4,739	**2,642**	2,743	**877**	878	**8,829**	8,360
New Jersey	**2,014**	1,921	**392**	379	**396**	409	**2,802**	2,709
Arizona	**1,855**	1,719	**1,046**	1,139	**252**	262	**3,153**	3,120
Washington	**950**	824	**234**	202	**227**	277	**1,411**	1,303
Michigan	**1,902**	2,091	**1,382**	1,369	**512**	546	**3,796**	4,006
Ohio	**2,229**	2,462	**1,316**	1,443	**707**	767	**4,252**	4,672
All other	**24,055**	22,793	**4,489**	4,707	**4,971**	5,394	**33,515**	32,894
Total retained loans	**$52,757**	$49,913	**$18,946**	$ 18,875	**$11,488**	$ 12,111	**$ 83,191**	$ 80,899
Loans by risk ratings[(c)]								
Noncriticized	**$ 9,968**	$ 8,882	**$13,618**	$ 13,329	**NA**	NA	**$ 23,586**	$ 22,211
Criticized performing	**54**	130	**711**	713	**NA**	NA	**765**	843
Criticized nonaccrual	**38**	4	**316**	386	**NA**	NA	**354**	390

(a) Individual delinquency classifications included loans insured by U.S. government agencies under the Federal Family Education Loan Program ("FFELP") as follows: current included $4.9 billion and $5.4 billion; 30-119 days past due included $387 million and $466 million; and 120 or more days past due included $350 million and $428 million at December 31, 2013 and 2012, respectively.

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

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

(d) December 31, 2013 and 2012, excluded loans 30 days or more past due and still accruing, which are insured by U.S. government agencies under the FFELP, of $737 million and $894 million, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.

Other consumer impaired loans and loan modifications

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

December 31, (in millions)	Auto		Business banking		Total other consumer[c]	
	2013	2012	**2013**	2012	**2013**	2012
Impaired loans						
With an allowance	**$ 96**	$ 78	**$ 475**	$ 543	**$ 571**	$ 621
Without an allowance[a]	**47**	72	**—**	—	**47**	72
Total impaired loans	**$ 143**	$ 150	**$ 475**	$ 543	**$ 618**	$ 693
Allowance for loan losses related to impaired loans	**$ 13**	$ 12	**$ 94**	$ 126	**$ 107**	$ 138
Unpaid principal balance of impaired loans[b]	**235**	259	**553**	624	**788**	883
Impaired loans on nonaccrual status	**113**	109	**328**	394	**441**	503

(a) When discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged off and/or there have been interest payments received and applied to the loan balance.
(b) Represents the contractual amount of principal owed at December 31, 2013 and 2012. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the principal balance; net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.
(c) There were no impaired student and other loans at December 31, 2013 and 2012.

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

Year ended December 31, (in millions)	Average impaired loans[b]		
	2013	2012	2011
Auto	**$ 132**	$ 111	$ 92
Business banking	**516**	622	760
Total other consumer[a]	**$ 648**	$ 733	$ 852

(a) There were no impaired student and other loans for the years ended 2013, 2012 and 2011.
(b) The related interest income on impaired loans, including those on a cash basis, was not material for the years ended 2013, 2012 and 2011.

Loan modifications

The following table provides information about JPMorgan Chase Bank, N.A.'s other consumer loans modified in TDRs. All of these TDRs are reported as impaired loans in the tables above.

December 31, (in millions)	Auto		Business banking		Total other consumer[c]	
	2013	2012	**2013**	2012	**2013**	2012
Loans modified in troubled debt restructurings[a][b]	**$ 107**	$ 150	**$ 271**	$ 352	**$ 378**	$ 502
TDRs on nonaccrual status	**77**	109	**124**	203	**201**	312

(a) These modifications generally provided interest rate concessions to the borrower or term or payment extensions.
(b) Additional commitments to lend to borrowers whose loans have been modified in TDRs as of December 31, 2013 and 2012 were immaterial.
(c) There were no student and other loans modified in TDRs at December 31, 2013 and 2012.

TDR activity rollforward

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

Year ended December 31, (in millions)	Auto			Business banking			Total other consumer		
	2013	2012	2011	**2013**	2012	2011	**2013**	2012	2011
Beginning balance of TDRs	**$ 150**	$ 88	$ 91	**$ 352**	$ 415	$ 395	**$ 502**	$ 503	$ 486
New TDRs	**90**	145	54	**66**	104	195	**156**	249	249
Charge-offs post-modification	**(10)**	(9)	(5)	**(10)**	(9)	(11)	**(20)**	(18)	(16)
Foreclosures and other liquidations	**—**	—	—	**—**	(1)	(3)	**—**	(1)	(3)
Principal payments and other	**(123)**	(74)	(52)	**(137)**	(157)	(161)	**(260)**	(231)	(213)
Ending balance of TDRs	**$ 107**	$ 150	$ 88	**$ 271**	$ 352	$ 415	**$ 378**	$ 502	$ 503

Financial effects of modifications and redefaults

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

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

The balance of business banking loans modified in TDRs that experienced a payment default, and for which the payment default occurred within one year of the modification, was $43 million, $42 million and $80 million, during the years ended December 31, 2013, 2012 and 2011, respectively. The balance of auto loans modified in TDRs that experienced a payment default, and for which the payment default occurred within one year of the modification, was $54 million and $46 million during the years ended December 31, 2013 and 2012, respectively. The corresponding amount for the year ended December 31, 2011 was insignificant. A payment default is deemed to occur as follows: (1) for scored auto and business banking loans, when the loan is two payments past due; and (2) for risk-rated business banking loans and auto loans, when the borrower has not made a loan payment by its scheduled due date after giving effect to the contractual grace period, if any.

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

Year ended December 31,	Auto			Business banking		
	2013	2012	2011	**2013**	2012	2011
Weighted-average interest rate of loans with interest rate reductions – before TDR	**13.66%**	12.64%	12.45%	**8.37%**	7.33%	7.55%
Weighted-average interest rate of loans with interest rate reductions – after TDR	**4.94**	4.83	5.70	**6.05**	5.49	5.52
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	**NM**	NM	NM	**1.1**	1.4	1.4
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	**NM**	NM	NM	**3.1**	2.4	2.6

Purchased credit-impaired loans

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

On a quarterly basis, JPMorgan Chase Bank, N.A. 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.

JPMorgan Chase Bank, N.A. continues to modify certain PCI loans. The impact of these modifications is incorporated into JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. incorporates the effect of any foregone interest and also considers the potential for redefault. JPMorgan Chase Bank, N.A. develops product-specific probability of default estimates, which are used to compute expected credit losses. In developing these probabilities of default, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. also considers its own historical loss experience to-date based on actual redefaulted modified PCI loans.

The excess of cash flows expected to be collected over the carrying value of the underlying loans is referred to as the accretable yield. This amount is not reported on JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s PCI consumer loans are reasonably estimable, interest is being accreted and the loans are being reported as performing loans.

The liquidation of PCI loans, which may include sales of loans, receipt of payment in full by the borrower, or foreclosure, results in removal of the loans from the underlying PCI pool. When the amount of the liquidation proceeds (e.g., cash, real estate), if any, is less than the unpaid principal balance of the loan, the difference is first applied against the PCI pool's nonaccretable difference for principal losses (i.e., the lifetime credit loss estimate established as a purchase accounting adjustment at the acquisition date). When the nonaccretable difference for a particular loan pool has been fully depleted, any excess of the unpaid principal balance of the loan over the liquidation proceeds is written off against the PCI pool's allowance for loan losses. Because JPMorgan Chase Bank, N.A.'s PCI loans are accounted for at a pool level, JPMorgan Chase Bank, N.A. does not recognize charge-offs of PCI loans when they reach specified stages of delinquency (i.e., unlike non-PCI consumer loans, these loans are not charged off based on FFIEC standards).

The PCI portfolio affects JPMorgan Chase Bank, N.A.'s results of operations primarily through: (i) contribution to net interest margin; (ii) expense related to defaults and servicing resulting from the liquidation of the loans; and (iii) any provision for loan losses. The PCI loans acquired in the Washington Mutual transaction were funded based on the interest rate characteristics of the loans. For example, variable-rate loans were funded with variable-rate liabilities and fixed-rate loans were funded with fixed-rate liabilities with a similar maturity profile. A net spread will be earned on the declining balance of the portfolio, which is estimated as of December 31, 2013, to have a remaining weighted-average life of 8 years.

Residential real estate – PCI loans

The table below sets forth information about JPMorgan Chase Bank, N.A.'s consumer, excluding credit card, PCI loans.

December 31, (in millions, except ratios)	Home equity		Prime mortgage		Subprime mortgage		Option ARMs		Total PCI	
	2013	2012	**2013**	2012	**2013**	2012	**2013**	2012	**2013**	2012
Carrying value[(a)]	**$18,927**	$20,971	**$12,038**	$13,674	**$ 4,175**	$ 4,626	**$17,915**	$20,466	**$53,055**	$59,737
Related allowance for loan losses[(b)]	**1,758**	1,908	**1,726**	1,929	**180**	380	**494**	1,494	**4,158**	5,711
Loan delinquency (based on unpaid principal balance)										
Current	**$18,135**	$20,331	**$10,118**	$11,078	**$ 4,012**	$ 4,198	**$15,501**	$16,415	**$47,766**	$52,022
30–149 days past due	**583**	803	**589**	740	**662**	698	**1,006**	1,314	**2,840**	3,555
150 or more days past due	**1,112**	1,209	**1,169**	2,066	**797**	1,430	**2,716**	4,862	**5,794**	9,567
Total loans	**$19,830**	$22,343	**$11,876**	$13,884	**$ 5,471**	$ 6,326	**$19,223**	$22,591	**$56,400**	$65,144
% of 30+ days past due to total loans	**8.55%**	9.01%	**14.80%**	20.21%	**26.67%**	33.64%	**19.36%**	27.34%	**15.31%**	20.14%
Current estimated LTV ratios (based on unpaid principal balance)[(c)(d)]										
Greater than 125% and refreshed FICO scores:										
Equal to or greater than 660	**$ 1,168**	$ 4,508	**$ 240**	$ 1,478	**$ 115**	$ 375	**$ 301**	$ 1,597	**$ 1,824**	$ 7,958
Less than 660	**662**	2,344	**290**	1,449	**459**	1,300	**575**	2,729	**1,986**	7,822
101% to 125% and refreshed FICO scores:										
Equal to or greater than 660	**3,248**	4,966	**1,017**	2,968	**316**	434	**1,164**	3,281	**5,745**	11,649
Less than 660	**1,541**	2,098	**884**	1,983	**919**	1,256	**1,563**	3,200	**4,907**	8,537
80% to 100% and refreshed FICO scores:										
Equal to or greater than 660	**4,473**	3,531	**2,787**	1,872	**544**	416	**3,311**	3,794	**11,115**	9,613
Less than 660	**1,782**	1,305	**1,699**	1,378	**1,197**	1,182	**2,769**	2,974	**7,447**	6,839
Lower than 80% and refreshed FICO scores:										
Equal to or greater than 660	**5,077**	2,524	**2,897**	1,356	**521**	255	**5,671**	2,624	**14,166**	6,759
Less than 660	**1,879**	1,067	**2,062**	1,400	**1,400**	1,108	**3,869**	2,392	**9,210**	5,967
Total unpaid principal balance	**$19,830**	$22,343	**$11,876**	$13,884	**$ 5,471**	$ 6,326	**$19,223**	$22,591	**$56,400**	$65,144
Geographic region (based on unpaid principal balance)										
California	**$11,937**	$13,493	**$ 6,845**	$ 7,877	**$ 1,293**	$ 1,444	**$10,419**	$11,889	**$30,494**	$34,703
New York	**962**	1,067	**807**	927	**563**	649	**1,196**	1,404	**3,528**	4,047
Illinois	**451**	502	**353**	433	**283**	338	**481**	587	**1,568**	1,860
Florida	**1,865**	2,054	**826**	1,023	**526**	651	**1,817**	2,480	**5,034**	6,208
Texas	**327**	385	**106**	148	**328**	368	**100**	118	**861**	1,019
New Jersey	**381**	423	**334**	401	**213**	260	**701**	854	**1,629**	1,938
Arizona	**361**	408	**187**	215	**95**	105	**264**	305	**907**	1,033
Washington	**1,072**	1,215	**266**	328	**112**	142	**463**	563	**1,913**	2,248
Michigan	**62**	70	**189**	211	**145**	163	**206**	235	**602**	679
Ohio	**23**	27	**55**	71	**84**	100	**75**	89	**237**	287
All other	**2,389**	2,699	**1,908**	2,250	**1,829**	2,106	**3,501**	4,067	**9,627**	11,122
Total unpaid principal balance	**$19,830**	$22,343	**$11,876**	$13,884	**$ 5,471**	$ 6,326	**$19,223**	$22,591	**$56,400**	$65,144

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

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

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

(d) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by JPMorgan Chase Bank, N.A. on at least a quarterly basis.

Approximately 20% of the PCI home equity portfolio are senior lien loans; the remaining balance are junior lien HELOANs or HELOCs. The following tables set forth delinquency statistics for PCI junior lien home equity loans and lines of credit based on unpaid principal balance as of December 31, 2013 and 2012.

December 31, 2013 (in millions, except ratios)	Delinquencies 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]	**$ 243**	**$ 88**	**$ 526**	**$ 12,670**	**6.76%**
Beyond the revolving period[c]	**54**	**21**	**82**	**2,336**	**6.72**
HELOANs	**24**	**11**	**39**	**908**	**8.15**
Total	**$ 321**	**$ 120**	**$ 647**	**$ 15,914**	**6.84%**

December 31, 2012 (in millions, except ratios)	Delinquencies 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]	$ 361	$ 175	$ 591	$ 15,915	7.08%
Beyond the revolving period[c]	30	13	20	666	9.46
HELOANs	37	18	44	1,085	9.12
Total	$ 428	$ 206	$ 655	$ 17,666	7.30%

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

The table below sets forth the accretable yield activity for JPMorgan Chase Bank, N.A.'s PCI consumer loans for the years ended December 31, 2013, 2012 and 2011, and represents JPMorgan Chase Bank, N.A.'s estimate of gross interest income expected to be earned over the remaining life of the PCI loan portfolios. The table excludes the cost to fund the PCI portfolios, and therefore the accretable yield does not represent net interest income expected to be earned on these portfolios.

Year ended December 31, (in millions, except ratios)	Total PCI **2013**	2012	2011
Beginning balance	**$ 18,457**	$ 19,072	$ 19,097
Accretion into interest income	**(2,201)**	(2,491)	(2,767)
Changes in interest rates on variable-rate loans	**(287)**	(449)	(573)
Other changes in expected cash flows[a]	**198**	2,325	3,315
Balance at December 31	**$ 16,167**	$ 18,457	$ 19,072
Accretable yield percentage	**4.31%**	4.38%	4.33%

(a) Other changes in expected cash flows may vary from period to period as JPMorgan Chase Bank, N.A. continues to refine its cash flow model and periodically updates model assumptions. For the year ended December 31, 2013, other changes in expected cash flows were due to refining the expected interest cash flows on HELOCs with balloon payments, partially offset by changes in prepayment assumptions. For the years ended December 31, 2012 and December 31, 2011, other changes in expected cash flows were principally driven by the impact of modifications, but also related to changes in prepayment assumptions.

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

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

Credit card loan portfolio

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

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

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s credit card loans.

As of or for the year ended December 31, (in millions, except ratios)	2013	2012
Net charge-offs	**$ 774**	$ 974
% of net charge-offs to retained loans	**2.70%**	3.44%
Loan delinquency		
Current and less than 30 days past due and still accruing	**$ 30,390**	$ 28,300
30–89 days past due and still accruing	**266**	307
90 or more days past due and still accruing	**221**	262
Nonaccrual loans	**—**	—
Total retained credit card loans	**$ 30,877**	$ 28,869
Loan delinquency ratios		
% of 30+ days past due to total retained loans	**1.58%**	1.97%
% of 90+ days past due to total retained loans	**0.72**	0.91
Credit card loans by geographic region		
California	**$ 3,905**	$ 3,472
New York	**2,467**	2,234
Texas	**2,457**	2,218
Illinois	**1,682**	1,567
Florida	**1,576**	1,457
New Jersey	**1,260**	1,155
Ohio	**1,099**	1,048
Pennsylvania	**987**	959
Michigan	**784**	785
Virginia	**802**	695
All other	**11,493**	10,691
Canada	**2,365**	2,588
Total retained credit card loans	**$ 30,877**	$ 28,869
Percentage of portfolio based on carrying value with estimated refreshed FICO scores		
Equal to or greater than 660	**86.2%**	85.6%
Less than 660	**13.8**	14.4

Credit card impaired loans and loan modifications

The table below sets forth information about JPMorgan Chase Bank, N.A.'s impaired credit card loans. All of these loans are considered to be impaired as they have been modified in TDRs.

December 31, (in millions)	2013	2012
Impaired credit card loans with an allowance[(a)(b)]		
Credit card loans with modified payment terms[(c)]	**$ 491**	$ 717
Modified credit card loans that have reverted to pre-modification payment terms[(d)]	**69**	104
Total impaired credit card loans	**$ 560**	$ 821
Allowance for loan losses related to impaired credit card loans	**$ 173**	$ 285

(a) The carrying value and the unpaid principal balance are the same for credit card impaired loans.
(b) There were no impaired loans without an allowance.
(c) Represents credit card loans outstanding to borrowers enrolled in a credit card modification program as of the date presented.
(d) Represents credit card loans that were modified in TDRs but that have subsequently reverted back to the loans' pre-modification payment terms. At December 31, 2013 and 2012, $42 million and $61 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 $27 million and $43 million at December 31, 2013 and 2012, respectively, of these loans are to borrowers who have successfully completed a short-term modification program. JPMorgan Chase Bank, N.A. continues to report these loans as TDRs since the borrowers' credit lines remain closed.

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

Year ended December 31, (in millions)	2013	2012	2011
Average impaired credit card loans	**$ 672**	$ 1,036	$ 1,439
Interest income on impaired credit card loans	**34**	52	90

Loan modifications

JPMorgan Chase Bank, N.A. may offer one of a number of loan modification programs to credit card borrowers who are experiencing financial difficulty. Most of the credit card loans have been modified under long-term programs for borrowers who are experiencing financial difficulties. Modifications under long-term programs involve placing the customer on a fixed payment plan, generally for 60 months. JPMorgan Chase Bank, N.A. may also offer short-term programs for borrowers who may be in need of temporary relief; however, none are currently being offered. Modifications under all short- and long-term programs typically include reducing the interest rate on the credit card. Substantially all modifications are considered to be TDRs.

If the cardholder does not comply with the modified payment terms, then the credit card loan agreement reverts back to its pre-modification payment terms. Assuming that the cardholder does not begin to perform in accordance with those payment terms, the loan continues to age and will ultimately be charged-off in accordance with JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. 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)	2013	2012	2011
Short-term programs	**$ –**	$ 9	$ 29
Long-term programs	**112**	160	430
Total new enrollments	**$ 112**	$ 169	$ 459

Financial effects of modifications and redefaults

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

Year ended December 31, (in millions, except weighted-average data)	2013	2012	2011
Weighted-average interest rate of loans – before TDR	**14.75%**	15.04%	14.91%
Weighted-average interest rate of loans – after TDR	**4.38**	4.95	5.04
Loans that redefaulted within one year of modification[(a)]	**$ 35**	$ 55	$ 116

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

For credit card loans modified in TDRs, payment default is deemed to have occurred when the loans become two payments past due. A substantial portion of these loans is expected to be charged-off in accordance with JPMorgan Chase Bank, N.A.'s standard charge-off policy. Based on historical experience, the estimated weighted-average default rate was expected to be 30.14%, 37.79% and 35.85% for credit card loans modified as of December 31, 2013, 2012 and 2011, respectively.

Wholesale loan portfolio

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

The primary credit quality indicator for wholesale loans is the risk rating assigned each loan. Risk ratings are used to identify the credit quality of loans and differentiate risk within the portfolio. Risk ratings on loans consider the probability of default ("PD") and the loss given default ("LGD"). PD is the likelihood that a loan will default and not be paid. 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. JPMorgan Chase Bank, N.A.'s definition of criticized aligns with the banking regulatory definition of criticized exposures, which consist of special mention, substandard and doubtful categories. Risk ratings generally represent ratings profiles similar to those defined by S&P and Moody's. Investment-grade ratings range from "AAA/Aaa" to "BBB-/Baa3." Noninvestment-grade ratings are classified as noncriticized ("BB+/Ba1 and B-/B3") and criticized ("CCC+"/"Caa1 and below"), and the criticized portion is further subdivided into performing and nonaccrual loans, representing management's assessment of the collectibility of principal and interest. Criticized loans have a higher probability of default than noncriticized loans.

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

As noted above, the risk rating of a loan considers the industry in which the obligor conducts its operations. As part of the overall credit risk management framework, JPMorgan Chase Bank, N.A. 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 6 on page 35 in these Consolidated Financial Statements 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	
	2013	2012	**2013**	2012
Loans by risk ratings				
Investment grade	**$ 56,406**	$ 60,888	**$ 52,154**	$ 41,787
Noninvestment grade:				
Noncriticized	**43,255**	44,413	**14,325**	14,437
Criticized performing	**2,380**	2,636	**2,214**	3,841
Criticized nonaccrual	**294**	708	**344**	515
Total noninvestment grade	**45,929**	47,757	**16,883**	18,793
Total retained loans	**$ 102,335**	$ 108,645	**$ 69,037**	$ 60,580
% of total criticized to total retained loans	**2.61%**	3.08 %	**3.71%**	7.19%
% of nonaccrual loans to total retained loans	**0.29**	0.65	**0.50**	0.85
Loans by geographic distribution[(a)]				
Total non-U.S.	**$ 34,428**	$ 35,470	**$ 1,369**	$ 1,533
Total U.S.	**67,907**	73,175	**67,668**	59,047
Total retained loans	**$ 102,335**	$ 108,645	**$ 69,037**	$ 60,580
Net charge-offs/(recoveries)	**$ 99**	$ (207)	**$ 7**	$ 52
% of net charge-offs/(recoveries) to end-of-period retained loans	**0.10%**	(0.19)%	**0.01%**	0.09%
Loan delinquency[(b)]				
Current and less than 30 days past due and still accruing	**$ 101,846**	$ 107,799	**$ 68,515**	$ 59,674
30–89 days past due and still accruing	**181**	119	**164**	322
90 or more days past due and still accruing[(c)]	**14**	19	**14**	69
Criticized nonaccrual	**294**	708	**344**	515
Total retained loans	**$ 102,335**	$ 108,645	**$ 69,037**	$ 60,580

(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 89 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 7–9 of these Consolidated Financial Statements for additional information on SPEs.

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

December 31, (in millions, except ratios)	Multifamily		Commercial lessors	
	2013	2012	**2013**	2012
Real estate retained loans	**$ 44,389**	$ 38,030	**$ 15,846**	$ 14,517
Criticized	**1,142**	2,118	**1,306**	1,932
% of criticized to total real estate retained loans	**2.57%**	5.57%	**8.24%**	13.31%
Criticized nonaccrual	**$ 191**	$ 249	**$ 141**	$ 203
% of criticized nonaccrual to total real estate retained loans	**0.43%**	0.65%	**0.89%**	1.40%

(table continued from previous page)

Financial institutions				Government agencies				Other[d]				Total retained loans			
2013		2012		**2013**		2012		**2013**		2012		**2013**		2012	
$	**26,698**	$	21,901	**$**	**8,182**	$	7,704	**$**	**81,958**	$	79,100	**$**	**225,398**	$	211,380
	6,589		13,661		**430**		343		**11,372**		12,794		**75,971**		85,648
	272		391		**42**		5		**480**		200		**5,388**		7,073
	14		8		**1**		—		**155**		199		**808**		1,430
	6,875		14,060		**473**		348		**12,007**		13,193		**82,167**		94,151
$	**33,573**	$	35,961	**$**	**8,655**	$	8,052	**$**	**93,965**	$	92,293	**$**	**307,565**	$	305,531
	0.85 %		1.11 %		**0.50%**		0.06%		**0.68%**		0.43%		**2.01%**		2.78 %
	0.04		0.02		**0.01**		—		**0.16**		0.22		**0.26**		0.47
$	**22,726**	$	26,246	**$**	**2,146**	$	1,582	**$**	**43,366**	$	39,401	**$**	**104,035**	$	104,232
	10,847		9,715		**6,509**		6,470		**50,599**		52,892		**203,530**		201,299
$	**33,573**	$	35,961	**$**	**8,655**	$	8,052	**$**	**93,965**	$	92,293	**$**	**307,565**	$	305,531
$	**(99)**	$	(36)	**$**	**1**	$	2	**$**	**11**	$	24	**$**	**19**	$	(165)
	(0.29)%		(0.10)%		**0.01%**		0.02%		**0.01%**		0.03%		**0.01%**		(0.05)%
$	**33,327**	$	35,885	**$**	**8,637**	$	8,024	**$**	**92,633**	$	90,634	**$**	**304,958**	$	302,016
	226		62		**17**		28		**1,161**		1,416		**1,749**		1,947
	6		6		**—**		—		**16**		44		**50**		138
	14		8		**1**		—		**155**		199		**808**		1,430
$	**33,573**	$	35,961	**$**	**8,655**	$	8,052	**$**	**93,965**	$	92,293	**$**	**307,565**	$	305,531

(table continued from previous page)

Commercial construction and development				Other				Total real estate loans			
2013		2012		**2013**		2012		**2013**		2012	
$	**3,674**	$	2,989	**$**	**5,128**	$	5,044	**$**	**69,037**	$	60,580
	81		119		**29**		187		**2,558**		4,356
	2.20%		3.98%		**0.57%**		3.71%		**3.71%**		7.19%
$	**3**	$	20	**$**	**9**	$	43	**$**	**344**	$	515
	0.08%		0.67%		**0.18%**		0.85%		**0.50%**		0.85%

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 16 on pages 94–97 of these Consolidated Financial Statements.

The table below sets forth information about JPMorgan Chase Bank, N.A.'s wholesale impaired loans.

December 31, (in millions)	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other		Total retained loans	
	2013	2012	**2013**	2012	**2013**	2012	**2013**	2012	**2013**	2012	**2013**	2012
Impaired loans												
With an allowance	**$ 236**	$ 587	**$ 258**	$ 375	**$ 13**	$ 6	**$ 1**	$ –	**$ 85**	$ 122	**$ 593**	$ 1,090
Without an allowance[a]	**58**	173	**107**	129	**1**	2	**–**	–	**73**	76	**239**	380
Total impaired loans	**$ 294**	$ 760	**$ 365**	$ 504	**$ 14**	$ 8	**$ 1**	$ –	**$ 158**	$ 198	**$ 832**	$ 1,470
Allowance for loan losses related to impaired loans	**$ 75**	$ 205	**$ 63**	$ 82	**$ 5**	$ 2	**$ –**	$ –	**$ 27**	$ 29	**$ 170**	$ 318
Unpaid principal balance of impaired loans[b]	**448**	949	**442**	617	**13**	22	**1**	–	**241**	318	**1,145**	1,906

(a) When the discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged-off and/or there have been interest payments received and applied to the loan balance.
(b) Represents the contractual amount of principal owed at December 31, 2013 and 2012. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the carrying value; net deferred loan fees or costs; and unamortized discount or premiums on purchased loans.

The following table presents JPMorgan Chase Bank, N.A.'s average impaired loans for the years ended 2013, 2012 and 2011.

Year ended December 31, (in millions)	**2013**	2012	2011
Commercial and industrial	**$ 409**	$ 868	$ 1,289
Real estate	**470**	775	1,804
Financial institutions	**11**	17	84
Government agencies	**–**	9	20
Other	**211**	277	634
Total[a]	**$ 1,101**	$ 1,946	$ 3,831

(a) The related interest income on accruing impaired loans and interest income recognized on a cash basis were not material for the years ended December 31, 2013, 2012 and 2011.

Loan modifications

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

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

Years ended December 31, (in millions)	Commercial and industrial			Real estate			Other[b]			Total		
	2013	2012	2011	**2013**	2012	2011	**2013**	2012	2011	**2013**	2012	2011
Beginning balance of TDRs	**$ 575**	$ 531	$ 212	**$ 99**	$ 176	$ 907	**$ 22**	$ 43	$ 24	**$ 696**	$ 750	$ 1,143
New TDRs	**60**	$ 162	665	**43**	43	113	**50**	73	32	**153**	278	810
Increases to existing TDRs	**4**	183	96	**–**	–	16	**–**	–	–	**4**	183	112
Charge-offs post-modification	**(9)**	(27)	(30)	**(3)**	(2)	(146)	**–**	(7)	–	**(12)**	(36)	(176)
Sales and other[a]	**(553)**	(274)	(412)	**(51)**	(118)	(714)	**(39)**	(87)	(13)	**(643)**	(479)	(1,139)
Ending balance of TDRs	**$ 77**	$ 575	$ 531	**$ 88**	$ 99	$ 176	**$ 33**	$ 22	$ 43	**$ 198**	$ 696	$ 750
TDRs on nonaccrual status	**$ 77**	$ 522	415	**$ 61**	$ 92	128	**$ 30**	$ 22	35	**$ 168**	$ 636	578
Additional commitments to lend to borrowers whose loans have been modified in TDRs	**19**	44	147	**–**	–	–	**–**	2	–	**19**	46	147

(a) Sales and other are largely sales and paydowns, but also includes performing loans restructured at market rates that were removed from the reported TDR balance of $12 million, $44 million and $152 million during the years ended December 31, 2013, 2012 and 2011, respectively. Loans that have been removed continue to be evaluated along with other impaired loans to determine the asset-specific component of the allowance for loan losses (see page 70 of this Note).

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

Financial effects of modifications and redefaults

Wholesale loans modified as TDRs are typically term or payment extensions and, to a lesser extent, deferrals of principal and/or interest on commercial and industrial and real estate loans. For the years ended December 31, 2013, 2012 and 2011, the average term extension granted on wholesale loans with term or payment extensions was 2.1 years, 1.1 years and 3.3 years, respectively. The weighted-average remaining term for all loans modified during these periods was 2.0 years, 3.6 years and 4.5 years, respectively. Wholesale TDR loans that redefaulted within one year of the modification were $1 million, $56 million and $96 million during the years ended December 31, 2013, 2012 and 2011, respectively. A payment default is deemed to occur when the borrower has not made a loan payment by its scheduled due date after giving effect to any contractual grace period.

Note 16 – Allowance for credit losses

JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s loan portfolio. The allowance for loan losses includes an asset-specific component, a formula-based component and a component related to PCI loans, as described below. Management also estimates an allowance for wholesale and consumer lending-related commitments using methodologies similar to those used to estimate the allowance on the underlying loans. During 2013, JPMorgan Chase Bank, N.A. 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.

JPMorgan Chase Bank, N.A. 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 15 on pages 68–93 of these Consolidated Financial Statements 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, JPMorgan Chase Bank, N.A. develops product-specific probability of default estimates, which are applied at a loan level to compute expected losses. In developing these probabilities of default, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s historical experience by type of modification program. For wholesale loans modified in TDRs, expected losses incorporate redefaults based on management's expectation of the borrower's ability to repay under the modified terms.

The formula-based component is based on a statistical calculation to provide for incurred credit losses in performing risk-rated loans and all consumer loans, except for any loans restructured in TDRs and PCI loans. See Note 15 on pages 68–93 of these Consolidated Financial Statements for more information on PCI loans.

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

Loss factors are statistically derived and sensitive to changes in delinquency status, credit scores, collateral values and other risk factors. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s history of actual credit losses over more than one credit cycle.

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

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

Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. Subsequent evaluations of the loan portfolio, in light of the factors then prevailing, may result in significant changes in the allowances for loan losses and lending-related commitments in future periods. At least quarterly, the allowance for credit losses is reviewed by the Chief Risk Officer, the Chief Financial Officer and the Controller of JPMorgan Chase and discussed with the Risk Policy and Audit Committees of the Board of Directors of JPMorgan Chase Bank, N.A. As of December 31, 2013, JPMorgan Chase deemed the allowance for credit losses to be appropriate (i.e., sufficient to absorb probable credit losses inherent in the portfolio).

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.

	2013			
Year ended December 31, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total
Allowance for loan losses				
Beginning balance at January 1,	$ 12,018	$ 1,101	$ 4,072	$ 17,191
Gross charge-offs	2,675	904	241	3,820
Gross recoveries	(767)	(130)	(222)	(1,119)
Net charge-offs/(recoveries)	1,908	774	19	2,701
Write-offs of PCI loans[(a)]	53	–	–	53
Provision for loan losses	(1,699)	511	(106)	(1,294)
Other	(4)	(6)	1	(9)
Ending balance at December 31,	$ 8,354	$ 832	$ 3,948	$ 13,134
Allowance for loan losses by impairment methodology				
Asset-specific[(b)]	$ 581	$ 173 [(c)]	$ 170	$ 924
Formula-based	3,615	659	3,778	8,052
PCI	4,158	–	–	4,158
Total allowance for loan losses	$ 8,354	$ 832	$ 3,948	$ 13,134
Loans by impairment methodology				
Asset-specific	$ 12,491	$ 560	$ 832	$ 13,883
Formula-based	214,835	30,317	306,727	551,879
PCI	53,055	–	6	53,061
Total retained loans	$ 280,381	$ 30,877	$ 307,565	$ 618,823
Impaired collateral-dependent loans				
Net charge-offs	$ 227	$ –	$ 38	$ 265
Loans measured at fair value of collateral less cost to sell	2,888	–	361	3,249
Allowance for lending-related commitments				
Beginning balance at January 1,	$ 7	$ –	$ 647	$ 654
Provision for lending-related commitments	1	–	46	47
Other	–	–	–	–
Ending balance at December 31,	$ 8	$ –	$ 693	$ 701
Allowance for lending-related commitments by impairment methodology				
Asset-specific	$ –	$ –	$ 60	$ 60
Formula-based	8	–	633	641
Total allowance for lending-related commitments	$ 8	$ –	$ 693	$ 701
Lending-related commitments by impairment methodology				
Asset-specific	$ –	$ –	$ 206	$ 206
Formula-based	56,069	33,844	439,622	529,535
Total lending-related commitments	$ 56,069	$ 33,844	$ 439,828	$ 529,741

(a) Write-offs of PCI loans are recorded against the allowance for loan losses when actual losses for a pool exceed estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. Any write-offs of PCI loans are recognized when the underlying loan is removed from a pool (e.g., upon liquidation).
(b) Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR.
(c) The asset-specific credit card allowance for loan losses is related to loans that have been modified in a TDR; such allowance is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.
(d) Consumer, excluding credit card, charge-offs for the year ended December 31, 2012, included $743 million of charge-offs for Chapter 7 residential real estate loans and $53 million of charge-offs for Chapter 7 auto loans.

(table continued from previous page)

2012				2011			
Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
$ 15,918	$ 1,371	$ 4,218	$ 21,507	$ 16,199	$ 1,566	$ 4,670	$ 22,435
4,647 [d]	1,145	343	6,135	5,188	1,433	863	7,484
(453)	(171)	(508)	(1,132)	(506)	(224)	(443)	(1,173)
4,194 [d]	974	(165)	5,003	4,682	1,209	420	6,311
–	–	–	–	–	–	–	–
302	700	(321)	681	4,376	1,014	(11)	5,379
(8)	4	10	6	25	–	(21)	4
$ 12,018	$ 1,101	$ 4,072	$ 17,191	$ 15,918	$ 1,371	$ 4,218	$ 21,507
$ 712	$ 285 [c]	$ 318	$ 1,315	$ 802	$ 478 [c]	$ 511	$ 1,791
5,595	816	3,754	10,165	9,405	893	3,707	14,005
5,711	–	–	5,711	5,711	–	–	5,711
$ 12,018	$ 1,101	$ 4,072	$ 17,191	$ 15,918	$ 1,371	$ 4,218	$ 21,507
$ 12,616	$ 821	$ 1,470	$ 14,907	$ 8,869	$ 1,275	$ 2,527	$ 12,671
210,560	28,048	304,042	542,650	216,543	27,741	274,606	518,890
59,737	–	19	59,756	65,546	–	21	65,567
$ 282,913	$ 28,869	$ 305,531	$ 617,313	$ 290,958	$ 29,016	$ 277,154	$ 597,128
$ 948 [d]	$ –	$ 75	$ 1,023	$ 98	$ –	$ 126	$ 224
3,033	–	441	3,474	762	–	826	1,588
$ 7	$ –	$ 645	$ 652	$ 6	$ –	$ 685	$ 691
–	–	5	5	2	–	(37)	(35)
–	–	(3)	(3)	(1)	–	(3)	(4)
$ 7	$ –	$ 647	$ 654	$ 7	$ –	$ 645	$ 652
$ –	$ –	$ 97	$ 97	$ –	$ –	$ 150	$ 150
7	–	550	557	7	–	495	502
$ 7	$ –	$ 647	$ 654	$ 7	$ –	$ 645	$ 652
$ –	$ –	$ 355	$ 355	$ –	$ –	$ 856	$ 856
60,216	34,371	428,678	523,265	57,218	27,586	379,907	464,711
$ 60,216	$ 34,371	$ 429,033	$ 523,620	$ 57,218	$ 27,586	$ 380,763	$ 465,567

Note 17 – Variable interest entities

For a further description of JPMorgan Chase Bank, N.A.'s accounting policies regarding consolidation of VIEs, see Note 1 on pages 7–9 of these Consolidated Financial Statements.

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

JPMorgan Chase Bank, N.A. business	*Transaction Type*	*Activity*	*Consolidated Financial Statements page reference*
Consumer & Community bank	Mortgage securitization trusts	Securitization of originated and purchased residential mortgages	99-100
	Other securitization trusts	Securitization of originated student loans	99-100
	Credit card securitization trusts	Securitization of both originated and purchased credit card receivables	100-101
Corporate & Investment bank	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, automobile and student loans	99-100
	Multi-seller conduits	Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to meet investor needs	101-105
	Investor intermediation activities:		
	Municipal bond vehicles		101-103
	Credit-related note and asset swap vehicles		103-104

JPMorgan Chase Bank, N.A.'s other businesses are also involved with VIEs, but to a lesser extent, as follows:

- Asset management business: Sponsors and manages certain funds that are deemed VIEs. As asset manager of the funds, the asset management business 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, the asset management business's interests are not considered to be significant variable interests, and therefore, the financial results of these entities are not consolidated by JPMorgan Chase Bank, N.A.
- Commercial banking business: The commercial banking business makes investments in and provides lending to community development entities that may meet the definition of a VIE. In addition, the commercial banking business provides financing and lending related services to certain client-sponsored VIEs. In general, the commercial banking business does not control the activities of these entities, and therefore, the financial results of these entities are not consolidated by JPMorgan Chase Bank, N.A.
- Corporate/private equity business: Corporate uses VIEs to issue trust preferred securities. See Note 21 on pages 113–114 of these Consolidated Financial Statements for further information.

JPMorgan Chase Bank, N.A. also invests in and provides financing and other services to VIEs sponsored by third parties.

Significant JPMorgan Chase Bank, N.A.-sponsored variable interest entities

Mortgage and other securitization trusts

JPMorgan Chase Bank, N.A. securitizes (or has securitized) originated and purchased residential mortgages, commercial mortgages and other consumer loans (including automobile and student loans) primarily in its corporate & investment banking and consumer & community banking businesses. Depending on the particular transaction, as well as the respective business involved, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.-sponsored private-label securitization entities, including those in which JPMorgan Chase Bank, N.A. has continuing involvement, and those that are consolidated by JPMorgan Chase Bank, N.A. Continuing involvement includes servicing the loans, holding senior interests or subordinated interests, recourse or guarantee arrangements, and derivative transactions. In certain instances, JPMorgan Chase Bank, N.A.'s only continuing involvement is servicing the loans. See Securitization activity on page 106 of this Note for further information regarding JPMorgan Chase Bank, N.A.'s cash flows with and interests retained in nonconsolidated VIEs, and page 106 of this Note for information on JPMorgan Chase Bank, N.A.'s loan sales to U.S. government agencies.

	Principal amount outstanding			JPMorgan Chase Bank, N.A. interest in securitized assets in nonconsolidated VIEs[e][f]		
December 31, 2013 [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 Bank, N.A.
Securitization-related						
Residential mortgage:						
Prime/Alt-A and Option ARMs	**$ 69.2**	**$ 0.9**	**$ 66.7**	**$ 0.2**	**$ 0.3**	**$ 0.5**
Subprime	**20.9**	**—**	**19.0**	**—**	**—**	**—**
Commercial and other[b]	**92.0**	**—**	**72.6**	**—**	**2.6**	**2.6**
Total	**$ 182.1**	**$ 0.9**	**$ 158.3**	**$ 0.2**	**$ 2.9**	**$ 3.1**

	Principal amount outstanding			JPMorgan Chase Bank, N.A. interest in securitized assets in nonconsolidated VIEs[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 Bank, N.A.
Securitization-related						
Residential mortgage:						
Prime/Alt-A and Option ARMs[d]	$ 83.0	$ 1.0	$ 77.5	$ 0.2	$ —	$ 0.2
Subprime	22.7	—	21.9	—	—	—
Commercial and other[b]	81.3 [c]	—	63.3 [c]	—	1.8	1.8
Total	$ 187.0	$ 1.0	$ 162.7	$ 0.2	$ 1.8	$ 2.0

(a) Excludes U.S. government agency securitizations. See page 106 of this Note for information on JPMorgan Chase Bank, N.A.'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. JPMorgan Chase Bank, N.A. generally does not retain a residual interest in its sponsored commercial mortgage securitization transactions.
(c) The prior period amounts have been revised.
(d) The prior period has been reclassified to conform with the current presentation methodology.
(e) The table above excludes the following: retained servicing (see Note 18 on pages 108–111 of these Consolidated Financial Statements 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 7 on pages 36–49 of these Consolidated Financial Statements for further information on derivatives). There were no senior and subordinated securities purchased in connection with the corporate & investment banking business's secondary market-making activities at December 31, 2013 and 2012, respectively.
(f) As of December 31, 2013 and 2012, 65% and 53%, respectively, of JPMorgan Chase Bank, N.A.'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 $426 million and $162 million of investment-grade and $50 million and $55 million of noninvestment-grade retained interests at December 31, 2013 and 2012, respectively. The retained interests in commercial and other securitizations trusts consisted of $2.6 billion and $1.8 billion of investment-grade and $6 million and $21 million of noninvestment-grade retained interests at December 31, 2013 and 2012, respectively.

Residential mortgage
JPMorgan Chase Bank, N.A. securitizes residential mortgage loans originated by the consumer & community banking business, as well as residential mortgage loans purchased from third parties by either the consumer & community banking business or the corporate & investment banking business. The consumer & community banking business generally retains servicing for all residential mortgage loans it originated or purchased, and for certain mortgage loans purchased by the corporate & investment banking business. For securitizations serviced by the consumer & community banking business, JPMorgan Chase Bank, N.A. has the power to direct the significant activities of the VIE because it is responsible for decisions related to loan modifications and workouts. The consumer & community banking business may also retain an interest upon securitization.

In addition, the corporate & investment banking business engages in underwriting and trading activities involving securities issued by JPMorgan Chase Bank, N.A.-sponsored securitization trusts. As a result, the corporate & investment banking business 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 the corporate & investment banking business or held by the consumer & community banking business, when considered together with the servicing arrangements entered into by the consumer & community banking business, JPMorgan Chase Bank, N.A. is deemed to be the primary beneficiary of certain securitization trusts. See the table on page 105 of this Note for more information on consolidated residential mortgage securitizations.

JPMorgan Chase Bank, N.A. does not consolidate a residential mortgage securitization (JPMorgan Chase Bank, N.A.-sponsored or third-party-sponsored) when it is not the servicer (and therefore does not have the power to direct the most significant activities of the trust) or does not hold a beneficial interest in the trust that could potentially be significant to the trust. At December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. did not consolidate the assets of certain JPMorgan Chase Bank, N.A.-sponsored residential mortgage securitization VIEs, in which it had continuing involvement, primarily due to the fact that JPMorgan Chase Bank, N.A. did not hold an interest in these trusts that could potentially be significant to the trusts. See the table on page 105 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
The corporate & investment banking business originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts. The corporate & investment banking business may retain unsold senior and/or subordinated interests in commercial mortgage securitizations at the time of securitization but, generally, JPMorgan Chase Bank, N.A. 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 105 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.

JPMorgan Chase Bank, N.A. also securitizes student loans, and it retains servicing responsibilities for all originated and certain purchased student loans, and has the power to direct the activities of these VIEs through these servicing responsibilities. See the table on page 105 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.

Credit card securitizations
JPMorgan Chase Bank, N.A. involvement with credit card affiliated securitization entities sponsored by an affiliate
On an ongoing basis, JPMorgan Chase Bank, N.A. sells credit card receivables to various credit card securitization trusts ("Trusts") sponsored by an affiliate. The consideration received for the sales is an undivided interest in the respective Trusts. These Trusts are consolidated by the affiliate as it is the primary beneficiary of the Trusts.

At December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. had recorded $5.9 billion and $6.4 billion, respectively, of undivided interests in the Trusts. These undivided interests are measured at fair value and classified as other assets. JPMorgan Chase Bank, N.A. also retains senior and subordinated securities issued by the Trusts. The retained securities totaled $231 million and $477 million at December 31, 2013 and 2012, respectively, and were classified as AFS securities.

Consolidation of JPMorgan Chase Bank, N.A.-sponsored credit card securitization trust
In addition to the securitization activity with the Trusts, JPMorgan Chase Bank, N.A. previously securitized originated and purchased credit card loans in a JPMorgan Chase Bank, N.A. sponsored entity ("SCORE Trust"). JPMorgan Chase Bank, N.A. is considered the primary beneficiary based on its ability to direct the activities of the SCORE Trust and, therefore, consolidates the assets and liabilities of the SCORE Trust. On September 3, 2013,

pursuant to an amendment to the trust documents, JPMorgan Chase Bank, N.A. settled its intercompany payable with the SCORE Trust for cash and, therefore, the SCORE Trust no longer has an interest in the credit card receivables previously securitized through the SCORE Trust. As of December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. held an undivided interest in the SCORE Trust of zero and $197 million, respectively, which was eliminated in consolidation.

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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s potential losses on its agreements with the conduits.

To ensure timely repayment of the commercial paper, and to provide the conduits with funding to purchase interests in or make loans secured by pools of receivables in the event that the conduits do not obtain funding in the commercial paper market, each asset pool financed by the conduits has a minimum 100% deal-specific liquidity facility associated with it provided by JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A. also provides the multi-seller conduit vehicles with uncommitted program-wide liquidity facilities and program-wide credit enhancement in the form of standby letters of credit. The amount of program-wide credit enhancement required is based upon commercial paper issuance and approximates 10% of the outstanding balance.

JPMorgan Chase Bank, N.A. consolidates its JPMorgan Chase Bank, N.A.-administered multi-seller conduits, as it 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, JPMorgan Chase Bank, N.A. makes decisions regarding asset types and credit quality, and manages the commercial paper funding needs of the conduits. JPMorgan Chase Bank, N.A.'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 105 of this Note for further information on consolidated VIE assets and liabilities.

In the normal course of business, JPMorgan Chase Bank, N.A. makes markets in and invests in commercial paper, including commercial paper issued by JPMorgan Chase Bank, N.A.-administered multi-seller conduits. JPMorgan Chase Bank, N.A. held $4.1 billion and $8.3 billion of the commercial paper issued by JPMorgan Chase Bank, N.A.-administered multi-seller conduits at December 31, 2013 and 2012, respectively. JPMorgan Chase Bank, N.A.'s investments were not driven by market illiquidity and JPMorgan Chase Bank, N.A. is not obligated under any agreement to purchase the commercial paper issued by JPMorgan Chase Bank, N.A.-administered multi-seller conduits.

JPMorgan Chase Bank, N.A. provides deal-specific liquidity as well as program-wide liquidity and credit enhancement to its administered multi-seller conduits, which have been eliminated in consolidation. The administered multi-seller conduits then provide certain of their clients with lending-related commitments. The unfunded portion of these commitments was $9.1 billion and $10.8 billion at December 31, 2013 and 2012, respectively, and are reported as off-balance sheet lending-related commitments. For more information on off-balance sheet lending-related commitments, see Note 27 on pages 122–128 of these Consolidated Financial Statements.

VIEs associated with investor intermediation activities

As a financial intermediary, JPMorgan Chase Bank, N.A. creates certain types of VIEs and also structures transactions with these VIEs, typically using derivatives, to meet investor needs. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. is exposed. The principal types of VIEs for which JPMorgan Chase Bank, N.A. is engaged in on behalf of clients are municipal bond vehicles, credit-related note vehicles and asset swap vehicles.

Municipal bond vehicles

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A., 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 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, JPMorgan Chase Bank, N.A.'s exposure as liquidity provider is further limited by the high credit quality of the underlying municipal bonds, the excess collateralization in the vehicle, or in certain transactions, the reimbursement agreements with the residual interest holders.

The long-term credit ratings of the puttable floating rate certificates are directly related to the credit ratings of the underlying municipal bonds, the credit rating of any insurer of the underlying municipal bond, and JPMorgan Chase Bank, N.A.'s short-term credit rating as liquidity provider. A downgrade in any of these ratings would affect the rating of the puttable floating-rate certificates and could cause demand for these certificates by investors to decline or disappear. However, a downgrade of JPMorgan Chase Bank, N.A.'s short-term rating does not affect JPMorgan Chase Bank, N.A.'s obligation under the liquidity facility.

JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. does not consolidate municipal bond vehicles if it does not own the residual interests, since it does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle. See page 105 of this Note for further information on consolidated municipal bond vehicles.

JPMorgan Chase Bank, N.A.'s exposure to nonconsolidated municipal bond VIEs at December 31, 2013 and 2012, including the ratings profile of the VIEs' assets, was as follows.

December 31, (in billions)	Fair value of assets held by VIEs	Liquidity facilities	Excess/(deficit)[a]	Maximum exposure
Nonconsolidated municipal bond vehicles				
2013	**$ 11.8**	**$ 6.9**	**$ 4.9**	**$ 6.9**
2012	14.2	8.0	6.2	8.0

	Ratings profile of VIE assets[b]						
	Investment-grade				Noninvestment-grade		
December 31, (in billions, except where otherwise noted)	AAA to AAA-	AA+ to AA-	A+ to A-	BBB+ to BBB-	BB+ and below	Fair value of assets held by VIEs	Wt. avg. expected life of assets (years)
2013	**$ 2.7**	**$ 8.9**	**$ 0.2**	**$ —**	**$ —**	**$ 11.8**	**7.2**
2012	3.1	11.0	0.1	—	—	14.2	5.9

(a) Represents the excess/(deficit) of the fair values of municipal bond assets available to repay the liquidity facilities, if drawn.
(b) The ratings scale is presented on an S&P-equivalent basis. The prior period has been reclassified to conform with the current presentation.

Credit-related note and asset swap vehicles

Credit-related note vehicles

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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 Bank, N.A. As a derivative counterparty in a credit-related note structure, JPMorgan Chase Bank, N.A. has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. The collateral purchased by such VIEs is predominantly investment grade. JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. does not provide any additional contractual financial support to the VIE. In addition, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. does not generally have a variable interest that could potentially be significant. Accordingly, JPMorgan Chase Bank, N.A. does not generally consolidate these credit-related note entities. As a derivative counterparty, JPMorgan Chase Bank, N.A. 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

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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.

JPMorgan Chase Bank, N.A.'s exposure to asset swap vehicles is generally limited to its rights and obligations under the interest rate and/or foreign exchange derivative contracts. JPMorgan Chase Bank, N.A. historically has not provided any financial support to the asset swap vehicles over and above its contractual obligations. JPMorgan Chase Bank, N.A. does not generally consolidate these asset swap vehicles, since JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. Substantially all of the assets purchased by such VIEs are investment-grade.

Exposure to nonconsolidated credit-related note and asset swap VIEs at December 31, 2013 and 2012, was as follows.

December 31, 2013 (in billions)	Net derivative receivables	Total exposure	Par value of collateral held by VIEs[(a)]
Credit-related notes			
Static structure	**$ –**	**$ –**	**$ 4.8**
Managed structure	**–**	**–**	**3.9**
Total credit-related notes	**–**	**–**	**8.7**
Asset swaps	**0.4**	**0.4**	**7.7**
Total	**$ 0.4**	**$ 0.4**	**$ 16.4**

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

(a) JPMorgan chase Bank, N.A.'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. JPMorgan Chase Bank, N.A. 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.

JPMorgan Chase Bank, N.A. consolidated JPMorgan Chase Bank, N.A.-sponsored and third-party credit-related note vehicles with collateral fair values of $311 million and $483 million, at December 31, 2013 and 2012, respectively. These consolidated VIEs included some that were structured by JPMorgan Chase Bank, N.A. where JPMorgan Chase Bank, N.A. provides the credit derivative, and some that have been structured by third parties where JPMorgan Chase Bank, N.A. is not the credit derivative provider. JPMorgan Chase Bank, N.A. consolidated these vehicles, because it held positions in these entities that provided JPMorgan Chase Bank, N.A. with control of certain vehicles. JPMorgan Chase Bank, N.A. did not consolidate any asset swap vehicles at December 31, 2013 and 2012.

Consolidated VIE assets and liabilities

The following table presents information on assets and liabilities related to VIEs consolidated by JPMorgan Chase Bank, N.A. as of December 31, 2013 and 2012.

December 31, 2013 (in billions)[a]	Assets				Liabilities		
	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							
JPMorgan Chase Bank, N.A.-administered multi-seller conduits	**$ –**	**$ 19.0**	**$ 0.1**	**$ 19.1**	**$ 14.9**	**$ –**	**$ 14.9**
Municipal bond vehicles	**2.7**	**–**	**–**	**2.7**	**2.2**	**–**	**2.2**
Mortgage securitization entities[b]	**–**	**0.9**	**–**	**0.9**	**–**	**0.9**	**0.9**
JPMorgan Chase Bank, N.A.-sponsored credit card trust	**–**	**–**	**0.4**	**0.4**	**0.4**	**–**	**0.4**
Other[c]	**0.4**	**2.4**	**0.2**	**3.0**	**2.3**	**–**	**2.3**
Total	**$ 3.1**	**$ 22.3**	**$ 0.7**	**$ 26.1**	**$ 19.8**	**$ 0.9**	**$ 20.7**

December 31, 2012 (in billions)[a]	Assets				Liabilities		
	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							
JPMorgan Chase Bank, N.A.-administered multi-seller conduits	$ –	$ 25.4	$ 0.1	$ 25.5	$ 17.2	$ –	$ 17.2
Municipal bond vehicles	7.4	–	–	7.4	8.4	–	8.4
Mortgage securitization entities[b]	–	1.0	–	1.0	–	1.1	1.1
JPMorgan Chase Bank, N.A.-sponsored credit card trust	–	0.6	–	0.6	0.4	–	0.4
Other[c]	0.5	3.4	0.6	4.5	2.6	0.1	2.7
Total	$ 7.9	$ 30.4	$ 0.7	$ 39.0	$ 28.6	$ 1.2	$ 29.8

(a) Excludes intercompany transactions which were eliminated in consolidation.
(b) Includes residential and commercial mortgage securitizations.
(c) Primarily comprises student loan securitization entities. JPMorgan Chase Bank, N.A. consolidated $2.5 billion and $3.3 billion of student loan securitization entities as of December 31, 2013 and 2012, respectively.
(d) Includes assets classified as cash, derivative receivables, AFS securities, and other assets within the Consolidated Balance Sheets.
(e) The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those entities. The difference between total assets and total liabilities recognized for consolidated VIEs represents JPMorgan Chase Bank, N.A.'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 Bank, N.A. Included in beneficial interests in VIE assets are long-term beneficial interests of $2.7 billion and $3.0 billion at December 31, 2013 and 2012, respectively. The maturities of the long-term beneficial interests as of December 31, 2013, were as follows: $353 million under one year, $40 million between one and five years, and $2.3 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

JPMorgan Chase Bank, N.A. has securitized and sold a variety of loans, including residential mortgage, credit card, automobile, student and commercial (primarily related to real estate) loans, as well as debt securities. The primary purposes of these securitization transactions were to satisfy investor demand and to generate liquidity for JPMorgan Chase Bank, N.A.

For loan securitizations in which JPMorgan Chase Bank, N.A. is not required to consolidate the trust, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s creditors; (2) the transferee or beneficial interest holder can pledge or exchange the transferred financial assets; and (3) JPMorgan Chase Bank, N.A. does not maintain effective control over the transferred financial assets (e.g., JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s securitization activities for the years ended December 31, 2013, 2012 and 2011, related to assets held in JPMorgan Chase Bank, N.A.-sponsored securitization entities that were not consolidated by JPMorgan Chase Bank, N.A., and where sale accounting was achieved based on the accounting rules in effect at the time of the securitization.

Year ended December 31, (in millions, except rates)	2013 Credit card[c]	2013 Residential mortgage[d]	2013 Commercial and other[f]	2012 Credit card[c]	2012 Residential mortgage[d][e]	2012 Commercial and other[f]	2011 Credit card[c]	2011 Residential mortgage[d][e]	2011 Commercial and other[f]
Principal securitized	**$ 4,023**	**$ 1,404**	**$ 11,318**	$ 5,720	$ –	$ 5,421	$ 710	$ –	$ 5,961
Pretax gains	**5**	**–**	**–**	12	–	–	3	–	–
All cash flows during the period:									
Proceeds from new securitizations[a]	**$ 4,023**	**$ 1,410**	**$ 11,507**	$ 5,720	$ –	$ 5,705	$ 710	$ –	$ 5,984
Servicing fees collected	**–**	**576**	**5**	–	662	4	–	717	3
Proceeds from collections reinvested in revolving securitizations	**37,062**	**–**	**–**	34,493	–	–	39,979	–	–
Purchases of previously transferred financial assets (or the underlying collateral)[b]	**–**	**233**	**–**	–	149	–	–	725	–
Cash flows received on interests	**18,757**	**50**	**121**	15,907	28	96	13,535	29	53

(a) Proceeds from new securitizations were received as cash for the years ended December 31, 2013, 2012 and 2011.
(b) Includes cash paid by JPMorgan Chase Bank, N.A. to reacquire assets from off-balance sheet, nonconsolidated entities – for example, loan repurchases due to representation and warranties and servicer clean-up calls.
(c) Includes securitization activity related to JPMorgan Chase Bank, N.A.'s undivided interest in credit card securitization trusts.
(d) Includes prime, Alt-A, subprime, and option ARMs. Excludes sales for which JPMorgan Chase Bank, N.A. 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.

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, JPMorgan Chase Bank, N.A., 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. JPMorgan Chase Bank, N.A. does not consolidate these securitization vehicles as it is not the primary beneficiary. For a limited number of loan sales, JPMorgan Chase Bank, N.A. is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. See Note 27 on pages 122–128 of these Consolidated Financial Statements for additional information about JPMorgan Chase Bank, N.A.'s loan sales- and securitization-related indemnifications. See Note 18 on pages 108–111 of these Consolidated Financial Statements for additional information about the impact of JPMorgan Chase Bank, N.A.'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)	**2013**	2012[e]	2011[e]
Carrying value of loans sold[a]	**$ 166,028**	$ 179,008	$ 149,247
Proceeds received from loan sales as cash	**$ 782**	$ 195	$ 122
Proceeds from loan sales as securities[b]	**163,373**	176,592	146,704
Total proceeds received from loan sales[c]	**$ 164,155**	$ 176,787	$ 146,826
Gains on loan sales[d]	**302**	141	133

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

Options to repurchase delinquent loans

In addition to JPMorgan Chase Bank, N.A.'s obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 27 on pages 122–128 of these Consolidated Financial Statements, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s repurchase option becomes exercisable, such loans must be reported on the Consolidated Balance Sheets as a loan with a corresponding liability. As of December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. had recorded on its Consolidated Balance Sheets $14.3 billion and $15.6 billion, respectively, of loans that either had been repurchased or for which JPMorgan Chase Bank, N.A. had an option to repurchase. Predominantly all of these amounts relate to loans that have been repurchased from Ginnie Mae loan pools. Additionally, real estate owned resulting from voluntary repurchases of loans was $2.0 billion and $1.6 billion as of December 31, 2013 and 2012, respectively. Substantially all of these loans and real estate owned are insured or guaranteed by U.S. government agencies. For additional information, refer to Note 15 on pages 68–93 of these Consolidated Financial Statements.

JPMorgan Chase Bank, N.A.'s interest in securitized assets held at fair value

The following table outlines the key economic assumptions used to determine the fair value, as of December 31, 2013 and 2012, of certain of JPMorgan Chase Bank, N.A.'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 18 on pages 108–111 of these Consolidated Financial Statements.

	Credit card[c]	
December 31, (in millions, except rates and where otherwise noted)[a]	**2013**	2012
JPMorgan Chase Bank, N.A. interests in securitized assets[b]	**$ 5,914**	$ 6,443
Weighted-average life (in years)	**0.3**	0.3
Weighted-average constant prepayment rate[b]	**26.3%**	25.6%
	PPR	PPR
Impact of 10% adverse change	**$ (20)**	$ (18)
Impact of 20% adverse change	**(40)**	(36)
Weighted-average loss assumption	**2.7%**	3.6%
Impact of 10% adverse change	**$ (15)**	$ (21)
Impact of 20% adverse change	**(31)**	(42)
Weighted-average discount rate	**12.0%**	12.0%
Impact of 10% adverse change	**$ (1)**	$ –
Impact of 20% adverse change	**(1)**	(1)

(a) JPMorgan Chase Bank, N.A.'s interests in prime mortgage securitizations was $217 million at both December 31, 2013 and 2012. These include retained interests in Alt-A loans. JPMorgan Chase Bank, N.A. had no interests in subprime mortgage securitizations as of December 31, 2013 and 2012.
(b) PPR: principal payment rate.
(c) Includes securitization activity related to JPMorgan Chase Bank, N.A.'s undivided interests in credit card securitization trusts.

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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. has continuing involvement, and delinquencies as of December 31, 2013 and 2012.

	Securitized assets		90 days past due		Liquidation losses	
As of or for the year ended December 31, (in millions)	**2013**	2012	**2013**	2012	**2013**	2012
Securitized loans[a]						
Residential mortgage:						
Prime/ Alt-A & Option ARMs	**$ 66,723**	$ 77,475	**$ 9,294**	$ 13,876	**$ 2,561**	$ 5,222
Subprime mortgage	**18,964**	21,887	**5,075**	7,067	**1,527**	2,627
Commercial and other[c]	**72,599**	63,362	**2,066**	3,556	**748**	1,235
Total loans securitized[b]	**$ 158,286**	$ 162,724	**$ 16,435**	$ 24,499	**$ 4,836**	$ 9,084

(a) Total assets held in securitization-related SPEs were $182.1 billion and $187.0 billion, respectively, at December 31, 2013 and 2012. The $158.3 billion and $162.7 billion, respectively, of loans securitized at December 31, 2013 and 2012, excludes: $22.9 billion and $23.3 billion, respectively, of securitized loans in which JPMorgan Chase Bank, N.A. has no continuing involvement, and $856 million and $1.0 billion, respectively, of loan securitizations consolidated on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets at December 31, 2013 and 2012.
(b) Includes securitized loans that were previously recorded at fair value and classified as trading assets.
(c) The prior period amounts have been revised.

Note 18 – Goodwill and other intangible assets

Goodwill and other intangible assets consist of the following.

December 31, (in millions)	**2013**	2012	2011
Goodwill	**$ 27,344**	$ 27,431	$ 27,415
Mortgage servicing rights	**9,614**	7,614	7,223
Other intangible assets:			
Purchased credit card relationships	**$ —**	$ —	$ 77
Other credit card-related intangibles	**169**	226	479
Core deposit intangibles	**159**	355	594
Other intangibles	**215**	268	329
Total other intangible assets	**$ 543**	$ 849	$ 1,479

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 following table presents changes in the carrying amount of goodwill.

Year ended December 31, (in millions)	**2013**	2012	2011
Balance at beginning of period[a]	**$ 27,431**	$ 27,415	$ 27,348
Changes during the period from:			
Business combinations	**43**	43	109
Dispositions	**—**	—	(3)
Other[b]	**(130)**	(27)	(39)
Balance at December 31,[a]	**$ 27,344**	$ 27,431	$ 27,415

(a) Reflects gross goodwill balances as JPMorgan Chase Bank, N.A. has not recognized any impairment losses to date.
(b) Includes foreign currency translation adjustments and other tax-related adjustments.

Impairment testing

Goodwill was not impaired at December 31, 2013 or 2012, nor was any goodwill written off due to impairment during 2013, 2012 or 2011.

The goodwill impairment test is performed in two steps. In the first step, the current fair value of each reporting unit is compared with its carrying value, including goodwill. If the fair value is in excess of the carrying value (including goodwill), then the reporting unit's goodwill is considered not to be impaired. If the fair value is less than the carrying value (including goodwill), then a second step is performed. In the second step, the implied current fair value of the reporting unit's goodwill is determined by comparing the fair value of the reporting unit (as determined in step one) to the fair value of the net assets of the reporting unit, as if the reporting unit were being acquired in a business combination. The resulting implied current fair value of goodwill is then compared with the carrying value of the reporting unit's goodwill. If the carrying value of the goodwill exceeds its implied current fair value, then an impairment charge is recognized for the excess. If the carrying value of goodwill is less than its implied current fair value, then no goodwill impairment is recognized.

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, JPMorgan Chase Bank, N.A. elected to account for its MSRs at fair value. JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'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. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. receives fixed-rate interest payments) increase in value when interest rates decline. JPMorgan Chase Bank, N.A. uses combinations of derivatives and securities to manage changes in the fair value of MSRs. The intent is to offset any interest-rate related changes in the fair value of MSRs with changes in the fair value of the related risk management instruments.

The following table summarizes MSR activity for the years ended December 31, 2013, 2012 and 2011.

As of or for the year ended December 31, (in millions, except where otherwise noted)	**2013**	2012	2011
Fair value at beginning of period	**$ 7,614**	$ 7,223	$ 13,440
MSR activity			
Originations of MSRs	**2,214**	2,376	2,570
Purchase of MSRs	**1**	457	246
Disposition of MSRs[a]	**(725)**	(579)	–
Net additions	**1,490**	2,254	2,816
Changes due to collection/realization of expected cash flows[b]	**(1,102)**	(1,228)	(1,900)
Changes in valuation due to inputs and assumptions:			
Changes due to market interest rates and other[c]	**2,122**	(589)	(5,407)
Changes in valuation due to other inputs and assumptions:			
Projected cash flows (e.g., cost to service)[d]	**109**	(452)	(1,757)
Discount rate	**(78)**	(98)	(1,238)
Prepayment model changes and other[e]	**(541)**	504	1,269
Total changes in valuation due to other inputs and assumptions	**(510)**	(46)	(1,726)
Total changes in valuation due to other inputs and assumptions[b]	**1,612**	(635)	(7,133)
Fair value at December 31,[f]	**$ 9,614**	$ 7,614	$ 7,223
Change in unrealized gains/(losses) included in income related to MSRs held at December 31,	**$ 1,612**	$ (635)	$ (7,133)
Contractual service fees, late fees and other ancillary fees included in income	**$ 3,309**	$ 3,783	$ 3,927
Third-party mortgage loans serviced at December 31, (in billions)	**$ 822**	$ 867	$ 910
Servicer advances, net of an allowance for uncollectible amounts, at December 31, (in billions)[g]	**$ 9.6**	$ 10.9	$ 11.1

(a) Predominantly represents excess mortgage servicing rights transferred to agency-sponsored trusts in exchange for stripped mortgage backed securities ("SMBS"). In each transaction, a portion of the SMBS was acquired by third parties at the transaction date; JPMorgan Chase Bank, N.A. acquired and has retained the remaining balance of those SMBS as trading securities. Also includes sales of MSRs in 2013 and 2012.
(b) Includes changes related to commercial real estate of $(5) million, $(8) million and $(9) million for the years ended December 31, 2013, 2012 and 2011, respectively.
(c) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.
(d) For the year ended December 31, 2013, the increase was driven by the inclusion in the MSR valuation model of servicing fees receivable on certain delinquent loans.
(e) Represents changes in prepayments other than those attributable to changes in market interest rates. For the year ended December 31, 2013, the decrease was driven by changes in the inputs and assumptions used to derive prepayment speeds, primarily increases in home prices.
(f) Includes $18 million, $23 million and $31 million related to commercial real estate at December 31, 2013, 2012 and 2011, respectively.

(g) Represents amounts JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A.'s credit risk associated with these advances is minimal because reimbursement of the advances is typically senior to all cash payments to investors. In addition, JPMorgan Chase Bank, N.A. maintains the right to stop payment to investors if the collateral is insufficient to cover the advance. However, certain of these servicer advances may not be recoverable if they were not made in accordance with applicable rules and agreements.

During the year ended December 31, 2011, the fair value of the MSR decreased by $6.2 billion. This decrease was predominantly due to a decline in market interest rates, which resulted in a loss in fair value of $5.4 billion. These losses were offset by gains of $5.6 billion on derivatives used to hedge the MSR asset; these derivatives are recognized on the Consolidated Balance Sheets separately from the MSR asset. Also contributing to the decline in fair value of the MSR asset was a $1.7 billion decrease related to revised cost to service and ancillary income assumptions incorporated in the MSR valuation. The increased cost to service assumptions reflected the estimated impact of higher servicing costs to enhance servicing processes, particularly loan modification and foreclosure procedures, including costs to comply with Consent Orders entered into with banking regulators. The increase in the cost to service assumption contemplated significant and prolonged increases in staffing levels in the core and default servicing functions. The decreased ancillary income assumption was similarly related to a reassessment of business practices in consideration of the Consent Orders and the existing industry-wide regulatory environment, which was broadly affecting market participants.

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

Finally, in the fourth quarter of 2011, JPMorgan Chase Bank, N.A. further enhanced its proprietary prepayment model to incorporate: (i) the impact of the Home Affordable Refinance Program ("HARP") 2.0, and (ii) assumptions that 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 table below outlines the key economic assumptions used to determine the fair value of JPMorgan Chase Bank, N.A.'s MSRs at December 31, 2013 and 2012, and outlines the sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

December 31, (in millions, except rates)	**2013**	2012
Weighted-average prepayment speed assumption ("CPR")	**8.07%**	13.04%
Impact on fair value of 10% adverse change	**$ (362)**	$ (517)
Impact on fair value of 20% adverse change	**(705)**	(1,009)
Weighted-average option adjusted spread	**7.77%**	7.61%
Impact on fair value of 100 basis points adverse change	**$ (389)**	$ (306)
Impact on fair value of 200 basis points adverse change	**(750)**	(591)

CPR: Constant prepayment rate.

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

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, JPMorgan Chase Bank, N.A.'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 $306 million decrease in other intangible assets during 2013 was due to $308 million in amortization; partially offset by currency translation adjustments.

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

	2013			2012		
December 31, (in millions)	Gross amount[(a)]	Accumulated amortization[(a)]	Net carrying value	Gross amount	Accumulated amortization	Net carrying value
Purchased credit card relationships	**$ —**	**$ —**	**$ —**	$ 249	$ 249	$ —
Other credit card-related intangibles	**496**	**327**	**169**	787	561	226
Core deposit intangibles	**4,133**	**3,974**	**159**	4,133	3,778	355
Other intangibles	**832**	**617**	**215**	829	561	268

(a) The decrease in the gross amount and accumulated amortization from December 31, 2012, was due to the removal of fully amortized assets.

Amortization expense

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

Year ended December 31, (in millions)	2013	2012	2011
Purchased credit card relationships	**$ —**	$ 79	$ 24
Other credit card-related intangibles	**55**	259	99
Core deposit intangibles	**196**	239	285
Other intangibles	**57**	61	75
Total amortization expense	**$ 308**	$ 638	$ 483

Future amortization expense

The following table presents estimated future amortization expense related to credit card relationships, core deposits and other intangible assets at December 31, 2013.

Year ended December 31, (in millions)	Other credit card-related intangibles	Core deposit intangibles	Other intangibles	**Total**
2014	$ 49	$ 102	$ 44	$ 195
2015	38	26	27	91
2016	33	14	21	68
2017	29	7	20	56
2018	20	5	14	39

Impairment testing

JPMorgan Chase Bank, N.A.'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 19 – Premises and equipment

Premises and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. JPMorgan Chase Bank, N.A. computes depreciation using the straight-line method over the estimated useful life of an asset. For leasehold improvements, JPMorgan Chase Bank, N.A. 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 Bank, N.A. 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 Bank, N.A. 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 20 – Deposits

At December 31, 2013 and 2012, noninterest-bearing and interest-bearing deposits were as follows.

December 31, (in millions)	**2013**	2012
U.S. offices		
Noninterest-bearing	**$ 395,461**	$ 385,171
Interest-bearing		
Demand[(a)]	**96,922**	62,145
Savings[(b)]	**450,387**	407,693
Time (included **$5,995** and $5,140 at fair value)[(c)]	**61,331**	49,649
Total interest-bearing deposits	**608,640**	519,487
Total deposits in U.S. offices	**1,004,101**	904,658
Non-U.S. offices		
Noninterest-bearing	**17,698**	17,947
Interest-bearing		
Demand	**239,529**	218,423
Savings	**1,083**	1,004
Time (included **$629** and $593 at fair value)[(c)]	**63,625**	104,295
Total interest-bearing deposits	**304,237**	323,722
Total deposits in non-U.S. offices	**321,935**	341,669
Total deposits	**$ 1,326,036**	$ 1,246,327

(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 5 on pages 32–34 of these Consolidated Financial Statements.

At December 31, 2013 and 2012, time deposits in denominations of $100,000 or more were as follows.

December 31, (in millions)	**2013**	2012
U.S. offices	**$ 52,457**	$ 31,254
Non-U.S. offices	**63,612**	104,265
Total	**$116,069**	$135,519

At December 31, 2013, the maturities of interest-bearing time deposits were as follows.

December 31, 2013 (in millions)	U.S.	Non-U.S.	**Total**
2014	$ 43,105	$ 41,790	$ 84,895
2015	5,395	4,291	9,686
2016	6,274	4,880	11,154
2017	1,387	3,462	4,849
2018	1,845	1,835	3,680
After 5 years	3,325	7,367	10,692
Total	$ 61,331	$ 63,625	$ 124,956

Note 21 – Long-term debt

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. has elected to measure at fair value. Changes in fair value are recorded in principal transactions revenue in the Consolidated Statements of Income. The following table is a summary of long-term debt carrying values (including unamortized original issue discount, valuation adjustments and fair value adjustments, where applicable) by remaining contractual maturity as of December 31, 2013.

By remaining maturity at December 31,		2013				2012
(in millions, except rates)		Under 1 year	1-5 years	After 5 years	**Total**	Total
Long-term debt payable to JPMorgan Chase & Co. and affiliates						
Senior debt:	Variable rate	**$ 2,374**	**$ 12,035**	**$ 50**	**$ 14,459**	$ 15,866
	Interest rates(a)	**–%**	**0.33%**	**–%**	**0.33%**	0.37-0.37%
Subordinated debt:	Fixed rate	**$ –**	**$ –**	**$ –**	**$ –**	$ 4,500
	Variable rate	**–**	**–**	**5,900**	**5,900**	14,009
	Interest rates(a)	**–%**	**–%**	**0.62-1.00%**	**0.62-1.00%**	0.86-5.75%
	Subtotal	**$ 2,374**	**$ 12,035**	**$ 5,950**	**$ 20,359**	$ 34,375
Long-term debt issued to unrelated parties						
Federal Home Loan Banks ("FHLB") advances:	Fixed rate	**$ 29**	**$ 22**	**$ 185**	**$ 236**	$ 212
	Variable rate	**8,700**	**29,840**	**8,000**	**46,540**	27,483
	Interest rates(a)	**0.20-0.29%**	**0.16-0.40%**	**0.36-0.43%**	**0.16-0.43%**	0.30-0.47%
Senior debt:	Fixed rate	**$ 347**	**$ 1,575**	**$ 3,346**	**$ 5,268**	$ 6,512
	Variable rate	**6,934**	**14,148**	**2,412**	**23,494**	21,397
	Interest rates(a)	**0.12-3.75%**	**0.21-4.61%**	**7.28%**	**0.12-7.28%**	0.16-7.28%
Subordinated debt:	Fixed rate	**$ –**	**$ 5,445**	**$ 1,834**	**$ 7,279**	$ 7,513
	Variable rate	**–**	**2,528**	**–**	**2,528**	2,466
	Interest rates(a)	**–%**	**0.57-6.00%**	**4.38-8.25%**	**0.57-8.25%**	0.64-8.25%
	Subtotal	**$ 16,010**	**$ 53,558**	**$ 15,777**	**$ 85,345**	$ 65,583
Junior subordinated debt payable to affiliates:	Fixed rate	**$ –**	**$ –**	**$ 600**	**$ 600**	$ 600
	Interest rates(a)	**–%**	**–%**	**7.00-8.20%**	**7.00-8.20%**	7.00-8.20%
	Subtotal	**$ –**	**$ –**	**$ 600**	**$ 600**	$ 600
Total long-term debt(b)(c)(d)		**$ 18,384**	**$ 65,593**	**$ 22,327**	**$ 106,304** (f)(g)	$ 100,558
Long-term beneficial interests:						
	Fixed rate	**$ 352**	**$ –**	**$ –**	**$ 352**	$ 377
	Variable rate	**–**	**40**	**2,260**	**2,300**	2,580
	Interest rates	**4.95-5.63%**	**1.35-2.36%**	**0.31-0.59%**	**0.31-5.63%**	0.37-5.63%
Total long-term beneficial interests(e)		**$ 352**	**$ 40**	**$ 2,260**	**$ 2,652**	$ 2,957

(a) The interest rates shown are the range of contractual rates in effect at year-end, including non-U.S. dollar fixed- and variable-rate issuances, which excludes the effects of the associated derivative instruments used in hedge accounting relationships, if applicable. The use of these derivative instruments modifies JPMorgan Chase Bank, N.A.'s exposure to the contractual interest rates disclosed in the table above. Including the effects of the hedge accounting derivatives, the range of modified rates in effect at December 31, 2013, for total long-term debt was 0.12% to 8.20%, versus the contractual range of 0.12% to 8.25% presented in the table above. The interest rate ranges shown exclude structured notes accounted for at fair value.

(b) Included long-term debt of $53.2 billion and $33.5 billion secured by assets totaling $125.7 billion and $105.9 billion at December 31, 2013 and 2012, respectively. The amount of long-term debt secured by assets does not include amounts related to hybrid instruments.

(c) Included $16.0 billion and $17.5 billion of long-term debt accounted for at fair value at December 31, 2013 and 2012, respectively.

(d) Included $856 million and $314 million of outstanding zero-coupon notes at December 31, 2013 and 2012, respectively. The aggregate principal amount of these notes at their respective maturities is $1.4 billion and $1.2 billion, respectively.

(e) Included on the Consolidated Balance Sheets in beneficial interests issued by consolidated VIEs. Also included $40 million and $35 million of outstanding structured notes accounted for at fair value at December 31, 2013 and 2012, respectively. Excluded short-term commercial paper and other short-term beneficial interests of $17.1 billion and $25.6 billion at December 31, 2013 and 2012, respectively.

(f) At December 31, 2013, long-term debt in the aggregate of $22.9 billion was redeemable at the option of JPMorgan Chase Bank, N.A., in whole or in part, prior to maturity, based on the terms specified in the respective notes.

(g) The aggregate carrying values of debt that matures in each of the five years subsequent to 2013 is $18.4 billion in 2014, $25.2 billion in 2015, $12.8 billion in 2016, $13.3 billion in 2017 and $14.2 billion in 2018.

The weighted-average contractual interest rates for total long-term debt excluding structured notes accounted for at fair value were 0.87% and 1.35% as of December 31, 2013 and 2012, respectively. In order to modify exposure to interest rate and currency exchange rate movements, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'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 0.54% and 1.04% as of December 31, 2013 and 2012, respectively.

JPMorgan Chase Bank, N.A. has guaranteed certain debt of its subsidiaries, including both long-term debt and structured notes sold as part of the market-making activities of such subsidiaries. These guarantees rank on parity with all of JPMorgan Chase Bank, N.A.'s other unsecured and unsubordinated indebtedness. Guaranteed liabilities were $7.9 billion and $8.1 billion at December 31, 2013 and 2012, respectively.

JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s credit ratings, financial ratios or earnings.

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

At December 31, 2013, JPMorgan Chase Bank, N.A. had outstanding two wholly-owned Delaware statutory business trusts ("issuer trusts") that had issued guaranteed capital debt securities.

The junior subordinated deferrable interest debentures issued by JPMorgan Chase Bank, N.A. to the issuer trusts, totaling $600 million at both December 31, 2013 and 2012, respectively, were reflected on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets in long-term debt, and in the table on the preceding page under the caption "Junior subordinated debt payable to affiliates" (i.e., trust preferred securities). JPMorgan Chase Bank, N.A. also records the common capital securities issued by the issuer trusts in other assets in its Consolidated Balance Sheets at December 31, 2013 and 2012. The debentures issued to the issuer trusts by JPMorgan Chase Bank, N.A., less the common capital securities of the issuer trusts, qualified as Tier 1 capital as of December 31, 2013 and 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, 2013.

December 31, 2013 (in millions)	Amount of trust preferred securities issued by trust[(a)]	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
BONA Capital I, LLC	$300	2000	2030	Any time	8.20%	Semiannually
BONA Capital II, LLC	300	2002	2032	Any time	7.00%	Semiannually
Total	$600					

(a) Represents the amount of trust preferred securities issued to the public by each trust, including unamortized original issue discount.

Note 22 – Related party transactions

JPMorgan Chase Bank, N.A. regularly enters into transactions with JPMorgan Chase and its various subsidiaries.

Significant revenue- and expense-related transactions with related parties are listed below.

Year ended December 31, (in millions)	2013	2012	2011
Interest income from affiliates			
Deposits with affiliated banks	**$ 1**	$ 2	$ 3
Federal funds sold and securities purchased under resale agreements, and securities borrowed with affiliates	**20**	82	20
Available-for-sale securities with affiliates	**16**	21	30
Loans to affiliates	**60**	43	48
Interest expense to affiliates			
Interest-bearing deposits of affiliates	**239**	287	484
Federal funds purchased and securities loaned or sold under repurchase agreements, and other borrowed funds due to affiliates	**(2)**	8	67
Long-term debt payable to JPMorgan Chase & Co. and affiliates	**377**	511	420
Guaranteed capital debt securities issued to nonbank affiliates	**46**	46	46
Servicing agreements and fee arrangements with affiliates			
Noninterest revenue	**5,689**	4,483	5,263
Noninterest expense	**3,243**	3,518	4,729

Significant balances with related parties are listed below.

December 31, (in millions)	2013	2012
Assets		
Deposits with affiliated banks	**$ 661**	$ 642
Federal funds sold and securities purchased under resale agreements, and securities borrowed with affiliates	**54,821**	125,290
Available-for-sale securities issued by affiliates	**230**	477
Loans to affiliates	**3,506**	3,108
Accrued interest and accounts receivable, and other assets due from affiliates	**24,953**	18,672
Liabilities		
Noninterest-bearing deposits of affiliates	**5,874**	5,127
Interest-bearing deposits of affiliates	**75,231**	91,296
Federal funds purchased and securities loaned or sold with affiliates under repurchase agreements, and other borrowed funds due to affiliates	**35,984**	42,554
Accounts payable and other liabilities payable to affiliates	**5,151**	4,283
Long-term debt payable to JPMorgan Chase & Co. and affiliates	**20,359**	34,375
Junior subordinated deferrable interest debentures held by trusts that issued guaranteed capital debt securities to nonbank affiliates	**600**	600

At December 31, 2013 and 2012, net derivative receivables from and payables to affiliates were $1.4 billion and $3.6 billion, respectively.

Note 23 – 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 JPMorgan Chase Bank, N.A.'s defined benefit pension and OPEB plans.

Year ended December 31, (in millions)	Unrealized gains/(losses) on AFS securities[a]	Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	Accumulated other comprehensive income/(loss)
Balance at December 31, 2010	$ 2,451	$ 390	$ 418	$ (383)	$ 2,876
Net change	927 [b]	(259)	(23)	(2)	643
Balance at December 31, 2011	$ 3,378 [c]	$ 131	$ 395	$ (385)	$ 3,519
Net change	3,213 [d]	(68)	(66)	(87)	2,992
Balance at December 31, 2012	$ 6,591 [c]	$ 63	$ 329	$ (472)	$ 6,511
Net change	**(3,916)** [e]	**(51)**	**(404)**	**39**	**(4,332)**
Balance at December 31, 2013	**$ 2,675** [c]	**$ 12**	**$ (75)**	**$ (433)**	**$ 2,179**

(a) Represents the after-tax difference between the fair value and amortized cost of securities accounted for as AFS.
(b) The net change for 2011 was due primarily to increased market value on U.S. government agency issued MBS and obligations of U.S. states and municipalities, partially offset by the widening of spreads on non-U.S. corporate debt and the realization of gains due to portfolio repositioning.
(c) Included after-tax unrealized losses not related to credit on debt securities for which credit losses have been recognized in income of $(56) million at December 31, 2011. There were no such losses at December 31, 2012 and 2013.
(d) The net change for 2012 was predominantly driven by increased market value on non-U.S. residential MBS, corporate debt securities and obligations of U.S. states and municipalities, partially offset by realized gains.
(e) The net change for 2013 was primarily related to the decline in fair value of U.S. government agency issued MBS and obligations of U.S. states and municipalities due to market changes, as well as net realized gains.

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

	2013			2012			2011		
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	**$(5,750)**	**$ 2,225**	**$(3,525)**	$ 7,293	$(2,848)	$ 4,445	$ 3,007	$(1,189)	$ 1,818
Reclassification adjustment for realized (gains)/losses included in net income[a]	**(643)**	**252**	**(391)**	(2,018)	786	(1,232)	(1,459)	568	(891)
Net change	**(6,393)**	**2,477**	**(3,916)**	5,275	(2,062)	3,213	1,548	(621)	927
Translation adjustments:									
Translation[b]	**(862)**	**315**	**(547)**	(99)	36	(63)	(619)	235	(384)
Hedges[b]	**817**	**(321)**	**496**	(9)	4	(5)	205	(80)	125
Net change	**(45)**	**(6)**	**(51)**	(108)	40	(68)	(414)	155	(259)
Cash flow hedges:									
Net unrealized gains/(losses) arising during the period	**(507)**	**199**	**(308)**	315	(124)	191	502	(192)	310
Reclassification adjustment for realized (gains)/losses included in net income[c]	**(156)**	**60**	**(96)**	(421)	164	(257)	(538)	205	(333)
Net change	**(663)**	**259**	**(404)**	(106)	40	(66)	(36)	13	(23)
Defined benefit pension and OPEB plans:									
Prior service credits arising during the period	**—**	**—**	**—**	6	(2)	4	—	—	—
Net gains/(losses) arising during the period	**14**	**(4)**	**10**	(172)	66	(106)	(55)	21	(34)
Reclassification adjustments included in net income[d]:									
Amortization of net loss	**59**	**(22)**	**37**	42	(16)	26	54	(20)	34
Prior service costs/(credits)	**(2)**	**1**	**(1)**	—	—	—	(1)	—	(1)
Foreign exchange and other	**(10)**	**3**	**(7)**	(19)	8	(11)	(1)	—	(1)
Net change	**61**	**(22)**	**39**	(143)	56	(87)	(3)	1	(2)
Total other comprehensive income/(loss)	**$(7,040)**	**$ 2,708**	**$(4,332)**	$ 4,918	$(1,926)	$ 2,992	$ 1,095	$ (452)	$ 643

(a) The pretax amount is reported in securities gains in the Consolidated Statements of Income.
(b) Reclassifications of pretax realized gains/(losses) on translation adjustments and related hedges are reported in other income in the Consolidated Statements of Income. The amounts were not material for the year ended December 31, 2013.
(c) The pretax amount is reported in the same line as the hedged items, which are predominantly recorded in net interest income in the Consolidated Statements of Income.
(d) The pretax amount is reported in compensation expense in the Consolidated Statements of Income.

Note 24 – Income taxes

The results of operations of JPMorgan Chase Bank, N.A. are included in the consolidated federal, New York State, New York City and other state income tax returns filed by JPMorgan Chase. Pursuant to a tax sharing agreement, JPMorgan Chase allocates to JPMorgan Chase Bank, N.A. its share of the consolidated income tax expense or benefit based upon statutory rates applied to JPMorgan Chase Bank, N.A.'s earnings as if it were filing separate income tax returns. JPMorgan Chase Bank, N.A. uses the asset and liability method to provide for income taxes on all transactions recorded in the Consolidated Financial Statements. Valuation allowances are established when necessary to reduce deferred tax assets to an amount that in the opinion of management, is more likely than not to be realized. State and local income taxes are provided on JPMorgan Chase Bank, N.A.'s taxable income at the effective income tax rate applicable to the consolidated JPMorgan Chase entity.

The tax sharing arrangement between JPMorgan Chase and JPMorgan Chase Bank, N.A. allows for intercompany payments to or from JPMorgan Chase for outstanding current tax assets or liabilities.

Due to the inherent complexities arising from the nature of JPMorgan Chase Bank, N.A.'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 Bank, N.A. and the many tax jurisdictions in which JPMorgan Chase Bank, N.A. files tax returns may not be finalized for several years. Thus, JPMorgan Chase Bank, N.A.'s final tax-related assets and liabilities may ultimately be different from those currently reported.

A reconciliation of the applicable statutory U.S. income tax rate to the effective tax rate for each of the years ended December 31, 2013, 2012 and 2011, is presented in the following table.

Effective tax rate

Year ended December 31,	**2013**	2012	2011
Statutory U.S. federal tax rate	**35.0%**	35.0%	35.0%
Increase/(decrease) in tax rate resulting from:			
U.S. state and local income taxes, net of U.S. federal income tax benefit	**2.5**	1.4	0.7
Tax-exempt income	**(2.1)**	(2.3)	(1.7)
Non-U.S. subsidiary earnings[a]	**(5.7)**	(4.2)	(3.6)
Business tax credits	**(4.5)**	(4.8)	(4.8)
Nondeductible legal expense[b]	**7.9**	(0.4)	1.0
Other, net	**(1.2)**	(1.2)	(2.8)
Effective tax rate	**31.9%**	23.5%	23.8%

(a) Includes earnings deemed to be reinvested indefinitely in non-U.S. subsidiaries.
(b) The prior periods have been revised to conform with the current presentation.

The components of income tax expense/(benefit) included in the Consolidated Statements of Income were as follows for each of the years ended December 31, 2013, 2012, and 2011.

Income tax expense/(benefit)

Year ended December 31, (in millions)	**2013**	2012	2011
Current income tax expense/(benefit)			
U.S. federal	**$ (1,321)**	$ 984	$ 4,073
Non-U.S.	**801**	1,575	894
U.S. state and local	**(59)**	939	706
Total current income tax expense/(benefit)	**(579)**	3,498	5,673
Deferred income tax expense/(benefit)			
U.S. federal	**6,875**	1,619	(1,054)
Non-U.S.	**24**	(305)	64
U.S. state and local	**914**	(530)	(789)
Total deferred income tax expense/(benefit)	**7,813**	784	(1,779)
Total income tax expense	**$ 7,234**	$ 4,282	$ 3,894

Total income tax expense was $7.2 billion in 2013 with an effective tax rate of 31.9%. The relationship between current and deferred income tax expense is largely driven by the reversal of significant deferred tax assets as well as prior year tax adjustments and audit resolutions. Total income tax expense includes $388 million, $200 million and $76 million of tax benefits recorded in 2013, 2012, and 2011, respectively, as a result of tax audit resolutions.

The preceding table does not reflect the tax effect of certain items that are recorded each period directly in stockholder's equity. The tax effect of all items recorded directly to stockholder's equity resulted in an increase of $2.7 billion

in 2013, a decrease of $1.9 billion in 2012, and a decrease of $452 million in 2011.

U.S. federal income taxes have not been provided on the undistributed earnings of certain non-U.S. subsidiaries, to the extent that such earnings have been reinvested abroad for an indefinite period of time. Based on JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. has determined that the undistributed earnings of certain of its subsidiaries would be indefinitely reinvested to fund current and future growth of the related businesses. As management does not intend to use the earnings of these subsidiaries as a source of funding for its U.S. operations, such earnings will not be distributed to the U.S. in the foreseeable future. For 2013, pretax earnings of approximately $3.4 billion were generated and will be indefinitely reinvested in these subsidiaries. At December 31, 2013, the cumulative amount of undistributed pretax earnings in these subsidiaries approximated $28.5 billion. If JPMorgan Chase Bank, N.A. were to record a deferred tax liability associated with these undistributed earnings, the amount would be approximately $6.4 billion at December 31, 2013.

Tax expense applicable to securities gains and losses for the years 2013, 2012 and 2011 was $252 million, $786 million, and $568 million, respectively.

Deferred income tax expense/(benefit) results from differences between assets and liabilities measured for financial reporting purposes versus income tax return purposes. Deferred tax assets are recognized if, in management's judgment, their realizability is determined to be more likely than not. If a deferred tax asset is determined to be unrealizable, a valuation allowance is established. The significant components of deferred tax assets and liabilities are reflected in the following table as of December 31, 2013 and 2012.

Deferred taxes

December 31, (in millions)	**2013**	2012
Deferred tax assets		
Allowance for loan losses	**$ 5,197**	$ 6,912
Employee benefits	**2,049**	1,059
Accrued expenses and other	**3,748**	7,919
Non-U.S. operations, net	**228**	–
Tax attribute carryforwards	**214**	660
Gross deferred tax assets	**11,436**	16,550
Valuation allowance	**–**	–
Deferred tax assets, net of valuation allowance	**$ 11,436**	$ 16,550
Deferred tax liabilities		
Depreciation and amortization	**$ 1,865**	$ 1,462
Mortgage servicing rights, net of hedges	**5,832**	5,051
Leasing transactions	**2,083**	1,931
Non-U.S. operations, net	**–**	445
Other, net	**80**	1,630
Gross deferred tax liabilities	**9,860**	10,519
Net deferred tax assets	**$ 1,576**	$ 6,031

JPMorgan Chase Bank, N.A. has recorded deferred tax assets of $214 million at December 31, 2013, in connection with U.S. federal net operating loss carryforwards and foreign tax credit carryforwards. At December 31, 2013, the U.S. federal net operating loss carryforwards were approximately $30 million and the U.S. foreign tax credit carryforward was approximately $203 million. If not utilized, the U.S. federal net operating loss carryforwards will expire in 2025 and the U.S. foreign tax credit carryforward will expire in 2022.

The guidance on accounting for uncertainty in income taxes describes how uncertain tax positions should be recognized, measured, presented and disclosed in the Consolidated Financial Statements. This guidance requires the evaluation of tax positions taken or expected to be taken in the course of preparing the Company's Consolidated Financial Statements to determine whether the tax positions are more likely than not to be realized as a tax benefit or expense in the current year.

At December 31, 2013, 2012 and 2011, JPMorgan Chase Bank, N.A.'s unrecognized tax benefits, excluding related interest expense and penalties, were $3.0 billion, $4.7 billion and $4.7 billion, respectively, of which $1.9 billion, $2.1 billion and $2.1 billion, respectively, if recognized, would reduce the annual effective tax rate. Included in the amount of unrecognized tax benefits are certain items that would not affect the effective tax rate if they were recognized in the Consolidated Statements of Income. These unrecognized items include the tax effect of certain temporary differences, the portion of gross state and local unrecognized tax benefits that would be offset by the benefit from associated U.S. federal income tax deductions,

and the portion of gross non-U.S. unrecognized tax benefits that would have offsets in other jurisdictions. JPMorgan Chase is presently under audit by a number of taxing authorities, most notably by the Internal Revenue Service, New York State and City, and the State of California as summarized in the Tax examination status table below. Based upon the status of all of the tax examinations currently in process, it is reasonably possible that over the next 12 months the resolution of some of these examinations could result in a significant reduction in the gross balance of unrecognized tax benefits; however, at this time, it is not possible to reasonably estimate the amount of the reduction, if any.

The following table presents a reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2013, 2012 and 2011.

Unrecognized tax benefits

Year ended December 31, (in millions)	2013	2012	2011
Balance at January 1,	$ **4,684**	$ 4,700	$ 4,625
Increases based on tax positions related to the current period	**313**	469	305
Decreases based on tax positions related to the current period	**–**	–	(110)
Increases based on tax positions related to prior periods	**70**	222	606
Decreases based on tax positions related to prior periods	**(2,065)**	(689)	(687)
Decreases related to settlements with taxing authorities	**(1)**	(18)	(9)
Decreases related to a lapse of applicable statute of limitations	**–**	–	(30)
Balance at December 31,	$ **3,001**	$ 4,684	$ 4,700

After-tax interest (benefit)/expense and penalties related to income tax liabilities recognized in income tax expense were $(178) million, $114 million and $114 million in 2013, 2012 and 2011, respectively.

At December 31, 2013 and 2012, in addition to the liability for unrecognized tax benefits, JPMorgan Chase Bank, N.A. had accrued $687 million and $1.3 billion, respectively, for income tax-related interest and penalties.

JPMorgan Chase Bank, N.A., which is part of the JPMorgan Chase consolidated and combined groups, is continually under examination by the Internal Revenue Service, by taxing authorities throughout the world, and by many states throughout the U.S. The following table summarizes the status of significant income tax examinations of JPMorgan Chase and its consolidated subsidiaries as of December 31, 2013.

Tax examination status

December 31, 2013	Periods under examination	Status
JPMorgan Chase – U.S.	2003 - 2005	Field examination completed, JPMorgan Chase intends to appeal
JPMorgan Chase – U.S.	2006 - 2010	Field examination
JPMorgan Chase – United Kingdom	2006 – 2011	Field examination
JPMorgan Chase – New York State and City	2005 – 2007	Field examination
JPMorgan Chase – California	2006 – 2010	Field examination

The following table presents the U.S. and non-U.S. components of income before income tax expense for the years ended December 31, 2013, 2012 and 2011.

Income before income tax expense - U.S. and non-U.S.

Year ended December 31, (in millions)	2013	2012	2011
U.S.	**$ 15,643**	$ 15,626	$ 7,569
Non-U.S.[(a)]	**7,029**	2,611	8,781
Income before income tax expense	**$ 22,672**	$ 18,237	$ 16,350

(a) For purposes of this table, non-U.S. income is defined as income generated from operations located outside the U.S.

Note 25 – Restrictions on cash and intercompany funds transfers

The business of JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A.") is subject to examination and regulation by the OCC. JPMorgan Chase Bank, N.A. is a member of the U.S. Federal Reserve System, and its deposits in the U.S. are insured by the FDIC.

The Federal Reserve requires depository institutions to maintain cash reserves with a Federal Reserve Bank. The average amount of reserve balances deposited by JPMorgan Chase Bank, N.A. with various Federal Reserve Banks was approximately $5.3 billion and $5.6 billion in 2013 and 2012, respectively.

Restrictions imposed by U.S. federal law prohibit JPMorgan Chase & Co. and certain of its affiliates from borrowing from JPMorgan Chase Bank, N.A. and other banking subsidiaries unless the loans are secured in specified amounts. Such secured loans by JPMorgan Chase Bank, N.A. to 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.

In addition to dividend restrictions set forth in statutes and regulations, the OCC, and under certain circumstances 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 Bank, N.A. if, in the banking regulator's opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization.

At January 1, 2014, JPMorgan Chase Bank, N.A. could pay, in the aggregate, $26.4 billion in dividends to JPMorgan Chase without the prior approval of its banking regulators. The capacity to pay dividends in 2014 will be supplemented by JPMorgan Chase Bank, N.A.'s earnings during the year.

In compliance with rules and regulations established by U.S. and non-U.S. regulators, as of December 31, 2013 and 2012, cash in the amount of $11.5 billion and $12.0 billion, respectively, and no securities for both periods, were segregated in special bank accounts for the benefit of securities and futures brokerage customers. In addition, as of December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. had other restricted cash of $3.4 billion and $2.8 billion, respectively, primarily representing cash reserves held at non-U.S. central banks and held for other general purposes.

Note 26 – Regulatory capital

JPMorgan Chase Bank, N.A.'s banking regulator, the OCC, establishes capital requirements, including well-capitalized standards for national banks.

There are two categories of risk-based capital: Tier 1 capital and Tier 2 capital. Tier 1 capital consists of common stockholder's equity, perpetual preferred stock, noncontrolling interests in subsidiaries and trust preferred securities, less goodwill and certain other adjustments. Tier 2 capital consists of preferred stock not qualifying as Tier 1 capital, subordinated long-term debt and other instruments qualifying as Tier 2 capital, and the aggregate allowance for credit losses up to a certain percentage of risk-weighted assets. Total capital is Tier 1 capital plus Tier 2 capital. Under the risk-based capital guidelines of the OCC, JPMorgan Chase Bank, N.A. 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 OCC to take action. As of December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. was well-capitalized and met all capital requirements to which each was subject.

Basel I and Basel 2.5
The minimum U.S. risk-based capital requirements in effect on December 31, 2013, follow the Capital Accord ("Basel I") of the Basel Committee. In June 2012, U.S. federal banking agencies published the final rule that specifies revised market risk regulatory capital requirements ("Basel 2.5"). While JPMorgan Chase Bank, N.A. is still subject to the capital requirements of Basel I, Basel 2.5 rules also became effective for JPMorgan Chase Bank, N.A. on January 1, 2013. The Basel 2.5 final rule revised the scope of positions subject to the market risk capital requirements and introduced new market risk measures, which resulted in additional capital requirements for covered positions as defined.

A reconciliation of JPMorgan Chase Bank, N.A.'s Total stockholder's equity to Tier 1 capital and Total qualifying capital is presented in the table below.

December 31, (in millions)	2013	2012
Tier 1 capital		
Total stockholders' equity	**$ 169,077**	$ 146,025
Effect of certain items in AOCI excluded from Tier 1 capital	**(2,167)**	(6,448)
Qualifying hybrid securities and noncontrolling interests[a]	**856**	855
Less: Goodwill[b]	**25,910**	26,129
Other intangible assets[b]	**1,147**	1,307
Fair value DVA on structured notes and derivative liabilities related to JPMorgan Chase Bank, N.A.'s credit quality	**923**	1,168
Investments in certain subsidiaries and other	**59**	1
Total Tier 1 capital	**139,727**	111,827
Tier 2 capital		
Long-term debt and other instruments qualifying as Tier 2	**11,929**	21,284
Qualifying allowance for credit losses	**13,835**	13,752
Other	**5**	7
Total Tier 2 capital	**25,769**	35,043
Total qualifying capital	**$ 165,496**	$ 146,870

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

The following table presents the regulatory capital, assets and risk-based capital ratios for JPMorgan Chase Bank, N.A. at December 31, 2013 and 2012. These amounts are determined in accordance with regulations issued by the OCC and/or Federal Reserve. The table reflects JPMorgan Chase Bank, N.A.'s implementation of rules that provide for additional capital requirements for trading positions and securitizations ("Basel 2.5"). Basel 2.5 rules became effective for JPMorgan Chase Bank, N.A. on January 1, 2013. The implementation of these rules in the first quarter of 2013 resulted in an increase of approximately $140 billion in JPMorgan Chase Bank, N.A.'s risk-weighted assets compared with the Basel I rules at March 31, 2013. The implementation of these rules also resulted in decreases of JPMorgan Chase Bank, N.A.'s Tier 1 capital and Total capital ratios of 130 basis points and 150 basis points, respectively, at March 31, 2013.

December 31, (in millions, except ratios)	2013	2012	Well-capitalized ratios[c]	Minimum capital ratios[c]
Regulatory capital				
Tier 1	**$ 139,727**	$ 111,827		
Total	**165,496**	146,870		
Assets				
Risk-weighted[a]	**$1,171,574**	$1,094,155		
Adjusted average[b]	**1,900,770**	1,815,816		
Capital ratios				
Tier 1	**11.9%**	10.2%	6.0%	4.0%
Total	**14.1**	13.4	10.0	8.0
Tier 1 leverage	**7.4**	6.2	5.0 [d]	3.0 [e]

(a) Includes off-balance sheet risk-weighted assets at December 31, 2013 and 2012, of $304.0 billion and $297.1 billion, respectively.
(b) Adjusted average assets, for purposes of calculating the leverage ratio, included total quarterly average assets adjusted for unrealized gains/(losses) on securities, less deductions for disallowed goodwill and other intangible assets, investments in certain subsidiaries, and the total adjusted carrying value of nonfinancial equity investments that are subject to deductions from Tier 1 capital.
(c) As defined by the regulations issued by the U.S. banking regulators.
(d) Represents requirements for banking subsidiaries pursuant to U.S. banking regulations.
(e) The minimum Tier 1 leverage ratio for bank holding companies and banks is 3% or 4%, depending on factors specified in U.S. banking regulations.

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. JPMorgan Chase Bank, N.A. had deferred tax liabilities resulting from nontaxable business combinations totaling $115 million and $204 million at December 31, 2013 and 2012, respectively; and deferred tax liabilities resulting from tax-deductible goodwill of $1.4 billion and $1.3 billion at December 31, 2013 and 2012, respectively.

JPMorgan Chase capital contribution

During the second half of 2013, JPMorgan Chase made a capital contribution of $12.8 billion to JPMorgan Chase Bank, N.A. The contribution increased the Tier 1 capital of JPMorgan Chase Bank, N.A. and is being used for general banking purposes.

Basel II & Basel III

U.S. banking regulators published a final Basel II rule in December 2007, which was intended to be more risk sensitive than Basel I and eventually replace Basel I for large and internationally active U.S. banks, including JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A. has been reporting Basel II capital ratios in parallel to the banking agencies since 2008. In October 2013, U.S. federal banking agencies published an interim final rule implementing further revisions to the Capital Accord in the U.S.; such further revisions are commonly referred to as "Basel III." Basel III is comprised of a Standardized Approach and an Advanced Approach. For large and internationally active banks, including JPMorgan Chase Bank, N.A., both the Basel III Standardized and Advanced

Approaches became effective commencing January 1, 2014.

For 2014, the Basel III Standardized Approach requires the Firm to calculate its capital ratios using the Basel III definition of capital divided by the Basel I definition of RWA, inclusive of Basel 2.5 for market risk. Commencing January 1, 2015 the Basel III Standardized Approach requires JPMorgan Chase Bank, N.A. to calculate the ratios using the Basel III definition of capital divided by the Basel III Standardized RWA, inclusive of Basel 2.5 for market risk.

Prior to full implementation of the Basel III Advanced Approach, JPMorgan Chase Bank, N.A. was required to complete a qualification period ("parallel run") during which it needed to demonstrate that it met the requirements of the rule to the satisfaction of its U.S. banking regulators. On February 21, 2014, the OCC informed JPMorgan Chase Bank, N.A., that it has satisfactorily completed the parallel run requirements and is approved to calculate its capital under the Basel III Advanced Approach, in addition to the Basel III Standardized Approach, as of April 1, 2014. Pursuant to the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), JPMorgan Chase Bank, N.A.'s capital adequacy will be evaluated against the approach that results in the lower ratio.

Basel III revises Basel I and II by, among other things, narrowing the definition of capital, and increasing capital requirements for specific exposures. Basel III introduces a new Tier 1 common ratio requirement which has a phase-in period from 2015 to 2019. By January 1, 2019, the minimum Tier 1 common ratio requirement is 7%, comprised of a minimum ratio of 4.5% plus a 2.5% capital conservation buffer.

Global systemically important banks ("GSIBs") will also be required to maintain Tier 1 common requirements above the 7% minimum, in amounts ranging from an additional 1% to an additional 2.5%. In November 2013, the Financial Stability Board ("FSB") indicated that it would require JPMorgan Chase & Co. and its banking subsidiaries, including JPMorgan Chase Bank, N.A., as well as one other bank, to hold the additional 2.5% of Tier 1 common; the requirement will be phased in beginning in 2016. The Basel Committee also stated that certain GSIBs could be required to hold as much as an additional 3.5% of Tier 1 common above the 7% minimum if they were to take actions that further increase their systemic importance. Currently, no GSIB (including JPMorgan Chase Bank, N.A.) is required to hold more than the additional 2.5% of Tier 1 common.

In addition, Basel III establishes a 6.5% Tier I common equity standard for the definition of "well-capitalized" under the Prompt Corrective Action ("PCA") requirements of the FDIC Improvement Act ("FDICIA"). The Tier I common equity standard is effective from the first quarter of 2015.

The Basel III interim final rule also includes a requirement for advanced approach banking organizations, including JPMorgan Chase Bank, N.A., to calculate a supplementary leverage ratio ("SLR"). The SLR is defined as Tier 1 capital under Basel III divided by JPMorgan Chase Bank, N.A.'s total leverage exposure. Total leverage exposure is calculated by taking JPMorgan Chase Bank, N.A.'s total average on-balance sheet assets, less amounts permitted to be deducted for Tier 1 capital, and adding certain off-balance sheet exposures, such as undrawn commitments and derivatives future exposure.

Following approval of the final Basel III rules, the U.S. banking agencies issued proposed rulemaking relating to the SLR that would require U.S. bank holding companies, including JPMorgan Chase, to have a minimum SLR of at least 5% and insured depository institutions ("IDI"), including JPMorgan Chase Bank, N.A. to have a minimum SLR of at least 6%. JPMorgan Chase and JPMorgan Chase Bank, N.A. are not required to meet the minimum SLR until January 1, 2018. On January 12, 2014, the Basel Committee issued a revised framework for the calculation of the denominator of the SLR.

Note 27 – Off–balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. should the counterparty draw upon the commitment or JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s view, representative of its actual future credit exposure or funding requirements.

To provide for probable credit losses inherent in consumer (excluding credit card) and wholesale lending commitments, an allowance for credit losses on lending-related commitments is maintained. See Note 16 on pages 94–97 of these Consolidated Financial Statements for further discussion regarding the allowance for credit losses on lending-related commitments. The following table summarizes the contractual amounts and carrying values of off-balance sheet lending-related financial instruments, guarantees and other commitments at December 31, 2013 and 2012. The amounts in the table below for credit card and home equity lending-related commitments represent the total available credit for these products. JPMorgan Chase Bank, N.A. has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. JPMorgan Chase

Bank, N.A. can reduce or cancel credit card lines of credit by providing the borrower notice or, in some cases, without notice as permitted by law. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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

	Contractual amount						Carrying value[h]	
	2013					2012	2013	2012
By remaining maturity at December 31, (in millions)	Expires in 1 year or less	Expires after 1 year through 3 years	Expires after 3 years through 5 years	Expires after 5 years	Total	Total		
Lending-related								
Consumer, excluding credit card:								
Home equity – senior lien	**$ 2,471**	**$ 4,403**	**$ 4,189**	**$ 2,073**	**$ 13,136**	$ 15,175	**$ –**	$ –
Home equity – junior lien	**3,914**	**6,876**	**4,827**	**2,146**	**17,763**	21,789	**–**	–
Prime mortgage	**4,817**	**–**	**–**	**–**	**4,817**	4,107	**–**	–
Subprime mortgage	**–**	**–**	**–**	**–**	**–**	–	**–**	–
Auto	**7,992**	**191**	**115**	**11**	**8,309**	7,185	**1**	1
Business banking	**10,439**	**548**	**101**	**320**	**11,408**	11,235	**7**	6
Student and other	**88**	**84**	**3**	**461**	**636**	725	**–**	–
Total consumer, excluding credit card	**29,721**	**12,102**	**9,235**	**5,011**	**56,069**	60,216	**8**	7
Credit card	**33,844**	**–**	**–**	**–**	**33,844**	34,371	**–**	–
Total consumer	**63,565**	**12,102**	**9,235**	**5,011**	**89,913**	94,587	**8**	7
Wholesale:								
Other unfunded commitments to extend credit[a][b][c]	**56,160**	**79,497**	**97,061**	**8,034**	**240,752**	239,054	**429**	368
Standby letters of credit and other financial guarantees[a][c][d]	**25,414**	**32,329**	**32,716**	**2,396**	**92,855**	100,050	**942**	642
Unused advised lines of credit	**87,849**	**12,237**	**406**	**709**	**101,201**	84,356	**–**	–
Other letters of credit[a]	**4,176**	**722**	**107**	**15**	**5,020**	5,573	**2**	2
Total wholesale	**173,599**	**124,785**	**130,290**	**11,154**	**439,828**	429,033	**1,373**	1,012
Total lending-related	**$ 237,164**	**$ 136,887**	**$ 139,525**	**$ 16,165**	**$ 529,741**	$ 523,620	**$ 1,381**	$ 1,019
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees[e]	**$ 175,793**	**$ –**	**$ –**	**$ –**	**$ 175,793**	$ 172,434	**NA**	NA
Derivatives qualifying as guarantees	**1,922**	**765**	**16,061**	**37,521**	**56,269**	61,729	**$ 72**	$ 42
Unsettled reverse repurchase and securities borrowing agreements[f]	**34,651**	**–**	**–**	**–**	**34,651**	25,837	**–**	–
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	**NA**	**NA**	**NA**	**NA**	**NA**	NA	654	2,550
Loans sold with recourse	**NA**	**NA**	**NA**	**NA**	**7,090**	8,631	**98**	110
Other guarantees and commitments[g]	**68**	**229**	**1,415**	**4,076**	**5,788**	5,791	**(99)**	(75)

(a) At December 31, 2013 and 2012, reflects the contractual amount net of risk participations totaling $476 million and $473 million, respectively, for other unfunded commitments to extend credit; $14.8 billion and $16.6 billion, respectively, for standby letters of credit and other financial guarantees; and $622 million and $690 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.

(b) At December 31, 2013 and 2012, included commitments to affiliates of $16 million and $17 million, respectively.

(c) At December 31, 2013 and 2012, included credit enhancements and bond and commercial paper liquidity commitments to U.S. states and municipalities, hospitals and other nonprofit entities of $18.9 billion and $21.3 billion, respectively, within other unfunded commitments to extend credit; and $17.2 billion and $23.2 billion, respectively, within standby letters of credit and other financial guarantees. These commitments also include liquidity facilities to nonconsolidated municipal bond VIEs; for further information, see Note 17 on pages 98-108 of these Consolidated Financial Statements.

(d) At December 31, 2013 and 2012, included unissued standby letters of credit commitments of $42.7 billion and $44.3 billion, respectively.

(e) At December 31, 2013 and 2012, collateral held by JPMorgan Chase Bank, N.A. in support of securities lending indemnification agreements was $182.6 billion and $168.7 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, 2013 and 2012, the amount of commitments related to forward-starting reverse repurchase agreements and securities borrowing agreements were $6.5 billion and $4.2 billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular-way settlement periods were $28.2 billion and $21.6 billion, at December 31, 2013 and 2012, respectively.

(g) At both December 31, 2013 and 2012, included unfunded equity investment commitments of $1.2 billion. In addition, at both December 31, 2013 and 2012, included letters of credit hedged by derivative transactions and managed on a market risk basis of $4.5 billion.
(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 $17.7 billion at December 31, 2013. In the fourth quarter of 2013, JPMorgan Chase Bank, N.A. implemented prospectively interagency guidance that revised JPMorgan Chase Bank, N.A.'s definition of leveraged lending to include all commercial and industrial borrowers, whether or not they are affiliated with financial sponsors, which meet certain leverage criteria and use of proceeds purpose tests related to a buyout, acquisition or capital distribution. Prior to this change, JPMorgan Chase Bank, N.A. defined leveraged lending as primarily being affiliated with a financial sponsor-related company and used internal risk grades to identify the leveraged lending portfolio. For further information, see Note 4 and Note 5 on pages 14–32 and 32–34 respectively, of these Consolidated Financial Statements.

In addition, JPMorgan Chase Bank, N.A. acts as a clearing and custody bank in the U.S. tri-party repurchase transaction market. In its role as clearing and custody bank, JPMorgan Chase Bank, N.A. is exposed to intra-day credit risk of the cash borrowers, usually broker-dealers; however, this exposure is secured by collateral and typically extinguished through the settlement process by the end of the day. Tri-party repurchase daily balances averaged $307 billion and $370 billion for the years ended December 31, 2013 and 2012, respectively.

Guarantees

U.S. GAAP requires that a guarantor recognize, at the inception of a guarantee, a liability in an amount equal to the fair value of the obligation undertaken in issuing the guarantee. U.S. GAAP defines a guarantee as a contract that contingently requires the guarantor to pay a guaranteed party based upon: (a) changes in an underlying asset, liability or equity security of the guaranteed party; or (b) a third party's failure to perform under a specified agreement. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s risk is reduced (i.e., over time or when the indemnification expires). Any contingent liability that exists as a result of issuing the guarantee or indemnification is recognized when it becomes probable and reasonably estimable. The contingent portion of the liability is not recognized if the estimated amount is less than the carrying amount of the liability recognized at inception (adjusted for any amortization). The recorded amounts of the liabilities related to guarantees and indemnifications at December 31, 2013 and 2012, excluding the allowance for credit losses on lending-related commitments, are discussed below.

Standby letters of credit and other financial guarantees

Standby letters of credit ("SBLC") and other financial guarantees are conditional lending commitments issued by JPMorgan Chase Bank, N.A. 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 $944 million and $644 million at December 31, 2013 and 2012, respectively, which were classified in accounts payable and other liabilities on the Consolidated Balance Sheets; these carrying values included $264 million and $279 million, respectively, for the allowance for lending-related commitments, and $680 million and $365 million, respectively, for the guarantee liability and corresponding asset.

The following table summarizes the types of facilities under which standby letters of credit and other letters of credit arrangements are outstanding by the ratings profiles of JPMorgan Chase Bank, N.A.'s customers, as of December 31, 2013 and 2012.

Standby letters of credit, other financial guarantees and other letters of credit

December 31, (in millions)	2013		2012	
	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade[a]	**$ 69,109**	**$ 3,939**	$ 76,310	$ 3,998
Noninvestment-grade[a]	**23,746**	**1,081**	23,740	1,575
Total contractual amount	**$ 92,855**	**$ 5,020**	$ 100,050	$ 5,573
Allowance for lending-related commitments	**$ 262**	**$ 2**	$ 277	$ 2
Commitments with collateral	**40,310**	**1,473**	42,573	1,145

(a) The ratings scale is based on JPMorgan Chase Bank, N.A.'s internal ratings which generally correspond to ratings as defined by S&P and Moody's.

Advised lines of credit

An advised line of credit is a revolving credit line which specifies the maximum amount JPMorgan Chase Bank, N.A. may make available to an obligor, on a nonbinding basis. The borrower receives written or oral advice of this facility. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s securities lending program, customers' securities, via custodial and non-custodial arrangements, may be lent to third parties. As part of this program, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. These contracts include written put options that require JPMorgan Chase Bank, N.A. to purchase assets upon exercise by the option holder at a specified price by a specified date in the future. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. deems to be guarantees was $56.3 billion and $61.7 billion at December 31, 2013 and 2012, respectively. The notional amount generally represents JPMorgan Chase Bank, N.A.'s maximum exposure to derivatives qualifying as guarantees. However, exposure to certain stable value contracts is contractually limited to a substantially lower percentage of the notional amount; the notional amount on these stable value contracts was $27.0 billion and $26.5 billion at December 31, 2013 and 2012, respectively, and the maximum exposure to loss was $2.8 billion at both December 31, 2013 and 2012. The fair values of the contracts reflect the probability of whether JPMorgan Chase Bank, N.A. will be required to perform under the contract. The fair value related to derivatives that JPMorgan Chase Bank, N.A. deems to be guarantees were derivative payables of $109 million and $122 million and derivative receivables of $37 million and $80 million at December 31, 2013 and 2012, respectively. JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. is both a purchaser and seller of credit protection in the

credit derivatives market. For a further discussion of credit derivatives, see Note 7 on pages 36–49 of these Consolidated Financial Statement.

Unsettled reverse repurchase and securities borrowing agreements

In the normal course of business, JPMorgan Chase Bank, N.A. enters into reverse repurchase agreements and securities borrowing agreements that settle at a future date. At settlement, these commitments require that JPMorgan Chase Bank, N.A. 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, 2013 and 2012, the amount of commitments related to forward starting reverse repurchase agreements and securities borrowing agreements were $6.5 billion and $4.2 billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular way settlement periods were $28.2 billion and $21.6 billion at December 31, 2013 and 2012, respectively.

Loan sales- and securitization-related indemnifications

Mortgage repurchase liability

In connection with JPMorgan Chase Bank, N.A.'s mortgage loan sale and securitization activities with the GSEs and other mortgage loan sale and private-label securitization transactions, as described in Note 17 on pages 98-108 of these Consolidated Financial Statements, JPMorgan Chase Bank, N.A. has made representations and warranties that the loans sold meet certain requirements. JPMorgan Chase Bank, N.A. has been, and may be, required to repurchase loans and/or indemnify the GSEs (e.g., with "make-whole" payments to reimburse the GSEs for their realized losses on liquidated loans) and other investors for losses due to material breaches of these representations and warranties. To the extent that repurchase demands that are received relate to loans that JPMorgan Chase Bank, N.A. purchased from third parties that remain viable, JPMorgan Chase Bank, N.A. typically will have the right to seek a recovery of related repurchase losses from the third party. Generally, the maximum amount of future payments JPMorgan Chase Bank, N.A. would be required to make for breaches of these representations and warranties would be equal to the unpaid principal balance of such loans that are deemed to have defects that were sold to purchasers (including securitization-related SPEs) plus, in certain circumstances, accrued interest on such loans and certain expense.

On October 25, 2013, JPMorgan Chase announced that it had reached a $1.1 billion agreement with the FHFA to resolve, other than certain limited types of exposures, outstanding and future mortgage repurchase demands associated with loans sold to the GSEs from 2000 to 2008 ("FHFA Settlement Agreement"). The majority of the mortgage repurchase demands that JPMorgan Chase had received from the GSEs related to loans originated from 2005 to 2008.

JPMorgan Chase Bank, N.A. has recognized a mortgage repurchase liability of $654 million and $2.6 billion as of December 31, 2013 and 2012, respectively. The amount of the mortgage repurchase liability at December 31, 2013, relates to repurchase losses associated with loans sold in connection with loan sale and securitization transactions with the GSEs that are not covered by the FHFA Settlement Agreement (e.g., post-2008 loan sale and securitization transactions, mortgage insurance rescissions and certain mortgage insurance settlement-related exposures, as well as certain other specific exclusions).

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

Summary of changes in mortgage repurchase liability

Year ended December 31, (in millions)	**2013**	2012	2011
Repurchase liability at beginning of period	$ 2,550	$ 3,244	$ 3,000
Net realized losses[(a)(b)]	(1,491)	(975)	(1,150)
Reclassification to litigation reserve[(c)]	(77)	–	–
Provision for repurchase losses[(d)]	(328)	281	1,394
Repurchase liability at end of period	$ 654	$ 2,550	$ 3,244

(a) Presented net of third-party recoveries and include principal losses and accrued interest on repurchased loans, "make-whole" settlements, settlements with claimants, and certain related expense. Make-whole settlements were $316 million, $408 million and $570 million, for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) The 2013 amount includes $1.1 billion, for the FHA Settlement Agreement.

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

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

Private label securitizations

The liability related to repurchase demands associated with private label securitizations is separately evaluated by JPMorgan Chase Bank, N.A. in establishing its litigation reserves.

On November 15, 2013, JPMorgan Chase announced that it had reached a $4.5 billion agreement with 21 major institutional investors to make a binding offer to the trustees of 330 residential mortgage-backed securities trusts issued by J.P.Morgan, Chase, and Bear Stearns ("RMBS Trust Settlement") to resolve all representation and warranty claims, as well as all servicing claims, on all trusts

issued by J.P.Morgan, Chase, and Bear Stearns between 2005 and 2008. The RMBS Trust Settlement may be subject to court approval.

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

For additional information regarding litigation, see Note 29 on pages 129–136 of these Consolidated Financial Statements.

Loans sold with recourse
JPMorgan Chase Bank, N.A. provides servicing for mortgages and certain commercial lending products on both a recourse and nonrecourse basis. In nonrecourse servicing, the principal credit risk to JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A.'s securitizations are predominantly nonrecourse, thereby effectively transferring the risk of future credit losses to the purchaser of the mortgage-backed securities issued by the trust. At December 31, 2013 and 2012, the unpaid principal balance of loans sold with recourse totaled $7.1 billion and $8.6 billion, respectively. The carrying value of the related liability that JPMorgan Chase Bank, N.A. has recorded, which is representative of JPMorgan Chase Bank, N.A.'s view of the likelihood it will have to perform under its recourse obligations, was $98 million and $110 million at December 31, 2013 and 2012, respectively.

Other off-balance sheet arrangements

Indemnification agreements – general
In connection with issuing securities to investors, JPMorgan Chase Bank, N.A. may enter into contractual arrangements with third parties that require JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. to settle the contract at its fair value in lieu of making a payment under the indemnification clause. JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. prior to the sale of the business or assets. It is difficult to estimate JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A. that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

Credit card charge-backs
Chase Paymentech Solutions, Card's merchant services business and a subsidiary of JPMorgan Chase Bank, N.A., is a global leader in payment processing and merchant acquiring.

Under the rules of Visa USA, Inc., and MasterCard International, JPMorgan Chase Bank, N.A., is primarily liable for the amount of each processed credit card sales transaction that is the subject of a dispute between a cardmember and a merchant. If a dispute is resolved in the cardmember's favor, Chase Paymentech will (through the cardmember's issuing bank) credit or refund the amount to the cardmember and will charge back the transaction to the merchant. If Chase Paymentech is unable to collect the amount from the merchant, Chase Paymentech will bear the loss for the amount credited or refunded to the cardmember. Chase Paymentech mitigates this risk by withholding future settlements, retaining cash reserve accounts or by obtaining other security. However, in the unlikely event that: (1) a merchant ceases operations and is unable to deliver products, services or a refund; (2) Chase Paymentech does not have sufficient collateral from the merchant to provide customer refunds; and (3) Chase Paymentech does not have sufficient financial resources to provide customer refunds, JPMorgan Chase Bank, N.A., would recognize the loss.

Chase Paymentech incurred aggregate losses of $14 million, $16 million, and $13 million on $750.1 billion, $655.2 billion, and $553.7 billion of aggregate volume processed for the years ended December 31, 2013, 2012 and 2011, respectively. Incurred losses from merchant charge-backs are charged to other expense, with the offset recorded in a valuation allowance against accrued interest and accounts receivable on the Consolidated Balance Sheets. The carrying value of the valuation allowance was $5 million and $6 million at December 31, 2013 and 2012, respectively, which JPMorgan Chase Bank, N.A. believes, based on historical experience and the collateral held by

Chase Paymentech of $208 million and $203 million at December 31, 2013 and 2012, respectively, is representative of the payment or performance risk to JPMorgan Chase Bank, N.A. related to charge-backs.

Clearing Services - Client Credit Risk
JPMorgan Chase Bank, N.A. provides clearing services for clients entering into securities purchases and sales and derivative transactions, with central counterparties ("CCPs"), including exchange traded derivatives ("ETDs") such as futures and options, as well as cleared over-the-counter ("OTC-cleared") derivative contracts. As a clearing member, JPMorgan Chase Bank, N.A. stands behind the performance of its clients, collects cash and securities collateral (margin) as well as any settlement amounts due from or to clients, and remits them to the relevant CCP or client in whole or part. There are two types of margin. Variation margin is posted on a daily basis based on the value of clients' derivative contracts. Initial margin is posted at inception of a derivative contract, generally on the basis of the potential changes in the variation margin requirement for the contract.

As clearing member, JPMorgan Chase Bank, N.A. is exposed to the risk of non-performance by its clients, but is not liable to clients for the performance of the CCPs. Where possible, JPMorgan Chase Bank, N.A. seeks to mitigate its risk to the client through the collection of appropriate amounts of margin at inception and throughout the life of the transactions and can also cease provision of clearing services if clients do not adhere to their obligations under the clearing agreement. In the event of non-performance by a client, JPMorgan Chase Bank, N.A. would close out the client's positions and access available margin. The CCP would utilize any margin it holds to make itself whole, with any remaining shortfalls required to be paid by JPMorgan Chase Bank, N.A. as clearing member.

JPMorgan Chase Bank, N.A. reflects its exposure to non-performance risk of the client through the recognition of margin payables or receivables to clients and CCPs, but does not reflect the clients underlying securities or derivative contracts in its Consolidated Financial Statements.

It is difficult to estimate JPMorgan Chase Bank, N.A.'s maximum possible exposure through its role as clearing member, as this would require an assessment of transactions that clients may execute in the future. However, based upon historical experience, and the credit risk mitigants available to JPMorgan Chase Bank, N.A., management believes it is unlikely that JPMorgan Chase Bank, N.A. will have to make any material payments under these arrangements and the risk of loss is expected to be remote.

For information on the derivatives that JPMorgan Chase Bank, N.A. executes for its own account and records in its Consolidated Financial Statements, see Note 7 on pages 36–49 of these Consolidated Financial Statements.

Exchange & Clearing House Memberships
Through the provision of clearing services, JPMorgan Chase Bank, N.A. is a member of several securities and derivative exchanges and clearinghouses, both in the U.S. and other countries. Membership in some of these organizations requires JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s contribution to the guarantee fund. Alternatively, these obligations may be a full pro-rata share of the residual losses after applying the guarantee fund. It is difficult to estimate JPMorgan Chase Bank, N.A.'s maximum possible exposure under these membership agreements, since this would require an assessment of future claims that may be made against JPMorgan Chase Bank, N.A. that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

Guarantees of subsidiaries and affiliates
In the normal course of business, JPMorgan Chase Bank, N.A. may provide counterparties with guarantees of certain of the trading and other obligations of its subsidiaries and affiliates on a contract-by-contract basis, as negotiated with JPMorgan Chase Bank, N.A.'s counterparties. The obligations of the subsidiaries are included on JPMorgan Chase Bank, N.A.'s Consolidated Balance Sheets, or are reflected as off-balance sheet commitments; therefore, JPMorgan Chase Bank, N.A. has not recognized a separate liability for these guarantees. At December 31, 2013 and 2012, there were no significant guarantees by JPMorgan Chase Bank, N.A. of the obligations of its affiliates. JPMorgan Chase Bank, N.A. believes that the occurrence of any event that would trigger payments by JPMorgan Chase Bank, N.A. under these guarantees is remote.

JPMorgan Chase Bank, N.A. has guaranteed certain debt of its subsidiaries, including both long-term debt and structured notes sold as part of JPMorgan Chase Bank, N.A.'s market-making activities. These guarantees are not included in the table on page 123 of this Note. For additional information, see Note 21 on pages 113–114 of these Consolidated Financial Statements.

Note 28 – Commitments, pledged assets and collateral

Lease commitments

At December 31, 2013, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. to perform restoration work on leased premises. No lease agreement

imposes restrictions on JPMorgan Chase Bank, N.A.'s ability to pay dividends, engage in debt or equity financing transactions or enter into further lease agreements.

The following table presents required future minimum rental payments under operating leases with noncancelable lease terms that expire after December 31, 2013.

Year ended December 31, (in millions)	
2014	$ 1,368
2015	1,344
2016	1,233
2017	1,114
2018	993
After 2018	4,866
Total minimum payments required[(a)]	10,918
Less: Sublease rentals under noncancelable subleases	(1,118)
Net minimum payment required	$ 9,800

(a) Lease restoration obligations are accrued in accordance with U.S. GAAP, and are not reported as a required minimum lease payment.

Total rental expense was as follows.

Year ended December 31, (in millions)	2013	2012	2011
Gross rental expense	**$ 1,634**	$ 1,638	$ 1,612
Sublease rental income	**(197)**	(192)	(153)
Net rental expense	**$ 1,437**	$ 1,446	$ 1,459

Pledged assets

At December 31, 2013, assets were pledged to maintain potential borrowing capacity with central banks and for other purposes, including to secure borrowings and public deposits, and to collateralize repurchase and other securities financing agreements. Certain of these pledged assets may be sold or repledged by the secured parties and are identified as financial instruments owned (pledged to various parties) on the Consolidated Balance Sheets. At December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. had pledged assets of $203.1 billion and $187.3 billion, respectively, at Federal Reserve Banks and FHLBs. In addition, as of December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. had pledged $43.0 billion and $48.5 billion, respectively, of financial instruments it owns that may not be sold or repledged by the secured parties. The prior period amount (and the corresponding pledged assets parenthetical disclosure for securities on the Consolidated Balance Sheets) have been revised to conform with the current period presentation. Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. See Note 17 on pages 98-108 of these Consolidated Financial Statements for additional information on assets and liabilities of consolidated VIEs. For additional information on JPMorgan Chase Bank, N.A.'s securities financing activities and long-term debt, see Note 14 on pages 65–67, and Note 21 on pages 113–114, respectively, of these Consolidated Financial Statements. The significant components of JPMorgan Chase Bank, N.A.'s pledged assets were as follows.

December 31, (in billions)	2013	2012
Securities	**$ 67.8**	$ 109.8
Loans	**181.9**	157.6
Trading assets and other	**75.0**	63.0
Total assets pledged	**$ 324.7**	$ 330.4

Collateral

At December 31, 2013 and 2012, JPMorgan Chase Bank, N.A. had accepted assets as collateral that it could sell or repledge, deliver or otherwise use with a fair value of approximately $402.2 billion and $483.9 billion, respectively. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. Of the collateral received, approximately $313.1 billion and $357.0 billion, respectively, were sold or repledged, generally as collateral under repurchase agreements, securities lending agreements or to cover short sales and to collateralize deposits and derivative agreements.

Note 29 – Litigation

Contingencies

As of December 31, 2013, JPMorgan Chase and its subsidiaries, including but not limited to JPMorgan Chase Bank, N.A., 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 JPMorgan Chase'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.

Estimates of reasonably possible losses for legal proceedings are analyzed and managed at the JPMorgan Chase level and not at the subsidiary level (i.e., JPMorgan Chase Bank, N.A.). JPMorgan Chase believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for JPMorgan Chase's legal proceedings is from $0 to approximately $5.0 billion at December 31, 2013. This estimated aggregate range of reasonably possible losses is based upon currently available information for those proceedings in which JPMorgan Chase is involved, taking into account JPMorgan Chase's best estimate of such losses for those cases for which such estimate can be made. For certain cases, JPMorgan Chase does not believe that an estimate can currently be made. JPMorgan Chase'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 in certain cases JPMorgan Chase and JPMorgan Chase Bank, N.A.) 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, JPMorgan Chase's estimate will change from time to time, and actual losses may vary.

Set forth below are descriptions of material legal proceedings in which JPMorgan Chase and its subsidiaries (which in certain instances include JPMorgan Chase Bank, N.A.) are involved or have been named as parties.

Bear Stearns Hedge Fund Matter. In September 2013, an action brought by Bank of America and Banc of America Securities LLC (together "BofA") in the United States District Court for the Southern District of New York against Bear Stearns Asset Management, Inc. ("BSAM") relating to alleged losses resulting from the failure of the Bear Stearns High Grade Structured Credit Strategies Master Fund, Ltd. and the Bear Stearns High Grade Structured Credit Strategies Enhanced Leverage Master Fund, Ltd. was dismissed after the court granted BSAM's motion for summary judgment. BofA has determined not to appeal the dismissal.

CIO Investigations and Litigation. JPMorgan Chase is responding to a consolidated shareholder purported class action, a consolidated purported class action brought under the Employee Retirement Income Security Act and shareholder derivative actions that have been filed in New York state court and the United States District Court for the Southern District of New York, as well as shareholder demands and government investigations, relating to losses in the synthetic credit portfolio managed by JPMorgan Chase's Chief Investment Office ("CIO"). JPMorgan Chase continues to cooperate with ongoing government investigations, including by the United States Attorney's Office for the Southern District of New York and the State of Massachusetts. The purported class actions and shareholder derivative actions are in early stages with defendants' motions to dismiss pending.

Credit Default Swaps Investigations and Litigation. In July 2013, the European Commission (the "EC") filed a Statement of Objections against JPMorgan Chase (including various subsidiaries) and other industry members in connection with its ongoing investigation into the credit default swaps ("CDS") marketplace. The EC asserts that between 2006 and 2009, a number of investment banks acted collectively through the International Swaps and Derivatives Association ("ISDA") and Markit Group Limited ("Markit") to foreclose exchanges from the potential market for exchange-traded credit derivatives by instructing Markit and ISDA to license their respective data and index benchmarks only for over-the-counter ("OTC") trading and not for exchange trading, allegedly to protect the investment banks' revenues from the OTC market. JPMorgan Chase submitted a response to the Statement of Objections in January 2014. The U.S. Department of Justice (the "DOJ") also has an ongoing investigation into the CDS marketplace, which was initiated in July 2009.

Separately, JPMorgan Chase is a defendant in nine purported class actions (all consolidated in the United States District Court for the Southern District of New York) filed on behalf of purchasers and sellers of CDS and asserting federal antitrust law claims. Each of the complaints refers to the ongoing investigations by the EC and DOJ into the CDS market, and alleges that the defendant investment banks and dealers, including JPMorgan Chase, as well as Markit and/or ISDA, collectively prevented new entrants into the CDS market, in order to artificially inflate the defendants' OTC revenues.

Foreign Exchange Investigations and Litigation. JPMorgan Chase has received information requests, document production notices and related inquiries from various U.S. and non-U.S. government authorities regarding JPMorgan Chase's foreign exchange trading business. These investigations are in the early stages and JPMorgan Chase is cooperating with the relevant authorities.

Since November 2013, a number of class actions have been filed in the United Stated District Court for the Southern District of New York against a number of foreign exchange dealers, including JPMorgan Chase, for alleged violations of federal and state antitrust laws and unjust enrichment based on an alleged conspiracy to manipulate foreign exchange rates reported on the WM/Reuters service.

Interchange Litigation. A group of merchants and retail associations filed a series of class action complaints relating to interchange in several federal courts. The complaints alleged that Visa and MasterCard, as well as certain banks, conspired to set the price of credit and debit card interchange fees, enacted respective rules in violation of antitrust laws, and engaged in tying/bundling and exclusive dealing. All cases were consolidated in the United States District Court for the Eastern District of New York for pretrial proceedings.

The parties have entered into an agreement to settle those cases, for a cash payment of $6.05 billion to the class plaintiffs (of which JPMorgan Chase's share is approximately 20%) and an amount equal to ten basis points of credit card interchange for a period of eight months to be measured from a date within 60 days of the end of the opt-out period. The agreement also provides for modifications to each credit card network's rules, including those that prohibit surcharging credit card transactions. The rule modifications became effective in January 2013. In December 2013, the Court issued a decision granting final approval of the settlement. A number of merchants have filed notices of appeal. Certain merchants that opted out of the class settlement have filed actions against Visa and MasterCard, as well as against JPMorgan Chase and other banks.

Investment Management Litigation. JPMorgan Chase is defending two pending cases that allege that investment portfolios managed by J.P. Morgan Investment Management ("JPMIM") were inappropriately invested in securities backed by residential real estate collateral. Plaintiffs Assured Guaranty (U.K.) and Ambac Assurance UK Limited

claim that JPMIM is liable for losses of more than $1 billion in market value of these securities. Discovery is proceeding.

Italian Proceedings.

City of Milan. In January 2009, the City of Milan, Italy (the "City") issued civil proceedings against (among others) JPMorgan Chase Bank, N.A. and J.P. Morgan Securities plc in the District Court of Milan alleging a breach of advisory obligations in connection with a bond issue by the City in June 2005 and an associated swap transaction. JPMorgan Chase has entered into a settlement agreement with the City to resolve the City's civil proceedings.

Four current and former JPMorgan Chase employees and JPMorgan Chase Bank, N.A. (as well as other individuals and three other banks) were directed by a criminal judge to participate in a trial that started in May 2010. As it relates to JPMorgan Chase individuals, two were acquitted and two were found guilty of aggravated fraud with sanctions of prison sentences, fines and a ban from dealing with Italian public bodies for one year. JPMorgan Chase (along with other banks involved) was found liable for breaches of Italian administrative law, fined €1 million and ordered to forfeit the profit from the transaction (for JPMorgan Chase, totaling €24.7 million). JPMorgan Chase and the individuals are appealing the verdict, and none of the sanctions will take effect until all appeal avenues have been exhausted. The first appeal hearing took place in January 2014.

Parmalat. In 2003, following the bankruptcy of the Parmalat group of companies ("Parmalat"), criminal prosecutors in Italy investigated the activities of Parmalat, its directors and the financial institutions that had dealings with them following the collapse of the company. In March 2012, the criminal prosecutor served a notice indicating an intention to pursue criminal proceedings against four former employees of JPMorgan Chase (but not against JPMorgan Chase) on charges of conspiracy to cause Parmalat's insolvency by underwriting bonds and continuing derivatives trading when Parmalat's balance sheet was false. A preliminary hearing is scheduled for February 2014, at which the judge will determine whether to recommend that the matter go to a full trial.

In addition, the administrator of Parmalat commenced five civil actions against JPMorgan Chase entities including: two claw-back actions; a claim relating to bonds issued by Parmalat in which it is alleged that JPMorgan Chase kept Parmalat "artificially" afloat and delayed the declaration of insolvency; and similar allegations in two claims relating to derivatives transactions.

Lehman Brothers Bankruptcy Proceedings. In May 2010, Lehman Brothers Holdings Inc. ("LBHI") and its Official Committee of Unsecured Creditors (the "Committee") filed a complaint (and later an amended complaint) against JPMorgan Chase Bank, N.A. in the United States Bankruptcy Court for the Southern District of New York that asserts both federal bankruptcy law and state common law claims, and seeks, among other relief, to recover $8.6 billion in collateral that was transferred to JPMorgan Chase Bank, N.A. in the weeks preceding LBHI's bankruptcy. The amended complaint also seeks unspecified damages on the grounds that JPMorgan Chase Bank, N.A.'s collateral requests hastened LBHI's bankruptcy. The Court dismissed the counts of the amended complaint that sought to void the allegedly constructively fraudulent and preferential transfers made to JPMorgan Chase during the months of August and September 2008.

JPMorgan Chase has also filed counterclaims against LBHI alleging that LBHI fraudulently induced JPMorgan Chase to make large clearing advances to Lehman against inappropriate collateral, which left JPMorgan Chase with more than $25 billion in claims (the "Clearing Claims") against the estate of Lehman Brothers Inc. ("LBI"), LBHI's broker-dealer subsidiary. LBHI and the Committee have filed an objection to the claims asserted by JPMorgan Chase Bank, N.A. against LBHI with respect to the Clearing Claims, principally on the grounds that JPMorgan Chase had not conducted the sale of the securities collateral held for such claims in a commercially reasonable manner. The Clearing Claims, together with approximately $3 billion of other claims of JPMorgan Chase against Lehman entities, have been paid in full, subject to the outcome of the objections filed by LBHI and the Committee. Discovery is ongoing.

LBHI and several of its subsidiaries that had been Chapter 11 debtors have filed a separate complaint and objection to derivatives claims asserted by JPMorgan Chase alleging that the amount of the derivatives claims had been overstated and challenging certain set-offs taken by JPMorgan Chase Bank, N.A. entities to recover on the claims. JPMorgan Chase responded to this separate complaint and objection in February 2013. Discovery is ongoing.

LIBOR and Other Benchmark Rate Investigations and Litigation. JPMorgan Chase has received subpoenas and requests for documents and, in some cases, interviews, from federal and state agencies and entities, including the DOJ, the Commodity Futures Trading Commission (the "CFTC"), the Securities and Exchange Commission (the "SEC") and various state attorneys general, as well as the European Commission, the U.K. Financial Conduct Authority (the "FCA"), Canadian Competition Bureau, Swiss Competition Commission and other regulatory authorities and banking associations around the world relating primarily to the process by which interest rates were submitted to the British Bankers Association ("BBA") in connection with the setting of the BBA's London Interbank Offered Rate ("LIBOR") for various currencies, principally in 2007 and 2008. Some of the inquiries also relate to similar processes by which information on rates is submitted to the European Banking Federation ("EBF") in connection with the setting of the EBF's Euro Interbank Offered Rates ("EURIBOR") and to the Japanese Bankers' Association for the setting of Tokyo Interbank Offered Rates ("TIBOR") as well as to other processes for the setting of other reference rates in various parts of the world during similar time periods. JPMorgan Chase is cooperating with these inquiries. In December 2013, JPMorgan Chase reached a settlement with the European Commission regarding its Japanese Yen LIBOR investigation and agreed to pay a fine

of €79.9 million. Investigations by the European Commission with regard to other reference rates remain open. In January 2014, the Canadian Competition Bureau announced that it has discontinued its investigation related to Yen LIBOR.

In addition, JPMorgan Chase has been named as a defendant along with other banks in a series of individual and class actions filed in various United States District Courts in which plaintiffs make varying allegations that in various periods, starting in 2000 or later, defendants either individually or collectively manipulated the U.S. dollar LIBOR, Yen LIBOR and/or Euroyen TIBOR rates by submitting rates that were artificially low or high. Plaintiffs allege that they transacted in loans, derivatives or other financial instruments whose values are impacted by changes in U.S. dollar LIBOR, Yen LIBOR, or Euroyen TIBOR and assert a variety of claims including antitrust claims seeking treble damages.

The U.S. dollar LIBOR-related purported class actions have been consolidated for pre-trial purposes in the United States District Court for the Southern District of New York. In March 2013, the Court granted in part and denied in part the defendants' motions to dismiss the claims, including dismissal with prejudice of the antitrust claims, and the United States Court of Appeals for the Second Circuit dismissed the appeals for lack of jurisdiction. In September 2013, certain plaintiffs filed amended complaints and others sought leave to amend their complaints to add additional allegations. Defendants have moved to dismiss the amended complaints and have opposed the requests to amend. Those motions remain pending.

JPMorgan Chase has also been named as a defendant in a purported class action filed in the United States District Court for the Southern District of New York on behalf of plaintiffs who purchased or sold exchange-traded Euroyen futures and options contracts. The action alleges manipulation of Yen LIBOR. Defendants have filed a motion to dismiss.

JPMorgan Chase has also been named as a nominal defendant in a derivative action in the Supreme Court of New York in the County of New York against certain current and former members of JPMorgan Chase's board of directors for alleged breach of fiduciary duty in connection with JPMorgan Chase's purported role in manipulating LIBOR. The defendants have filed a motion to dismiss.

Madoff Litigation and Investigations. In January 2014, certain of JPMorgan Chase's bank subsidiaries entered into settlements with various governmental agencies in resolution of investigations relating to Bernard L. Madoff Investment Securities LLC ("BLMIS"). JPMorgan Chase and certain of its subsidiaries also entered into settlements with several private parties in resolution of civil litigation relating to BLMIS.

JPMorgan Chase Bank, N.A. entered into a Deferred Prosecution Agreement (the "DPA") with the United States Attorney's Office for the Southern District of New York (the "U.S. Attorney") in which it agreed to forfeit $1.7 billion to the United States as a non-tax-deductible payment. JPMorgan Chase Bank, N.A. also consented, subject to the terms and conditions of the DPA, to the filing by the U.S. Attorney of an Information charging the bank with failure to maintain an adequate anti-money laundering program, and a failure to file a suspicious activity report in the United States in October 2008 with respect to BLMIS, in violation of the Bank Secrecy Act. Pursuant to the DPA, the U.S. Attorney will defer any prosecution of JPMorgan Chase Bank, N.A. for a two-year period and will dismiss the Information with prejudice at the end of that time if the bank is in compliance with its obligations under the DPA. The DPA has been approved by the court.

JPMorgan Chase Bank, N.A., JPMorgan Bank and Trust Company, N.A. and Chase Bank USA, N.A., have also consented to the assessment of a $350 million Civil Money Penalty by the Office of the Comptroller of the Currency ("OCC") in connection with various Bank Secrecy Act/Anti-Money Laundering deficiencies, including in relation to the BLMIS fraud. In addition, JPMorgan Chase Bank, N.A. has agreed to the assessment of a $461 million Civil Money Penalty by the Financial Crimes Enforcement Network ("FinCEN") for failure to detect and adequately report suspicious transactions relating to BLMIS. The FinCEN penalty, but not the OCC penalty, has been deemed satisfied by the forfeiture payment to the U.S. Attorney.

Additionally, JPMorgan Chase and certain subsidiaries, including JPMorgan Chase Bank, N.A., have agreed to enter into settlements with the court-appointed trustee for BLMIS (the "Trustee") and with plaintiffs representing a class of former BLMIS customers who lost all or a portion of their principal investments with BLMIS. As part of these settlements, JPMorgan Chase and the bank have agreed to pay the Trustee a total of $325 million. Separately, JPMorgan Chase and the bank have agreed to pay the class action plaintiffs $218 million, as well as attorneys' fees, in exchange for a release of all damages claims relating to BLMIS. The settlements with the Trustee and the class action plaintiffs are subject to court approval. BLMIS customers who did not suffer losses on their principal investments are not eligible to participate in the class action settlement, and certain customers in that category have stated that they intend to pursue claims against JPMorgan Chase.

Also, various subsidiaries of JPMorgan Chase, including J.P. Morgan Securities plc, have been named as defendants in lawsuits filed in Bankruptcy Court in New York arising out of the liquidation proceedings of Fairfield Sentry Limited and Fairfield Sigma Limited (together, "Fairfield"), so-called Madoff feeder funds. These actions seek to recover payments made by the funds to defendants totaling approximately $155 million. Pursuant to an agreement with the Trustee, the liquidators of Fairfield have voluntarily dismissed their action against J.P. Morgan Securities plc without prejudice to re-filing. The other actions remain outstanding.

In addition, a purported class action was brought by investors in certain feeder funds against JPMorgan Chase in

the United States District Court for the Southern District of New York, as was a motion by separate potential class plaintiffs to add claims against JPMorgan Chase and certain subsidiaries to an already pending purported class action in the same court. The allegations in these complaints largely track those raised by the Trustee. The Court dismissed these complaints and plaintiffs have appealed. In September 2013, the United States Court of Appeals for the Second Circuit affirmed the District Court's decision. The plaintiffs have petitioned the entire Court for a rehearing of the appeal and the Court has deferred decision pending a ruling by the United States Supreme Court on a potentially related issue.

JPMorgan Chase is a defendant in five other Madoff-related investor actions pending in New York state court. The allegations in all of these actions are essentially identical, and involve claims against JPMorgan Chase for, among other things, aiding and abetting breach of fiduciary duty, conversion and unjust enrichment. JPMorgan Chase has moved to dismiss these actions.

Additionally, a shareholder derivative action has been filed in New York state court against JPMorgan Chase, as nominal defendant, and certain of its current and former Board members, alleging breach of fiduciary duty for failure to maintain effective internal controls to detect fraudulent transactions.

MF Global. JPMorgan Chase has responded to inquiries from the CFTC relating to JPMorgan Chase's banking and other business relationships with MF Global, including as a depository for MF Global's customer segregated accounts.

J.P. Morgan Securities LLC has been named as one of several defendants in a number of purported class actions filed by purchasers of MF Global's publicly traded securities asserting violations of federal securities laws and alleging that the offering documents contained materially false and misleading statements and omissions regarding MF Global. The actions have been consolidated before the United States District Court for the Southern District of New York. Discovery is ongoing.

Mortgage-Backed Securities and Repurchase Litigation and Related Regulatory Investigations. JPMorgan Chase and affiliates (together, "JPMC"), Bear Stearns and affiliates (together, "Bear Stearns") and Washington Mutual affiliates (together, "Washington Mutual") have been named as defendants in a number of cases in their various roles in offerings of mortgage-backed securities ("MBS"). These cases include purported class action suits on behalf of MBS purchasers, actions by individual MBS purchasers and actions by monoline insurance companies that guaranteed payments of principal and interest for particular tranches of MBS offerings. Following the settlements referred to under "Repurchase Litigation" and "Government Enforcement Investigations and Litigation" below, there are currently pending and tolled investor and monoline insurer claims involving MBS with an original principal balance of approximately $74 billion, of which $67 billion involves JPMorgan Chase, Bear Stearns or Washington Mutual as issuer and $7 billion involves JPMorgan Chase, Bear Stearns or Washington Mutual solely as underwriter. JPMorgan Chase and certain of its current and former officers and Board members have also been sued in shareholder derivative actions relating to JPMorgan Chase's MBS activities, and trustees have asserted or have threatened to assert claims that loans in securitization trusts should be repurchased.

Issuer Litigation – Class Actions. JPMorgan Chase is a defendant in three purported class actions brought against JPMorgan Chase and Bear Stearns as MBS issuers (and, in some cases, also as underwriters of their own MBS offerings) in the United States District Courts for the Eastern and Southern Districts of New York. JPMorgan Chase has reached an agreement in principle to settle one of these purported class actions, pending in the United States District Court for the Eastern District of New York. Motions to dismiss have largely been denied in the remaining two cases pending in the United States District Court for the Southern District of New York, which are in various stages of litigation.

Issuer Litigation – Individual Purchaser Actions. In addition to class actions, JPMorgan Chase & Co. is defending individual actions brought against JPMorgan Chase, Bear Stearns and Washington Mutual as MBS issuers (and, in some cases, also as underwriters of their own MBS offerings). These actions are pending in federal and state courts across the United States and are in various stages of litigation.

Monoline Insurer Litigation. JPMorgan Chase is defending two pending actions relating to a monoline insurer's guarantees of principal and interest on certain classes of 11 different Bear Stearns MBS offerings. These actions are pending in state courts in New York and are in various stages of litigation. JPMorgan Chase has resolved three actions brought by Syncora Guarantee Inc. relating to its guarantees of principal and interest on certain classes of Bear Stearns MBS offerings.

Underwriter Actions. In actions against JPMorgan Chase solely as an underwriter of other issuers' MBS offerings, JPMorgan Chase has contractual rights to indemnification from the issuers. However, those indemnity rights may prove effectively unenforceable in various situations, such as where the issuers are now defunct. There are currently such actions pending against JPMorgan Chase in federal and state courts in various stages of litigation.

Repurchase Litigation. JPMorgan Chase is defending a number of actions brought by trustees or master servicers of various MBS trusts and others on behalf of purchasers of securities issued by those trusts. These cases generally allege breaches of various representations and warranties regarding securitized loans and seek repurchase of those loans or equivalent monetary relief, as well as indemnification of attorneys' fees and costs and other remedies. Deutsche Bank National Trust Company, acting as trustee for various MBS trusts, has filed such a suit against JPMorgan Chase, Washington Mutual and the FDIC in

connection with a significant number of MBS issued by Washington Mutual; that case is described in the Washington Mutual Litigations section below. Other repurchase actions, each specific to one or more MBS transactions issued by JPMC and/or Bear Stearns, are in various stages of litigation.

In addition, JPMorgan Chase received demands by securitization trustees that threaten litigation, as well as demands by investors directing or threatening to direct trustees to investigate claims or bring litigation, based on purported obligations to repurchase loans out of securitization trusts and alleged servicing deficiencies. These include but are not limited to a demand from a law firm, as counsel to a group of 21 institutional MBS investors, to various trustees to investigate potential repurchase and servicing claims. These investors purported to have 25% or more of the voting rights in as many as 191 different trusts sponsored by JPMorgan Chase or its affiliates with an original principal balance of more than $174 billion (excluding 52 trusts sponsored by Washington Mutual, with an original principal balance of more than $58 billion). Pursuant to a settlement agreement with the group of institutional investors, JPMorgan Chase and the investor group have made a binding offer to the trustees of MBS issued by JPMorgan Chase and Bear Stearns that provides for the payment of $4.5 billion and the implementation of certain servicing changes to mortgage loans serviced by JPMorgan Chase, to resolve all repurchase and servicing claims that have been asserted or could have been asserted with respect to the 330 MBS trusts. The offer, which is subject to acceptance by the trustees, and potentially a judicial approval process, does not resolve claims relating to WaMu MBS. JPMorgan Chase and the trustees have agreed to toll and forbear from asserting repurchase and servicing claims with respect to most of the JPMorgan Chase and Bear Stearns trusts subject to the settlement during the pendency of the settlement approval process.

There are additional repurchase and servicing claims made against trustees not affiliated with JPMorgan Chase, but involving trusts that JPMorgan Chase sponsored, which have been tolled.

Derivative Actions. Seven shareholder derivative actions relating to JPMorgan Chase's MBS activities have been filed to date against JPMorgan Chase, as nominal defendant, and certain of its current and former officers and members of its Board of Directors, in New York state court and California federal court. In one of the actions, JPMorgan Chase's motion to dismiss was granted and the dismissal was affirmed on appeal. Defendants have filed, or intend to file, motions to dismiss the remaining actions.

Government Enforcement Investigations and Litigation. JPMorgan Chase resolved actual and potential civil claims by the DOJ and several State Attorneys General relating to residential mortgage-backed securities activities by JPMC, Bear Stearns and Washington Mutual, in addition to resolving litigation by the Federal Housing Finance Agency, the Federal Deposit Insurance Corporation and the National Credit Union Administration. JPMorgan Chase paid a total of $9.0 billion, which is comprised of a $2.0 billion civil monetary penalty and $7.0 billion in compensatory payments (including $4.0 billion to resolve the Federal Housing Finance Agency litigation) and made a commitment to provide $4.0 billion in borrower relief before the end of 2017. In connection with this settlement, including the resolution of litigation by the Federal Housing Finance Agency, the Federal Deposit Insurance Corporation and the National Credit Union Administration, JPMorgan Chase agreed to waive its right to seek indemnification from the Federal Deposit Insurance Corporation, in its capacity as receiver for Washington Mutual Bank and in its corporate capacity, with respect to any portion of this settlement relating to residential mortgage-backed securities activities of Washington Mutual Bank. JPMorgan Chase retained its rights to seek indemnification from the Federal Deposit Insurance Corporation for all other liabilities relating to the residential mortgage-backed securities activities of Washington Mutual Bank.

Simultaneously with the resolution of litigation by the Federal Housing Finance Agency, JPMorgan Chase also agreed to resolve Fannie Mae's and Freddie Mac's repurchase claims associated with whole loan purchases from 2000 to 2008, for $1.1 billion.

JPMorgan Chase is responding to an ongoing investigation being conducted by the Criminal Division of the United States Attorney's Office for the Eastern District of California relating to MBS offerings securitized and sold by JPMorgan Chase and its subsidiaries. JPMorgan Chase has also received other subpoenas and informal requests for information from federal and state authorities concerning the issuance and underwriting of MBS-related matters. JPMorgan Chase continues to respond to these MBS-related regulatory inquiries.

In addition, JPMorgan Chase is responding to and cooperating with requests for information from the U.S. Attorney's Office for the District of Connecticut, subpoenas and requests from the SEC Division of Enforcement, and a request from the Office of the Special Inspector General for the Troubled Asset Relief Program to conduct a review of certain activities, all of which relate to, among other matters, communications with counterparties in connection with certain secondary market trading in MBS.

JPMorgan Chase has entered into agreements with a number of entities that purchased MBS that toll applicable limitations periods with respect to their claims, and has settled, and in the future may settle, tolled claims. There is no assurance that JPMorgan Chase will not be named as a defendant in additional MBS-related litigation.

Mortgage-Related Investigations and Litigation. The Attorney General of Massachusetts filed an action against JPMorgan Chase, other servicers and a mortgage recording company, asserting claims for various alleged wrongdoings relating to mortgage assignments and use of the industry's electronic mortgage registry. The court granted in part and denied in part the defendants' motion to dismiss the action, which remains pending.

JPMorgan Chase is named as a defendant in a purported class action lawsuit relating to its mortgage foreclosure procedures. The plaintiffs have moved for class certification.

Two shareholder derivative actions have been filed in New York Supreme Court against JPMorgan Chase's Board of Directors alleging that the Board failed to exercise adequate oversight as to wrongful conduct by JPMorgan Chase regarding mortgage servicing. These actions seek declaratory relief and damages. In October 2012, the Court consolidated the actions and stayed all proceedings pending the plaintiffs' decision whether to file a consolidated complaint after JPMorgan Chase completes its response to a demand submitted by one of the plaintiffs under Section 220 of the Delaware General Corporation Law.

In February 2014, JPMorgan Chase entered into a settlement with the United States Attorney's Office for the Southern District of New York, the Federal Housing Administration ("FHA"), the United States Department of Housing and Urban Development ("HUD") and the United States Department of Veterans Affairs ("VA") resolving claims relating to JPMorgan Chase's participation in federal mortgage insurance programs overseen by FHA, HUD and VA. Under the settlement, JPMorgan Chase will pay $614 million and agree to enhance its quality control program for loans that are submitted in the future to FHA's Direct Endorsement Lender program. This settlement releases JPMorgan Chase from False Claims Act, FIRREA and other civil and administrative liability for FHA and VA insurance claims that have been paid to JPMorgan Chase since 2002 through the date of the settlement.

The Civil Division of the United States Attorney's Office for the Southern District of New York is conducting an investigation concerning JPMorgan Chase's compliance with the Fair Housing Act ("FHA") and Equal Credit Opportunity Act ("ECOA") in connection with its mortgage lending practices. In addition, two municipalities are pursuing investigations into the impact, if any, of alleged violations of the FHA and ECOA on their respective communities. JPMorgan Chase is cooperating in these investigations.

Municipal Derivatives Litigation. Several civil actions were commenced in New York and Alabama courts against JPMorgan Chase relating to certain Jefferson County, Alabama (the "County") warrant underwritings and swap transactions. The claims in the civil actions generally alleged that JPMorgan Chase made payments to certain third parties in exchange for being chosen to underwrite more than $3 billion in warrants issued by the County and to act as the counterparty for certain swaps executed by the County. The County filed for bankruptcy in November 2011. In June 2013, the County filed a Chapter 9 Plan of Adjustment, as amended (the "Plan of Adjustment"), which provided that all the above-described actions against JPMorgan Chase would be released and dismissed with prejudice. In November 2013, the Bankruptcy Court confirmed the Plan of Adjustment, and in December 2013, certain sewer rate payers filed an appeal challenging the confirmation of the Plan of Adjustment. All conditions to the Plan of Adjustment's effectiveness, including the dismissal of the actions against JPMorgan Chase, were satisfied or waived and the transactions contemplated by the Plan of Adjustment occurred in December 2013. Accordingly, all the above-described actions against JPMorgan Chase have been dismissed pursuant to the terms of the Plan of Adjustment. The appeal of the Bankruptcy Court's order confirming the Plan of Adjustment remains pending.

Petters Bankruptcy and Related Matters. JPMorgan Chase and certain of its affiliates, including One Equity Partners ("OEP"), have been named as defendants in several actions filed in connection with the receivership and bankruptcy proceedings pertaining to Thomas J. Petters and certain affiliated entities (collectively, "Petters") and the Polaroid Corporation. The principal actions against JPMorgan Chase and its affiliates have been brought by a court-appointed receiver for Petters and the trustees in bankruptcy proceedings for three Petters entities. These actions generally seek to avoid certain purported transfers in connection with (i) the 2005 acquisition by Petters of Polaroid, which at the time was majority-owned by OEP; (ii) two credit facilities that JPMorgan Chase and other financial institutions entered into with Polaroid; and (iii) a credit line and investment accounts held by Petters. The actions collectively seek recovery of approximately $450 million. Defendants have moved to dismiss the complaints in the actions filed by the Petters bankruptcy trustees.

Power Matters. The United States Attorney's Office for the Southern District of New York is investigating matters relating to the bidding activities that were the subject of the July 2013 settlement between J.P. Morgan Ventures Energy Corp. and the Federal Energy Regulatory Commission. JPMorgan Chase is cooperating with the investigation.

Referral Hiring Practices Investigations. The SEC and DOJ are investigating, among other things, JPMorgan Chase's compliance with the Foreign Corrupt Practices Act and other laws with respect to JPMorgan Chase's hiring practices related to candidates referred by clients, potential clients and government officials, and its engagement of consultants in the Asia Pacific region. JPMorgan Chase is cooperating with these investigations. Separate inquiries on these or similar topics have been made by other authorities, including authorities in other jurisdictions, and JPMorgan Chase is responding to those inquiries.

Sworn Documents, Debt Sales and Collection Litigation Practices. JPMorgan Chase has been responding to formal and informal inquiries from various state and federal regulators regarding practices involving credit card collections litigation (including with respect to sworn documents), the sale of consumer credit card debt and securities backed by credit card receivables. In September 2013, JPMorgan Chase Bank, N.A., Chase Bank USA, N.A. and JPMorgan Bank and Trust Company, N.A. (collectively, the "Banks") entered into a consent order with the OCC regarding collections litigation processes pursuant to which the Banks agreed to take certain corrective actions in connection with certain of JPMorgan Chase's credit card,

student loan, auto loan, business banking and commercial banking customers who defaulted on their loan or contract.

Separately, the Consumer Financial Protection Bureau and multiple state Attorneys General are conducting investigations into JPMorgan Chase's collection and sale of consumer credit card debt. The California and Mississippi Attorneys General have filed separate civil actions against JPMorgan Chase & Co., Chase Bank USA, N.A. and Chase BankCard Services, Inc. alleging violations of law relating to debt collection practices.

Washington Mutual Litigations. Proceedings related to Washington Mutual's failure are pending before the United States District Court for the District of Columbia and include a lawsuit brought by Deutsche Bank National Trust Company, initially against the FDIC, asserting an estimated $6 billion to $10 billion in damages based upon alleged breach of various mortgage securitization agreements and alleged violation of certain representations and warranties given by certain Washington Mutual, Inc. ("WMI") subsidiaries in connection with those securitization agreements. The case includes assertions that JPMorgan Chase may have assumed liabilities for the alleged breaches of representations and warranties in the mortgage securitization agreements. The District Court denied as premature motions by JPMorgan Chase and the FDIC that sought a ruling on whether the FDIC retained liability for Deutsche Bank's claims. Discovery is underway.

An action filed by certain holders of Washington Mutual Bank debt against JPMorgan Chase, which alleged that JPMorgan Chase acquired substantially all of the assets of Washington Mutual Bank from the FDIC at a price that was allegedly too low, remains pending. JPMorgan Chase and the FDIC moved to dismiss this action and the District Court dismissed the case except as to the plaintiffs' claim that JPMorgan Chase tortiously interfered with the plaintiffs' bond contracts with Washington Mutual Bank prior to its closure. Discovery is ongoing.

JPMorgan Chase has also filed a complaint in the United States District Court for the District of Columbia against the FDIC in its capacity as receiver for Washington Mutual Bank and in its corporate capacity asserting multiple claims for indemnification under the terms of the Purchase & Assumption Agreement between JPMorgan Chase and the FDIC relating to JPMorgan Chase's purchase of most of the assets and certain liabilities of Washington Mutual Bank.

* * *

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries, including in certain cases, JPMorgan Chase Bank, N.A., are named as defendants or are otherwise involved in a substantial number of other legal proceedings. JPMorgan Chase and JPMorgan Chase Bank, N.A. each 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.

JPMorgan Chase Bank, N.A. has established reserves for several hundred of its currently outstanding legal proceedings. JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upwards or downwards, as appropriate, based on management's best judgment after consultation with counsel. During the years ended December 31, 2013, 2012 and 2011, JPMorgan Chase Bank, N.A. incurred $2.2 billion, $4.3 billion and $4.1 billion, respectively, of legal expense. Where a particular litigation matter involves one or more subsidiaries or affiliates of JPMorgan Chase, JPMorgan Chase determines the appropriate allocation of legal expense among those subsidiaries or affiliates (including, where applicable, JPMorgan Chase Bank, N.A.). There is no assurance that JPMorgan Chase Bank, N.A.'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, JPMorgan Chase and JPMorgan Chase Bank, N.A. 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 Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s consolidated financial condition. JPMorgan Chase Bank, N.A. 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 Bank, N.A.'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 Bank, N.A.'s income for that period.

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 Bank, N.A. consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

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).

Exchange traded derivatives: Derivative contracts that are executed on an exchange and settled via a central clearing house.

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

Group of Seven ("G7") nations: Countries in the G7 are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

G7 government bonds: Bonds issued by the government of one of the countries in the G7 nations.

Home equity - senior lien: Represents loans where JPMorgan Chase Bank, N.A. holds the first security interest on the property.

Home equity - junior lien: Represents loans where JPMorgan Chase Bank, N.A. holds a security interest that is subordinate in rank to other liens.

Investment-grade: An indication of credit quality based on JPMorgan Chase Bank, N.A.'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.

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 JPMorgan Chase Bank, N.A.'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.

NA: Data is not applicable or available for the period presented.

NM: Not meaningful.

Over-the-counter derivatives ("OTC"): Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

Over-the-counter cleared derivatives ("OTC cleared"): Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

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.

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.

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.

Troubled debt restructuring ("TDR"): A TDR is deemed to occur when JPMorgan Chase Bank, N.A. modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty.

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.

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.