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

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

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

Management has completed an assessment of the effectiveness of the Firm's internal control over financial reporting as of December 31, 2011. In making the assessment, management used the framework in "Internal Control - Integrated Framework" promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.
Based upon the assessment performed, management concluded that as of December 31, 2011, JPMorgan Chase's internal control over financial reporting was effective based upon the COSO criteria. Additionally, based upon management's assessment, the Firm determined that there were no material weaknesses in its internal control over financial reporting as of December 31, 2011.

The effectiveness of the Firm's internal control over financial reporting as of December 31, 2011, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.


James Demon
Chairman and Chief Executive Officer


Douglas L. Braunstein
Executive Vice President and Chief Financial Officer

February 29, 2012


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

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, changes in stockholders' equity and comprehensive income and cash flows present fairly, in all material respects, the financial position of JPMorgan Chase \& Co. and its subsidiaries (the "Firm") at December 31, 2011 and 2010, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2011, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Firm maintained, in all material respects, effective internal control over financial reporting as of December 31, 2011, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Firm's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's report on internal control over financial reporting." Our responsibility is to express opinions on these financial statements and on the Firm's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk
that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.
Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.


February 29, 2012

## Consolidated statements of income

| Year ended December 31, (in millions, except per share data) | 2011 |  | 2010 |  |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue |  |  |  |  |  |  |
| Investment banking fees | \$ | 5,911 | \$ | 6,190 | \$ | 7,087 |
| Principal transactions |  | 10,005 |  | 10,894 |  | 9,796 |
| Lending- and deposit-related fees |  | 6,458 |  | 6,340 |  | 7,045 |
| Asset management, administration and commissions |  | 14,094 |  | 13,499 |  | 12,540 |
| Securities gains ${ }^{(a)}$ |  | 1,593 |  | 2,965 |  | 1,110 |
| Mortgage fees and related income |  | 2,721 |  | 3,870 |  | 3,678 |
| Credit card income |  | 6,158 |  | 5,891 |  | 7,110 |
| Other income |  | 2,605 |  | 2,044 |  | 916 |
| Noninterest revenue |  | 49,545 |  | 51,693 |  | 49,282 |
| Interest income |  | 61,293 |  | 63,782 |  | 66,350 |
| Interest expense |  | 13,604 |  | 12,781 |  | 15,198 |
| Net interest income |  | 47,689 |  | 51,001 |  | 51,152 |
| Total net revenue |  | 97,234 |  | 102,694 |  | 100,434 |
| Provision for credit losses |  | 7,574 |  | 16,639 |  | 32,015 |
| Noninterest expense |  |  |  |  |  |  |
| Compensation expense |  | 29,037 |  | 28,124 |  | 26,928 |
| Occupancy expense |  | 3,895 |  | 3,681 |  | 3,666 |
| Technology, communications and equipment expense |  | 4,947 |  | 4,684 |  | 4,624 |
| Professional and outside services |  | 7,482 |  | 6,767 |  | 6,232 |
| Marketing |  | 3,143 |  | 2,446 |  | 1,777 |
| Other expense |  | 13,559 |  | 14,558 |  | 7,594 |
| Amortization of intangibles |  | 848 |  | 936 |  | 1,050 |
| Merger costs |  | - |  | - |  | 481 |
| Total noninterest expense |  | 62,911 |  | 61,196 |  | 52,352 |
| Income before income tax expense and extraordinary gain |  | 26,749 |  | 24,859 |  | 16,067 |
| Income tax expense |  | 7,773 |  | 7,489 |  | 4,415 |
| Income before extraordinary gain |  | 18,976 |  | 17,370 |  | 11,652 |
| Extraordinary gain |  | - |  | - |  | 76 |
| Net income | \$ | 18,976 | \$ | 17,370 | \$ | 11,728 |
| Net income applicable to common stockholders | \$ | 17,568 | \$ | 15,764 | \$ | 8,774 |
| Per common share data |  |  |  |  |  |  |
| Basic earnings per share |  |  |  |  |  |  |
| Income before extraordinary gain | \$ | 4.50 | \$ | 3.98 | \$ | 2.25 |
| Net income |  | 4.50 |  | 3.98 |  | 2.27 |
| Diluted earnings per share |  |  |  |  |  |  |
| Income before extraordinary gain |  | 4.48 |  | 3.96 |  | 2.24 |
| Net income |  | 4.48 |  | 3.96 |  | 2.26 |
| Weighted-average basic shares |  | 3,900.4 |  | 3,956.3 |  | 3,862.8 |
| Weighted-average diluted shares |  | 3,920.3 |  | 3,976.9 |  | 3,879.7 |
| Cash dividends declared per common share | \$ | 1.00 | \$ | 0.20 | \$ | 0.20 |
| (a) The following other-than-temporary impairment losses are included in securities gains for the periods presented. |  |  |  |  |  |  |
| Year ended December 31, (in millions) |  | 2011 |  | 2010 |  | 2009 |
| Total other-than-temporary impairment losses | \$ | (27) | \$ | (94) | \$ | (946) |
| Losses recorded in/(reclassified from) other comprehensive income |  | (49) |  | (6) |  | 368 |
| Total credit losses recognized in income | \$ | (76) | \$ | (100) | \$ | (578) |

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

## Consolidated balance sheets

| December 31, (in millions, except share data) | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Cash and due from banks | \$ | 59,602 | \$ | 27,567 |
| Deposits with banks |  | 85,279 |  | 21,673 |
| Federal funds sold and securities purchased under resale agreements (included \$24,891 and \$20,299 at fair value) |  | 235,314 |  | 222,554 |
| Securities borrowed (included \$15,308 and \$13,961 at fair value) |  | 142,462 |  | 123,587 |
| Trading assets (included assets pledged of \$89,856 and \$73,056) |  | 443,963 |  | 489,892 |
| Securities (included \$364,781 and \$316,318 at fair value and assets pledged of \$94,691 and \$86,891) |  | 364,793 |  | 316,336 |
| Loans (included \$2,097 and \$1,976 at fair value) |  | 723,720 |  | 692,927 |
| Allowance for loan losses |  | $(27,609)$ |  | $(32,266)$ |
| Loans, net of allowance for loan losses |  | 696,111 |  | 660,661 |
| Accrued interest and accounts receivable |  | 61,478 |  | 70,147 |
| Premises and equipment |  | 14,041 |  | 13,355 |
| Goodwill |  | 48,188 |  | 48,854 |
| Mortgage servicing rights |  | 7,223 |  | 13,649 |
| Other intangible assets |  | 3,207 |  | 4,039 |
| Other assets (included \$16,499 and \$18,201 at fair value and assets pledged of \$1,316 and \$1,485) |  | 104,131 |  | 105,291 |
| Total assets ${ }^{(a)}$ | \$ | 2,265,792 | \$ | 2,117,605 |
| Liabilities |  |  |  |  |
| Deposits (included \$4,933 and \$4,369 at fair value) | \$ | 1,127,806 | \$ | 930,369 |
| Federal funds purchased and securities loaned or sold under repurchase agreements (included $\$ 9,517$ and $\$ 4,060$ at fair value) |  | 213,532 |  | 276,644 |
| Commercial paper |  | 51,631 |  | 35,363 |
| Other borrowed funds (included \$9,576 and \$9,931 at fair value) |  | 21,908 |  | 34,325 |
| Trading liabilities |  | 141,695 |  | 146,166 |
| Accounts payable and other liabilities (included \$51 and \$236 at fair value) |  | 202,895 |  | 170,330 |
| Beneficial interests issued by consolidated variable interest entities (included \$1,250 and \$1,495 at fair value) |  | 65,977 |  | 77,649 |
| Long-term debt (included \$34,720 and \$38,839 at fair value) |  | 256,775 |  | 270,653 |
| Total liabilities ${ }^{(a)}$ |  | 2,082,219 |  | 1,941,499 |

Commitments and contingencies (see Notes 29, 30 and 31 of this Annual Report)
Stockholders' equity

| Preferred stock (\$1 par value; authorized 200,000,000 shares: issued 780,000 shares) | $\mathbf{7 , 8 0 0}$ | $\mathbf{7 , 8 0 0}$ |
| :--- | ---: | ---: |
| Common stock (\$1 par value; authorized 9,000,000,000 shares; issued 4,104,933,895 shares) | $\mathbf{4 , 1 0 5}$ | 4,105 |
| Capital surplus | $\mathbf{9 5 , 6 0 2}$ | 97,415 |
| Retained earnings | $\mathbf{8 8 , 3 1 5}$ | $\mathbf{7 3 , 9 9 8}$ |
| Accumulated other comprehensive income/(loss) | $\mathbf{9 4 4}$ | 1,001 |
| Shares held in RSU Trust, at cost (852,906 and $1,192,712$ shares) | $\mathbf{( 3 8 )}$ | $(53)$ |
| Treasury stock, at cost (332,243,180 and 194,639,785 shares) | $\mathbf{( 1 3 , 1 5 5 )}$ | $(8,160)$ |
| Total stockholders' equity | $\mathbf{1 8 3 , 5 7 3}$ | $\mathbf{1 7 6 , 1 0 6}$ |
| Total liabilities and stockholders' equity | $\mathbf{2 , 2 6 5 , 7 9 2}$ | $\$ \mathbf{2 , 1 1 7 , 6 0 5}$ |

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Firm at December 31, 2011 and 2010. The difference between total VIE assets and liabilities represents the Firm's interests in those entities, which were eliminated in consolidation.

| December 31, (in millions) | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Trading assets | \$ | 12,079 | \$ | 9,837 |
| Loans |  | 86,754 |  | 95,587 |
| All other assets |  | 2,638 |  | 3,494 |
| Total assets | \$ | 101,471 | \$ | 108,918 |
| Liabilities |  |  |  |  |
| Beneficial interests issued by consolidated variable interest entities | \$ | 65,977 | \$ | 77,649 |
| All other liabilities |  | 1,487 |  | 1,922 |
| Total liabilities | \$ | 67,464 | \$ | 79,571 |

The assets of the consolidated VIEs are used to settle the liabilities of those entities. The holders of the beneficial interests do not have recourse to the general credit of JPMorgan Chase. At December 31, 2011 and 2010, the Firm provided limited program-wide credit enhancement of $\$ 3.1$ billion and $\$ 2.0$ billion, respectively, related to its Firm-administered multi-seller conduits, which are eliminated in consolidation. For further discussion, see Note 16 on pages 256-267 of this Annual Report.

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

Consolidated statements of changes in stockholders' equity and comprehensive income

| Year ended December 31, (in millions, except per share data) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Preferred stock |  |  |  |  |  |  |
| Balance at January 1 | \$ | 7,800 | \$ | 8,152 | \$ | 31,939 |
| Accretion of preferred stock discount on issuance to the U.S. Treasury |  | - |  | - |  | 1,213 |
| Redemption of preferred stock issued to the U.S. Treasury |  | - |  | - |  | $(25,000)$ |
| Redemption of other preferred stock |  | - |  | (352) |  | - |
| Balance at December 31 |  | 7,800 |  | 7,800 |  | 8,152 |
| Common stock |  |  |  |  |  |  |
| Balance at January 1 |  | 4,105 |  | 4,105 |  | 3,942 |
| Issuance of common stock |  | - |  | - |  | 163 |
| Balance at December 31 |  | 4,105 |  | 4,105 |  | 4,105 |
| Capital surplus |  |  |  |  |  |  |
| Balance at January 1 |  | 97,415 |  | 97,982 |  | 92,143 |
| Issuance of common stock |  | - |  | - |  | 5,593 |
| Shares issued and commitments to issue common stock for employee stock-based compensation awards, and related tax effects |  | $(1,688)$ |  | 706 |  | 474 |
| Other |  | (125) |  | $(1,273)$ |  | (228) |
| Balance at December 31 |  | 95,602 |  | 97,415 |  | 97,982 |
| Retained earnings |  |  |  |  |  |  |
| Balance at January 1 |  | 73,998 |  | 62,481 |  | 54,013 |
| Cumulative effect of changes in accounting principles |  | - |  | $(4,376)$ |  | - |
| Net income |  | 18,976 |  | 17,370 |  | 11,728 |
| Dividends declared: |  |  |  |  |  |  |
| Preferred stock |  | (629) |  | (642) |  | $(1,328)$ |
| Accelerated amortization from redemption of preferred stock issued to the U.S. Treasury |  | - |  | - |  | $(1,112)$ |
| Common stock (\$1.00, \$0.20 and \$0.20 per share for 2011, 2010 and 2009, respectively) |  | $(4,030)$ |  | (835) |  | (820) |
| Balance at December 31 |  | 88,315 |  | 73,998 |  | 62,481 |
| Accumulated other comprehensive income/(loss) |  |  |  |  |  |  |
| Balance at January 1 |  | 1,001 |  | (91) |  | $(5,687)$ |
| Cumulative effect of changes in accounting principles |  | - |  | (144) |  | - |
| Other comprehensive (loss)/income |  | (57) |  | 1,236 |  | 5,596 |
| Balance at December 31 |  | 944 |  | 1,001 |  | (91) |
| Shares held in RSU Trust, at cost |  |  |  |  |  |  |
| Balance at January 1 |  | (53) |  | (68) |  | (217) |
| Reissuance from RSU Trust |  | 15 |  | 15 |  | 149 |
| Balance at December 31 |  | (38) |  | (53) |  | (68) |
| Treasury stock, at cost |  |  |  |  |  |  |
| Balance at January 1 |  | $(8,160)$ |  | $(7,196)$ |  | $(9,249)$ |
| Purchase of treasury stock |  | $(8,741)$ |  | $(2,999)$ |  | - |
| Reissuance from treasury stock |  | 3,750 |  | 2,040 |  | 2,079 |
| Share repurchases related to employee stock-based compensation awards |  | (4) |  | (5) |  | (26) |
| Balance at December 31 |  | $(13,155)$ |  | $(8,160)$ |  | $(7,196)$ |
| Total stockholders' equity | \$ | 183,573 | \$ | 176,106 | \$ | 165,365 |
| Comprehensive income |  |  |  |  |  |  |
| Net income | \$ | 18,976 | \$ | 17,370 | \$ | 11,728 |
| Other comprehensive (loss)/income |  | (57) |  | 1,236 |  | 5,596 |
| Comprehensive income | \$ | 18,919 | \$ | 18,606 | \$ | 17,324 |

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

## Consolidated statements of cash flows

| Year ended December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating activities |  |  |  |  |  |  |
| Net income | \$ | 18,976 | \$ | 17,370 | \$ | 11,728 |
| Adjustments to reconcile net income to net cash provided by/(used in) operating activities: |  |  |  |  |  |  |
| Provision for credit losses |  | 7,574 |  | 16,639 |  | 32,015 |
| Depreciation and amortization |  | 4,257 |  | 4,029 |  | 3,308 |
| Amortization of intangibles |  | 848 |  | 936 |  | 1,050 |
| Deferred tax expense/(benefit) |  | 1,693 |  | (968) |  | $(3,622)$ |
| Investment securities gains |  | $(1,593)$ |  | $(2,965)$ |  | $(1,110)$ |
| Stock-based compensation |  | 2,675 |  | 3,251 |  | 3,355 |
| Originations and purchases of loans held-for-sale |  | $(52,561)$ |  | $(37,085)$ |  | $(22,417)$ |
| Proceeds from sales, securitizations and paydowns of loans held-for-sale |  | 54,092 |  | 40,155 |  | 33,902 |
| Net change in: |  |  |  |  |  |  |
| Trading assets |  | 36,443 |  | $(72,082)$ |  | 133,488 |
| Securities borrowed |  | $(18,936)$ |  | $(3,926)$ |  | 4,452 |
| Accrued interest and accounts receivable |  | 8,655 |  | 443 |  | $(6,312)$ |
| Other assets |  | $(15,456)$ |  | $(12,452)$ |  | 32,557 |
| Trading liabilities |  | 7,905 |  | 19,344 |  | $(79,314)$ |
| Accounts payable and other liabilities |  | 35,203 |  | 17,325 |  | $(26,450)$ |
| Other operating adjustments |  | 6,157 |  | 6,234 |  | 6,167 |
| Net cash provided by/(used in) operating activities |  | 95,932 |  | $(3,752)$ |  | 122,797 |
| Investing activities |  |  |  |  |  |  |
| Net change in: |  |  |  |  |  |  |
| Deposits with banks |  | $(63,592)$ |  | 41,625 |  | 74,829 |
| Federal funds sold and securities purchased under resale agreements |  | $(12,490)$ |  | $(26,957)$ |  | 7,082 |
| Held-to-maturity securities: |  |  |  |  |  |  |
| Proceeds |  | 6 |  | 7 |  | 9 |
| Available-for-sale securities: |  |  |  |  |  |  |
| Proceeds from maturities |  | 86,850 |  | 92,740 |  | 87,712 |
| Proceeds from sales |  | 68,631 |  | 118,600 |  | 114,041 |
| Purchases |  | $(202,309)$ |  | $(179,487)$ |  | $(346,372)$ |
| Proceeds from sales and securitizations of loans held-for-investment |  | 10,478 |  | 9,476 |  | 31,034 |
| Other changes in loans, net |  | $(58,365)$ |  | 3,022 |  | 50,651 |
| Net cash received from/(used in) business acquisitions or dispositions |  | 102 |  | $(4,910)$ |  | (97) |
| Net maturities of asset-backed commercial paper guaranteed by the FRBB |  | - |  | - |  | 11,228 |
| All other investing activities, net |  | (63) |  | (114) |  | (762) |
| Net cash (used in)/provided by investing activities |  | $(170,752)$ |  | 54,002 |  | 29,355 |
| Financing activities |  |  |  |  |  |  |
| Net change in: |  |  |  |  |  |  |
| Deposits |  | 203,420 |  | $(9,637)$ |  | $(107,700)$ |
| Federal funds purchased and securities loaned or sold under repurchase agreements |  | $(63,116)$ |  | 15,202 |  | 67,785 |
| Commercial paper and other borrowed funds |  | 7,230 |  | $(6,869)$ |  | $(67,198)$ |
| Beneficial interests issued by consolidated variable interest entities |  | 1,165 |  | 2,426 |  | $(4,076)$ |
| Proceeds from long-term borrowings and trust preferred capital debt securities |  | 54,844 |  | 55,181 |  | 51,324 |
| Payments of long-term borrowings and trust preferred capital debt securities |  | $(82,078)$ |  | $(99,043)$ |  | $(68,441)$ |
| Excess tax benefits related to stock-based compensation |  | 867 |  | 26 |  | 17 |
| Redemption of preferred stock issued to the U.S. Treasury |  | - |  | - |  | $(25,000)$ |
| Redemption of other preferred stock |  | - |  | (352) |  | - |
| Proceeds from issuance of common stock |  | - |  | - |  | 5,756 |
| Treasury stock and warrants repurchased |  | $(8,863)$ |  | $(2,999)$ |  | - |
| Dividends paid |  | $(3,895)$ |  | $(1,486)$ |  | $(3,422)$ |
| All other financing activities, net |  | $(1,868)$ |  | $(1,666)$ |  | $(2,124)$ |
| Net cash provided by/(used in) financing activities |  | 107,706 |  | $(49,217)$ |  | $(153,079)$ |
| Effect of exchange rate changes on cash and due from banks |  | (851) |  | 328 |  | 238 |
| Net increase/(decrease) in cash and due from banks |  | 32,035 |  | 1,361 |  | (689) |
| Cash and due from banks at the beginning of the period |  | 27,567 |  | 26,206 |  | 26,895 |
| Cash and due from banks at the end of the period | \$ | 59,602 | \$ | 27,567 | \$ | 26,206 |
| Cash interest paid | \$ | 13,725 | \$ | 12,404 | \$ | 16,875 |
| Cash income taxes paid, net |  | 8,153 |  | 9,747 |  | 5,434 |

Note: Effective January 1, 2010, the Firm adopted accounting guidance related to VIEs. Upon adoption of the guidance, the Firm consolidated noncash assets and liabilities of $\$ 87.7$ billion and $\$ 92.2$ billion, respectively.

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

## Note 1 - Basis of presentation

JPMorgan Chase \& Co. ("JPMorgan Chase" or the "Firm"), a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America ("U.S."), with operations worldwide. The Firm is a leader in investment banking, financial services for consumers and small business, commercial banking, financial transaction processing, asset management and private equity. For a discussion of the Firm's business segments, see Note 33 on pages 300-303 of this Annual Report.

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

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

## Consolidation

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

## Voting Interest Entities

Voting interest entities are entities that have sufficient equity and provide the equity investors voting rights that enable them to make significant decisions relating to the entity's operations. For these types of entities, the Firm's determination of whether it has a controlling interest is primarily based on the amount of voting equity interests held. Entities in which the Firm has a controlling financial interest, through ownership of the majority of the entities' voting equity interests, or through other contractual rights that give the Firm control, are consolidated by the Firm.
Investments in companies in which the Firm has significant influence over operating and financing decisions (but does not own a majority of the voting equity interests) are accounted for (i) in accordance with the equity method of accounting (which requires the Firm to recognize its proportionate share of the entity's net earnings), or (ii) at fair value if the fair value option was elected at the inception of the Firm's investment. These investments are generally included in other assets, with income or loss included in other income.

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

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

## Variable Interest Entities

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

The most common type of VIE is a special purpose entity ("SPE"). SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. The basic SPE structure involves a company selling assets to the SPE; the SPE funds the purchase of those assets by issuing securities to investors. The legal documents that govern the transaction specify how the cash earned on the assets must be allocated to the SPE's investors and other parties that have rights to those cash flows. SPEs are generally structured to insulate investors from claims on the SPE's assets by creditors of other entities, including the creditors of the seller of the assets.
The primary beneficiary of a VIE (i.e., the party that has a controlling financial interest) is required to consolidate the assets and liabilities of the VIE. The primary beneficiary is the party that has both (1) the power to direct the activities of an entity that most significantly impact the VIE's economic performance; and (2) through its interests in the VIE, the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE.

To assess whether the Firm has the power to direct the activities of a VIE that most significantly impact the VIE's economic performance, the Firm considers all the facts and circumstances, including its role in establishing the VIE and its ongoing rights and responsibilities. This assessment includes, first, identifying the activities that most significantly impact the VIE's economic performance; and second, identifying which party, if any, has power over those activities. In general, the parties that make the most significant decisions affecting the VIE (such as asset managers, collateral managers, servicers, or owners of call options or liquidation rights over the VIE's assets) or have the right to unilaterally remove those decision-makers are deemed to have the power to direct the activities of a VIE.
To assess whether the Firm has the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE, the Firm considers all of its economic interests, including debt and equity investments, servicing fees, and derivative or other arrangements deemed to be variable interests in the VIE. This assessment requires that the Firm apply judgment in determining whether these interests, in the aggregate, are considered potentially significant to the VIE. Factors considered in assessing significance include: the design of the VIE, including its capitalization structure; subordination of interests; payment priority; relative share of interests held across various classes within the VIE's capital structure; and the reasons why the interests are held by the Firm.
The Firm performs on-going reassessments of: (1) whether entities previously evaluated under the majority votinginterest framework have become VIEs, based on certain events, and therefore subject to the VIE consolidation framework; and (2) whether changes in the facts and circumstances regarding the Firm's involvement with a VIE cause the Firm's consolidation conclusion to change.

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

Assets held for clients in an agency or fiduciary capacity by the Firm are not assets of JPMorgan Chase and are not included in the Consolidated Balance Sheets.
Use of estimates in the preparation of consolidated financial statements
The preparation of the Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenue and expense, and disclosures of contingent assets and liabilities. Actual results could be different from these estimates.

## Foreign currency translation

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

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

## Statements of cash flows

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

## Significant accounting policies

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

| Business changes and developments | Note 2 | Page 183 |
| :--- | ---: | :--- |
| Fair value measurement | Note 3 | Page 184 |
| Fair value option | Note 4 | Page 198 |
| Derivative instruments | Note 6 | Page 202 |
| Noninterest revenue | Note 7 | Page 211 |
| Interest income and interest expense | Note 8 | Page 212 |
| Pension and other postretirement <br> employee benefit plans | Note 9 | Page 213 |
| Employee stock-based incentives | Note 10 | Page 222 |
| Securities | Note 12 | Page 225 |
| Securities financing activities | Note 13 | Page 231 |
| Loans | Note 14 | Page 231 |
| Allowance for credit losses | Note 15 | Page 252 |
| Variable interest entities | Note 16 | Page 256 |
| Goodwill and other intangible assets | Note 17 | Page 267 |
| Premises and equipment | Note 18 | Page 272 |
| Long-term debt | Note 21 | Page 273 |
| Income taxes <br> Off-balance sheet lending-related financial <br> instruments, guarantees and other <br> commitments | Note 26 | Page 279 |
| Litigation | Note 29 | Page 283 |

## Note 2 - Business changes and developments

## Changes in common stock dividend

On February 23, 2009, the Board of Directors reduced the Firm's quarterly common stock dividend from \$0.38 to $\$ 0.05$ per share, effective with the dividend paid on April 30, 2009, to shareholders of record on April 6, 2009. On March 18, 2011, the Board of Directors raised the Firm's quarterly common stock dividend from \$0.05 to \$0.25 per share, effective with the dividend paid on April 30, 2011, to shareholders of record on April 6, 2011.

## Other business events

## RBS Sempra transaction

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

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

## Purchase of remaining interest in Highbridge Capital Management

In July 2009, JPMorgan Chase completed its purchase of the remaining interest in Highbridge, which resulted in a $\$ 228$ million adjustment to capital surplus.

## Subsequent events

## Global settlement on servicing and origination of mortgages

On February 9, 2012, the Firm announced that it agreed to a settlement in principle (the "global settlement") with a number of federal and state government agencies, including the U.S. Department of Justice, the U.S. Department of Housing and Urban Development, the Consumer Financial Protection Bureau and the State Attorneys General, relating to the servicing and origination of mortgages. The global settlement, which is subject to the execution of a definitive agreement and court approval, calls for the Firm to, among other things: (i) make cash payments of approximately $\$ 1.1$ billion (a portion of which will be set aside for payments to borrowers); (ii) provide approximately $\$ 500$ million of refinancing relief to certain "underwater" borrowers whose loans are owned by the Firm; and (iii) provide approximately $\$ 3.7$ billion of additional relief for certain borrowers, including reductions of principal on first and second liens, payments to assist with short sales, deficiency balance waivers on past foreclosures and short sales, and forbearance assistance for unemployed homeowners. (If the Firm does not meet certain targets for provision of the refinancing or other borrower relief within certain prescribed time periods, the Firm will instead make cash payments.) In addition, under the global settlement the Firm will be required to adhere to certain enhanced mortgage servicing standards.
The global settlement releases the Firm from further claims 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 respecting mortgage-backed securities; criminal
claims; and repurchase demands from the GSEs, among other items.
Also on February 9, 2012, the Firm entered into agreements in principle with the Federal Reserve and the Office of the Comptroller of the Currency for the payment of civil money penalties related to conduct that was the subject of consent orders entered into with the banking regulators in April 2011. The Firm's payment obligations under those agreements will be deemed satisfied by the Firm's payments and provisions of relief under the global settlement.

While the Firm expects to incur additional operating costs to comply with portions of the global settlement, including the enhanced servicing standards, the Firm's prior period results of operations have reflected the estimated costs of the global settlement. Accordingly, the Firm expects that the financial impact of the global settlement on the Firm's financial condition and results of operations for the first quarter of 2012 and future periods will not be material. For further information on this settlement, see "Mortgage Foreclosure Investigations and Litigation" in Note 31 on pages 290-299 of this Annual Report.

## Washington Mutual, Inc. bankruptcy plan confirmation

 On February 17, 2012, a bankruptcy court confirmed the joint plan containing the global settlement agreement resolving numerous disputes among Washington Mutual, Inc. ("WMI"), JPMorgan Chase and the Federal Deposit Insurance Corporation ("FDIC") as well as significant creditor groups (the "WaMu Global Settlement"). Pursuant to this agreement, the Firm expects to recognize additional assets, including certain pension-related assets, as well as tax refunds, in future periods as the settlement is executed and various state and federal tax matters are resolved. For additional information related to the WaMu Global Settlement, see "Washington Mutual Litigations" in Note 31 on pages 290-299 of this Annual Report.
## Note 3 - Fair value measurement

JPMorgan Chase carries a portion of its assets and liabilities at fair value. These assets and liabilities are predominantly carried at fair value on a recurring basis. Certain assets and liabilities are carried at fair value on a nonrecurring basis, including mortgage, home equity and other loans, where the carrying value is based on the fair value of the underlying collateral.
The Firm has an established and well-documented process for determining fair values. 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 internally developed models that consider relevant transaction data such as maturity and use as inputs, market-based or independently sourced 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. These adjustments include amounts to reflect counterparty credit quality, the Firm's creditworthiness, constraints on liquidity and unobservable parameters. Valuation adjustments are applied consistently over time.

- Credit valuation adjustments ("CVA") are necessary when the market price (or parameter) is not indicative of the credit quality of the counterparty. As few classes of derivative contracts are listed on an exchange, derivative positions are predominantly valued using internally developed models that use as their basis observable market parameters. An adjustment is necessary to reflect the credit quality of each derivative counterparty to arrive at fair value. The adjustment also takes into account contractual factors designed to reduce the Firm's credit exposure to each counterparty, such as collateral and legal rights of offset.
- Debit valuation adjustments ("DVA") are taken to reflect the credit quality of the Firm in the valuation of liabilities measured at fair value. The methodology to determine the adjustment is consistent with CVA and incorporates JPMorgan Chase's credit spread as observed through the credit default swap market.
- Liquidity valuation adjustments are necessary when the Firm may not be able to observe a recent market price for a financial instrument that trades in inactive (or less active) markets or to reflect the cost of exiting larger-than-normal market-size risk positions (liquidity adjustments are not taken for positions classified within level 1 of the fair value hierarchy; see below). The Firm estimates the amount of uncertainty in the initial valuation based on the degree of liquidity in the market in which the financial instrument trades and makes liquidity adjustments to the carrying value of the financial instrument. The Firm measures the liquidity adjustment based on the following factors: (1) the amount of time since the last relevant pricing point; (2) whether there was an actual trade or relevant external quote; and (3) the volatility of the principal risk component of the financial instrument. Costs to exit larger-than-normal market-size risk positions are determined based on the size of the adverse market move that is likely to occur during the period required to bring a position down to a nonconcentrated level.
- Unobservable parameter valuation adjustments are necessary when positions are valued using internally developed models that use as their basis unobservable parameters - that is, parameters that must be estimated and are, therefore, subject to management judgment. Unobservable parameter valuation adjustments are applied to mitigate the possibility of error and revision in the estimate of the market price provided by the model.

The Firm has numerous controls in place intended to ensure that its fair values are appropriate. An independent model review group reviews the Firm's valuation models and approves them for use for specific products. All valuation models within the Firm are subject to this review process. A price verification group, independent from the risk-taking function, ensures observable market prices and marketbased parameters are used for valuation wherever possible. For those products with material parameter risk for which observable market levels do not exist, an independent review of the assumptions made on pricing is performed. Additional review includes deconstruction of the model valuations for certain structured instruments into their components and benchmarking valuations, where possible, to similar products; validating valuation estimates through actual cash settlement; and detailed review and explanation of recorded gains and losses, which are analyzed daily and over time. Valuation adjustments, which are also determined by the independent price verification group, are based on established policies and applied consistently over time. Any changes to the valuation methodology are reviewed by management to confirm that the changes are justified. As markets and products develop and the pricing for certain products becomes more or less transparent, the Firm continues to refine its valuation methodologies.
The methods described above to estimate fair value may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Firm believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

## Valuation Hierarchy

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

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

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

## Notes to consolidated financial statements

The following table is a description of the valuation methodologies used by the Firm to measure it's more significant products/ instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

| Product/instrument | Valuation methodology, inputs and assumptions | Classifications in the valuation hierarchy |
| :---: | :---: | :---: |
| Securities financing agreements | Valuations are based on discounted cash flows, which consider: <br> - Derivative features <br> - Market rates for respective maturity <br> - Collateral | Instruments carried at fair value are generally classified in level 2 |
| Loans and lending-related commitments - wholesale |  |  |
| Trading portfolio | Where observable market data is available, valuations are based on: <br> - Observed market prices (circumstances are limited) <br> - Relevant broker quotes <br> - Observed market prices for similar instruments <br> Where observable market data is unavailable or limited, valuations are based on discounted cash flows, which consider the following: <br> - Discount rate <br> - Expected credit losses <br> - Loss severity rates <br> - Prepayment rates <br> - Servicing costs | Level 2 or 3 |
| Loans held for investment and associated lending related commitments | Valuations are based on discounted cash flows, which consider: <br> - Credit spreads, derived from the cost of credit default swaps ("CDS"); or benchmark credit curves developed by the Firm by industry and credit rating, and which take into account the difference in loss severity rates between bonds and loans <br> - Prepayment rates <br> Lending related commitments are valued similar to loans and reflect the portion of an unused commitment expected, based on the Firm's average portfolio historical experience, to become funded prior to an obligor default <br> For information regarding the valuation of loans measured at collateral value, see pages 231-252 of Note 14 of this Annual Report. | Loans held for investment and associated lending-related commitments that are not carried at fair value are not classified within the fair value hierarchy |
| Loans - consumer |  |  |
| Held for investment consumer loans, excluding credit card | Valuations are based on discounted cash flows, which consider: <br> - Discount rates (derived from primary origination rates and market activity) <br> - Expected lifetime credit losses (considering expected and current default rates for existing portfolios, collateral prices, and economic environment expectations (i.e., unemployment rates)) <br> - Estimated prepayments <br> - Servicing costs <br> - Market liquidity <br> For information regarding the valuation of loans measured at collateral value, see pages 231-252 of Note 14 of this Annual Report. | Consumer loans in this category are not carried at fair value and are not classified within the fair value hierarchy |
| Credit card receivables | Valuations are based on discounted cash flows, which consider: <br> - Projected interest income and late fee revenue, funding, servicing and credit costs, and loan repayment rates <br> - Estimated life of receivables (based on projected loan payment rates) <br> - Discount rate - based on expected return on receivables <br> - 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 | Credit card loans are not carried at fair value and are not classified within the fair value hierarchy |
| Conforming residential mortgage loans expected to be sold | Fair value is based upon observable pricing of mortgage-backed securities with similar collateral and incorporates adjustments to these prices to account for differences between the security and the value of the underlying loans, which include credit characteristics, portfolio composition, and liquidity. | Predominantly classified within 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: | Level 2 or 3 |
|  | - Observed market prices for similar securities |  |
|  | - Relevant broker quotes |  |
|  | - Discounted cash flows <br> (see specific product discussion below) |  |
|  | Mortgage- and asset-backed securities specific inputs: |  |
|  | - Collateral characteristics |  |
|  | - Deal-specific payment and loss allocations |  |
|  | - Current market assumptions related to discount rate, prepayments, defaults and recoveries |  |
|  | Collateralized debt obligations ("CDOs"), including collateralized Ioan obligations ("CLOs"), specific inputs: |  |
|  | - Collateral characteristics |  |
|  | - Deal-specific payment and loss allocations |  |
|  | - Expected prepayment, default, recovery, default correlation and liquidity spread assumptions |  |
|  | - Credit spreads |  |
|  | - Credit rating data |  |
| Physical commodities | Valued using observable market prices or data | Level 1 or 2 |
| Derivatives | Exchange-traded derivatives are valued using market observable prices. | Level 1 |
|  | Derivatives that are not exchange-traded, which include plain vanilla options and interest rate and credit default swaps, are valued using internally developed models and/or a series of techniques such as the Black-Scholes option pricing model, simulation models, or a combination of models, which are consistently applied. Inputs include: | Level 2 or 3 |
|  | - Contractual terms including period to maturity |  |
|  | - Readily observable parameters including interest rates and volatility |  |
|  | - Credit quality of the counterparty and of the Firm |  |
|  | - Correlation levels |  |
|  | Derivatives that are valued based on models with significant unobservable inputs include: |  |
|  | Structured credit derivatives specific inputs: |  |
|  | - CDS spreads and recovery rates |  |
|  | - 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: |  |
|  | - Long-dated equity volatilities |  |
|  | Callable interest rate FX exotic options specific inputs: |  |
|  | - Correlation between interest rates and FX rates |  |
|  | - Parameters describing the evolution of underlying interest rates |  |
| Mortgage servicing rights ("MSRs") | See Mortgage servicing rights on pages 268-270 of Note 17 of this Annual Report. | Level 3 |


| Product/instrument | Valuation methodology, inputs and assumptions | Classification in the valuation hierarchy |
| :---: | :---: | :---: |
| Private equity investments | Private equity investments held in the Private Equity portfolio | Level 3 |
|  | Fair value is estimated using all available information and considering the range of potential inputs, including: |  |
|  | - Transaction prices |  |
|  | - Trading multiples of comparable public companies |  |
|  | - Operating performance of the underlying portfolio company |  |
|  | - Additional available inputs relevant to the investment |  |
|  | - Adjustments are required since comparable public companies are not identical to the company being valued, and for companyspecific issues and lack of liquidity |  |
|  | Public investments held in the Private Equity portfolio | Level 1 or 2 |
|  | - Valued using observable market prices less adjustments for relevant restrictions, where applicable |  |
| 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 are 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 | Level 2 or 3 |
|  | In the absence of observable market information, valuations are based on the fair value of the underlying assets held by the VIE |  |
| Long-term debt, not carried at fair value | Valuations are based on discounted cash flows, which consider: <br> - Market rates for respective maturity <br> - Credit quality of the Firm (DVA) | Long-term debt, excluding structured notes, is not carried at fair value and is not classified within the fair value hierarchy |
| Structured notes (included in Deposits, Other borrowed funds and Long-term debt) | Valuations are based on discounted cash flows, which consider: <br> - Credit quality of the Firm (DVA) <br> - Consideration of derivative features | Level 2 or 3 |

The following table presents the asset and liabilities measured at fair value as of December 31, 2011 and 2010 by major product category and fair value hierarchy.

## Assets and liabilities measured at fair value on a recurring basis

| December 31, 2011 (in millions) | Fair value hierarchy |  |  |  |  |  | Netting adjustments |  | Total fair value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level $1^{(n)}$ |  | Level $2^{(n)}$ |  |  | Level $3^{(n)}$ |  |  |  |  |
| Federal funds sold and securities purchased under resale agreements | \$ | - | \$ | 24,891 | \$ | - | \$ | - \$ |  | 24,891 |
| Securities borrowed |  | - |  | 15,308 |  | - |  | - |  | 15,308 |
| Trading assets: |  |  |  |  |  |  |  |  |  |  |
| Debt instruments: |  |  |  |  |  |  |  |  |  |  |
| Mortgage-backed securities: |  |  |  |  |  |  |  |  |  |  |
| u.S. government agencies ${ }^{\left({ }^{(2)}\right.}$ |  | 27,082 |  | 7,801 |  | 86 |  | - |  | 34,969 |
| Residential - nonagency |  | - |  | 2,956 |  | 796 |  | - |  | 3,752 |
| Commercial - nonagency |  | - |  | 870 |  | 1,758 |  | - |  | 2,628 |
| Total mortgage-backed securities |  | 27,082 |  | 11,627 |  | 2,640 |  | - |  | 41,349 |
| U.S. Treasury and government agencies ${ }^{(2)}$ |  | 11,508 |  | 8,391 |  | - |  | - |  | 19,899 |
| Obligations of U.S. states and municipalities |  | - |  | 15,117 |  | 1,619 |  | - |  | 16,736 |
| Certificates of deposit, bankers' acceptances and commercial paper |  | - |  | 2,615 |  | - |  | - |  | 2,615 |
| Non-U.S. government debt securities |  | 18,618 |  | 40,080 |  | 104 |  | - |  | 58,802 |
| Corporate debt securities |  | - |  | 33,938 |  | 6,373 |  | - |  | 40,311 |
| Loans ${ }^{(b)}$ |  | - |  | 21,589 |  | 12,209 |  | - |  | 33,798 |
| Asset-backed securities |  | - |  | 2,406 |  | 7,965 |  | - |  | 10,371 |
| Total debt instruments |  | 57,208 |  | 135,763 |  | 30,910 |  | - |  | 223,881 |
| Equity securities |  | 93,799 |  | 3,502 |  | 1,177 |  | - |  | 98,478 |
| Physical commodities ${ }^{(c)}$ |  | 21,066 |  | 4,898 |  | - |  | - |  | 25,964 |
| Other |  | - |  | 2,283 |  | 880 |  | - |  | 3,163 |
| Total debt and equity instruments ${ }^{(d)}$ |  | 172,073 |  | 146,446 |  | 32,967 |  | - |  | 351,486 |
| Derivative receivables: |  |  |  |  |  |  |  |  |  |  |
| Interest rate |  | 1,324 |  | 1,433,469 |  | 6,728 |  | (1,395,152) |  | 46,369 |
| Credit |  | - |  | 152,569 |  | 17,081 |  | $(162,966)$ |  | 6,684 |
| Foreign exchange |  | 833 |  | 162,689 |  | 4,641 |  | $(150,273)$ |  | 17,890 |
| Equity |  | - |  | 43,604 |  | 4,132 |  | $(40,943)$ |  | 6,793 |
| Commodity |  | 4,561 |  | 50,409 |  | 2,459 |  | $(42,688)$ |  | 14,741 |
| Total derivative receivables ${ }^{(\mathrm{e})}$ |  | 6,718 |  | 1,842,740 |  | 35,041 |  | (1,792,022) |  | 92,477 |
| Total trading assets |  | 178,791 |  | 1,989,186 |  | 68,008 |  | $(1,792,022)$ |  | 443,963 |
| Available-for-sale securities: |  |  |  |  |  |  |  |  |  |  |
| Mortgage-backed securities: |  |  |  |  |  |  |  |  |  |  |
| u.S. government agencies ${ }^{\left({ }^{(2)}\right.}$ |  | 92,426 |  | 14,681 |  | - |  | - |  | 107,107 |
| Residential - nonagency |  | - |  | 67,554 |  | 3 |  | - |  | 67,557 |
| Commercial - nonagency |  | - |  | 10,962 |  | 267 |  | - |  | 11,229 |
| Total mortgage-backed securities |  | 92,426 |  | 93,197 |  | 270 |  | - |  | 185,893 |
| u.S. Treasury and government agencies ${ }^{(\mathrm{a})}$ |  | 3,837 |  | 4,514 |  | - |  | - |  | 8,351 |
| Obligations of U.S. states and municipalities |  | 36 |  | 16,246 |  | 258 |  | - |  | 16,540 |
| Certificates of deposit |  | - |  | 3,017 |  | - |  | - |  | 3,017 |
| Non-U.S. government debt securities |  | 25,381 |  | 19,884 |  | - |  | - |  | 45,265 |
| Corporate debt securities |  | - |  | 62,176 |  | - |  | - |  | 62,176 |
| Asset-backed securities: |  |  |  |  |  |  |  |  |  |  |
| Credit card receivables |  | - |  | 4,655 |  | - |  | - |  | 4,655 |
| Collateralized Ioan obligations |  | - |  | 116 |  | 24,745 |  | - |  | 24,861 |
| Other |  | - |  | 11,105 |  | 213 |  | - |  | 11,318 |
| Equity securities |  | 2,667 |  | 38 |  | - |  | - |  | 2,705 |
| Total available-for-sale securities |  | 124,347 |  | 214,948 |  | 25,486 |  | - |  | 364,781 |
| Loans |  | - |  | 450 |  | 1,647 |  | - |  | 2,097 |
| Mortgage servicing rights |  | - |  | - |  | 7,223 |  | - |  | 7,223 |
| Other assets: |  |  |  |  |  |  |  |  |  |  |
| Private equity investments ${ }^{(1)}$ |  | 99 |  | 706 |  | 6,751 |  | - |  | 7,556 |
| All other |  | 4,336 |  | 233 |  | 4,374 |  | - |  | 8,943 |
| Total other assets |  | 4,435 |  | 939 |  | 11,125 |  | - |  | 16,499 |
| Total assets measured at fair value on a recurring basis ${ }^{(8)}$ | \$ | 307,573 | \$ | 2,245,722 | \$ | 113,489 | \$ | (1,792,022) | \$ | 874,762 |
| Deposits | \$ | - | \$ | 3,515 | \$ | 1,418 | \$ | - | \$ | 4,933 |
| Federal funds purchased and securities loaned or sold under repurchase agreements |  | - |  | 9,517 |  | - |  | - |  | 9,517 |
| Other borrowed funds |  | - |  | 8,069 |  | 1,507 |  | - |  | 9,576 |
| Trading liabilities: |  |  |  |  |  |  |  |  |  |  |
| Debt and equity instruments ${ }^{(d)}$ |  | 50,830 |  | 15,677 |  | 211 |  | - |  | 66,718 |
| Derivative payables: |  |  |  |  |  |  |  |  |  |  |
| Interest rate |  | 1,537 |  | 1,395,113 |  | 3,167 |  | (1,371,807) |  | 28,010 |
| Credit |  | - |  | 155,772 |  | 9,349 |  | $(159,511)$ |  | 5,610 |
| Foreign exchange |  | 846 |  | 159,258 |  | 5,904 |  | $(148,573)$ |  | 17,435 |
| Equity |  | - |  | 39,129 |  | 7,237 |  | $(36,711)$ |  | 9,655 |
| Commodity |  | 3,114 |  | 53,684 |  | 3,146 |  | $(45,677)$ |  | 14,267 |
| Total derivative payables ${ }^{(\mathrm{e})}$ |  | 5,497 |  | 1,802,956 |  | 28,803 |  | (1,762,279) |  | 74,977 |
| Total trading liabilities |  | 56,327 |  | 1,818,633 |  | 29,014 |  | $(1,762,279)$ |  | 141,695 |
| Accounts payable and other liabilities |  | - |  | - |  | 51 |  | - |  | 51 |
| Beneficial interests issued by consolidated VIEs |  | - |  | 459 |  | 791 |  | - |  | 1,250 |
| Long-term debt |  | - |  | 24,410 |  | 10,310 |  | - |  | 34,720 |
| Total liabilities measured at fair value on a recurring basis | \$ | 56,327 | \$ | 1,864,603 | \$ | 43,091 | \$ | $(1,762,279)$ | \$ | 201,742 |

Notes to consolidated financial statements

| December 31, 2010 (in millions) | Fair value hierarchy |  |  |  |  |  | Netting adjustments |  | Total fair value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level ${ }^{(\text {h })}$ |  | Level ${ }^{(\text {(h) }}$ |  | Level $3^{\text {(n) }}$ |  |  |  |  |  |
| Federal funds sold and securities purchased under resale agreements | \$ | - | \$ | 20,299 | \$ | - | \$ | - | \$ | 20,299 |
| Securities borrowed |  | - |  | 13,961 |  | - |  | - |  | 13,961 |
| Trading assets: |  |  |  |  |  |  |  |  |  |  |
| Debt instruments: |  |  |  |  |  |  |  |  |  |  |
| Mortgage-backed securities: |  |  |  |  |  |  |  |  |  |  |
| U.S. government agencies ${ }^{(a)}$ |  | 36,813 |  | 10,738 |  | 174 |  | - |  | 47,725 |
| Residential - nonagency |  | - |  | 2,807 |  | 687 |  | - |  | 3,494 |
| Commercial - nonagency |  | - |  | 1,093 |  | 2,069 |  | - |  | 3,162 |
| Total mortgage-backed securities |  | 36,813 |  | 14,638 |  | 2,930 |  | - |  | 54,381 |
| U.S. Treasury and government agencies ${ }^{(a)}$ |  | 12,863 |  | 9,026 |  | - |  | - |  | 21,889 |
| Obligations of U.S. states and municipalities |  | - |  | 11,715 |  | 2,257 |  | - |  | 13,972 |
| Certificates of deposit, bankers' acceptances and commercial paper |  | - |  | 3,248 |  | - |  | - |  | 3,248 |
| Non-U.S. government debt securities |  | 31,127 |  | 38,482 |  | 202 |  | - |  | 69,811 |
| Corporate debt securities |  | - |  | 42,280 |  | 4,946 |  | - |  | 47,226 |
| Loans ${ }^{(b)}$ |  | - |  | 21,736 |  | 13,144 |  | - |  | 34,880 |
| Asset-backed securities |  | - |  | 2,743 |  | 8,460 |  | - |  | 11,203 |
| Total debt instruments |  | 80,803 |  | 143,868 |  | 31,939 |  | - |  | 256,610 |
| Equity securities |  | 124,400 |  | 3,153 |  | 1,685 |  | - |  | 129,238 |
| Physical commodities ${ }^{(c)}$ |  | 18,327 |  | 2,708 |  | - |  | - |  | 21,035 |
| Other |  | - |  | 1,598 |  | 930 |  | - |  | 2,528 |
| Total debt and equity instruments ${ }^{(d)}$ |  | 223,530 |  | 151,327 |  | 34,554 |  | - |  | 409,411 |
| Derivative receivables: |  |  |  |  |  |  |  |  |  |  |
| Interest rate |  | 2,278 |  | 1,120,282 |  | 5,422 |  | $(1,095,427)$ |  | 32,555 |
| Credit |  | - |  | 111,827 |  | 17,902 |  | $(122,004)$ |  | 7,725 |
| Foreign exchange |  | 1,121 |  | 163,114 |  | 4,236 |  | $(142,613)$ |  | 25,858 |
| Equity |  | 30 |  | 38,718 |  | 4,885 |  | $(39,429)$ |  | 4,204 |
| Commodity |  | 1,324 |  | 56,076 |  | 2,197 |  | $(49,458)$ |  | 10,139 |
| Total derivative receivables ${ }^{(\text {e) }}$ |  | 4,753 |  | 1,490,017 |  | 34,642 |  | $(1,448,931)$ |  | 80,481 |
| Total trading assets |  | 228,283 |  | 1,641,344 |  | 69,196 |  | $(1,448,931)$ |  | 489,892 |


| Available-for-sale securities: |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mortgage-backed securities: |  |  |  |  |  |  |  |  |  |  |
| U.S. government agencies ${ }^{(a)}$ |  | 104,736 |  | 15,490 |  | - |  | - |  | 120,226 |
| Residential - nonagency |  | 1 |  | 48,969 |  | 5 |  | - |  | 48,975 |
| Commercial - nonagency |  | - |  | 5,403 |  | 251 |  | - |  | 5,654 |
| Total mortgage-backed securities |  | 104,737 |  | 69,862 |  | 256 |  | - |  | 174,855 |
| U.S. Treasury and government agencies ${ }^{(a)}$ |  | 522 |  | 10,826 |  | - |  | - |  | 11,348 |
| Obligations of U.S. states and municipalities |  | 31 |  | 11,272 |  | 256 |  | - |  | 11,559 |
| Certificates of deposit |  | 6 |  | 3,641 |  | - |  | - |  | 3,647 |
| Non-U.S. government debt securities |  | 13,107 |  | 7,670 |  | - |  | - |  | 20,777 |
| Corporate debt securities |  | - |  | 61,793 |  | - |  | - |  | 61,793 |
| Asset-backed securities: |  |  |  |  |  |  |  |  |  |  |
| Credit card receivables |  | - |  | 7,608 |  | - |  | - |  | 7,608 |
| Collateralized loan obligations |  | - |  | 128 |  | 13,470 |  | - |  | 13,598 |
| Other |  | - |  | 8,777 |  | 305 |  | - |  | 9,082 |
| Equity securities |  | 1,998 |  | 53 |  | - |  | - |  | 2,051 |
| Total available-for-sale securities |  | 120,401 |  | 181,630 |  | 14,287 |  | - |  | 316,318 |
| Loans |  | - |  | 510 |  | 1,466 |  | - |  | 1,976 |
| Mortgage servicing rights |  | - |  | - |  | 13,649 |  | - |  | 13,649 |
| Other assets: |  |  |  |  |  |  |  |  |  |  |
| Private equity investments ${ }^{(f)}$ |  | 49 |  | 826 |  | 7,862 |  | - |  | 8,737 |
| All other |  | 5,093 |  | 192 |  | 4,179 |  | - |  | 9,464 |
| Total other assets |  | 5,142 |  | 1,018 |  | 12,041 |  | - |  | 18,201 |
| Total assets measured at fair value on a recurring basis ${ }^{(8)}$ | \$ | 353,826 | \$ | 1,858,762 | \$ | 110,639 | \$ | $(1,448,931)$ | \$ | 874,296 |
| Deposits | \$ | - | \$ | 3,596 | \$ | 773 | \$ | - | \$ | 4,369 |
| Federal funds purchased and securities loaned or sold under repurchase agreements |  | - |  | 4,060 |  | - |  | - |  | 4,060 |
| Other borrowed funds |  | - |  | 8,547 |  | 1,384 |  | - |  | 9,931 |
| Trading liabilities: |  |  |  |  |  |  |  |  |  |  |
| Debt and equity instruments ${ }^{(d)}$ |  | 58,468 |  | 18,425 |  | 54 |  | - |  | 76,947 |
| Derivative payables: |  |  |  |  |  |  |  |  |  |  |
| Interest rate |  | 2,625 |  | 1,085,233 |  | 2,586 |  | $(1,070,057)$ |  | 20,387 |
| Credit |  | - |  | 112,545 |  | 12,516 |  | $(119,923)$ |  | 5,138 |
| Foreign exchange |  | 972 |  | 158,908 |  | 4,850 |  | $(139,715)$ |  | 25,015 |
| Equity |  | 22 |  | 39,046 |  | 7,331 |  | $(35,949)$ |  | 10,450 |
| Commodity |  | 862 |  | 54,611 |  | 3,002 |  | $(50,246)$ |  | 8,229 |
| Total derivative payables ${ }^{(\text {e })}$ |  | 4,481 |  | 1,450,343 |  | 30,285 |  | $(1,415,890)$ |  | 69,219 |
| Total trading liabilities |  | 62,949 |  | 1,468,768 |  | 30,339 |  | $(1,415,890)$ |  | 146,166 |
| Accounts payable and other liabilities |  | - |  | - |  | 236 |  | - |  | 236 |
| Beneficial interests issued by consolidated VIEs |  | - |  | 622 |  | 873 |  | - |  | 1,495 |
| Long-term debt |  | - |  | 25,795 |  | 13,044 |  | - |  | 38,839 |
| Total liabilities measured at fair value on a recurring basis | \$ | 62,949 | \$ | 1,511,388 | \$ | 46,649 | \$ | $(1,415,890)$ | \$ | 205,096 |

(a) At December 31, 2011 and 2010, included total U.S. government-sponsored enterprise obligations of $\$ 122.4$ billion and $\$ 137.3$ billion respectively, which were predominantly mortgage-related.
(b) At December 31, 2011 and 2010, included within trading loans were $\$ 20.1$ billion and $\$ 22.7$ billion, respectively, of residential first-lien mortgages, and $\$ 2.0$ billion and $\$ 2.6$ billion, respectively, of commercial first-lien mortgages. Residential mortgage loans include conforming mortgage loans originated with the intent to sell to U.S. government agencies of $\$ 11.0$ billion and $\$ 13.1$ billion, respectively, and reverse mortgages of $\$ 4.0$ billion and $\$ 4.0$ billion, respectively.
(c) Physical commodities inventories are generally accounted for at the lower of cost or fair value.
(d) Balances reflect the reduction of securities owned (long positions) by the amount of securities sold but not yet purchased (short positions) when the long and short positions have identical Committee on Uniform Security Identification Procedures numbers ("CUSIPs").
(e) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists. For purposes of the tables above, the Firm does not reduce derivative receivables and derivative payables balances for this netting adjustment, either within or across the levels of the fair value hierarchy, as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset or liability. Therefore, the balances reported in the fair value hierarchy table are gross of any counterparty netting adjustments. However, if the Firm were to net such balances within level 3, the reduction in the level 3 derivative receivable and payable balances would be $\$ 11.7$ billion and $\$ 12.7$ billion at December 31, 2011 and 2010 , respectively; this is exclusive of the netting benefit associated with cash collateral, which would further reduce the level 3 balances.
(f) Private equity instruments represent investments within the Corporate/Private Equity line of business. The cost basis of the private equity investment portfolio totaled $\$ 9.5$ billion and $\$ 10.0$ billion at December 31, 2011 and 2010, respectively.
(g) At December 31, 2011 and 2010, balances included investments valued at net asset values of $\$ 10.8$ billion and $\$ 12.1$ billion, respectively, of which $\$ 5.3$ billion and $\$ 5.9$ billion, respectively, were classified in level 1, $\$ 1.2$ billion and $\$ 2.0$ billion, respectively, in level 2, and $\$ 4.3$ billion and $\$ 4.2$ billion, respectively, in level 3 .
(h) For the years ended December 31, 2011 and 2010, there were no significant transfers between levels 1 and 2. For the year ended December 31, 2011, transfers from level 3 into level 2 included $\$ 2.6$ billion of long-term debt due to a decrease in valuation uncertainty of certain structured notes. For the year ended December 31, 2010, transfers from level 3 into level 2 included $\$ 1.2$ billion of trading loans due to increased price transparency. There were no significant transfers into level 3 for the years ended December 31, 2011 and 2010. All transfers are assumed to occur at the beginning of the reporting period.

## Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the Consolidated Balance Sheet amounts (including changes in fair value) for financial instruments classified by the Firm within level 3 of the fair value hierarchy for the years ended December 31, 2011, 2010 and 2009. When a determination is made to classify a financial instrument within level 3 , the determination is based on the significance of the unobservable parameters to the overall fair value measurement. However, level 3 financial instruments typically include, in addition to the unobservable or level 3 components, observable
components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, the Firm risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains or losses in the following tables do not reflect the effect of the Firm's risk management activities related to such level 3 instruments.

|  | Fair value measurements using significant unobservable inputs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, 2011 (in millions) | $\begin{aligned} & \text { Fair value at } \\ & \text { January } 1 \text {, } \\ & 2011 \end{aligned}$ | Total realized/ unrealized gains/(losses) | Purchases ${ }^{(f)}$ | Sales | Issuances | Settlements | Transfers into and/ or out of level 3 | Fair value at Dec. 31, 2011 | Change in unrealized gains/ (losses) related to financial instruments held at Dec. 31, 2011 |

## Assets:

Trading assets:
Debt instruments:

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


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


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


|  | Fair value measurements using significant unobservable inputs |  |  |  |  |  |  |  |  | Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, 2010 (in millions) | Fair value at January 1 , 2010 | Total realized/ unrealized (gains)/losses |  | Purchases, issuances, settlements, net |  | Transfers into and/or out of level $3^{(8)}$ |  | Fair value at <br> Dec. 31, 2010 |  |  |  |
| Liabilities: ${ }^{(a)}$ |  |  |  |  |  |  |  |  |  |  |  |
| Deposits | \$ 476 | \$ | $54{ }^{(b)}$ | \$ | (86) | \$ | 329 | \$ | 773 | \$ | (77) ${ }^{(b)}$ |
| Other borrowed funds | 542 |  | (242) ${ }^{(b)}$ |  | 1,326 |  | (242) |  | 1,384 |  | $445{ }^{\text {(b) }}$ |
| Trading liabilities - debt and equity instruments | 10 |  | 2 (b) |  | 19 |  | 23 |  | 54 |  | - |
| Accounts payable and other liabilities | 355 |  | (138) ${ }^{(e)}$ |  | 19 |  | - |  | 236 |  | $37^{\text {(e) }}$ |
| Beneficial interests issued by consolidated VIEs | 625 |  | (7) ${ }^{(b)}$ |  | 87 |  | 168 |  | 873 |  | (76) ${ }^{(b)}$ |
| Long-term debt | 18,287 |  | (532) ${ }^{(b)}$ |  | $(4,796)$ |  | 85 |  | 13,044 |  | $662{ }^{\text {(b) }}$ |


|  |  | Fair value measurements using significant unobservable inputs |
| :--- | ---: | :--- | ---: | :--- |


| Year ended December 31, 2009 (in millions) | Fair value measurements using significant unobservable inputs |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair value at January 1 , 2009 |  | Total realized/ unrealized (gains)/losses |  |  | Purchases, issuances settlements, net |  | Transfers into and/or out of level $3^{(\mathrm{e})}$ |  | Fair value at Dec.31, 2009 |  | Change in unrealized (gains)/losses related to financial instruments held at Dec. 31, 2009 |  |  |
| Liabilities: ${ }^{(\text {a }}$ ( ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits | \$ | 1,235 | \$ | 47 | (b) | \$ | (870) | \$ | 64 | \$ | 476 | \$ | (36) | b) |
| Other borrowed funds |  | 101 |  | (73) |  |  | 621 |  | (107) |  | 542 |  | 9 | (b) |
| Trading liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Debt and equity instruments |  | 288 |  | 64 | (b) |  | (339) |  | (3) |  | 10 |  | 12 | (b) |
| Accounts payable and other liabilities |  | - |  | (55) |  |  | 410 |  | - |  | 355 |  | (29) |  |
| Beneficial interests issued by consolidated VIEs |  | - |  | 344 | (b) |  | (598) |  | 879 |  | 625 |  | 327 | (b) |
| Long-term debt |  | 16,548 |  | 1,367 |  |  | 2,738) |  | 3,110 |  | 18,287 |  | 1,728 |  |

(a) Level 3 liabilities as a percentage of total Firm liabilities accounted for at fair value (including liabilities measured at fair value on a nonrecurring basis) were $21 \%, 23 \%$ and $29 \%$ at December 31, 2011, 2010 and 2009, respectively.
(b) Predominantly reported in principal transactions revenue, except for changes in fair value for Retail Financial Services ("RFS") mortgage loans and lending-related commitments originated with the intent to sell, which are reported in mortgage fees and related income.
(c) Realized gains/(losses) on available-for-sale ("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 $\$(240)$ million, $\$(66)$ million, and $\$(345)$ million for the years ended December 31, 2011, 2010 and 2009, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were $\$ 145$ million, $\$(129)$ million and $\$ 74$ million for the years ended December 31, 2011, 2010 and 2009, respectively.
(d) Changes in fair value for RFS mortgage servicing rights are reported in mortgage fees and related income.
(e) Largely reported in other income.
(f) Loan originations are included in purchases.
(g) All transfers into and/or out of level 3 are assumed to occur at the beginning of the reporting period.

## Assets and liabilities measured at fair value on a nonrecurring basis

Certain assets, 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). At December 31, 2011 and 2010, assets measured at fair value on a nonrecurring basis were $\$ 5.3$ billion and $\$ 9.9$ billion, respectively, comprised predominantly of loans. At December 31, 2011, \$369 million and $\$ 4.9$ billion of these assets were classified in levels 2 and 3 of the fair value hierarchy, respectively. At December 31, 2010, $\$ 312$ million and $\$ 9.6$ 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, 2011 and 2010. For the years ended December 31, 2011 and 2010, there were no significant transfers between levels 1,2 , and 3 . 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, 2011, 2010 and 2009, related to financial instruments held at those dates were losses of $\$ 2.2$ billion, $\$ 3.6$ billion and $\$ 4.7$ billion, respectively; these losses were predominantly associated with loans.

For further information about the measurement of impaired collateral-dependent loans, and other loans where the carrying value is based on the fair value of the underlying collateral (e.g., residential mortgage loans charged off in accordance with regulatory guidance), see Note 14 on pages 231-252 of this Annual Report.

## Level 3 analysis

Level 3 assets at December 31, 2011, predominantly included derivative receivables, MSRs, CLOs held within the available-for-sale and trading portfolios, loans within the trading portfolio and private equity investments.

- Derivative receivables included $\$ 35.0$ billion related to interest rate, credit, foreign exchange, equity and commodity contracts. Credit derivative receivables of $\$ 17.1$ billion included $\$ 12.1$ billion of structured credit derivatives with corporate debt underlying and \$3.4 billion of CDS largely on commercial mortgages where the risks are partially mitigated by similar and offsetting derivative payables. Interest rate derivative receivables of $\$ 6.7$ billion include long-dated structured interest rate derivatives which are dependent on the correlation between different interest rate curves. Foreign exchange derivative receivables of $\$ 4.6$ billion included long-dated foreign exchange derivatives which are dependent on the correlation between foreign exchange and interest rates. Equity derivative receivables of $\$ 4.1$ billion principally included long-dated contracts where the volatility levels are unobservable. Commodity derivative receivables of $\$ 2.5$ billion largely included long-dated oil contracts.
- CLOs totaling $\$ 30.9$ billion are securities backed by
corporate loans. At December 31, 2011, $\$ 24.7$ billion of CLOs were held in the AFS securities portfolio and $\$ 6.2$ billion were included in asset-backed securities held in the trading portfolio. Substantially all of the securities are rated "AAA," "AA" and "A" and had an average credit enhancement of $30 \%$. Credit enhancement in CLOs is primarily in the form of subordination, which is a form of structural credit enhancement where realized losses associated with assets held by the issuing vehicle are allocated to the various tranches of securities issued by the vehicle considering their relative seniority. For a further discussion of CLOs held in the AFS securities portfolio, see Note 12 on pages 225-230 of this Annual Report.
- Trading loans totaling $\$ 12.2$ billion included $\$ 6.0$ billion of residential mortgage whole loans and commercial mortgage loans for which there is limited price transparency; and $\$ 4.0$ billion of reverse mortgages for which the principal risk sensitivities are mortality risk and home prices. The fair value of the commercial and residential mortgage loans is estimated by projecting expected cash flows, considering relevant borrowerspecific and market factors, and discounting those cash flows at a rate reflecting current market liquidity. Loans are partially hedged by level 2 instruments, including credit default swaps and interest rate derivatives, for which valuation inputs are observable and liquid.
- MSRs represent the fair value of future cash flows for performing specified mortgage servicing activities for others (predominantly with respect to residential mortgage loans). For a further discussion of the MSR asset, the interest rate risk management and valuation methodology used for MSRs, including valuation assumptions and sensitivities, and a summary of the changes in the MSR asset, see Note 17 on pages 267271 of this Annual Report.


## Consolidated Balance Sheets changes

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were $5.2 \%$ of total Firm assets at December 31, 2011. The following describes significant changes to level 3 assets since December 31, 2010.
For the year ended December 31, 2011
Level 3 assets decreased by $\$ 1.8$ billion during 2011, due to the following:

- \$11.2 billion increase in asset-backed AFS securities, predominantly driven by purchases of CLOs;
- $\$ 6.4$ billion decrease in MSRs. For further discussion of the change, refer to Note 17 on pages 267-271 of this Annual Report;
- $\$ 2.3$ billion decrease in nonrecurring loans held-for-sale, predominantly driven by sales in the loan portfolios;
- $\$ 2.2$ billion decrease in nonrecurring retained loans predominantly due to portfolio runoff;
- \$1.6 billion decrease in trading assets - debt and equity instruments, largely driven by sales and settlements of certain securities, partially offset by purchases of corporate debt; and


## Notes to consolidated financial statements

- $\$ 1.1$ billion decrease in private equity investments, predominantly driven by sales of investments, partially offset by new investments.


## Gains and Losses

Gains and losses included in the tables for 2011, 2010 and 2009 included:

## 2011

Included in the tables for the vear ended December 31, 2011

- $\$ 7.1$ billion of losses on MSRs. For further discussion of the change, refer to Note 17 on pages 267-271 of this Annual Report; and
- $\$ 6.1$ billion of net gains on derivatives, related to declining interest rates and tightening of credit spreads, partially offset by losses due to fluctuation in foreign exchange rates.


## 2010

Included in the tables for the vear ended December 31, 2010

- \$2.3 billion of losses on MSRs; and
- $\$ 1.0$ billion gain in private equity largely driven by gains on investments in the portfolio.


## 2009

Included in the tables for the year ended December 31, 2009

- $\$ 11.5$ billion of net losses on derivatives, primarily related to the tightening of credit spreads;
- Net losses on trading - debt and equity instruments of $\$ 604$ million, consisting of $\$ 2.1$ billion of losses, primarily related to residential and commercial loans and mortgage-backed securities ("MBS"), principally driven by markdowns and sales, partially offset by gains of $\$ 1.4$ billion, reflecting increases in the fair value of other asset-backed securities ("ABS");
- $\$ 5.8$ billion of gains on MSRs; and
- $\$ 1.4$ billion of losses related to structured note liabilities, predominantly due to volatility in the equity markets.


## Credit adjustments

When determining the fair value of an instrument, it may be necessary to record a valuation adjustment to arrive at an exit price under U.S. GAAP. Valuation adjustments include, but are not limited to, amounts to reflect counterparty credit quality and the Firm's own creditworthiness. The market's view of the Firm's credit quality is reflected in credit spreads observed in the credit default swap market. For a detailed discussion of the valuation adjustments the Firm considers, see the valuation discussion at the beginning of this Note.

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

| December 31, (in millions) | 2011 | 2010 |
| :---: | :---: | :---: |
| Derivative receivables balance (net of derivatives CVA) | \$ 92,477 | 80,481 |
| Derivatives CVA ${ }^{(a)}$ | $(6,936)$ | $(4,362)$ |
| Derivative payables balance (net of derivatives DVA) | 74,977 | 69,219 |
| Derivatives DVA | $(1,420)$ | (882) |
| Structured notes balance (net of structured notes DVA) ${ }^{(b)(c)}$ | 49,229 | 53,139 |
| Structured notes DVA | $(2,052)$ | $(1,153)$ |

(a) Derivatives CVA, gross of hedges, includes results managed by the Credit Portfolio and other lines of business within the Investment Bank ("IB").
(b) Structured notes are recorded within long-term debt, other borrowed funds or deposits on the Consolidated Balance Sheets, depending upon the tenor and legal form of the note.
(c) Structured notes are measured at fair value based on the Firm's election under the fair value option. For further information on these elections, see Note 4 on pages 198-200 of this Annual Report.

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

Year ended December 31,

| (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |
| :--- | :---: | :---: | :---: |
| Credit adjustments: |  |  |  |
| Derivative CVA |  |  |  |
| Derivative DVA | $\$(2,574)$ | $\$(665)$ | $\$ 5,869$ |
| Structured note DVA |  |  |  |
| (b) | $\mathbf{5 3 8}$ | 41 | $(548)$ |

(a) Derivatives CVA, gross of hedges, includes results managed by the Credit Portfolio and other lines of business within IB.
(b) Structured notes are measured at fair value based on the Firm's election under the fair value option. For further information on these elections, see Note 4 on pages 198-200 of this Annual Report.

## Additional disclosures about the fair value of financial instruments (including financial instruments not carried at fair value)

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

## Financial instruments for which carrying value approximates

 fair valueCertain 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 shortterm 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 (excluding advances from the Federal Home Loan Banks ("FHLBs")); accounts payable; and accrued liabilities. In addition, U.S. GAAP requires that the fair value for deposit liabilities with no stated maturity (i.e., demand, savings and certain money market deposits) be equal to their carrying value; recognition of the inherent funding value of these instruments is not permitted.

The following table presents the carrying values and estimated fair values of financial assets and liabilities.

| December 31, (in billions) | 2011 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Carrying value |  | Estimated fair value |  | Carrying value |  | Estimated fair value |  |
| Financial assets |  |  |  |  |  |  |  |  |
| Assets for which fair value approximates carrying value | \$ | 144.9 | \$ | 144.9 | \$ | 49.2 | \$ | 49.2 |
| Accrued interest and accounts receivable |  | 61.5 |  | 61.5 |  | 70.1 |  | 70.1 |
| Federal funds sold and securities purchased under resale agreements (included \$24.9 and $\$ 20.3$ at fair value) |  | 235.3 |  | 235.3 |  | 222.6 |  | 222.6 |
| Securities borrowed (included \$15.3 and \$14.0 at fair value) |  | 142.5 |  | 142.5 |  | 123.6 |  | 123.6 |
| Trading assets |  | 444.0 |  | 444.0 |  | 489.9 |  | 489.9 |
| Securities (included \$364.8 and \$316.3 at fair value) |  | 364.8 |  | 364.8 |  | 316.3 |  | 316.3 |
| Loans (included \$2.1 and \$2.0 at fair value) ${ }^{(\mathrm{a})}$ |  | 696.1 |  | 695.8 |  | 660.7 |  | 663.5 |
| Mortgage servicing rights at fair value |  | 7.2 |  | 7.2 |  | 13.6 |  | 13.6 |
| Other (included \$16.5 and \$18.2 at fair value) |  | 66.3 |  | 66.8 |  | 64.9 |  | 65.0 |
| Financial liabilities |  |  |  |  |  |  |  |  |
| Deposits (included \$4.9 and \$4.4 at fair value) | \$ | 1,127.8 | \$ | 1,128.3 | \$ | 930.4 | \$ | 931.5 |
| Federal funds purchased and securities loaned or sold under repurchase agreements (included \$9.5 and \$4.1 at fair value) |  | 213.5 |  | 213.5 |  | 276.6 |  | 276.6 |
| Commercial paper |  | 51.6 |  | 51.6 |  | 35.4 |  | 35.4 |
| Other borrowed funds (included \$9.6 and \$9.9 at fair value) ${ }^{(\text {b) }}$ |  | 21.9 |  | 21.9 |  | 34.3 |  | 34.3 |
| Trading liabilities |  | 141.7 |  | 141.7 |  | 146.2 |  | 146.2 |
| Accounts payable and other liabilities (included \$0.1 and \$0.2 at fair value) |  | 167.0 |  | 166.9 |  | 138.2 |  | 138.2 |
| Beneficial interests issued by consolidated VIEs (included \$1.3 and \$1.5 at fair value) |  | 66.0 |  | 66.2 |  | 77.6 |  | 77.9 |
| Long-term debt and junior subordinated deferrable interest debentures (included \$34.7 and $\$ 38.8$ at fair value) ${ }^{(b)}$ |  | 256.8 |  | 254.2 |  | 270.7 |  | 271.9 |

(a) Fair value is typically estimated using a discounted cash flow model that incorporates the characteristics of the underlying loans (including principal, contractual interest rate and contractual fees) and other key inputs, including expected lifetime credit losses, interest rates, prepayment rates, and primary origination or secondary market spreads. For certain loans, the fair value is measured based on the value of the underlying collateral. The difference between the estimated fair value and carrying value of a financial asset or liability is the result of the different methodologies used to determine fair value as compared with carrying value. For example, credit losses are estimated for a financial asset's remaining life in a fair value calculation but are estimated for a loss emergence period in a loan loss reserve calculation; future loan income (interest and fees) is incorporated in a fair value calculation but is generally not considered in a loan loss reserve calculation. For a further discussion of the Firm's methodologies for estimating the fair value of loans and lending-related commitments, see pages 186-188 of this Note.
(b) Effective January 1, 2011, $\$ 23.0$ billion of long-term advances from FHLBs were reclassified from other borrowed funds to long-term debt. The prior-year period has been revised to conform with the current presentation.

## Notes to consolidated financial statements

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

|  | 2011 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, (in billions) | Carrying value ${ }^{(a)}$ |  | Estimated fair value |  | Carrying value ${ }^{(\mathrm{a})}$ |  | Estimated fair value |  |
| Wholesale lending-related commitments | \$ | 0.7 | \$ | 3.4 | \$ | 0.7 | \$ | 0.9 |

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

The Firm does not estimate the fair value of consumer lending-related commitments. In many cases, the Firm can reduce or cancel these commitments by providing the borrower notice or, in some cases, without notice as permitted by law. For a further discussion of lending-related commitments, see Note 29 on pages 283-289 of this Annual Report; for further information on the valuation of lending-related commitments, see pages 186-188 of this Note.

## Trading assets and liabilities

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

Trading assets and liabilities - average balances
Average trading assets and liabilities were as follows for the periods indicated.

| Year ended December 31, (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |  |
| :--- | ---: | ---: | ---: | ---: |
| Trading assets - debt and equity instruments ${ }^{(2)}$ | $\$$ | $\mathbf{3 9 3 , 8 9 0}$ | $\$$ | 354,441 |
| Trading assets - derivative receivables |  | $\mathbf{9 0 , 0 0 3}$ | 818,063 |  |
| Trading liabilities - debt and equity instruments ${ }^{(2)(\text { (1) }}$ | $\mathbf{8 1 , 9 1 6}$ | 78,159 | 110,457 |  |
| Trading liabilities - derivative payables | $\mathbf{7 1 , 5 3 9}$ | 60,224 |  |  |

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

## Note 4 - Fair value option

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

## Elections

Elections were made by the Firm to:

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

Elections include the following:

- Loans purchased or originated as part of securitization warehousing activity, subject to bifurcation accounting, or managed on a fair value basis.
- Securities financing arrangements with an embedded derivative and/or a maturity of greater than one year.
- Owned beneficial interests in securitized financial assets that contain embedded credit derivatives, which would otherwise be required to be separately accounted for as a derivative instrument.
- Certain investments that receive tax credits and other equity investments acquired as part of the Washington Mutual transaction.
- Structured notes issued as part of IB's client-driven activities. (Structured notes are financial instruments that contain embedded derivatives.)
- Long-term beneficial interests issued by IB'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, 2011, 2010 and 2009, 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.

|  |  | 2011 |  |  | 2010 |  |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total |  |  | Total |  |  | Total |
|  |  |  | changes |  |  | changes |  |  | changes |
|  |  |  | in fair |  |  | in fair |  |  | in fair |
|  | Principal | Other | value | Principal | Other | value | Principal | Other | value |
| December 31, (in millions) | transactions | income | recorded | transactions | income | recorded | transactions | income | recorded |

Federal funds sold and securities purchased under resale agreements \$
\$ 270 \$ $\quad$ \$ 270 \$
Securities borrowed
(61) - (61)
61) 31 -

Trading assets:
Debt and equity instruments, excluding loans

53
(6) ${ }^{(c)}$

47
556
(2) ${ }^{(c)}$
$554 \quad 619 \quad 25$ (c)
644
Loans reported as trading assets:
Changes in instrument-
specific credit risk
Other changes in fair value

| 934 | $(174)$ |
| :--- | :---: |
| 127 | 5,263 |

$760 \quad 1,279$
(6) ${ }^{(c)}$

1,273
(300) (177) ${ }^{\text {(c) }}$
(477)

Other changes in fair value
127 5,263
5,390
(312) 4,449 (c) 4,137
$1,132 \quad 3,119$ (c)
4,251
Loans:
Changes in instrument-specific credit risk

Other changes in fair value
Other assets
Deposits ${ }^{(\mathrm{a})}$

| 2 | - | 2 | 95 | - | 95 | (78) | - | (78) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 535 | - | 535 | 90 | - | 90 | (343) | - | (343) |
| (49) | $(19){ }^{\text {(d) }}$ | (68) | - | $(263){ }^{\text {(d) }}$ | (263) | - | $(731)^{(d)}$ | (731) |
| (237) | - | (237) | (564) | - | (564) | (770) | - | (770) |
| (4) | - | (4) | (29) | - | (29) | 116 | - | 116 |
| 2,986 | - | 2,986 | 123 | - | 123 | $(1,287)$ | - | $(1,287)$ |
| (57) | - | (57) | (23) | - | (23) | (3) | - | (3) |
| (83) | - | (83) | (12) | - | (12) | (351) | - | (351) |
| (3) | (5) ${ }^{(d)}$ | (8) | (9) | $8{ }^{\text {(d) }}$ | (1) | 64 | - | 64 |


(3)
(5) ${ }^{(d)}$
(8)
(9) $8^{\text {(d) }}$
(1) 64 -

64
Long-term debt:

| Changes in instrument-specific credit risk ${ }^{(\mathrm{a})}$ | 927 | - | 927 | 400 | - | 400 | $(1,704)$ | - | $(1,704)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Other changes in fair value ${ }^{(b)}$ | 322 | - | 322 | 1,297 | - | 1,297 | $(2,393)$ | - | $(2,393)$ |

(a) Total changes in instrument-specific credit risk related to structured notes were $\$ 899$ million, $\$ 468$ million, and $\$(1.7)$ billion for the years ended December 31, 2011, 2010 and 2009, respectively. These totals include adjustments for structured notes classified within deposits and other borrowed funds, as well as long-term debt.
(b) Structured notes are debt instruments with embedded derivatives that are tailored to meet a client's need. The embedded derivative is the primary driver of risk. Although the risk associated with the structured notes is actively managed, the gains reported in this table do not include the income statement impact of such risk management instruments.
(c) Reported in mortgage fees and related income.
(d) Reported in other income.

## Notes to consolidated financial statements

## 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 2011, 2010 and 2009, which were attributable to changes in instrument-specific credit risk, were determined.

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


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

The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of December 31, 2011 and 2010, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

| December 31, (in millions) | 2011 |  |  |  |  |  |  | 010 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Contractual } \\ & \text { principal } \\ & \text { outstanding } \end{aligned}$ |  | Fair value |  |  | Fair value over/ (under) contractual principal outstanding |  | Contractual principal outstanding |  | Fair value |  |  | Fair value over/ (under) contractual principal outstanding |  |
| Loans ${ }^{\text {(a) }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonaccrual loans |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans reported as trading assets | \$ | 4,875 |  | \$ | 1,141 | \$ | $(3,734)$ | \$ | 5,246 |  | \$ | 1,239 | \$ | $(4,007)$ |
| Loans |  | 820 |  |  | 56 |  | (764) |  | 927 |  |  | 132 |  | (795) |
| Subtotal |  | 5,695 |  |  | 1,197 |  | $(4,498)$ |  | 6,173 |  |  | 1,371 |  | $(4,802)$ |
| All other performing loans |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans reported as trading assets |  | 37,481 |  |  | 32,657 |  | $(4,824)$ |  | 39,490 |  |  | 33,641 |  | $(5,849)$ |
| Loans |  | 2,136 |  |  | 1,601 |  | (535) |  | 2,496 |  |  | 1,434 |  | $(1,062)$ |
| Total loans | \$ | 45,312 |  | \$ | 35,455 | \$ | $(9,857)$ | \$ | 48,159 |  | \$ | 36,446 | \$ | $(11,713)$ |
| Long-term debt |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Principal-protected debt | \$ | 19,417 | (c) | \$ | 19,890 | \$ | 473 | \$ | 20,761 | (c) | \$ | 21,315 | \$ | 554 |
| Nonprincipal-protected debt ${ }^{\left({ }^{(b)}\right.}$ |  | NA |  |  | 14,830 |  | NA |  | NA |  |  | 17,524 |  | NA |
| Total long-term debt |  | NA |  | \$ | 34,720 |  | NA |  | NA |  | \$ | 38,839 |  | NA |
| Long-term beneficial interests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Principal-protected debt | \$ | - |  | \$ | - | \$ | - | \$ | 49 |  | \$ | 49 | \$ | - |
| Nonprincipal-protected debt ${ }^{(b)}$ |  | NA |  |  | 1,250 |  | NA |  | NA |  |  | 1,446 |  | NA |
| Total long-term beneficial interests |  | NA |  | \$ | 1,250 |  | NA |  | NA |  | \$ | 1,495 |  | NA |

(a) There were no performing loans which were ninety days or more past due as of December 31, 2011 and 2010, respectively.
(b) Remaining contractual principal is not applicable to nonprincipal-protected notes. Unlike principal-protected structured notes, for which the Firm is obligated to return a stated amount of principal at the maturity of the note, nonprincipal-protected structured notes do not obligate the Firm to return a stated amount of principal at maturity, but to return an amount based on the performance of an underlying variable or derivative feature embedded in the note.
(c) Where the Firm issues principal-protected zero-coupon or discount notes, the balance reflected as the remaining contractual principal is the final principal payment at maturity.

At December 31, 2011 and 2010, the contractual amount of letters of credit for which the fair value option was elected was $\$ 3.9$ billion and $\$ 3.8$ billion, respectively, with a corresponding fair value of $\$(5)$ million and $\$(6)$ million, respectively. For further information regarding off-balance sheet lending-related financial instruments, see Note 29 on pages 283-289 of this Annual Report.

## Note 5 - Credit risk concentrations

Concentrations of credit risk arise when a number of customers are engaged in similar business activities or activities in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions.
JPMorgan Chase regularly monitors various segments of its credit portfolio to assess potential concentration risks and to obtain collateral when deemed necessary. Senior management is significantly involved in the credit approval and review process, and risk levels are adjusted as needed to reflect the Firm's risk appetite.
In the Firm's wholesale portfolio, risk concentrations are evaluated primarily by industry and monitored regularly on both an aggregate portfolio level and on an individual customer basis. Management of the Firm's wholesale exposure is accomplished through loan syndication and participation, loan sales, securitizations, credit derivatives, use of master netting agreements, and collateral and other risk-reduction techniques. In the 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.
The Firm does not believe that its exposure to any particular loan product (e.g., option adjustable rate mortgages ("ARMs")), industry segment (e.g., commercial
real estate) or its exposure to residential real estate Ioans with high loan-to-value ratios results in a significant concentration of credit risk. Terms of loan products and collateral coverage are included in the Firm's assessment when extending credit and establishing its allowance for loan losses.

For further information regarding on-balance sheet credit concentrations by major product and/or geography, see Notes 6, 14 and 15 on pages 202-210, 231-252 and 252255, respectively, of this Annual Report. For information regarding concentrations of off-balance sheet lendingrelated financial instruments by major product, see Note 29 on pages 283-289 of this Annual Report.
Customer receivables representing primarily margin loans to prime and retail brokerage clients of $\$ 17.6$ billion and $\$ 32.5$ billion at December 31, 2011 and 2010, respectively, are included in the table below. These margin loans are generally over-collateralized through a pledge of assets maintained in clients' brokerage accounts and are subject to daily minimum collateral requirements. In the event that the collateral value decreases, a maintenance margin call is made to the client to provide additional collateral into the account. If additional collateral is not provided by the client, the client's positions may be liquidated by the Firm to meet the minimum collateral requirements. As a result of the Firm's credit risk mitigation practices, the Firm does not hold any reserves for credit impairment on these agreements as of December 31, 2011 and 2010.

The table below presents both on-balance sheet and off-balance sheet wholesale- and consumer-related credit exposure by the Firm's three credit portfolio segments as of December 31, 2011 and 2010.

| December 31, (in millions) | 2011 |  |  |  |  |  |  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit exposure | On-balance sheet |  |  |  | Off-balance sheet ${ }^{(c)}$ |  | Credit exposure |  | On-balance sheet |  |  |  | Off-balance sheet ${ }^{(c)}$ |  |
|  |  |  | Loans |  | ivatives |  |  |  | Loans |  | ivatives |  |  |
| Wholesale |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Banks and finance companies | \$ 71,440 | \$ | 29,392 | \$ | 20,372 | \$ | 21,676 |  |  | \$ | 65,867 | \$ | 21,562 | \$ | 20,935 | \$ | 23,370 |
| Real estate | 67,594 |  | 54,684 |  | 1,155 |  | 11,755 |  | 64,351 |  | 53,635 |  | 868 |  | 9,848 |
| Healthcare | 42,247 |  | 8,908 |  | 3,021 |  | 30,318 |  | 41,093 |  | 6,047 |  | 2,121 |  | 32,925 |
| State and municipal governments | 41,930 |  | 7,144 |  | 6,575 |  | 28,211 |  | 35,808 |  | 6,095 |  | 5,148 |  | 24,565 |
| Oil and gas | 35,437 |  | 10,780 |  | 3,521 |  | 21,136 |  | 26,459 |  | 5,701 |  | 3,866 |  | 16,892 |
| Asset managers | 33,465 |  | 6,182 |  | 9,458 |  | 17,825 |  | 29,364 |  | 7,070 |  | 7,124 |  | 15,170 |
| Consumer products | 29,637 |  | 9,187 |  | 1,079 |  | 19,371 |  | 27,508 |  | 7,921 |  | 1,039 |  | 18,548 |
| Utilities | 28,650 |  | 5,191 |  | 3,602 |  | 19,857 |  | 25,911 |  | 4,220 |  | 3,104 |  | 18,587 |
| Retail and consumer services | 22,891 |  | 6,353 |  | 565 |  | 15,973 |  | 20,882 |  | 5,876 |  | 796 |  | 14,210 |
| Technology | 17,898 |  | 4,394 |  | 1,310 |  | 12,194 |  | 14,348 |  | 2,752 |  | 1,554 |  | 10,042 |
| Central government | 17,138 |  | 623 |  | 10,813 |  | 5,702 |  | 11,173 |  | 1,146 |  | 6,052 |  | 3,975 |
| Machinery and equipment manufacturing | 16,498 |  | 5,111 |  | 417 |  | 10,970 |  | 13,311 |  | 3,601 |  | 445 |  | 9,265 |
| Transportation | 16,305 |  | 10,000 |  | 947 |  | 5,358 |  | 9,652 |  | 3,754 |  | 822 |  | 5,076 |
| Metals/mining | 15,254 |  | 6,073 |  | 690 |  | 8,491 |  | 11,426 |  | 3,301 |  | 1,018 |  | 7,107 |
| Insurance | 13,092 |  | 1,109 |  | 2,061 |  | 9,922 |  | 10,918 |  | 1,103 |  | 1,660 |  | 8,155 |
| All other ${ }^{(a)}$ | 284,135 |  | 113,264 |  | 26,891 |  | 143,980 |  | 240,999 |  | 88,726 |  | 23,929 |  | 128,344 |
| Subtotal | 753,611 |  | 278,395 |  | 92,477 |  | 382,739 |  | 649,070 |  | 222,510 |  | 80,481 |  | 346,079 |
| Loans held-for-sale and loans at fair value | 4,621 |  | 4,621 |  | - |  | - |  | 5,123 |  | 5,123 |  | - |  | - |
| Receivables from customers and interests in purchased receivables | 17,461 |  | - |  | - |  | - |  | 32,932 |  | - |  | - |  | - |
| Total wholesale | 775,693 |  | 283,016 |  | 92,477 |  | 382,739 |  | 687,125 |  | 227,633 |  | 80,481 |  | 346,079 |
| Total consumer, excluding credit card ${ }^{(b)}$ | 370,834 |  | 308,427 |  | - |  | 62,307 |  | 393,021 |  | 327,618 |  | - |  | 65,403 |
| Total credit card | 662,893 |  | 132,277 |  | - |  | 530,616 |  | 684,903 |  | 137,676 |  | - |  | 547,227 |
| Total exposure | \$1,809,420 | \$ | 723,720 | \$ | 92,477 | \$ | 975,662 |  | 1,765,049 | \$ | 692,927 | \$ | 80,481 | \$ | 958,709 |

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## Notes to consolidated financial statements

## Note 6 - Derivative instruments

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

## Trading derivatives

The Firm makes markets in a variety of derivatives to meet the needs of customers (both dealers and clients) and to generate revenue through this trading activity ("client derivatives"). Customers use derivatives to mitigate or modify interest rate, credit, foreign exchange, equity and commodity risks. The Firm actively manages the risks from its exposure to these derivatives by entering into other derivative transactions or by purchasing or selling other financial instruments that partially or fully offset the exposure from client derivatives. The Firm also seeks to earn a spread between the client derivatives and offsetting positions, and from the remaining open risk positions.

## Risk management derivatives

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

Interest rate contracts are used to minimize fluctuations in earnings that are caused by changes in interest rates. Fixedrate assets and liabilities appreciate or depreciate in market value as interest rates change. Similarly, interest income and expense increase or decrease as a result of variablerate assets and liabilities resetting to current market rates, and as a result of the repayment and subsequent origination or issuance of fixed-rate assets and liabilities at current market rates. Gains or losses on the derivative instruments that are related to such assets and liabilities are expected to substantially offset this variability in earnings. The Firm generally uses interest rate swaps, forwards and futures to manage the impact of interest rate fluctuations on earnings.
Foreign currency forward contracts are used to manage the foreign exchange risk associated with certain foreign currency-denominated (i.e., non-U.S. dollar) assets and liabilities and forecasted transactions, as well as the Firm's net investments in certain non-U.S. subsidiaries or branches whose functional currencies are not the U.S. dollar. As a result of fluctuations in foreign currencies, the U.S. dollarequivalent 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 loadserving contracts and investments.
The Firm uses credit derivatives to manage the counterparty credit risk associated with loans and lendingrelated 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 209-210 of this Note.
For more information about risk management derivatives, see the risk management derivatives gains and losses table on page 207 of this Note, and the hedge accounting gains and losses tables on pages 205-207 of this Note.

## Accounting for derivatives

All free-standing derivatives are required to be recorded on the Consolidated Balance Sheets at fair value. As permitted under U.S. GAAP, the Firm nets derivative assets and liabilities, and the related cash collateral received and paid, when a legally enforceable master netting agreement exists between the Firm and the derivative counterparty. The accounting for changes in value of a derivative depends on whether or not the transaction has been designated and qualifies for hedge accounting. Derivatives that are not designated as hedges are marked to market through earnings. The tabular disclosures on pages 203-210 of this Note provide additional information on the amount of, and reporting for, derivative assets, liabilities, gains and losses. For further discussion of derivatives embedded in structured notes, see Notes 3 and 4 on pages 184-198 and 198-200, respectively, of this Annual Report.

## Derivatives designated as hedges

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

To qualify for hedge accounting, a derivative must be highly effective at reducing the risk associated with the exposure being hedged. In addition, for a derivative to be designated as a hedge, the risk management objective and strategy must be documented. Hedge documentation must identify the derivative hedging instrument, the asset or liability or forecasted transaction and type of risk to be hedged, and how the effectiveness of the derivative is assessed
prospectively and retrospectively. To assess effectiveness, the Firm uses statistical methods such as regression analysis, as well as nonstatistical methods including dollarvalue comparisons of the change in the fair value of the derivative to the change in the fair value or cash flows of the hedged item. The extent to which a derivative has been, and is expected to continue to be, effective at offsetting changes in the fair value or cash flows of the hedged item must be assessed and documented at least quarterly. Any hedge ineffectiveness (i.e., the amount by which the gain or loss on the designated derivative instrument does not exactly offset the change in the hedged item attributable to the hedged risk) must be reported in current-period earnings. If it is determined that a derivative is not highly effective at hedging the designated exposure, hedge accounting is discontinued.
There are three types of hedge accounting designations: fair value hedges, cash flow hedges and net investment hedges. JPMorgan Chase uses fair value hedges primarily to hedge fixed-rate long-term debt, AFS securities and certain commodities inventories. For qualifying fair value hedges, the changes in the fair value of the derivative, and in the value of the hedged item, for the risk being hedged, are recognized in earnings. If the hedge relationship is terminated, then the fair value adjustment to the hedged item continues to be reported as part of the basis of the hedged item and for interest-bearing instruments is amortized to earnings as a yield adjustment. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item - primarily net interest income and principal transactions revenue.

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

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

## Notional amount of derivative contracts

The following table summarizes the notional amount of derivative contracts outstanding as of December 31, 2011 and 2010.

|  | Notional amounts |  |
| :--- | ---: | ---: |
| (a) |  |  |
| December 31, (in billions) | $\mathbf{2 0 1 1}$ | 2010 |
| Interest rate contracts | $\mathbf{3 8 , 7 0 4}$ | $\mathbf{\$}$ |
| Swaps | 46,299 |  |
| Futures and forwards | $\mathbf{7 , 8 8 8}$ | 9,298 |
| Written options | $\mathbf{3 , 8 4 2}$ | 4,075 |
| Purchased options | $\mathbf{4 , 0 2 6}$ | 3,968 |
| Total interest rate contracts | $\mathbf{5 4 , 4 6 0}$ | 63,640 |
| Credit derivatives | $\mathbf{5 , 7 7 4}$ | 5,472 |
| Foreign exchange contracts |  |  |
| Cross-currency swaps | $\mathbf{2 , 9 3 1}$ | 2,568 |
| Spot, futures and forwards | $\mathbf{4 , 5 1 2}$ | 3,893 |
| Written options | $\mathbf{6 7 4}$ | 674 |
| Purchased options | $\mathbf{6 7 0}$ | 649 |
| Total foreign exchange contracts | $\mathbf{8 , 7 8 7}$ | 7,784 |
| Equity contracts |  |  |
| Swaps | $\mathbf{1 1 9}$ | 116 |
| Futures and forwards | 38 | 49 |
| Written options | $\mathbf{4 6 0}$ | 430 |
| Purchased options | $\mathbf{4 0 5}$ | 377 |
| Total equity contracts | $\mathbf{1 , 0 2 2}$ | 972 |
| Commodity contracts |  |  |
| Swaps | $\mathbf{3 4 1}$ | 349 |
| Spot, futures and forwards | $\mathbf{1 8 8}$ | 170 |
| Written options | $\mathbf{3 1 0}$ | 264 |
| Purchased options | $\mathbf{2 7 4}$ | 254 |
| Total commodity contracts | $\mathbf{1 , 1 1 3}$ | 1,037 |
| Total derivative notional amounts | $\mathbf{7 1 , 1 5 6}$ | $\mathbf{7 8 , 9 0 5}$ |
| a |  |  |

(a) Represents the sum of gross long and gross short third-party notional derivative contracts.

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

## Notes to consolidated financial statements

Impact of derivatives on the Consolidated Balance Sheets
The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Firm's Consolidated Balance Sheets as of December 31, 2011 and 2010, by accounting designation (e.g., whether the derivatives were designated as hedges or not) and contract type.

Free-standing derivative receivables and payables ${ }^{(\mathrm{a})}$

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


|  | Gross derivative receivables |  |  |  |  | Net derivative receivables |  | Gross derivative payables |  |  |  |  | Net derivative payables |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, 2010 (in millions) | Not designated as hedges | Designated as hedges |  |  | Total derivative receivables |  |  |  | Not designated as hedges | Designated as hedges |  | Total derivative payables |  |  |
| Trading assets and liabilities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest rate | \$ 1,121,703 | \$ | 6,279 | \$ | 1,127,982 | \$ | 32,555 |  | 1,089,604 | \$ 840 | \$ | 1,090,444 | \$ | 20,387 |
| Credit | 129,729 |  | - |  | 129,729 |  | 7,725 |  | 125,061 | - |  | 125,061 |  | 5,138 |
| Foreign exchange ${ }^{(b)}$ | 165,240 |  | 3,231 |  | 168,471 |  | 25,858 |  | 163,671 | 1,059 |  | 164,730 |  | 25,015 |
| Equity | 43,633 |  | - |  | 43,633 |  | 4,204 |  | 46,399 | - |  | 46,399 |  | 10,450 |
| Commodity | 59,573 |  | 24 |  | 59,597 |  | 10,139 |  | 56,397 | 2,078 ${ }^{\text {(c) }}$ |  | 58,475 |  | 8,229 |
| Total fair value of trading assets and liabilities | \$ 1,519,878 | \$ | 9,534 | \$ | 1,529,412 | \$ | 80,481 |  | 1,481,132 | \$ 3,977 | \$ | 1,485,109 | \$ | 69,219 |

(a) Excludes structured notes for which the fair value option has been elected. See Note 4 on pages 198-200 of this Annual Report for further information.
(b) Excludes $\$ 11$ million and $\$ 21$ million of foreign currency-denominated debt designated as a net investment hedge at December 31, 2011 and 2010, respectively.
(c) Excludes $\$ 1.0$ billion related to commodity derivatives that were embedded in a debt instrument and used as fair value hedging instruments that were recorded in the line item of the host contract (other borrowed funds) at December 31, 2010.

## Impact of derivatives on the Consolidated Statements of Income

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, 2011, 2010 and 2009, respectively. The Firm includes gains/(losses) on the hedging derivative and the related hedged item in the same line item in the Consolidated Statements of Income.

| Year ended December 31, 2011 (in millions) | Gains/(losses) recorded in income |  |  |  |  |  | Income statement impact due to: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Derivatives |  | Hedged items |  | Total income statement impact |  | Hedge ineffectiveness ${ }^{(\text {e) }}$ |  | Excluded components ${ }^{(f)}$ |  |
| Contract type |  |  |  |  |  |  |  |  |  |  |
| Interest rate ${ }^{(a)}$ | \$ | 558 | \$ | 6 | \$ | 564 | \$ | 104 | \$ | 460 |
| Foreign exchange ${ }^{(b)}$ |  | 5,684 ${ }^{\text {(d) }}$ |  | $(3,761)$ |  | 1,923 |  | - |  | 1,923 |
| Commodity ${ }^{(c)}$ |  | 1,784 |  | $(2,880)$ |  | $(1,096)$ |  | (10) |  | $(1,086)$ |
| Total | \$ | 8,026 | \$ | $(6,635)$ | \$ | 1,391 | \$ | 94 | \$ | 1,297 |


| Year ended December 31, 2010 (in millions) | Gains/(losses) recorded in income |  |  |  |  |  | Income statement impact due to: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Derivatives |  | Hedged items |  | Total income statement impact |  | Hedge <br> ineffectiveness ${ }^{(\text {e) }}$ |  | $\begin{gathered} \text { Excluded } \\ \text { components }{ }^{(f)} \end{gathered}$ |  |
| Contract type |  |  |  |  |  |  |  |  |  |  |
| Interest rate ${ }^{(a)}$ | \$ | 1,066 | \$ | (454) | \$ | 612 | \$ | 172 | \$ | 440 |
| Foreign exchange ${ }^{(b)}$ |  | 1,357 (d) |  | $(1,812)$ |  | (455) |  | - |  | (455) |
| Commodity ${ }^{\text {c }}$ |  | $(1,354)$ |  | 1,882 |  | 528 |  | - |  | 528 |
| Total | \$ | 1,069 | \$ | (384) | \$ | 685 | \$ | 172 | \$ | 513 |


| Year ended December 31, 2009 (in millions) | Gains/(losses) recorded in income |  |  |  |  |  | Income statement impact due to: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Derivatives |  | Hedged items |  | Total income statement impact |  | Hedge ineffectiveness ${ }^{(e)}$ |  | Excluded components ${ }^{(f)}$ |  |
| Contract type |  |  |  |  |  |  |  |  |  |  |
| Interest rate ${ }^{(a)}$ | \$ | $(3,830)$ | \$ | 4,638 | \$ | 808 | \$ | (466) | \$ | 1,274 |
| Foreign exchange ${ }^{(b)}$ |  | $(1,421)^{(d)}$ |  | 1,445 |  | 24 |  | - |  | 24 |
| Commodity ${ }^{\text {c }}$ ) |  | (430) |  | 399 |  | (31) |  | - |  | (31) |
| Total | \$ | $(5,681)$ | \$ | 6,482 | \$ | 801 | \$ | (466) | \$ | 1,267 |

[^1]
## Notes to consolidated financial statements

## Cash flow hedge gains and losses

The following tables present derivative instruments, by contract type, used in cash flow hedge accounting relationships, and the pretax gains/(losses) recorded on such derivatives, for the years ended December 31, 2011, 2010 and 2009, respectively. The Firm includes the gain/(loss) on the hedging derivative in the same line item as the offsetting change in cash flows on the hedged item in the Consolidated Statements of Income.

| Year ended December 31, 2011 (in millions) | Gains/(losses) recorded in income and other comprehensive income/(loss) ${ }^{\text {(c) }}$ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Derivatives effective portion reclassified from AOCI to income |  | Hedge ineffectiveness recorded directly in income ${ }^{(d)}$ |  | Total income statement impact |  | Derivatives effective portion recorded in OCl |  | $\begin{aligned} & \text { Total change } \\ & \text { in OCI } \\ & \text { for period } \end{aligned}$ |  |  |
| Contract type |  |  |  |  |  |  |  |  |  |  |  |
| Interest rate ${ }^{(a)}$ | \$ | 310 | \$ | 19 | \$ | 329 | \$ | 107 | \$ |  | (203) |
| Foreign exchange ${ }^{(b)}$ |  | (9) |  | - |  | (9) |  | (57) |  |  | (48) |
| Total | \$ | 301 | \$ | 19 | \$ | 320 | \$ | 50 | \$ |  | (251) |


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


| Year ended December 31, 2009 (in millions) | Gains/(losses) recorded in income and other comprehensive income/(loss) ${ }^{\text {(c) }}$ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Derivatives effective portion reclassified from AOCI to income |  | Hedge ineffectiveness recorded directly in income ${ }^{(d)}$ |  | Total income statement impact |  | Derivatives effective portion recorded in OCI |  | ```Total change in OCl for period``` |  |  |
| Contract type |  |  |  |  |  |  |  |  |  |  |  |
| Interest rate ${ }^{\text {(a) }}$ | \$ | (158) | \$ | (62) | \$ | (220) | \$ | 61 | \$ |  | 219 |
| Foreign exchange ${ }^{(b)}$ |  | 282 |  | - |  | 282 |  | 706 |  |  | 424 |
| Total | \$ | 124 | \$ | (62) | \$ | 62 | \$ | 767 | \$ |  | 643 |

(a) Primarily consists of benchmark interest rate hedges of LIBOR-indexed floating-rate assets and floating-rate liabilities. Gains and losses were recorded in net interest income.
(b) Primarily consists of hedges of the foreign currency risk of non-U.S. dollar-denominated revenue and expense. The income statement classification of gains and losses follows the hedged item - primarily net interest income, noninterest revenue and compensation expense.
(c) The Firm did not experience any forecasted transactions that failed to occur for the years ended December 31, 2011 and 2009. In 2010, the Firm reclassified a $\$ 25$ million loss from AOCI to earnings because the Firm determined that it was probable that forecasted interest payment cash flows related to certain wholesale deposits would not occur.
(d) Hedge ineffectiveness is the amount by which the cumulative gain or loss on the designated derivative instrument exceeds the present value of the cumulative expected change in cash flows on the hedged item attributable to the hedged risk.

Over the next 12 months, the Firm expects that $\$ 26$ million (after-tax) of net gains recorded in AOCI at December 31, 2011, 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, 2011, 2010 and 2009.

| Year ended December 31, (in millions) | Gains/(losses) recorded in income and other comprehensive income/(loss) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  |  |  | 2010 |  |  |  | 2009 |  |  |  |
|  | Excluded components recorded directly in income ${ }^{\text {(a) }}$ |  | Effective portion recorded in OCl |  | Excluded components recorded directly in income ${ }^{(a)}$ |  | Effective portion recorded in OCl |  | Excluded components recorded directly in income ${ }^{(\mathrm{a})}$ |  | $\begin{aligned} & \text { Effective } \\ & \text { portion } \\ & \text { recorded in } \mathrm{OCl} \end{aligned}$ |  |
| Contract type |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign exchange derivatives | \$ | (251) | \$ | 225 | \$ | (139) | \$ | (30) | \$ | (112) | \$ | (259) |
| Foreign currency denominated debt |  | - |  | 1 |  | - |  | 41 |  | NA |  | NA |
| Total | \$ | (251) | \$ | 226 | \$ | (139) | \$ | 11 | \$ | (112) | \$ | (259) |

(a) Certain components of hedging derivatives are permitted to be excluded from the assessment of hedge effectiveness, such as forward points on foreign exchange forward contracts. Amounts related to excluded components are recorded in current-period income. The Firm measures the ineffectiveness of net investment hedge accounting relationships based on changes in spot foreign currency rates, and therefore there was no ineffectiveness for net investment hedge accounting relationships during 2011, 2010 and 2009.

## Risk management derivatives gains and losses (not

 designated as hedging instruments)The following table presents nontrading derivatives, by contract type, that were not designated in hedge relationships, and the pretax gains/(losses) recorded on such derivatives for the years ended December 31, 2011, 2010 and 2009. These derivatives are risk management instruments used to mitigate or transform market risk exposures arising from banking activities other than trading activities, which are discussed separately below.

| Year ended December 31, (in millions) | Derivatives gains/(losses) recorded in income |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2009 |  |
| Contract type |  |  |  |  |  |  |
| Interest rate ${ }^{(a)}$ | \$ | 8,084 | \$ | 4,987 | \$ | $(3,113)$ |
| Credit ${ }^{\text {(b) }}$ |  | (52) |  | (237) |  | $(3,222)$ |
| Foreign exchange ${ }^{(c)}$ |  | (157) |  | (64) |  | (197) |
| Equity ${ }^{\text {(b) }}$ |  | - |  | - |  | (8) |
| Commodity ${ }^{\text {(b) }}$ |  | 41 |  | (48) |  | (50) |
| Total | \$ | 7,916 | \$ | 4,638 | \$ | $(6,590)$ |

(a) Gains and losses were recorded in principal transactions revenue, mortgage fees and related income, and net interest income.
(b) Gains and losses were recorded in principal transactions revenue.
(c) Gains and losses were recorded in principal transactions revenue and net interest income.

## Trading derivative gains and losses

The Firm has elected to present derivative gains and losses related to its trading activities together with the nonderivative instruments with which they are risk managed. All amounts are recorded in principal transactions revenue in the Consolidated Statements of Income for the years ended December 31, 2011, 2010 and 2009. The amounts below do not represent a comprehensive view of the Firm's trading activities because they do not include certain revenue associated with those activities, including net interest income earned on cash instruments used in trading activities and gains and losses on cash instruments that are risk managed without derivative instruments.

|  | Gains/(losses) recorded in principal <br> transactions revenue |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Year ended December 31, <br> (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |  |
| Type of instrument |  |  |  |  |
| Interest rate | $\mathbf{\$ 1 , 5 3 1 )} \$$ | $(683) \$$ | 4,375 |  |
| Credit | $\mathbf{3 , 3 4 6}$ | 4,636 | 5,022 |  |
| Foreign exchange | $\mathbf{1 , 2 1 6}$ | 1,854 | 2,583 |  |
| Equity | $\mathbf{1 , 9 5 6}$ | 1,827 | 1,475 |  |
| Commodity | $\mathbf{3 , 6 9 7}$ | 243 | 1,329 |  |
| Total | $\mathbf{8}, \mathbf{6 8 4}$ | $\$$ | $\mathbf{7 , 8 7 7}$ | $\$$ |

## Credit risk, liquidity risk and credit-related contingent features

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

## Notes to consolidated financial statements

While derivative receivables expose the Firm to credit risk, derivative payables expose the Firm to liquidity risk, as the derivative contracts typically require the Firm to post cash or securities collateral with counterparties as the mark-tomarket ("МТМ") of the contracts moves in the counterparties' favor, or upon specified downgrades in the Firm's and its subsidiaries' respective credit ratings. Certain derivative contracts also provide for termination of the contract, generally upon a downgrade of either the Firm or
the counterparty, at the fair value of the derivative contracts. The following table shows the aggregate fair value of net derivative payables that contain contingent collateral or termination features that may be triggered upon a downgrade and the associated collateral the Firm has posted in the normal course of business at December 31, 2011 and 2010.

## Derivative payables containing downgrade triggers

| December 31, (in millions) | $\mathbf{2 0 1 1}$ | 2010 |  |
| :--- | ---: | ---: | ---: |
| Aggregate fair value of net derivative payables | $\mathbf{1 6 , 9 3 7}$ | $\$$ | 19,777 |
| Collateral posted | $\mathbf{1 1 , 4 2 9}$ | $\mathbf{1 4 , 6 2 9}$ |  |

The following table shows the impact of a single-notch and two-notch ratings downgrade to JPMorgan Chase \& Co. and its subsidiaries, primarily JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A.") at December 31, 2011 and 2010, related to derivative contracts with contingent collateral or termination features that may be triggered upon a downgrade.

## Liquidity impact of derivative downgrade triggers

| December 31, (in millions) | 2011 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single-notch downgrade |  | Two-notch downgrade |  | Single-notch downgrade |  | Two-notch downgrade |  |
| Amount of additional collateral to be posted | \$ | 1,460 | \$ | 2,054 | \$ | 1,904 | \$ | 3,462 |
| Amount required to settle contracts with termination triggers |  | 1,054 |  | 1,923 |  | 430 |  | 994 |

The following tables show the carrying value of derivative receivables and payables after netting adjustments and adjustments for collateral held and transferred as of December 31, 2011 and 2010.
Impact of netting adjustments on derivative receivables and payables

| December 31, (in millions) | Derivative receivables |  |  |  | Derivative payables |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2011 |  | 2010 |  | 2011 |  | 2010 |
| Gross derivative fair value | \$ | 1,884,499 | \$ | 1,529,412 | \$ | 1,837,256 | \$ | 1,485,109 |
| Netting adjustment - offsetting receivables/payables ${ }^{(2)}$ |  | $(1,710,525)$ |  | $(1,376,969)$ |  | $(1,710,523)$ |  | $(1,376,969)$ |
| Netting adjustment - cash collateral received/paid ${ }^{(a)}$ |  | $(81,497)$ |  | $(71,962)$ |  | $(51,756)$ |  | $(38,921)$ |
| Carrying value on Consolidated Balance Sheets | \$ | 92,477 | \$ | 80,481 | \$ | 74,977 | \$ | 69,219 |

## Total derivative collateral

| December 31, (in millions) | Collateral held |  |  |  | Collateral transferred |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2011 |  | 2010 |  | 2011 |  | 2010 |
| Netting adjustment for cash collateral ${ }^{(a)}$ | \$ | 81,497 | \$ | 71,962 | \$ | 51,756 | \$ | 38,921 |
| Liquid securities and other cash collateral ${ }^{(b)}$ |  | 21,807 |  | 16,486 |  | 19,439 |  | 10,899 |
| Additional liquid securities and cash collateral ${ }^{(c)}$ |  | 17,615 |  | 18,048 |  | 10,824 |  | 8,435 |
| Total collateral for derivative transactions | \$ | 120,919 | \$ | 106,496 | \$ | 82,019 | \$ | 58,255 |

(a) As permitted under U.S. GAAP, the Firm has elected to net cash collateral received and paid together with the related derivative receivables and derivative payables when a legally enforceable master netting agreement exists.
(b) Represents cash collateral received and paid that is not subject to a legally enforceable master netting agreement, and liquid securities collateral held and transferred.
(c) Represents liquid securities and cash collateral held and transferred at the initiation of derivative transactions, which is available as security against potential exposure that could arise should the fair value of the transactions move, as well as collateral held and transferred related to contracts that have non-daily call frequency for collateral to be posted, and collateral that the Firm or a counterparty has agreed to return but has not yet settled as of the reporting date. These amounts were not netted against the derivative receivables and payables in the tables above, because, at an individual counterparty level, the collateral exceeded the fair value exposure at both December 31, 2011 and 2010.

## Credit derivatives

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

The Firm is both a purchaser and seller of protection in the credit derivatives market and uses these derivatives for two primary purposes. First, in its capacity as a market-maker in the dealer/client business, the Firm actively risk manages a portfolio of credit derivatives by purchasing and selling credit protection, predominantly on corporate debt obligations, to meet the needs of customers. As a seller of protection, the Firm's exposure to a given reference entity may be offset partially, or entirely, with a contract to purchase protection from another counterparty on the same or similar reference entity. Second, the Firm uses credit derivatives to mitigate credit risk associated with its overall derivative receivables and traditional commercial credit lending exposures (loans and unfunded commitments) as well as to manage its exposure to residential and commercial mortgages. In accomplishing the above, the Firm uses different types of credit derivatives. Following is a summary of various types of credit derivatives.

## Credit default swaps

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

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

## Credit-related notes

A credit-related note is a funded credit derivative where the issuer of the credit-related note purchases from the note investor credit protection on a referenced entity. Under the contract, the investor pays the issuer the par value of the note at the inception of the transaction, and in return, the issuer pays periodic payments to the investor, based on the credit risk of the referenced entity. The issuer also repays the investor the par value of the note at maturity unless the reference entity experiences a specified credit event. If a credit event occurs, the issuer is not obligated to repay the par value of the note, but rather, the issuer pays the investor the difference between the par value of the note and the fair value of the defaulted reference obligation at the time of settlement. Neither party to the credit-related note has recourse to the defaulting reference entity. For a further discussion of credit-related notes, see Note 16 on pages 256-267 of this Annual Report.
The following tables present a summary of the notional amounts of credit derivatives and credit-related notes the Firm sold and purchased as of December 31, 2011 and 2010. Upon a credit event, the Firm as a seller of protection would typically pay out only a percentage of the full notional amount of net protection sold, as the amount actually required to be paid on the contracts takes into account the recovery value of the reference obligation at the time of settlement. The Firm manages the credit risk on contracts to sell protection by purchasing protection with identical or similar underlying reference entities. Other purchased protection referenced in the following tables includes credit derivatives bought on related, but not identical, reference positions (including indices, portfolio coverage and other reference points) as well as protection purchased through credit-related notes.

## Notes to consolidated financial statements

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

## Total credit derivatives and credit-related notes

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


| December 31, 2010 (in millions) | Maximum payout/Notional amount |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Protection sold |  | Protection purchased with identical underlyings ${ }^{(b)}$ |  | Net protection (sold)/purchased ${ }^{(c)}$ |  | Other protection purchased ${ }^{(d)}$ |  |
| Credit derivatives |  |  |  |  |  |  |  |  |
| Credit default swaps | \$ | $(2,659,240)$ | \$ | 2,652,313 | \$ | $(6,927)$ | \$ | 32,867 |
| Other credit derivatives ${ }^{(\mathrm{a})}$ |  | $(93,776)$ |  | 10,016 |  | $(83,760)$ |  | 24,234 |
| Total credit derivatives |  | $(2,753,016)$ |  | 2,662,329 |  | $(90,687)$ |  | 57,101 |
| Credit-related notes |  | $(2,008)$ |  | - |  | $(2,008)$ |  | 3,327 |
| Total | \$ | $(2,755,024)$ | \$ | 2,662,329 | \$ | $(92,695)$ | \$ | 60,428 |

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

The following tables summarize the notional and fair value amounts of credit derivatives and credit-related notes as of December 31, 2011 and 2010, where JPMorgan Chase is the seller of protection. The maturity profile is based on the remaining contractual maturity of the credit derivative contracts. The ratings profile is based on the rating of the reference entity on which the credit derivative contract is based. The ratings and maturity profile of credit derivatives and credit-related notes where JPMorgan Chase is the purchaser of protection are comparable to the profile reflected below.

## Protection sold - credit derivatives and credit-related notes ratings ${ }^{(a)} /$ maturity profile

| December 31, 2011 (in millions) | <1 year |  | 1-5 years |  | $>5$ years |  | Total notional amount |  | Fair value ${ }^{(b)}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Risk rating of reference entity |  |  |  |  |  |  |  |  |  |  |
| Investment-grade | \$ | $(352,215)$ | \$ | $(1,262,143)$ | \$ | $(345,996)$ | \$ | $(1,960,354)$ | \$ | $(57,697)$ |
| Noninvestment-grade |  | $(241,823)$ |  | $(589,954)$ |  | $(127,814)$ |  | $(959,591)$ |  | $(85,304)$ |
| Total | \$ | $(594,038)$ | \$ | $(1,852,097)$ | \$ | $(473,810)$ | \$ | (2,919,945) | \$ | $(143,001)$ |


|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, 2010 (in millions) | $<1$ year | $1-5$ years | $>5$ years | notional amount | Fair value ${ }^{(\text {b) }}$ |  |
| Risk rating of reference entity |  |  |  |  |  |  |
| Investment-grade | $\$$ | $(175,618) \$$ | $(1,194,695) \$$ | $(336,309) \$$ | $(1,706,622) \$$ |  |
| Noninvestment-grade |  | $(148,434)$ | $(702,638)$ | $(197,330)$ | $(1,048,402)$ | $(59,939)$ |
| Total | $\$$ | $(324,052) \$$ | $(1,897,333) \$$ | $(533,639) \$$ | $(2,755,024) \$$ | $(77,200)$ |

[^2]
## Note 7 - Noninterest revenue

## Investment banking fees

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

| Year ended December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Underwriting |  |  |  |  |  |  |
| Equity | \$ | 1,181 | \$ | 1,589 | \$ | 2,487 |
| Debt |  | 2,934 |  | 3,172 |  | 2,739 |
| Total underwriting |  | 4,115 |  | 4,761 |  | 5,226 |
| Advisory ${ }^{(a)}$ |  | 1,796 |  | 1,429 |  | 1,861 |
| Total investment banking fees | \$ | 5,911 | \$ | 6,190 | \$ | 7,087 |

(a) Effective January 1, 2010, the Firm adopted accounting guidance related to VIEs. Upon adoption of the guidance, the Firm consolidated its Firm-administered multi-seller conduits. The consolidation of the conduits did not significantly change the Firm's net income as a whole; however, certain advisory fees considered inter-company were eliminated while net interest income and lending-and-deposit-related fees increased.

## Principal transactions

Principal transactions revenue consists of trading revenue as well as realized and unrealized gains and losses on private equity investments. Trading revenue is driven by the Firm's client market-making and client driven activities as well as certain risk management activities.
The spread between the price at which the Firm buys and sells financial instruments and physical commodities inventories to and from its clients and other market-makers is recognized as trading revenue. Trading revenue also includes unrealized gains and losses on financial instruments (including those for which the fair value option was elected) and unrealized losses on physical commodities inventories (generally carried at the lower of cost or fair value) that the Firm holds in inventory as a market-maker to meet client needs, or for risk management purposes.
The following table presents principal transactions revenue by major underlying type of risk exposures. This table does not include other types of revenue, such as net interest income on trading assets, which are an integral part of the overall performance of the Firm's client-driven trading activities.

| Year ended December 31, (in millions) |  | 2011 |  | 2010 | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Trading revenue by risk exposure |  |  |  |  |  |  |
| Interest rate | \$ | (873) | \$ | (199) | \$ | 3,681 |
| Credit |  | 3,393 |  | 4,543 |  | 546 |
| Foreign exchange |  | 1,154 |  | 1,896 |  | 2,317 |
| Equity |  | 2,401 |  | 2,275 |  | 2,056 |
| Commodity ${ }^{(\mathrm{a})}$ |  | 2,823 |  | 889 |  | 1,270 |
| Total trading revenue |  | 8,898 |  | 9,404 |  | 9,870 |
| Private equity gains/(losses) ${ }^{(b)}$ |  | 1,107 |  | 1,490 |  | (74) |
| Principal transactions ${ }^{(c)}$ | \$ | 10,005 | \$ | 10,894 | \$ | 9,796 |

(a) Includes realized gains and losses and unrealized losses on physical commodities inventories that are generally carried at the lower of cost or fair value, and gains and losses on commodity derivatives and other financial instruments that are carried at fair value through income. Commodity derivatives are frequently used to manage the Firm's risk exposure to its physical commodities inventories.
(b) Includes revenue on private equity investments held in the Private Equity business within Corporate/Private Equity, as well as those held in other business segments.
(c) Principal transactions included DVA related to derivatives and structured liabilities measured at fair value in IB. DVA gains/(losses) were $\$ 1.4$ billion, $\$ 509$ million, and $\$(2.3)$ billion for the years ended December 31, 2011, 2010 and 2009, respectively.

## Lending- and deposit-related fees

This revenue category includes fees from loan commitments, standby letters of credit, financial guarantees, deposit-related fees in lieu of compensating balances, cash management-related activities or transactions, deposit accounts and other Ioan-servicing activities. These fees are recognized over the period in which the related service is provided.
Asset management, administration and commissions This revenue category includes fees from investment management and related services, custody, brokerage services, insurance premiums and commissions, and other products. These fees are recognized over the period in which the related service is provided. Performance-based fees, which are earned based on exceeding certain benchmarks or other performance targets, are accrued and recognized at the end of the performance period in which the target is met.
The following table presents components of asset management, administration and commissions.

Year ended December 31,

| (in millions) |  | 2011 |  | 2010 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Asset management |  |  |  |  |  |  |
| Investment management fees | \$ | 6,085 | \$ | 5,632 | \$ | 4,997 |
| All other asset management fees |  | 605 |  | 496 |  | 356 |
| Total asset management fees |  | 6,690 |  | 6,128 |  | 5,353 |
| Total administration fees ${ }^{(a)}$ |  | 2,171 |  | 2,023 |  | 1,927 |
| Commission and other fees |  |  |  |  |  |  |
| Brokerage commissions |  | 2,753 |  | 2,804 |  | 2,904 |
| All other commissions and fees |  | 2,480 |  | 2,544 |  | 2,356 |
| Total commissions and fees |  | 5,233 |  | 5,348 |  | 5,260 |
| Total asset management, administration and commissions | \$ | 14,094 | \$ | 13,499 | \$ | 12,540 |

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

## Notes to consolidated financial statements

## Mortgage fees and related income

This revenue category primarily reflects RFS's mortgage production and 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 RFS mortgage servicing rights are reported in mortgage fees and related income. Net interest income from mortgage loans, and securities gains and losses on AFS securities used in mortgage-related risk management activities, are recorded in interest income and securities gains/(losses), respectively. For a further discussion of MSRs, see Note 17 on pages 267-271 of this Annual Report.

## Credit card income

This revenue category includes interchange income from credit and debit cards and net fees earned from processing credit card transactions for merchants. Prior to 2010, this revenue category included servicing fees earned in connection with securitization activities; such fees have been eliminated in consolidation since January 1, 2010, when the Firm consolidated its Firm-sponsored credit card securitization trusts (see Note 16 on pages 256-267 of this Annual Report). Credit card income is recognized as earned. Annual fees and direct loan origination costs are deferred and recognized on a straight-line basis over a 12-month period. Expense related to rewards programs is recorded when the rewards are earned by the customer and netted against interchange income.

## Credit card revenue sharing agreements

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

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

## Note 8 - Interest income and Interest expense

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

Details of interest income and interest expense were as follows.

| Year ended December 31, (in millions) |  | 2011 |  | 2010 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest income |  |  |  |  |  |  |
| Loans | \$ | 37,098 | \$ | 40,388 | \$ | 38,704 |
| Securities |  | 9,215 |  | 9,540 |  | 12,377 |
| Trading assets |  | 11,142 |  | 11,007 |  | 12,098 |
| Federal funds sold and securities purchased under resale agreements |  | 2,523 |  | 1,786 |  | 1,750 |
| Securities borrowed |  | 110 |  | 175 |  | 4 |
| Deposits with banks |  | 599 |  | 345 |  | 938 |
| Other assets ${ }^{(a)}$ |  | 606 |  | 541 |  | 479 |
| Total interest income ${ }^{\text {(b) }}$ |  | 61,293 |  | 63,782 |  | 66,350 |
| Interest expense |  |  |  |  |  |  |
| Interest-bearing deposits |  | 3,855 |  | 3,424 |  | 4,826 |
| Short-term and other liabilities ${ }^{(c)(d)}$ |  | 2,873 |  | 2,364 |  | 2,786 |
| Long-term debt ${ }^{(d)}$ |  | 6,109 |  | 5,848 |  | 7,368 |
| Beneficial interests issued by consolidated VIEs |  | 767 |  | 1,145 |  | 218 |
| Total interest expense ${ }^{(b)}$ |  | 13,604 |  | 12,781 |  | 15,198 |
| Net interest income |  | 47,689 |  | 51,001 |  | 51,152 |
| Provision for credit losses |  | 7,574 |  | 16,639 |  | 32,015 |
| Net interest income after provision for credit losses | \$ | 40,115 | \$ | 34,362 | \$ | 19,137 |

(a) Predominantly margin loans.
(b) Effective January 1, 2010, the Firm adopted accounting guidance related to VIEs. Upon the adoption of the guidance, the Firm consolidated its Firm-sponsored credit card securitization trusts, its Firm-administered multi-seller conduits and certain other consumer loan securitization entities, primarily mortgage-related. The consolidation of these VIEs did not significantly change the Firm's total net income. However, it did affect the classification of items on the Firm's Consolidated Statements of Income; as a result of the adoption of the guidance, certain noninterest revenue was eliminated in consolidation, offset by the recognition of interest income, interest expense, and provision for credit losses.
(c) Includes brokerage customer payables.
(d) Effective January 1, 2011, the long-term portion of advances from FHLBs was reclassified from other borrowed funds to long-term debt. The related interest expense for the prior-year period has also been reclassified to conform with the current presentation.

## Note 9 - Pension and other postretirement employee benefit plans

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

## Defined benefit pension plans

The Firm has a qualified noncontributory U.S. defined benefit pension plan that provides benefits to substantially all U.S. employees. The U.S. plan employs a cash balance formula in the form of pay and interest credits to determine the benefits to be provided at retirement, based on eligible compensation and years of service. Employees begin to accrue plan benefits after completing one year of service, and benefits generally vest after three years of service. In November 2009, the Firm announced certain changes to the pay credit schedule and amount of eligible compensation recognized under the U.S. plan effective February 1, 2010. The Firm also offers benefits through defined benefit pension plans to qualifying employees in certain non-U.S. locations based on factors such as eligible compensation, age and/or years of service.
It is the Firm's policy to fund the pension plans in amounts sufficient to meet the requirements under applicable laws. On January 15, 2009, and August 28, 2009, the Firm made discretionary cash contributions to its U.S. defined benefit pension plan of $\$ 1.3$ billion and $\$ 1.5$ billion, respectively. The Firm does not anticipate any contribution to the U.S. defined benefit pension plan in 2012 at this time. The 2012 contributions to the non-U.S. defined benefit pension plans are expected to be $\$ 49$ million of which $\$ 37$ million are contractually required.

JPMorgan Chase also has a number of defined benefit pension plans not subject to Title IV of the Employee Retirement Income Security Act. The most significant of these plans is the Excess Retirement Plan, pursuant to which certain employees earn pay and interest credits on compensation amounts above the maximum stipulated by law under a qualified plan. The Firm announced that, effective May 1,2009 , pay credits would no longer be provided on compensation amounts above the maximum stipulated by law. The Excess Retirement Plan had an unfunded projected benefit obligation in the amount of $\$ 272$ million and $\$ 266$ million, at December 31, 2011 and 2010, respectively.

## Defined contribution plans

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

The Firm matched eligible employee contributions up to 5\% of benefits-eligible compensation (e.g., base pay) on a per pay period basis through April 30, 2009; commencing May 1, 2009 matching contributions are made annually. 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 are immediately vested for employees hired before May 1, 2009, and will vest after three years of service for employees hired on or after May 1, 2009. The 401(k) Savings Plan also permits discretionary profitsharing contributions by participating companies for certain employees, subject to a specified vesting schedule.

Effective August 10, 2009, JPMorgan Chase Bank, N.A. became the sponsor of the WaMu Savings Plan and that plan's assets were merged into the 401(k) Savings Plan effective March 31, 2010.

## OPEB plans

JPMorgan Chase offers postretirement medical and life insurance benefits to certain retirees and postretirement medical benefits to qualifying U.S. employees. These benefits vary with length of service and date of hire and provide for limits on the Firm's share of covered medical benefits. The medical and life insurance benefits are both contributory. Postretirement medical benefits also are offered to qualifying U.K. employees.
JPMorgan Chase's U.S. OPEB obligation is funded with corporate-owned life insurance ("COLI") purchased on the lives of eligible employees and retirees. While the Firm owns the COLI policies, COLI proceeds (death benefits, withdrawals and other distributions) may be used only to reimburse the Firm for its net postretirement benefit claim payments and related administrative expense. The U.K. OPEB plan is unfunded.

## Notes to consolidated financial statements

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

| As of or for the year ended December 31, (in millions) | Defined benefit pension plans |  |  |  |  |  |  |  |  | OPEB plans ${ }^{(f)}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. |  |  |  | Non-U.S. |  |  |  |  |  |  |  |
|  | 2011 |  | 2010 |  | 2011 |  |  | 2010 |  | 2011 | 2010 |  |
| Change in benefit obligation |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefit obligation, beginning of year | \$ $(8,320)$ |  | \$ | $(7,977)$ |  | \$ | $(2,600)$ | \$ | $(2,536)$ | \$ (980) | \$ | $(1,025)$ |
| Benefits earned during the year | (249) |  |  | (230) |  |  | (36) |  | (30) | (1) |  | (2) |
| Interest cost on benefit obligations | (451) |  |  | (468) |  |  | (133) |  | (128) | (51) |  | (55) |
| Plan amendments | - |  |  | - |  |  | - |  | 10 | - |  | - |
| Business combinations | - |  |  | - |  |  | - |  | (12) ${ }^{(b)}$ | - |  | - |
| Employee contributions | NA |  |  | NA |  |  | (5) |  | (4) | (84) |  | (70) |
| Net gain/(loss) | (563) |  |  | (249) |  |  | (160) |  | (71) | (39) |  | 13 |
| Benefits paid | 540 |  |  | 604 |  |  | 93 |  | 96 | 166 |  | 168 |
| Expected Medicare Part D subsidy receipts | NA |  |  | NA |  |  | NA |  | NA | (10) |  | (10) |
| Curtailments | - |  |  | - |  |  | - |  | - | - |  | - |
| Settlements | - |  |  | - |  |  | - |  | 5 | - |  | - |
| Special termination benefits | - |  |  | - |  |  | - |  | (1) | - |  | - |
| Foreign exchange impact and other | - |  |  | - |  |  | 12 |  | 71 | - |  | 1 |
| Benefit obligation, end of year | \$ $(9,043)$ |  | \$ | $(8,320)$ |  | \$ | $(2,829)$ | \$ | $(2,600)$ | \$ (999) | \$ | (980) |
| Change in plan assets |  |  |  |  |  |  |  |  |  |  |  |  |
| Fair value of plan assets, beginning of year | \$ 10,828 |  |  | 10,218 |  | \$ | 2,647 | \$ | 2,432 | \$ 1,381 | \$ | 1,269 |
| Actual return on plan assets | 147 |  |  | 1,179 |  |  | 277 |  | 228 | 78 |  | 137 |
| Firm contributions | 37 |  |  | 35 |  |  | 169 |  | 157 | 2 |  | 3 |
| Employee contributions | - |  |  | - |  |  | 5 |  | 4 | - |  | - |
| Benefits paid | (540) |  |  | (604) |  |  | (93) |  | (96) | (26) |  | (28) |
| Settlements | - |  |  | - |  |  | - |  | (5) | - |  | - |
| Foreign exchange impact and other | - |  |  | - |  |  | (16) |  | (73) | - |  | - |
| Fair value of plan assets, end of year | \$ 10,472 | (c)(d) | \$ | 10,828 | (c)(d) | \$ | 2,989 | \$ | 2,647 ${ }^{\text {(d) }}$ | \$ 1,435 | \$ | 1,381 |
| Funded/(unfunded) status ${ }^{(a)}$ | \$ 1,429 | (e) | \$ | 2,508 | (e) | \$ | 160 | \$ | 47 | \$ 436 | \$ | 401 |
| Accumulated benefit obligation, end of year | \$ $(9,008)$ |  | \$ | $(8,271)$ |  | \$ | $(2,800)$ | \$ | $(2,576)$ | NA |  | NA |

(a) Represents overfunded plans with an aggregate balance of $\$ 2.6$ billion and $\$ 3.5$ billion at December 31, 2011 and 2010, respectively, and underfunded plans with an aggregate balance of $\$ 621$ million and $\$ 561$ million at December 31, 2011 and 2010, respectively.
(b) Represents change resulting from acquisition of RBS Sempra Commodities business in 2010.
(c) At December 31, 2011 and 2010, approximately $\$ 426$ million and $\$ 385$ million, respectively, of U.S. plan assets included participation rights under participating annuity contracts.
(d) At December 31, 2011 and 2010, defined benefit pension plan amounts not measured at fair value included $\$ 50$ million and $\$ 52$ million, respectively, of accrued receivables, and $\$ 245$ million and $\$ 187$ million, respectively, of accrued liabilities, for U.S. plans; and $\$ 56$ million and $\$ 9$ million, respectively, of accrued receivables, and at December 31, 2011, $\$ 69$ million of accrued liabilities, for non-U.S. plans.
(e) Does not include any amounts attributable to the Washington Mutual Qualified Pension plan. The disposition of this plan remained subject to litigation and was not determinable at December 31, 2011 and 2010.
(f) Includes an unfunded accumulated postretirement benefit obligation of $\$ 33$ million and $\$ 36$ million at December 31, 2011 and 2010, respectively, for the U.K. plan.

## Gains and losses

For the Firm's defined benefit pension plans, fair value is used to determine the expected return on plan assets. Amortization of net gains and losses is included in annual net periodic benefit cost if, as of the beginning of the year, the net gain or loss exceeds $10 \%$ of the greater of the projected benefit obligation or the fair value of the plan assets. Any excess is amortized over the average future service period of defined benefit pension plan participants, which for the U.S. defined benefit pension plan is currently nine years.

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

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

| December 31, <br> (in millions) | Defined benefit pension plans |  |  |  |  |  |  |  | OPEB plans |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | u.s. |  |  |  | Non-U.S. |  |  |  |  |  |  |  |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Net gain/(loss) | \$ | $(3,669)$ | \$ | $(2,627)$ | \$ | (544) | \$ | (566) | \$ | (176) | \$ | (119) |
| Prior service credit/(cost) |  | 278 |  | 321 |  | 12 |  | 13 |  | 1 |  | 9 |
| Accumulated other comprehensive income/(loss), pretax, end of year | \$ | $(3,391)$ | \$ | $(2,306)$ | \$ | (532) | \$ | (553) | \$ | (175) | \$ | (110) |

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

| Year ended December 31, (in millions) | Pension plans |  |  |  |  |  |  |  |  |  |  | OPEB plans |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. |  |  |  |  | Non-U.S. |  |  |  |  |  |  |  |  |  |  |  |
|  | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 | 2011 |  | 2010 |  | 2009 |  |
| Components of net periodic benefit cost |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits earned during the year | \$ 249 | \$ | 230 | \$ | 313 | \$ | 36 | \$ | 31 | \$ | 28 | \$ | 1 | \$ | 2 | \$ | 3 |
| Interest cost on benefit obligations | 451 |  | 468 |  | 514 |  | 133 |  | 128 |  | 122 |  | 51 |  | 55 |  | 65 |
| Expected return on plan assets | (791) |  | (742) |  | (585) |  | (141) |  | (126) |  | (115) |  | (88) |  | (96) |  | (97) |
| Amortization: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net (gain)/loss | 165 |  | 225 |  | 304 |  | 48 |  | 56 |  | 44 |  | 1 |  | (1) |  | - |
| Prior service cost/(credit) | (43) |  | (43) |  | 4 |  | (1) |  | (1) |  | - |  | (8) |  | (13) |  | (14) |
| Curtailment (gain)/loss | - |  | - |  | 1 |  | - |  | - |  | - |  | - |  | - |  | 5 |
| Settlement (gain)/loss | - |  | - |  | - |  | - |  | 1 |  | 1 |  | - |  | - |  | - |
| Special termination benefits | - |  | - |  | - |  | - |  | 1 |  | 1 |  | - |  | - |  | - |
| Net periodic defined benefit cost | 31 |  | 138 |  | 551 |  | 75 |  | 90 |  | 81 |  | (43) |  | (53) |  | (38) |
| Other defined benefit pension plans ${ }^{(a)}$ | 19 |  | 14 |  | 15 |  | 12 |  | 11 |  | 12 |  | NA |  | NA |  | NA |
| Total defined benefit plans | 50 |  | 152 |  | 566 |  | 87 |  | 101 |  | 93 |  | (43) |  | (53) |  | (38) |
| Total defined contribution plans | 370 |  | 332 |  | 359 |  | 285 |  | 251 |  | 226 |  | NA |  | NA |  | NA |
| Total pension and OPEB cost included in compensation expense | \$ 420 | \$ | 484 | \$ | 925 | \$ | 372 | \$ | 352 | \$ | 319 | \$ | (43) | \$ | (53) | \$ | (38) |
| Changes in plan assets and benefit obligations recognized in other comprehensive income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net (gain)/loss arising during the year | 1,207 |  | (187) |  | (168) |  | 25 |  | (21) |  | 183 |  | 58 |  | (54) |  | (176) |
| Prior service credit arising during the year | - |  | - |  | (384) |  | - |  | (10) |  | (1) |  | - |  | - |  | - |
| Amortization of net loss | (165) |  | (225) |  | (304) |  | (48) |  | (56) |  | (44) |  | (1) |  | 1 |  | - |
| Amortization of prior service (cost)/credit | 43 |  | 43 |  | (6) |  | 1 |  | 1 |  | - |  | 8 |  | 13 |  | 15 |
| Curtailment (gain)/loss | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 2 |
| Settlement loss/(gain) | - |  | - |  | - |  | - |  | (1) |  | (1) |  | - |  | - |  | - |
| Foreign exchange impact and other | - |  | - |  | 18 |  | 1 |  | (23) |  | 36 |  | - |  | 1 |  | (1) |
| Total recognized in other comprehensive income | 1,085 |  | (369) |  | (844) |  | (21) |  | (110) |  | 173 |  | 65 |  | (39) |  | (160) |
| Total recognized in net periodic benefit cost and other comprehensive income | \$ 1,116 | \$ | (231) | \$ | (293) | \$ | 54 | \$ | (20) | \$ | 254 | \$ | 22 | \$ | (92) | \$ | (198) |

[^3]
## Notes to consolidated financial statements

The estimated pretax amounts that will be amortized from AOCI into net periodic benefit cost in 2012 are as follows.

| (in millions) | Defined benefit pension plans |  |  |  | OPEB plans |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. |  | Non-U.S. |  | u.s. |  | Non-U.S. |  |
| Net loss | \$ | 287 | \$ | 36 | \$ | 7 | \$ | - |
| Prior service cost/(credit) |  | (41) |  | (1) |  | (1) |  | - |
| Total | \$ | 246 | \$ | 35 | \$ | 6 | \$ | - |

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

|  | U.S. |  |  | Non-U.S. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, | 2011 | 2010 | 2009 | 2011 | 2010 | 2009 |
| Actual rate of return: |  |  |  |  |  |  |
| Defined benefit pension plans | 0.72\% | 12.23\% | 13.78\% | (4.29)-13.12\% | 0.77-10.65\% | 3.17-22.43\% |
| OPEB plans | 5.22\% | 11.23\% | 15.93\% | NA | NA | NA |

## Plan assumptions

JPMorgan Chase's expected long-term rate of return for U.S. defined benefit pension and OPEB plan assets is a blended average of the investment advisor's projected long-term (10 years or more) returns for the various asset classes, weighted by the asset allocation. Returns on asset classes are developed using a forward-looking approach and are not strictly based on historical returns. Equity returns are generally developed as the sum of inflation, expected real earnings growth and expected long-term dividend yield. Bond returns are generally developed as the sum of inflation, real bond yield and risk spread (as appropriate), adjusted for the expected effect on returns from changing yields. Other asset-class returns are derived from their relationship to the equity and bond markets. Consideration is also given to current market conditions and the shortterm portfolio mix of each plan; as a result, in 2011 the Firm generally maintained the same expected return on assets as in the prior year.

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

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

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

Weighted-average assumptions used to determine benefit obligations

| December 31, | u.s. |  | Non-U.S. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2010 | 2011 | 2010 |
| Discount rate: |  |  |  |  |
| Defined benefit pension plans | 4.60\% | 5.50\% | 1.50-4.80\% | 1.60-5.50\% |
| OPEB plans | 4.70 | 5.50 | - | - |
| Rate of compensation increase | 4.00 | 4.00 | 2.75-4.20 | 3.00-4.50 |
| Health care cost trend rate: |  |  |  |  |
| Assumed for next year | 7.00 | 7.00 | - | - |
| Ultimate | 5.00 | 5.00 | - | - |
| Year when rate will reach ultimate | 2017 | 2017 | - | - |


| Year ended December 31, | U.S. |  |  | Non-U.S. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2010 | 2009 | 2011 | 2010 | 2009 |
| Discount rate: |  |  |  |  |  |  |
| Defined benefit pension plans | 5.50\% | 6.00\% | 6.65\% | 1.60-5.50\% | 2.00-5.70\% | 2.00-6.20\% |
| OPEB plans | 5.50 | 6.00 | 6.70 | - | - | - |
| Expected long-term rate of return on plan assets: |  |  |  |  |  |  |
| Defined benefit pension plans | 7.50 | 7.50 | 7.50 | 2.40-5.40 | 2.40-6.20 | 2.50-6.90 |
| OPEB plans | 6.25 | 7.00 | 7.00 | NA | NA | NA |
| Rate of compensation increase | 4.00 | 4.00 | 4.00 | 3.00-4.50 | 3.00-4.50 | 3.00-4.00 |
| Health care cost trend rate: |  |  |  |  |  |  |
| Assumed for next year | 7.00 | 7.75 | 8.50 | - | - | - |
| Ultimate | 5.00 | 5.00 | 5.00 | - | - | - |
| Year when rate will reach ultimate | 2017 | 2014 | 2014 | - | - | - |

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

| Year ended December 31, 2011(in <br> millions) | 1-Percentage <br> point <br> increase | 1-Percentage <br> point <br> decrease |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Effect on total service and interest cost | $\$$ | 1 | $\$$ | $(1)$ |
| Effect on accumulated postretirement <br> benefit obligation | 27 | (24) |  |  |

At December 31, 2011, the Firm decreased the discount rates used to determine its benefit obligations for the U.S. defined benefit pension and OPEB plans in light of current market interest rates, which will result in an increase in expense of approximately $\$ 47$ million for 2012. The 2012 expected long-term rate of return on U.S. defined benefit pension plan assets and U.S. OPEB plan assets are $7.50 \%$ and $6.25 \%$, respectively, unchanged from 2011. For 2012, the initial health care benefit obligation trend assumption will be set at $7.00 \%$, and the ultimate health care trend assumption and year to reach ultimate rate will remain at $5.00 \%$ and 2017 , respectively, unchanged from 2011. As of December 31, 2011, the assumed rate of compensation increase remained at $4.00 \%$. The 2012 interest crediting rate assumption will be set at $5.00 \%$, as compared to 5.25\% in 2011.

JPMorgan Chase's U.S. defined benefit pension and OPEB plan expense is sensitive to the expected long-term rate of return on plan assets and the discount rate. With all other assumptions held constant, a 25-basis point decline in the expected long-term rate of return on U.S. plan assets would result in an increase of approximately an aggregate \$29 million in 2012 U.S. defined benefit pension and OPEB plan expense. A 25 -basis point decline in the discount rate for the U.S. plans would result in an increase in 2012 U.S. defined benefit pension and OPEB plan expense of approximately an aggregate $\$ 17$ million and an increase in the related benefit obligations of approximately an aggregate $\$ 192$ million. A 25-basis point increase in the interest crediting rate for the U.S. defined benefit pension plan would result in an increase in 2012 U.S. defined
benefit pension expense of approximately $\$ 19$ million and an increase in the related projected benefit obligations of approximately $\$ 82$ million. A 25 -basis point decline in the discount rates for the non-U.S. plans would result in an increase in the 2012 non-U.S. defined benefit pension plan expense of approximately $\$ 11$ million.

## Investment strategy and asset allocation

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

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

## Notes to consolidated financial statements

The Firm regularly reviews the asset allocations and all factors that continuously impact the portfolio, which is rebalanced when deemed necessary.

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

Investments held by the Plans include financial instruments which are exposed to various risks such as interest rate, market and credit risks. Exposure to a concentration of credit risk is mitigated by the broad diversification of both U.S. and non-U.S. investment instruments. Additionally, the investments in each of the common/collective trust funds and registered investment companies are further diversified into various financial instruments. As of December 31, 2011, assets held by the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans do not include JPMorgan Chase common stock, except in connection with investments in third-party stock-index funds. The plans hold investments in funds that are sponsored or managed by affiliates of JPMorgan Chase in the amount of $\$ 1.6$ billion and $\$ 1.7$ billion for U.S. plans and $\$ 194$ million and $\$ 155$ million for non-U.S. plans, as of December 31, 2011 and 2010, respectively.

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

| December 31, | Defined benefit pension plans |  |  |  |  |  | OPEB plans ${ }^{(c)}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. |  |  | Non-U.S. |  |  |  |  |  |
|  | Target | \% of plan assets |  | Target Allocation | \% of plan assets |  | Target Allocation | \% of plan assets |  |
|  | Allocation | 2011 | 2010 |  | 2011 | 2010 |  | 2011 | 2010 |
| Asset category |  |  |  |  |  |  |  |  |  |
| Debt securities ${ }^{(a)}$ | 10-30\% | 20\% | 29\% | 72\% | 74\% | 71\% | 50\% | 50\% | 50\% |
| Equity securities | 25-60 | 39 | 40 | 27 | 25 | 28 | 50 | 50 | 50 |
| Real estate | 5-20 | 5 | 4 | - | - | - | - | - | - |
| Alternatives ${ }^{(b)}$ | 15-50 | 36 | 27 | 1 | 1 | 1 | - | - | - |
| Total | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

[^4]Fair value measurement of the plans' assets and liabilities
For information on fair value measurements, including descriptions of level 1,2 , and 3 of the fair value hierarchy and the valuation methods employed by the Firm, see Note 3 on pages 184-198 of this Annual Report.

Pension and OPEB plan assets and liabilities measured at fair value

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


| December 31, 2010 (in millions) | U.S. defined benefit pension plans |  |  |  |  |  |  |  | Non-U.S. defined benefit pension plans |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level 1 |  | Level 2 |  | Level 3 |  | Total fair value |  | Level 1 |  |  | Level 2 |  | Level 3 |  | Total fair value |  |
| Cash and cash equivalents | \$ | - | \$ | - | \$ | - | \$ | - |  | \$ | 81 | \$ | - | \$ | - | \$ | 81 |
| Equity securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capital equipment |  | 748 |  | 9 |  | - |  | 757 |  |  | 68 |  | 13 |  | - |  | 81 |
| Consumer goods |  | 712 |  | - |  | - |  | 712 |  |  | 75 |  | 21 |  | - |  | 96 |
| Banks and finance companies |  | 414 |  | 1 |  | - |  | 415 |  |  | 113 |  | 9 |  | - |  | 122 |
| Business services |  | 444 |  | - |  | - |  | 444 |  |  | 53 |  | 10 |  | - |  | 63 |
| Energy |  | 195 |  | - |  | - |  | 195 |  |  | 59 |  | 6 |  | - |  | 65 |
| Materials |  | 205 |  | - |  | - |  | 205 |  |  | 50 |  | 13 |  | - |  | 63 |
| Real estate |  | 21 |  | - |  | - |  | 21 |  |  | 1 |  | - |  | - |  | 1 |
| Other |  | 857 |  | 6 |  | - |  | 863 |  |  | 194 |  | 16 |  | - |  | 210 |
| Total equity securities |  | 3,596 |  | 16 |  | - |  | 3,612 |  |  | 613 |  | 88 |  | - |  | 701 |
| Common/collective trust funds ${ }^{(a)(b)}$ |  | 436 |  | 1,263 |  | 194 |  | 1,893 |  |  | 46 |  | 180 |  | - |  | 226 |
| Limited partnerships: ${ }^{(c)}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hedge funds |  | - |  | 959 |  | 1,160 |  | 2,119 |  |  | - |  | - |  | - |  | - |
| Private equity |  | - |  | - |  | 1,232 |  | 1,232 |  |  | - |  | - |  | - |  | - |
| Real estate |  | - |  | - |  | 304 |  | 304 |  |  | - |  | - |  | - |  | - |
| Real assets ${ }^{(d)}$ |  | - |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| Total limited partnerships |  | - |  | 959 |  | 2,696 |  | 3,655 |  |  | - |  | - |  | - |  | - |
| Corporate debt securities ${ }^{(\mathrm{e})}$ |  | - |  | 424 |  | 1 |  | 425 |  |  | - |  | 718 |  | - |  | 718 |
| U.S. federal, state, local and non-U.S. government debt securities |  | - |  | 453 |  | - |  | 453 |  |  | - |  | 864 |  | - |  | 864 |
| Mortgage-backed securities |  | 188 |  | 55 |  | - |  | 243 |  |  | 1 |  | - |  | - |  | 1 |
| Derivative receivables |  | 2 |  | 194 |  | - |  | 196 |  |  | - |  | 3 |  | - |  | 3 |
| Other ${ }^{(f)}$ |  | 218 |  | 58 |  | 387 |  | 663 |  |  | 18 |  | 51 |  | - |  | 69 |
| Total assets measured at fair value ${ }^{(\mathrm{g})(\mathrm{h})}$ | \$ | 4,440 | \$ | 3,422 | \$ | 3,278 | \$ | 11,140 |  | \$ | 759 | \$ | 1,904 | \$ | - | \$ | 2,663 |
| Derivative payables |  | - |  | (177) |  | - |  | (177) |  |  | - |  | (25) |  | - |  | (25) |
| Total liabilities measured at fair value | \$ | - | \$ | (177) | \$ | - | \$ | (177) | (i) | \$ | - | \$ | (25) | \$ | - | \$ | (25) |

(a) At December 31, 2011 and 2010, common/collective trust funds generally include commingled funds that primarily included $23 \%$ and $22 \%$, respectively, of short-term investment funds; $19 \%$ and $21 \%$, respectively, of equity (index) investments; and $19 \%$ and $16 \%$, respectively, of international investments.
(b) The prior period has been revised to consider redemption notification periods, in determining the classification of investments within the fair value hierarchy.
(c) Unfunded commitments to purchase limited partnership investments for the Plans were $\$ 1.2$ billion and $\$ 1.1$ billion for 2011 and 2010 , respectively.
(d) Real assets include investments in productive assets such as agriculture, energy rights, mining and timber properties and exclude raw land to be developed for real estate purposes.
(e) Corporate debt securities include debt securities of U.S. and non-U.S. corporations.
(f) Other consists of exchange traded funds and participating and non-participating annuity contracts. Exchange traded funds are primarily classified within level 1 of the fair value hierarchy given they are valued using market observable prices. Participating and non-participating annuity contracts are classified within level 3 of the fair value hierarchy due to lack of market mechanisms for transferring each policy and surrender restrictions.
(g) At December 31, 2011 and 2010, the fair value of investments valued at NAV were $\$ 3.9$ billion and $\$ 4.1$ billion, respectively, which were classified within the valuation hierarchy as follows: $\$ 0.4$ billion and $\$ 0.5$ billion in level $1, \$ 2.1$ billion and $\$ 2.2$ billion in level 2 and $\$ 1.4$ billion and $\$ 1.4$ billion in level 3.
(h) At December 31, 2011 and 2010, excluded U.S. defined benefit pension plan receivables for investments sold and dividends and interest receivables of $\$ 50$ million and $\$ 52$ million, respectively; and excluded non-U.S. defined benefit pension plan receivables for dividends and interest receivables of $\$ 56$ million and $\$ 9$ million, respectively.
(i) At December 31, 2011 and 2010, excluded $\$ 241$ million and $\$ 149$ million, respectively, of U.S. defined benefit pension plan payables for investments purchased; and $\$ 4$ million and $\$ 38$ million, respectively, of other liabilities; and excluded non-U.S. defined benefit pension plan payables for investments purchased of $\$ 69$ million at December 31, 2011.

The Firm's OPEB plan was partially funded with COLI policies of $\$ 1.4$ billion, at December 31, 2011 and 2010, respectively, which were classified in level 3 of the valuation hierarchy.

Changes in level 3 fair value measurements using significant unobservable inputs

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


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


| Year ended December 31, 2009 (in millions) | Fair value, January 1 , 2009 |  | Actual return on plan assets |  |  |  | Purchases, sales and settlements, net |  | Transfers in and/or out of level 3 |  | $\begin{gathered} \text { Fair value, } \\ \text { December 31, } \\ 2009 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Realized } \\ \text { gains/(losses) } \end{gathered}$ |  | Unrealized gains/(losses) |  |  |  |  |  |  |  |
| U.S. defined benefit pension plans |  |  |  |  |  |  |  |  |  |  |  |  |
| Equities | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Common/collective trust funds ${ }^{(a)}$ |  | 340 |  | - |  | (56) |  | - |  | - |  | 284 |
| Limited partnerships: |  |  |  |  |  |  |  |  |  |  |  |  |
| Hedge funds |  | 553 |  | - |  | 136 |  | (9) |  | - |  | 680 |
| Private equity |  | 810 |  | - |  | (1) |  | 80 |  | (15) |  | 874 |
| Real estate |  | 203 |  | - |  | (107) |  | 100 |  | - |  | 196 |
| Real assets |  | - |  | - |  | - |  | - |  | - |  | - |
| Total limited partnerships |  | 1,566 |  | - |  | 28 |  | 171 |  | (15) |  | 1,750 |
| Corporate debt securities |  | - |  | - |  | - |  | - |  | - |  | - |
| Other |  | 315 |  | - |  | 19 |  | - |  | - |  | 334 |
| Total U.S. plans | \$ | 2,221 | \$ | - | \$ | (9) | \$ | 171 | \$ | (15) | \$ | 2,368 |
| Non-U.S. defined benefit pension plans |  |  |  |  |  |  |  |  |  |  |  |  |
| Other | \$ | 14 | \$ | - | \$ | (1) | \$ | - | \$ | - | \$ | 13 |
| Total non-U.S. plans | \$ | 14 | \$ | - | \$ | (1) | \$ | - | \$ | - | \$ | 13 |
| OPEB plans |  |  |  |  |  |  |  |  |  |  |  |  |
| COLI | \$ | 1,126 | \$ | - | \$ | 172 | \$ | (29) | \$ | - | \$ | 1,269 |
| Total OPEB plans | \$ | 1,126 | \$ | - | \$ | 172 | \$ | (29) | \$ | - | \$ | 1,269 |

(a) The prior period has been revised to consider redemption notification periods in determining the classification of investments within the fair value hierarchy.
Estimated future benefit payments
The following table presents benefit payments expected to be paid, which include the effect of expected future service, for the years indicated. The OPEB medical and life insurance payments are net of expected retiree contributions.

| Year ended December 31, <br> (in millions) | U.S. defined benefit <br> pension plans | Non-U.S. defined <br> benefit pension plans | OPEB before <br> Medicare Part D <br> subsidy | Medicare Part D <br> subsidy |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 2012 | $\$$ | 1,038 | $\$$ | 95 | $\$$ |
| 2013 | 1,035 | 99 | 96 | 11 |  |
| 2014 | 610 | 101 | 95 | 94 | 12 |
| 2015 | 610 | 110 | 92 | 13 |  |
| 2016 | 613 | 116 | 90 | 14 |  |
| Years 2017-2021 | 3,084 | 658 | 404 |  |  |

## Note 10 - Employee stock-based incentives

## Employee stock-based awards

In 2011, 2010 and 2009, JPMorgan Chase granted longterm stock-based awards to certain key employees under the 2005 Long-Term Incentive Plan (the " 2005 Plan"). The 2005 Plan became effective on May 17, 2005, and was last amended in May 2011. Under the terms of the amended 2005 plan, as of December 31, 2011, 318 million shares of common stock are available for issuance through May 2015. The amended 2005 Plan is the only active plan under which the Firm is currently granting stock-based incentive awards. In the following discussion, the 2005 Plan, plus prior Firm plans and plans assumed as the result of acquisitions, are referred to collectively as the "LTI Plans," and such plans constitute the Firm's stock-based incentive plans.
Restricted stock units ("RSUs") are awarded at no cost to the recipient upon their grant. RSUs are generally granted annually and generally vest at a rate of $50 \%$ after two
years and $50 \%$ after three years and convert into shares of common stock at the vesting date. In addition, RSUs typically include full-career eligibility provisions, which allow employees to continue to vest upon voluntary termination, subject to post-employment and other restrictions based on age or service-related requirements. All of these awards are subject to forfeiture until vested and contain clawback provisions that may result in cancellation prior to vesting under certain specified circumstances. RSUs entitle the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSUs are outstanding and, as such, are considered participating securities as discussed in Note 24 on page 277 of this Annual Report.

Under the LTI Plans, stock options and stock appreciation rights ("SARs") have generally been granted with an exercise price equal to the fair value of JPMorgan Chase's common stock on the grant date. The Firm typically awards SARs to certain key employees once per year; the Firm also
periodically grants employee stock options and SARs to individual employees. The 2011, 2010 and 2009 grants of SARs to key employees vest ratably over five years (i.e., 20\% per year) and contain clawback provisions similar to RSUs. The 2011 and 2010 grants of SARs contain fullcareer eligibility provisions; the 2009 grants of SARs do not include any full-career eligibility provisions. SARs generally expire 10 years after the grant date.

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

The Firm's policy for issuing shares upon settlement of employee stock-based incentive awards is to issue either new shares of common stock or treasury shares. During 2011, 2010 and 2009, the Firm settled all of its employee stock-based awards by issuing treasury shares.

In January 2008, the Firm awarded to its Chairman and Chief Executive Officer up to 2 million SARs. The terms of this award are distinct from, and more restrictive than, other equity grants regularly awarded by the Firm. The SARs, which have a 10-year term, will become exercisable no earlier than January 22, 2013, and have an exercise price of $\$ 39.83$. The number of SARs that will become exercisable (ranging from none to the full 2 million) and their exercise date or dates may be determined by the Board of Directors based on an annual assessment of the performance of both the CEO and JPMorgan Chase. The Firm recognizes this award ratably over an assumed fiveyear service period, subject to a requirement to recognize changes in the fair value of the award through the grant date. The Firm recognized \$(4) million, $\$ 4$ million and $\$ 9$ million in compensation expense in 2011, 2010 and 2009, respectively, for this award.

## RSUs, employee stock options and SARs activity

Compensation expense for RSUs is measured based on the number of shares granted multiplied by the stock price at the grant date, and for employee stock options and SARs, is measured at the grant date using the Black-Scholes valuation model. Compensation expense for these awards is recognized in net income as described previously. The following table summarizes JPMorgan Chase's RSUs, employee stock options and SARs activity for 2011.

| Year ended December 31, 2011 <br> (in thousands, except weighted-average data, and where otherwise stated) | RSUS |  |  | Options/SARs |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of shares | Weightedaverage grant date fair value |  | Number of awards | Weightedaverage exercise price |  | Weightedaverage remaining contractual life (in years) |  | ggregate <br> intrinsic <br> value |
| Outstanding, January 1 | 234,121 | \$ | 30.45 | 234,527 | \$ | 43.33 |  |  |  |
| Granted | 59,697 |  | 44.05 | 15,300 |  | 44.27 |  |  |  |
| Exercised or vested | $(121,699)$ |  | 26.95 | $(15,409)$ |  | 32.27 |  |  |  |
| Forfeited | $(5,488)$ |  | 37.05 | $(4,168)$ |  | 39.56 |  |  |  |
| Canceled | NA |  | NA | $(74,489)$ |  | 51.77 |  |  |  |
| Outstanding, December 31 | 166,631 | \$ | 37.65 | 155,761 | \$ | 40.58 | 4.6 | \$ | 419,887 |
| Exercisable, December 31 | NA |  | NA | 106,335 |  | 41.89 | 3.1 |  | 260,309 |

The total fair value of RSUs that vested during the years ended December 31, 2011, 2010 and 2009, was $\$ 5.4$ billion, $\$ 2.3$ billion and $\$ 1.3$ billion, respectively. The weighted-average grant date per share fair value of stock options and SARs granted during the years ended December 31, 2011, 2010 and 2009, was $\$ 13.04, \$ 12.27$ and $\$ 8.24$, respectively. The total intrinsic value of options exercised during the years ended December 31, 2011, 2010 and 2009, was $\$ 191$ million, $\$ 154$ million and \$154 million, respectively.

## Notes to consolidated financial statements

## Compensation expense

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

| Year ended December 31, (in millions) | 2011 | 2010 | 2009 |
| :--- | :---: | :---: | :---: |
| Cost of prior grants of RSUs and SARs <br> that are amortized over their <br> applicable vesting periods | $\$ 1,986$ | $\$ 2,479$ | $\$ 2,510$ |
| Accrual of estimated costs of RSUs and <br> SARs to be granted in future periods <br> including those to full-career eligible <br> employees <br> Total noncash compensation expense <br> related to employee stock-based <br> incentive plans | $\mathbf{6 8 9}$ | 772 | 845 |

At December 31, 2011, approximately $\$ 1.3$ billion (pretax) of compensation cost related to unvested awards had not yet been charged to net income. That cost is expected to be amortized into compensation expense over a weighted-average period of 1.0 year. The Firm does not capitalize any compensation cost related to share-based compensation awards to employees.

## Cash flows and tax benefits

Income tax benefits related to stock-based incentive arrangements recognized in the Firm's Consolidated Statements of Income for the years ended December 31, 2011, 2010 and 2009, were $\$ 1.0$ billion, $\$ 1.3$ billion and $\$ 1.3$ billion, respectively.

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

| Year ended December 31, (in millions) |  | 2011 | 2010 | 2009 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Cash received for options exercised | $\$ 354$ | $\$$ | 205 | $\$$ | 437 |
| Tax benefit realized |  |  |  |  |  |

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

## Valuation assumptions

The following table presents the assumptions used to value employee stock options and SARs granted during the years ended December 31, 2011, 2010 and 2009, under the Black-Scholes valuation model.

| Year ended December 31, | $\mathbf{2 0 1 1}$ | 2010 | 2009 |
| :--- | :---: | :---: | :---: |
| Weighted-average annualized valuation <br> $\quad$ assumptions |  |  |  |
| Risk-free interest rate | $\mathbf{2 . 5 8 \%}$ | $3.89 \%$ | $2.33 \%$ |
| Expected dividend yield ${ }^{(a)}$ | $\mathbf{2 . 2 0}$ | 3.13 | 3.40 |
| Expected common stock price volatility | $\mathbf{3 4}$ | 37 | 56 |
| Expected life (in years) | $\mathbf{6 . 5}$ | 6.4 | 6.6 |

(a) In 2011, the expected dividend yield was determined using forwardlooking assumptions. In 2010 and 2009 the expected dividend yield was determined using historical dividend yields.

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

## Note 11 - Noninterest expense

The following table presents the components of noninterest expense.

| Year ended December 31, (in millions) |  | 2011 |  | 2010 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Compensation expense ${ }^{(a)}$ | \$ | 29,037 | \$ | 28,124 | \$ | 26,928 |
| Noncompensation expense: |  |  |  |  |  |  |
| Occupancy expense |  | 3,895 |  | 3,681 |  | 3,666 |
| Technology, communications and equipment expense |  | 4,947 |  | 4,684 |  | 4,624 |
| Professional and outside services |  | 7,482 |  | 6,767 |  | 6,232 |
| Marketing |  | 3,143 |  | 2,446 |  | 1,777 |
| Other expense ${ }^{(b)(c)}$ |  | 13,559 |  | 14,558 |  | 7,594 |
| Amortization of intangibles |  | 848 |  | 936 |  | 1,050 |
| Total noncompensation expense |  | 33,874 |  | 33,072 |  | 24,943 |
| Merger costs |  | - |  | - |  | 481 |
| Total noninterest expense | \$ | 62,911 | \$ | 61,196 | \$ | 52,352 |

(a) Expense for 2010 includes a payroll tax expense related to the United Kingdom ("U.K.") Bank Payroll Tax on certain compensation awarded from December 9, 2009, to April 5, 2010, to relevant banking employees.
(b) Included litigation expense of $\$ 4.9$ billion, $\$ 7.4$ billion and $\$ 161$ million for the years ended December 31, 2011, 2010 and 2009, respectively.
(c) Included foreclosed property expense of $\$ 718$ million, $\$ 1.0$ billion and $\$ 1.4$ billion for the years ended December 31, 2011, 2010 and 2009, respectively.
(d) Total merger-related costs for the year ended December 31, 2009, were comprised of $\$ 247$ million in compensation costs, $\$ 12$ million in occupancy costs, and $\$ 222$ million in technology and communications and other costs.

## Note 12 - Securities

Securities are primarily classified as AFS or trading. Trading securities are discussed in Note 3 on pages 184-198 of this Annual Report. Securities are classified primarily as AFS when used to manage the Firm's exposure to interest rate movements or used for longer-term strategic purposes. AFS securities are carried at fair value on the Consolidated Balance Sheets. Unrealized gains and losses, after any applicable hedge accounting adjustments, are reported as net increases or decreases to accumulated other comprehensive income/(loss). The specific identification method is used to determine realized gains and losses on AFS securities, which are included in securities gains/ (losses) on the Consolidated Statements of Income.

## Other-than-temporary impairment

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

Potential OTTI is considered using a variety of factors, including the length of time and extent to which the market value has been less than cost; adverse conditions specifically related to the industry, geographic area or financial condition of the issuer or underlying collateral of a security; payment structure of the security; changes to the rating of the security by a rating agency; the volatility of the fair value changes; and the Firm's intent and ability to hold the security until recovery.
For debt securities, the Firm recognizes OTTI losses in earnings if the Firm has the intent to sell the debt security, or if it is more likely than not that the Firm will be required to sell the debt security before recovery of its amortized cost basis. In these circumstances the impairment loss is equal to the full difference between the amortized cost basis and the fair value of the securities. When the Firm has the intent and ability to hold AFS debt securities in an unrealized loss position, it evaluates the expected cash flows to be received and determines if a credit loss exists. In the event of a credit loss, only the amount of impairment associated with the credit loss is recognized in income. Amounts relating to factors other than credit losses are recorded in OCI.

The Firm's cash flow evaluations take into account the factors noted above and expectations of relevant market and economic data as of the end of the reporting period. For securities issued in a securitization, the Firm estimates cash flows considering underlying loan-level data and structural features of the securitization, such as subordination, excess spread, overcollateralization or other forms of credit enhancement, and compares the losses projected for the underlying collateral ("pool losses") against the level of credit enhancement in the securitization structure to determine whether these features are sufficient to absorb the pool losses, or whether a credit loss exists. The Firm also performs other analyses to support its cash flow projections, such as first-loss analyses or stress scenarios.
For equity securities, ottו losses are recognized in earnings if the Firm intends to sell the security. In other cases the Firm considers the relevant factors noted above, as well as the Firm's intent and ability to retain its investment for a period of time sufficient to allow for any anticipated recovery in market value, and whether evidence exists to support a realizable value equal to or greater than the carrying value. Any impairment loss on an equity security is equal to the full difference between the amortized cost basis and the fair value of the security.

## Realized gains and losses

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

| Year ended December 31, <br> (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |  |
| :--- | :---: | :---: | :---: | :---: |
| Realized gains | $\$ 1,811$ | $\$$ | 3,382 | $\$ 2,268$ |
| Realized losses | $\mathbf{( 1 4 2 )}$ | $(317)$ | $(580)$ |  |
| Net realized gains $^{(\mathrm{a})}$ | $\mathbf{1 , 6 6 9}$ | 3,065 | 1,688 |  |
| Credit losses included in securities gains $^{(\mathrm{b})}$ | $\mathbf{( 7 6 )}$ | $(100)$ | $(578)$ |  |
| Net securities gains | $\$ 1,593$ | $\$ 2,965$ | $\$ 1,110$ |  |

(a) Proceeds from securities sold were within approximately $4 \%$ of amortized cost in 2011, and within approximately 3\% of amortized cost in 2010 and 2009.
(b) Includes other-than-temporary impairment losses recognized in income on certain prime mortgage-backed securities for the year ended December 31, 2011; certain prime mortgage-backed securities and obligations of U.S. states and municipalities for the year ended December 31, 2010; and certain prime and subprime mortgagebacked securities and obligations of U.S. states and municipalities for the year ended December 31, 2009.

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

|  | 2011 |  |  |  |  |  |  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, (in millions) | Amortized cost | Gross unrealized gains |  | Gross unrealized losses |  | Fair value |  | Amortized cost |  | Gross unrealized gains |  | $\begin{aligned} & \text { Gross } \\ & \text { unrealized } \\ & \text { losses } \end{aligned}$ |  | Fair value |  |
| Available-for-sale debt securities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mortgage-backed securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| U.S. government agencies ${ }^{(a)}$ | \$ 101,968 | \$ | 5,141 | \$ | 2 | \$ | 107,107 |  | 117,364 | \$ | 3,159 | \$ | 297 | \$ | 120,226 |
| Residential: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Prime and Alt-A | 2,170 |  | 54 |  | 218 (c) |  | 2,006 |  | 2,173 |  | 81 |  | 250 (c) |  | 2,004 |
| Subprime | 1 |  | - |  | - |  | 1 |  | 1 |  | - |  | - |  | 1 |
| Non-U.S. | 66,067 |  | 170 |  | 687 |  | 65,550 |  | 47,089 |  | 290 |  | 409 |  | 46,970 |
| Commercial | 10,632 |  | 650 |  | 53 |  | 11,229 |  | 5,169 |  | 502 |  | 17 |  | 5,654 |
| Total mortgage-backed securities | 180,838 |  | 6,015 |  | 960 |  | 185,893 |  | 171,796 |  | 4,032 |  | 973 |  | 174,855 |
| U.S. Treasury and government agencies ${ }^{(a)}$ | 8,184 |  | 169 |  | 2 |  | 8,351 |  | 11,258 |  | 118 |  | 28 |  | 11,348 |
| Obligations of U.S. states and municipalities | 15,404 |  | 1,184 |  | 48 |  | 16,540 |  | 11,732 |  | 165 |  | 338 |  | 11,559 |
| Certificates of deposit | 3,017 |  | - |  | - |  | 3,017 |  | 3,648 |  | 1 |  | 2 |  | 3,647 |
| Non-U.S. government debt securities | 44,944 |  | 402 |  | 81 |  | 45,265 |  | 20,614 |  | 191 |  | 28 |  | 20,777 |
| Corporate debt securities ${ }^{(b)}$ | 63,607 |  | 216 |  | 1,647 |  | 62,176 |  | 61,717 |  | 495 |  | 419 |  | 61,793 |
| Asset-backed securities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Credit card receivables | 4,506 |  | 149 |  | - |  | 4,655 |  | 7,278 |  | 335 |  | 5 |  | 7,608 |
| Collateralized Ioan obligations | 24,474 |  | 553 |  | 166 |  | 24,861 |  | 13,336 |  | 472 |  | 210 |  | 13,598 |
| Other | 11,273 |  | 102 |  | 57 |  | 11,318 |  | 8,968 |  | 130 |  | 16 |  | 9,082 |
| Total available-for-sale debt securities | 356,247 |  | 8,790 |  | 2,961 ${ }^{\text {(c) }}$ |  | 362,076 |  | 310,347 |  | 5,939 |  | 2,019 ${ }^{\text {(c) }}$ |  | 314,267 |
| Available-for-sale equity securities | 2,693 |  | 14 |  | 2 |  | 2,705 |  | 1,894 |  | 163 |  | 6 |  | 2,051 |
| Total available-for-sale securities | \$ 358,940 | \$ | 8,804 | \$ | 2,963 ${ }^{\text {(c) }}$ | \$ | 364,781 | \$ | 312,241 | \$ | 6,102 | \$ | 2,025 ${ }^{\text {(c) }}$ | \$ | 316,318 |
| Total held-to-maturity securities | \$ 12 | \$ | 1 | \$ | - | \$ | 13 | \$ | 18 | \$ | 2 | \$ | - | \$ | 20 |

(a) Includes total U.S. government-sponsored enterprise obligations with fair values of $\$ 89.3$ billion and $\$ 94.2$ billion at December 31, 2011 and 2010 , respectively, which were predominantly mortgage-related.
(b) Consists primarily of bank debt including sovereign government-guaranteed bank debt.
(c) Includes a total of $\$ 91$ million and $\$ 133$ million (pretax) of unrealized losses related to prime mortgage-backed securities for which credit losses have been recognized in income at December 31, 2011 and 2010, respectively. These unrealized losses are not credit-related and remain reported in AOCI.

## Securities impairment

The following tables present the fair value and gross unrealized losses for AFS securities by aging category at December 31, 2011 and 2010.

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


| December 31, 2010 (in millions) | Securities with gross unrealized losses |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 12 months |  |  |  | 12 months or more |  |  |  | Total fair value |  | Total gross unrealized losses |  |
|  | Fair value |  | Gross unrealizedlosses |  | Fair value |  | Gross unrealizedlosses |  |  |  |  |  |
| Available-for-sale debt securities |  |  |  |  |  |  |  |  |  |  |  |  |
| Mortgage-backed securities: |  |  |  |  |  |  |  |  |  |  |  |  |
| U.S. government agencies | \$ | 14,039 | \$ | 297 | \$ | - | \$ | - | \$ | 14,039 | \$ | 297 |
| Residential: |  |  |  |  |  |  |  |  |  |  |  |  |
| Prime and Alt-A |  | - |  | - |  | 1,193 |  | 250 |  | 1,193 |  | 250 |
| Subprime |  | - |  | - |  | - |  | - |  | - |  | - |
| Non-U.S. |  | 35,166 |  | 379 |  | 1,080 |  | 30 |  | 36,246 |  | 409 |
| Commercial |  | 548 |  | 14 |  | 11 |  | 3 |  | 559 |  | 17 |
| Total mortgage-backed securities |  | 49,753 |  | 690 |  | 2,284 |  | 283 |  | 52,037 |  | 973 |
| U.S. Treasury and government agencies |  | 921 |  | 28 |  | - |  | - |  | 921 |  | 28 |
| Obligations of U.S. states and municipalities |  | 6,890 |  | 330 |  | 20 |  | 8 |  | 6,910 |  | 338 |
| Certificates of deposit |  | 1,771 |  | 2 |  | - |  | - |  | 1,771 |  | 2 |
| Non-U.S. government debt securities |  | 6,960 |  | 28 |  | - |  | - |  | 6,960 |  | 28 |
| Corporate debt securities |  | 18,783 |  | 418 |  | 90 |  | 1 |  | 18,873 |  | 419 |
| Asset-backed securities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Credit card receivables |  | - |  | - |  | 345 |  | 5 |  | 345 |  | 5 |
| Collateralized loan obligations |  | 460 |  | 10 |  | 6,321 |  | 200 |  | 6,781 |  | 210 |
| Other |  | 2,615 |  | 9 |  | 32 |  | 7 |  | 2,647 |  | 16 |
| Total available-for-sale debt securities |  | 88,153 |  | 1,515 |  | 9,092 |  | 504 |  | 97,245 |  | 2,019 |
| Available-for-sale equity securities |  | - |  | - |  | 2 |  | 6 |  | 2 |  | 6 |
| Total securities with gross unrealized losses | \$ | 88,153 | \$ | 1,515 | \$ | 9,094 | \$ | 510 | \$ | 97,247 | \$ | 2,025 |

## Notes to consolidated financial statements

## Other-than-temporary impairment

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

| Year ended December 31, <br> (in millions) | 2011 | 2010 | 2009 |
| :--- | :--- | :--- | :--- |

Debt securities the Firm does not intend to sell that have credit losses

| Total other-than-temporary <br> impairment losses |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| (a) | $\$$ | (27) | $\$$ | (94) | $\$(946)$ |
| Losses recorded in/(reclassified from) <br> other comprehensive income | (49) | (6) | 368 |  |  |

Total credit losses recognized in
income
\$ (76) \$ (100) \$ (578)
(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) Represents the credit loss component on certain prime mortgagebacked securities for 2011; certain prime mortgage-backed securities and obligations of U.S. states and municipalities for 2010; and certain prime and subprime mortgage-backed securities and obligations of U.S. states and municipalities for 2009 that the Firm does not intend to sell. 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) Excluded from this table are OTTI losses of $\$ 7$ million that were recognized in income in 2009, related to subprime mortgage-backed debt securities the Firm intended to sell. These securities were sold in 2009, resulting in the recognition of a recovery of $\$ 1$ million.

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

The following table presents a rollforward for the years ended December 31, 2011, 2010 and 2009, of the credit loss component of OTTI losses that have been recognized in income, related to debt securities that the Firm does not intend to sell.

| Year ended December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance, beginning of period | \$ | 632 | \$ | 578 | \$ | - |
| Additions: |  |  |  |  |  |  |
| Newly credit-impaired securities |  | 4 |  | - |  | 578 |
| Increase in losses on previously creditimpaired securities |  | - |  | 94 |  | - |
| Losses reclassified from other comprehensive income on previously credit-impaired securities |  | 72 |  | 6 |  | - |
| Reductions: |  |  |  |  |  |  |
| Sales of credit-impaired securities |  | - |  | (31) |  | - |
| Impact of new accounting guidance related to VIEs |  | - |  | (15) |  | - |
| Balance, end of period | \$ | 708 | \$ | 632 | \$ | 578 |

## Gross unrealized losses

Gross unrealized losses have generally increased since December 31, 2010, including those that have been in an unrealized loss position for 12 months or more. As of December 31, 2011, the Firm does not intend to sell the securities with a loss position in AOCI, and it is not likely that the Firm will be required to sell these securities before recovery of their amortized cost basis. Except for the securities reported in the table above for which credit losses have been recognized in income, the Firm believes
that the securities with an unrealized loss in AOCl are not other-than-temporarily impaired as of December 31, 2011.

Following is a description of the Firm's principal investment securities with the most significant unrealized losses that have existed for 12 months or more as of December 31, 2011, and the key assumptions used in the Firm's estimate of the present value of the cash flows most likely to be collected from these investments.

## Mortgage-backed securities - Prime and Alt-A nonagency

 As of December 31, 2011, gross unrealized losses related to prime and Alt-A residential mortgage-backed securities issued by private issuers were \$218 million, of which \$206 million related to securities that have been in an unrealized loss position for 12 months or more. The Firm has previously recognized OTTI on securities that are backed primarily by mortgages with higher credit risk characteristics based on collateral type, vintage and geographic concentration. The remaining securities that have not experienced OTTI generally either do not possess all of these characteristics or have sufficient credit enhancements, primarily in the form of subordination, to protect the investment. The average credit enhancements associated with the below investment-grade positions that have experienced OTTI losses and those that have not are $1 \%$ and $18 \%$, respectively.The Firm's cash flow estimates are based on a loan-level analysis that considers housing prices, loan-to-value ("LTV") ratio, Ioan type, geographical location of the underlying property and unemployment rates, among other factors. The weighted-average underlying default rate on the positions was forecasted to be $25 \%$; the related weighted-average loss severity forecast was $52 \%$; and estimated voluntary prepayment rates ranged from 4\% to $19 \%$. Based on the results of this analysis, an OTTI loss of $\$ 76$ million was recognized in 2011 on certain securities due to their higher loss assumptions, and the unrealized loss of $\$ 218$ million is considered temporary as management believes that the credit enhancement levels for those securities remain sufficient to support the Firm's investment.

Mortgage-backed securities - Non-U.S. As of December 31, 2011, gross unrealized losses related to non-U.S. residential mortgage-backed securities were $\$ 687$ million, of which $\$ 421$ million related to securities that have been in an unrealized loss position for 12 months or more. Substantially all of these securities are rated "AAA," "AA" or "A" and primarily represent mortgage exposures in the United Kingdom and the Netherlands. The key assumptions used in analyzing non-U.S. residential mortgage-backed securities for potential credit losses include credit enhancements, recovery rates, default rates, and constant prepayment rates. Credit enhancement is primarily in the form of subordination, which is a form of structural credit enhancement where realized losses associated with assets held in an issuing vehicle are allocated to the various tranches of securities issued by the vehicle considering their relative seniority. Credit
enhancement in the form of subordination was approximately $10 \%$ of the outstanding principal balance of securitized mortgage loans, compared with expected lifetime losses of $1 \%$ of the outstanding principal. In assessing potential credit losses, assumptions included recovery rates of $60 \%$, default rates of $0.25 \%$ to $0.5 \%$ and constant prepayment rates of $15 \%$ to $20 \%$. The unrealized loss is considered temporary, based on management's assessment that the estimated future cash flows together with the credit enhancement levels for those securities remain sufficient to support the Firm's investment.

## Corporate debt securities

As of December 31, 2011, gross unrealized losses related to corporate debt securities were $\$ 1.6$ billion, of which $\$ 746$ million related to securities that have been in an unrealized loss position for 12 months or more.
Substantially all of the corporate debt securities are rated investment-grade, including those in an unrealized loss position. Various factors were considered in assessing whether the Firm expects to recover the amortized cost of corporate debt securities including, but not limited to, the strength of issuer credit ratings, the financial condition of guarantors and the length of time and the extent to which a security's fair value has been less than its amortized cost. The fair values of securities in an unrealized loss position were on average within approximately 4\% of amortized cost. Based on management's assessment, the Firm expects to recover the entire amortized cost basis of all corporate debt securities that were in an unrealized loss position as of December 31, 2011.

Asset-backed securities - Collateralized loan obligations As of December 31, 2011, gross unrealized losses related to CLOs were $\$ 166$ million, of which $\$ 117$ million related to securities that were in an unrealized loss position for 12 months or more. Overall, losses have decreased since December 31, 2010, mainly as a result of lower default forecasts and spread tightening across various asset classes. Substantially all of these securities are rated "AAA," " $A A$ " or " $A$ " and have an average credit enhancement of $30 \%$. The key assumptions considered in analyzing potential credit losses were underlying loan and debt security defaults and loss severity. Based on current default trends for the collateral underlying the securities, the Firm assumed initial collateral default rates of $2 \%$ and $4 \%$ beginning in 2012 and thereafter. Further, loss severities were assumed to be $48 \%$ for loans and $82 \%$ for debt securities. Losses on collateral were estimated to occur approximately 18 months after default. The unrealized loss is considered temporary, based on management's assessment that the estimated future cash flows together with the credit enhancement levels for those securities remain sufficient to support the Firm's investment.

## Notes to consolidated financial statements

## Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at December 31, 2011, of JPMorgan Chase's AFS and HTM securities by contractual maturity.

| By remaining maturity December 31, 2011 (in millions) | Due in one year or less |  | Due after one year through five years |  | Due after five years through 10 years |  | Due after <br> 10 years ${ }^{(c)}$ |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Available-for-sale debt securities |  |  |  |  |  |  |  |  |  |  |
| Mortgage-backed securities ${ }^{(2)}$ |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 15 | \$ | 3,666 | \$ | 3,932 | \$ | 173,225 | \$ | 180,838 |
| Fair value |  | 15 |  | 3,653 |  | 4,073 |  | 178,152 |  | 185,893 |
| Average yield ${ }^{(b)}$ |  | 5.04\% |  | 3.20\% |  | 3.08\% |  | 3.64\% |  | 3.62\% |
| U.S. Treasury and government agencies ${ }^{(2)}$ |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 4,949 | \$ | 2,984 | \$ | - | \$ | 251 | \$ | 8,184 |
| Fair value |  | 4,952 |  | 3,099 |  | - |  | 300 |  | 8,351 |
| Average yield ${ }^{(b)}$ |  | 0.58\% |  | 2.20\% |  | -\% |  | 3.89\% |  | 1.27\% |
| Obligations of U.S. states and municipalities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 61 | \$ | 306 | \$ | 1,132 | \$ | 13,905 | \$ | 15,404 |
| Fair value |  | 62 |  | 326 |  | 1,206 |  | 14,946 |  | 16,540 |
| Average yield ${ }^{(b)}$ |  | 3.10\% |  | 3.66\% |  | 3.59\% |  | 4.84\% |  | 4.72\% |
| Certificates of deposit |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 3,017 | \$ | - | \$ | - | \$ | - | \$ | 3,017 |
| Fair value |  | 3,017 |  | - |  | - |  | - |  | 3,017 |
| Average yield ${ }^{(b)}$ |  | 4.33\% |  | -\% |  | -\% |  | -\% |  | 4.33\% |
| Non-U.S. government debt securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 20,863 | \$ | 15,967 | \$ | 7,524 | \$ | 590 | \$ | 44,944 |
| Fair value |  | 20,861 |  | 16,106 |  | 7,700 |  | 598 |  | 45,265 |
| Average yield ${ }^{(b)}$ |  | 1.27\% |  | 2.06\% |  | 2.86\% |  | 4.94\% |  | 1.87\% |
| Corporate debt securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 22,019 | \$ | 30,171 | \$ | 11,398 | \$ | 19 | \$ | 63,607 |
| Fair value |  | 22,091 |  | 29,291 |  | 10,776 |  | 18 |  | 62,176 |
| Average yield ${ }^{(b)}$ |  | 2.05\% |  | 3.09\% |  | 4.45\% |  | 5.42\% |  | 2.97\% |
| Asset-backed securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 2 | \$ | 5,965 | \$ | 17,951 | \$ | 16,335 | \$ | 40,253 |
| Fair value |  | 2 |  | 6,102 |  | 18,287 |  | 16,443 |  | 40,834 |
| Average yield ${ }^{(b)}$ |  | 2.28\% |  | 2.88\% |  | 2.02\% |  | 2.51\% |  | 2.35\% |
| Total available-for-sale debt securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 50,926 | \$ | 59,059 | \$ | 41,937 | \$ | 204,325 | \$ | 356,247 |
| Fair value |  | 51,000 |  | 58,577 |  | 42,042 |  | 210,457 |  | 362,076 |
| Average yield ${ }^{(b)}$ |  | 1.73\% |  | 2.75\% |  | 2.97\% |  | 3.64\% |  | 3.14\% |
| Available-for-sale equity securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | - | \$ | - | \$ | - | \$ | 2,693 | \$ | 2,693 |
| Fair value |  | - |  | - |  | - |  | 2,705 |  | 2,705 |
| Average yield ${ }^{(b)}$ |  | -\% |  | -\% |  | -\% |  | 0.38\% |  | 0.38\% |
| Total available-for-sale securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | 50,926 | \$ | 59,059 | \$ | 41,937 | \$ | 207,018 | \$ | 358,940 |
| Fair value |  | 51,000 |  | 58,577 |  | 42,042 |  | 213,162 |  | 364,781 |
| Average yield ${ }^{(b)}$ |  | 1.73\% |  | 2.75\% |  | 2.97\% |  | 3.60\% |  | 3.12\% |
| Total held-to-maturity securities |  |  |  |  |  |  |  |  |  |  |
| Amortized cost | \$ | - | \$ | 8 | \$ | 3 | \$ | 1 | \$ | 12 |
| Fair value |  | - |  | 9 |  | 3 |  | 1 |  | 13 |
| Average yield ${ }^{(b)}$ |  | -\% |  | 6.90\% |  | 6.76\% |  | 6.48\% |  | 6.84\% |

(a) U.S. government agencies and U.S. government-sponsored enterprises were the only issuers whose securities exceeded $10 \%$ of JPMorgan Chase's total stockholders' equity at December 31, 2011.
(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.
(c) Includes securities with no stated maturity. Substantially all of the Firm's residential mortgage-backed securities and collateralized mortgage obligations are due in 10 years or more, based on contractual maturity. The estimated duration, which reflects anticipated future prepayments based on a consensus of dealers in the market, is approximately three years for agency residential mortgage-backed securities, two years for agency residential collateralized mortgage obligations and four years for nonagency residential collateralized mortgage obligations.

## Note 13 - Securities financing activities

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

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

The Firm has elected the fair value option for certain securities financing agreements. For further information regarding the fair value option, see Note 4 on pages 198200 of this Annual Report. The securities financing agreements for which the fair value option has been elected are reported within securities purchased under resale agreements; securities loaned or sold under repurchase agreements; and securities borrowed on the Consolidated Balance Sheets. Generally, for agreements carried at fair value, current-period interest accruals are recorded within interest income and interest expense, with changes in fair value reported in principal transactions revenue. However, for financial instruments containing embedded derivatives that would be separately accounted for in accordance with accounting guidance for hybrid instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue.

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

| December 31, <br> (in millions) | $\mathbf{2 0 1 1}$ | 2010 |
| :--- | ---: | ---: |
| Securities purchased under resale | $\mathbf{2 3 5 , 0 0 0}$ | $\$ 222,302$ |
| agreements $^{(\mathrm{a})}$ |  |  |$\quad \mathbf{1 4 2 , 4 6 2}$ 123,587

[^5]The amounts reported in the table above were reduced by $\$ 115.7$ billion and $\$ 112.7$ billion at December 31, 2011 and 2010, respectively, as a result of agreements in effect that meet the specified conditions for net presentation under applicable accounting guidance.
JPMorgan Chase's policy is to take possession, where possible, of securities purchased under resale agreements and of securities borrowed. The Firm monitors the value of the underlying securities (primarily G7 government securities, U.S. agency securities and agency MBS, and equities) that it has received from its counterparties and either requests additional collateral or returns a portion of the collateral when appropriate in light of the market value of the underlying securities. Margin levels are established initially based upon the counterparty and type of collateral and monitored on an ongoing basis to protect against declines in collateral value in the event of default. JPMorgan Chase typically enters into master netting agreements and other collateral arrangements with its resale agreement and securities borrowed counterparties, which provide for the right to liquidate the purchased or borrowed securities in the event of a customer default. As a result of the Firm's credit risk mitigation practices described above on resale and securities borrowed agreements, the Firm did not hold any reserves for credit impairment on these agreements as of December 31, 2011 and 2010.

For further information regarding assets pledged and collateral received in securities financing agreements, see Note 30 on page 289 of this Annual Report.

## Note 14 - Loans

## Loan accounting framework

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

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

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

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

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

## Notes to consolidated financial statements

income at the contractual rate of interest. Purchase price discounts or premiums, as well as net deferred loan fees or costs, are amortized into interest income over the life of the loan to produce a level rate of return.

## Nonaccrual loans

Nonaccrual loans are those on which the accrual of interest has been suspended. Loans (other than credit card loans and certain consumer loans insured by U.S. government agencies) are placed on nonaccrual status and considered nonperforming when full payment of principal and interest is in doubt, which for consumer loans, excluding credit card, is generally determined when principal or interest is 90 days or more past due and collateral, if any, is insufficient to cover principal and interest. A loan is determined to be past due when the minimum payment is not received from the borrower by the contractually specified due date or for certain loans (e.g., residential real estate loans), when a monthly payment is due and unpaid for 30 days or more. All interest accrued but not collected is reversed against interest income at the date a loan is placed on nonaccrual status. In addition, the amortization of deferred amounts is suspended. In certain cases, interest income on nonaccrual loans may be recognized to the extent cash is received (i.e., cash basis) when the recorded loan balance is deemed fully collectible; however, if there is doubt regarding the ultimate collectibility of the recorded Ioan balance, all interest cash receipts are applied to reduce the carrying value of the loan (the cost recovery method).
A loan may be returned to accrual status when repayment is reasonably assured and there has been demonstrated performance under the terms of the loan or, if applicable, the terms of the restructured loan.

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

## Allowance for loan losses

The allowance for loan losses represents the estimated probable losses on held-for-investment loans. Changes in the allowance for loan losses are recorded in the provision for credit losses on the Firm's Consolidated Statements of Income. See Note 15 on pages 252-255 for further information on the Firm's accounting polices for the allowance for loan losses.

## Charge-offs

Wholesale loans and risk-rated business banking and auto loans are charged off against the allowance for loan losses when it is highly certain that a loss has been realized. This determination includes many factors, including the prioritization of the Firm's claim in bankruptcy, expectations of the workout/restructuring of the loan and valuation of the borrower's equity.

Credit card loans are charged off by the end of the month in which the account becomes 180 days past due, or within 60 days from receiving notification about a specified event (e.g., bankruptcy of the borrower), whichever is earlier.

Consumer loans, other than risk-rated business banking and auto loans and PCI loans, are generally charged off to the allowance for loan losses upon reaching specified stages of delinquency, in accordance with the Federal Financial Institutions Examination Council ("FFIEC") policy. Residential mortgage loans and scored business banking loans are generally charged down to estimated net realizable value (the fair value of collateral less costs to sell) at no later than 180 days past due.
Collateral-dependent loans are charged down to estimated net realizable value when deemed impaired (for example, upon modification in a troubled debt restructuring). 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.

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

For residential real estate loans, collateral values are based upon external valuation sources. When it becomes likely that a borrower is either unable or unwilling to pay, the Firm obtains a broker's price opinion of the home based on an exterior-only valuation ("exterior opinions"), which is then updated at least every six months thereafter. As soon as practicable after taking physical possession of the property through foreclosure, the Firm obtains an appraisal based on an inspection that includes the interior of the home ("interior appraisals"). Exterior opinions and interior appraisals are discounted based upon the Firm's experience with actual liquidation values as compared to the estimated values provided by exterior opinions and interior appraisals, considering state- and product-specific factors.
For commercial real estate loans, collateral values are generally based on appraisals from internal and external valuation sources. Collateral values are typically updated every six to twelve months, either by obtaining a new appraisal or by performing an internal analysis, in accordance with the Firm's policies. The Firm also considers both borrower- and market-specific factors, which may result in obtaining appraisal updates or broker price opinions at more frequent intervals.

## Loans held-for-sale

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

Interest income on loans held-for-sale is accrued and recognized based on the contractual rate of interest.
Loan origination fees or costs and purchase price discounts or premiums are deferred in a contra loan account until the related loan is sold. The deferred fees and discounts or premiums are an adjustment to the basis of the loan and therefore are included in the periodic determination of the lower of cost or fair value adjustments and/or the gain or losses recognized at the time of sale.
Held-for-sale loans are subject to the nonaccrual policies described above.

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

## Loans at fair value

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

For these loans, the earned current contractual interest payment is recognized in interest income. Changes in fair value are recognized in noninterest revenue. Loan origination fees are recognized upfront in noninterest revenue. Loan origination costs are recognized in the associated expense category as incurred.
Because these loans are recognized at fair value, the Firm's nonaccrual, allowance for loan losses, and charge-off policies do not apply to these loans.

See Note 4 on pages 198-200 of this Annual Report for further information on the Firm's elections of fair value accounting under the fair value option. See Note 3 and Note 4 on pages 184-198 and 198-200 of this Annual Report for further information on loans carried at fair value and classified as trading assets.

## PCI loans

PCI loans held-for-investment are initially measured at fair value. PCI loans have evidence of credit deterioration since the loan's origination date and therefore it is probable, at acquisition, that all contractually required payments will not be collected. Because PCI loans are initially measured at fair value, which includes an estimate of future credit losses, no allowance for loan losses related to PCl loans is recorded at the acquisition date. See page 247 of this Note for information on accounting for PCl 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-forsale portfolio at the lower of cost or fair value on the date of transfer. Credit-related losses are charged against the allowance for loan losses; losses due to changes in interest rates or foreign currency exchange rates are recognized in noninterest revenue.
In the event that management decides to retain a loan in the held-for-sale portfolio, the loan is transferred to the held-for-investment portfolio at the lower of cost or fair
value on the date of transfer. These loans are subsequently assessed for impairment based on the Firm's allowance methodology. For a further discussion of the methodologies used in establishing the Firm's allowance for loan losses, see Note 15 on pages 252-255 of this Annual Report.

## Loan modifications

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

Such modifications are accounted for and reported as troubled debt restructurings ("TDRs"). A loan that has been modified in a TDR is generally considered to be impaired until it matures, is repaid, or is otherwise liquidated, regardless of whether the borrower performs under the modified terms. In certain limited cases, the effective interest rate applicable to the modified loan is at or above the current market rate at the time of the restructuring. In such circumstances, and assuming that the loan subsequently performs under its modified terms and the Firm expects to collect all contractual principal and interest cash flows, the loan is disclosed as impaired and as a TDR only during the year of the modification; in subsequent years, the loan is not disclosed as an impaired loan or as a TDR so long as repayment of the restructured loan under its modified terms is reasonably assured.
Loans, except for credit card loans, modified in a TDR are generally placed on nonaccrual status, although in many cases such loans were already on nonaccrual status prior to modification. These loans may be returned to performing status (resuming the accrual of interest) if the following criteria are met: (a) the borrower has performed under the modified terms for a minimum of six months and/or six payments, and (b) the Firm has an expectation that repayment of the modified loan is reasonably assured based on, for example, the borrower's debt capacity and level of future earnings, collateral values, LTV ratios, and other current market considerations. In certain limited and welldefined 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 evaluated for an asset-specific allowance, which considers the expected re-default rates for the modified loans and is determined based on the same methodology used to estimate the Firm's asset-specific allowance component. A loan modified in a TDR remains subject to the asset-specific allowance methodology

## Notes to consolidated financial statements

throughout its remaining life, regardless of whether the loan is performing and has been returned to accrual status. For further discussion of the methodology used to estimate the Firm's asset-specific allowance, see Note 15 on pages 252-255 of this Annual Report.

## Foreclosed property

The Firm acquires property from borrowers through loan restructurings, workouts, and foreclosures. Property acquired may include real property (e.g., residential real estate, land, buildings, and fixtures) and commercial and
personal property (e.g., aircraft, railcars, and ships).
At the time JPMorgan Chase takes physical possession, the property is recorded in other assets on the Consolidated Balance Sheets at fair value less estimated costs to sell. Each quarter the fair value of the acquired property is reviewed and adjusted, if necessary. Subsequent changes to fair value are charged/credited to noninterest revenue. Operating expense, such as real estate taxes and maintenance, are charged to other expense.

## Loan portfolio

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


| Consumer, excluding credit card $^{(b)}$ |
| :---: |
| Residential real estate - excluding PCI <br> - Home equity - senior lien <br> - Home equity - junior lien <br> - Prime mortgage, including option ARMs <br> - Subprime mortgage |
| Other consumer loans <br> - Auto ${ }^{(\mathrm{c})}$ <br> - Business banking(c) <br> - Student and other |
| Residential real estate - PCI <br> - Home equity <br> - Prime mortgage <br> - Subprime mortgage <br> - Option ARMs |


| Credit card |
| :---: |
| - Chase, excluding accounts |
| originated by Washington |
| Mutual |
| - Accounts originated by |
| Washington Mutual |
|  |

(a) Includes loans reported in IB, Commercial Banking ("CB"), Treasury \& Securities Services ("TSS"), Asset Management ("AM"), and Corporate/ Private Equity segments.
(b) Includes loans reported in RFS, auto and student loans reported in Card Services \& Auto ("Card"), and residential real estate loans reported in the Corporate/Private Equity and AM segment.
(c) Includes auto and business banking risk-rated loans that apply the wholesale methodology for determining the allowance for loan losses; these loans are managed by Card and RFS, respectively, and therefore, for consistency in presentation, are included with the other consumer loan classes.

The following table summarizes the Firm's loan balances by portfolio segment.

| December 31, 2011 (in millions) | Wholesale |  | Consumer, excluding credit card |  | Credit card |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retained | \$ | 278,395 | \$ | 308,427 | \$ | 132,175 | \$ | 718,997 | (a) |
| Held-for-sale |  | 2,524 |  | - |  | 102 |  | 2,626 |  |
| At fair value |  | 2,097 |  | - |  | - |  | 2,097 |  |
| Total | \$ | 283,016 | \$ | 308,427 | \$ | 132,277 | \$ | 723,720 |  |
| December 31, 2010 (in millions) | Wholesale |  | Consumer, excluding credit card |  | Credit card |  | Total |  |  |
| Retained | \$ | 222,510 | \$ | 327,464 | \$ | 135,524 | \$ | 685,498 | ${ }^{(a)}$ |
| Held-for-sale |  | 3,147 |  | 154 |  | 2,152 |  | 5,453 |  |
| At fair value |  | 1,976 |  | - |  | - |  | 1,976 |  |
| Total | \$ | 227,633 | \$ | 327,618 | \$ | 137,676 | \$ | 692,927 |  |

(a) Loans (other than PCI loans and those for which the fair value option has been selected) are presented net of unearned income, unamortized discounts and premiums, and net deferred loan costs of $\$ 2.7$ billion and $\$ 1.9$ billion at December 31, 2011 and 2010, respectively.

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

| Year ended <br> December 31, 2011 (in millions) | Consumer, excluding <br> credit card |  |  |  |  | Credit card |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

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

| Year ended December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments) ${ }^{(2)}$ |  |  |  |  |  |  |
| Wholesale | \$ | 121 | \$ | 215 | \$ | 291 |
| Consumer, excluding credit card |  | 131 |  | 265 |  | 127 |
| Credit card |  | (24) |  | (16) |  | 21 |
| Total net gains/(losses) on sales of loans (including lower of cost or fair value adjustments) ${ }^{(a)}$ | \$ | 228 | \$ | 464 | \$ | 439 |

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

## Wholesale Ioan portfolio

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

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

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

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

As noted above, the risk rating of a loan considers the industry in which the obligor conducts its operations. As part of the overall credit risk management framework, the Firm focuses on the management and diversification of its industry and client exposures, with particular attention paid to industries with actual or potential credit concern. See Note 5 on page 201 in this Annual Report for further detail on industry concentrations.

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

| As of or for the year ended December 31, (in millions, except ratios) | Commercial and industrial |  |  |  | Real estate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Loans by risk ratings |  |  |  |  |  |  |  |  |
| Investment grade | \$ | 52,428 | \$ | 31,697 | \$ | 33,920 | \$ | 28,504 |
| Noninvestment grade: |  |  |  |  |  |  |  |  |
| Noncriticized |  | 38,644 |  | 30,874 |  | 15,972 |  | 16,425 |
| Criticized performing |  | 2,254 |  | 2,371 |  | 3,906 |  | 5,769 |
| Criticized nonaccrual |  | 889 |  | 1,634 |  | 886 |  | 2,937 |
| Total noninvestment grade |  | 41,787 |  | 34,879 |  | 20,764 |  | 25,131 |
| Total retained loans | \$ | 94,215 | \$ | 66,576 | \$ | 54,684 | \$ | 53,635 |
| \% of total criticized to total retained loans |  | 3.34\% |  | 6.02\% |  | 8.76\% |  | 16.23\% |
| \% of nonaccrual loans to total retained loans |  | 0.94 |  | 2.45 |  | 1.62 |  | 5.48 |
| Loans by geographic distribution ${ }^{(2)}$ |  |  |  |  |  |  |  |  |
| Total non-U.S. | \$ | 30,813 | \$ | 17,731 | \$ | 1,497 | \$ | 1,963 |
| Total U.S. |  | 63,402 |  | 48,845 |  | 53,187 |  | 51,672 |
| Total retained loans | \$ | 94,215 | \$ | 66,576 | \$ | 54,684 | \$ | 53,635 |
| Net charge-offs | \$ | 124 | \$ | 403 | \$ | 256 | \$ | 862 |
| \% of net charge-offs to end-of-period retained loans |  | 0.13\% |  | 0.61\% |  | 0.47\% |  | 1.61\% |
| Loan delinquency ${ }^{\left({ }^{(b)}\right.}$ |  |  |  |  |  |  |  |  |
| Current and less than 30 days past due and still accruing | \$ | 93,060 | \$ | 64,501 | \$ | 53,387 | \$ | 50,299 |
| 30-89 days past due and still accruing |  | 266 |  | 434 |  | 327 |  | 290 |
| 90 or more days past due and still accruing ${ }^{(c)}$ |  | - |  | 7 |  | 84 |  | 109 |
| Criticized nonaccrual |  | 889 |  | 1,634 |  | 886 |  | 2,937 |
| Total retained loans | \$ | 94,215 | \$ | 66,576 | \$ | 54,684 | \$ | 53,635 |

(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 235 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 182-183 of this Annual Report for additional information on SPEs.

The following table presents additional information on the real estate class of loans within the Wholesale portfolio segment for the periods indicated. The real estate class primarily consists of secured commercial loans mainly to borrowers for multifamily 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 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Real estate retained loans | \$ | 32,524 | \$ | 30,604 | \$ | 14,444 | \$ | 15,796 |
| Criticized exposure |  | 2,451 |  | 3,798 |  | 1,662 |  | 3,593 |
| \% of criticized exposure to total real estate retained loans |  | 7.54\% |  | 12.41\% |  | 11.51\% |  | 22.75\% |
| Criticized nonaccrual | \$ | 412 | \$ | 1,016 | \$ | 284 | \$ | 1,549 |
| \% of criticized nonaccrual to total real estate retained loans |  | 1.27\% |  | 3.32\% |  | 1.97\% |  | 9.81\% |

(table continued from previous page)

| Financial institutions |  |  |  | Government agencies |  |  |  | Other ${ }^{\text {(d) }}$ |  |  |  | Total retained loans |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| \$ | 28,804 | \$ | 22,525 | \$ | 7,421 | \$ | 6,871 | \$ | 74,497 | \$ | 56,450 | \$ | 197,070 | \$ | 146,047 |
|  | 9,132 |  | 8,480 |  | 378 |  | 382 |  | 7,583 |  | 6,012 |  | 71,709 |  | 62,173 |
|  | 246 |  | 317 |  | 4 |  | 3 |  | 808 |  | 320 |  | 7,218 |  | 8,780 |
|  | 37 |  | 136 |  | 16 |  | 22 |  | 570 |  | 781 |  | 2,398 |  | 5,510 |
|  | 9,415 |  | 8,933 |  | 398 |  | 407 |  | 8,961 |  | 7,113 |  | 81,325 |  | 76,463 |
| \$ | 38,219 | \$ | 31,458 | \$ | 7,819 | \$ | 7,278 | \$ | 83,458 | \$ | 63,563 | \$ | 278,395 | \$ | 222,510 |
|  | 0.74 \% |  | 1.44\% |  | 0.26\% |  | 0.34\% |  | 1.65\% |  | 1.73\% |  | 3.45\% |  | 6.42\% |
|  | 0.10 |  | 0.43 |  | 0.20 |  | 0.30 |  | 0.68 |  | 1.23 |  | 0.86 |  | 2.48 |
| \$ | 29,996 | \$ | 19,756 | \$ | 583 | \$ | 870 | \$ | 32,275 | \$ | 25,831 | \$ | 95,164 | \$ | 66,151 |
|  | 8,223 |  | 11,702 |  | 7,236 |  | 6,408 |  | 51,183 |  | 37,732 |  | 183,231 |  | 156,359 |
| \$ | 38,219 | \$ | 31,458 | \$ | 7,819 | \$ | 7,278 | \$ | 83,458 | \$ | 63,563 | \$ | 278,395 | \$ | 222,510 |
| \$ | (137) | \$ | 72 | \$ | - | \$ | 2 | \$ | 197 | \$ | 388 | \$ | 440 | \$ | 1,727 |
|  | (0.36)\% |  | 0.23\% |  | -\% |  | 0.03\% |  | 0.24\% |  | 0.61\% |  | 0.16\% |  | 0.78\% |
| \$ | 38,129 | \$ | 31,289 | \$ | 7,780 | \$ | 7,222 | \$ | 81,802 | \$ | 61,837 | \$ | 274,158 | \$ | 215,148 |
|  | 51 |  | 31 |  | 23 |  | 34 |  | 1,072 |  | 704 |  | 1,739 |  | 1,493 |
|  | 2 |  | 2 |  | - |  | - |  | 14 |  | 241 |  | 100 |  | 359 |
|  | 37 |  | 136 |  | 16 |  | 22 |  | 570 |  | 781 |  | 2,398 |  | 5,510 |
| \$ | 38,219 | \$ | 31,458 | \$ | 7,819 | \$ | 7,278 | \$ | 83,458 | \$ | 63,563 | \$ | 278,395 | \$ | 222,510 |

(table continued from previous page)

| Commercial construction and development |  |  |  | Other |  |  |  | Total real estate loans |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| \$ | 3,148 | \$ | 3,395 | \$ | 4,568 | \$ | 3,840 | \$ | 54,684 | \$ | 53,635 |
|  | 297 |  | 619 |  | 382 |  | 696 |  | 4,792 |  | 8,706 |
|  | 9.43\% |  | 18.23\% |  | 8.36\% |  | 18.13\% |  | 8.76\% |  | 16.23\% |
| \$ | 69 | \$ | 174 | \$ | 121 | \$ | 198 | \$ | 886 | \$ | 2,937 |
|  | 2.19\% |  | 5.13\% |  | 2.65\% |  | 5.16\% |  | 1.62\% |  | 5.48\% |

## Notes to consolidated financial statements

## Wholesale impaired loans and loan modifications

Wholesale impaired loans include 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 on pages 233-234 of this Note.
The table below set forth information about the Firm's wholesale impaired loans.

(a) When the discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, then the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged-off and/or there have been interest payments received and applied to the loan balance.
(b) Represents the contractual amount of principal owed at December 31, 2011 and 2010. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the carrying value; net deferred loan fees or costs; and unamortized discount or premiums on purchased loans.

The following table presents the Firm's average impaired loans for the years ended 2011, 2010 and 2009.

| Year ended December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commercial and industrial | \$ | 1,309 | \$ | 1,655 | \$ | 1,767 |
| Real estate |  | 1,813 |  | 3,101 |  | 2,420 |
| Financial institutions |  | 84 |  | 304 |  | 685 |
| Government agencies |  | 20 |  | 5 |  | 4 |
| Other |  | 634 |  | 884 |  | 468 |
| Total ${ }^{(1)}$ | \$ | 3,860 | \$ | 5,949 | \$ | 5,344 |

(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, 2011,2010 and 2009.

## Loan modifications

Certain loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. All TDRs are reported as impaired loans in the tables above. The following table provides information about the Firm's wholesale loans that have been modified in TDRs as of the dates presented.

| December 31, (in millions) | Commercial and industrial |  |  | Real estate |  |  |  | Financial institutions |  |  |  | Government agencies |  |  |  | Other |  |  |  | Total retained loans |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Loans modified in troubled debt restructurings | \$ 531 | \$ | 212 | \$ | 176 | \$ | 907 | \$ | 2 | \$ | 1 | \$ | 16 | \$ | 22 | \$ | 25 | \$ | 1 | \$ | 750 | \$ |  |
| TDRs on nonaccrual status | 415 |  | 163 |  | 128 |  | 831 |  | - |  | 1 |  | 16 |  | 22 |  | 19 |  | 1 |  | 578 |  |  |
| Additional commitments to lend to borrowers whose loans have been modified in TDRs | 147 |  | 1 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 147 |  | 1 |

## TDR activity rollforward

The following table reconciles the beginning and ending balances of wholesale loans modified in TDRs for the period presented and provides information regarding the nature and extent of modifications during the period.

| Year ended December 31, 2011 (in millions) | Commercial and industrial |  | Real estate |  | Other ${ }^{(b)}$ |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning balance of TDRs | \$ | 212 | \$ | 907 | \$ | 24 | \$ | 1,143 |
| New TDRs |  | 665 |  | 113 |  | 32 |  | 810 |
| Increases to existing TDRs |  | 96 |  | 16 |  | - |  | 112 |
| Charge-offs post-modification |  | (30) |  | (146) |  | - |  | (176) |
| Sales and other ${ }^{(a)}$ |  | (412) |  | (714) |  | (13) |  | $(1,139)$ |
| Ending balance of TDRs | \$ | 531 | \$ | 176 | \$ | 43 | \$ | 750 |

[^6]
## Financial effects of modifications and redefaults

Loans modified as TDRs during the year ended December 31, 2011, are predominantly term or payment extensions and, to a lesser extent, deferrals of principal and/or interest on commercial and industrial and real estate loans. The average term extension granted on loans with term or payment extensions was 3.3 years for the year ended December 31, 2011. The weighted-average remaining term for all loans modified during the year ended December 31, 2011 was 4.5 years. Wholesale TDR Ioans that redefaulted within one year of the modification were $\$ 96$ million during the year ended December 31, 2011. 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.

## Consumer, excluding credit card loan portfolio

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

The table below provides information about consumer retained loans by class, excluding the Credit card loan portfolio segment.

| December 31, (in millions) | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| Residential real estate - excluding PCI |  |  |  |  |
| Home equity: |  |  |  |  |
| Senior lien | \$ | 21,765 | \$ | 24,376 |
| Junior lien |  | 56,035 |  | 64,009 |
| Mortgages: |  |  |  |  |
| Prime, including option ARMs |  | 76,196 |  | 74,539 |
| Subprime |  | 9,664 |  | 11,287 |
| Other consumer loans |  |  |  |  |
| Auto |  | 47,426 |  | 48,367 |
| Business banking |  | 17,652 |  | 16,812 |
| Student and other |  | 14,143 |  | 15,311 |
| Residential real estate - PCI |  |  |  |  |
| Home equity |  | 22,697 |  | 24,459 |
| Prime mortgage |  | 15,180 |  | 17,322 |
| Subprime mortgage |  | 4,976 |  | 5,398 |
| Option ARMs |  | 22,693 |  | 25,584 |
| Total retained loans | \$ | 308,427 | \$ | 327,464 |

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 that 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 short sale or foreclosure. In addition to delinquency rates, other credit quality indicators for consumer loans vary based on the class of Ioan, 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 loans with a junior lien, 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 hurricanes, earthquakes, etc., 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 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 affecting borrowers' ability to fulfill their obligations. Consistent with other classes of consumer loans, the geographic distribution of the portfolio provides insights into portfolio performance based on regional economic activity and events.


## Residential real estate - excluding PCI loans

The following tables provide information by class for residential real estate - excluding PCI retained loans in the Consumer, excluding credit card, portfolio segment.
The following factors should be considered in analyzing certain credit statistics applicable to the Firm's residential real estate - excluding PCI loans portfolio: (i) junior lien home equity loans may be fully charged off when the loan becomes 180 days past due, the borrower is either unable
or unwilling to repay the loan, 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 estimated collateral value that remain on the Firm's Consolidated Balance Sheets.

Residential real estate - excluding PCI loans

| December 31, (in millions, except ratios) | Home equity |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Senior lien |  |  |  | Junior lien |  |  |  |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Loan delinquency ${ }^{(a)}$ |  |  |  |  |  |  |  |  |
| Current and less than 30 days past due | \$ | 20,992 | \$ | 23,615 | \$ | 54,533 | \$ | 62,315 |
| 30-149 days past due |  | 405 |  | 414 |  | 1,272 |  | 1,508 |
| 150 or more days past due |  | 368 |  | 347 |  | 230 |  | 186 |
| Total retained Ioans | \$ | 21,765 | \$ | 24,376 | \$ | 56,035 | \$ | 64,009 |
| \% of 30+ days past due to total retained loans |  | 3.55\% |  | 3.12\% |  | 2.68\% |  | 2.65\% |
| 90 or more days past due and still accruing | \$ | - | \$ | - | \$ | - | \$ | - |
| 90 or more days past due and government guaranteed ${ }^{(b)}$ |  | - |  | - |  | - |  | - |
| Nonaccrual loans |  | 495 |  | 479 |  | 792 |  | 784 |
| Current estimated LTV ratios ${ }^{(\mathrm{c})(\mathrm{d})(\mathrm{e})(\mathrm{f})}$ |  |  |  |  |  |  |  |  |
| Greater than 125\% and refreshed FICO scores: |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 | \$ | 341 | \$ | 363 | \$ | 6,463 | \$ | 6,928 |
| Less than 660 |  | 160 |  | 196 |  | 2,037 |  | 2,495 |
| 101\% to 125\% and refreshed FICO scores: |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 |  | 663 |  | 619 |  | 8,775 |  | 9,403 |
| Less than 660 |  | 241 |  | 249 |  | 2,510 |  | 2,873 |
| 80\% to 100\% and refreshed FICO scores: |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 |  | 1,850 |  | 1,900 |  | 11,433 |  | 13,333 |
| Less than 660 |  | 601 |  | 657 |  | 2,616 |  | 3,155 |
| Less than $80 \%$ and refreshed FICO scores: |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 |  | 15,350 |  | 17,474 |  | 19,326 |  | 22,527 |
| Less than 660 |  | 2,559 |  | 2,918 |  | 2,875 |  | 3,295 |
| U.S. government-guaranteed |  | - |  | - |  | - |  | - |
| Total retained loans | \$ | 21,765 | \$ | 24,376 | \$ | 56,035 | \$ | 64,009 |
| Geographic region |  |  |  |  |  |  |  |  |
| California | \$ | 3,066 | \$ | 3,348 | \$ | 12,851 | \$ | 14,656 |
| New York |  | 3,023 |  | 3,272 |  | 10,979 |  | 12,278 |
| Florida |  | 992 |  | 1,088 |  | 3,006 |  | 3,470 |
| Illinois |  | 1,495 |  | 1,635 |  | 3,785 |  | 4,248 |
| Texas |  | 3,027 |  | 3,594 |  | 1,859 |  | 2,239 |
| New Jersey |  | 687 |  | 732 |  | 3,238 |  | 3,617 |
| Arizona |  | 1,339 |  | 1,481 |  | 2,552 |  | 2,979 |
| Washington |  | 714 |  | 776 |  | 1,895 |  | 2,142 |
| Ohio |  | 1,747 |  | 2,010 |  | 1,328 |  | 1,568 |
| Michigan |  | 1,044 |  | 1,176 |  | 1,400 |  | 1,618 |
| All other ${ }^{(\mathrm{g})}$ |  | 4,631 |  | 5,264 |  | 13,142 |  | 15,194 |
| Total retained loans | \$ | 21,765 | \$ | 24,376 | \$ | 56,035 | \$ | 64,009 |

(a) Individual delinquency classifications included mortgage loans insured by U.S. government agencies as follows: current and less than 30 days past due includes $\$ 3.0$ billion and $\$ 2.5$ billion; 30-149 days past due includes $\$ 2.3$ billion and $\$ 2.5$ billion; and 150 or more days past due includes $\$ 10.3$ billion and $\$ 7.9$ billion at December 31 , 2011 and 2010, respectively.
(b) These balances, which are 90 days or more past due but insured by U.S. government agencies, are excluded from nonaccrual loans. In predominately all cases, $100 \%$ of the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting agreed servicing guidelines. These amounts are excluded from nonaccrual loans because reimbursement of insured and guaranteed amounts is proceeding normally. At December 31, 2011 and 2010, these balances included $\$ 7.0$ billion and $\$ 2.8$ 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 related to the property. All other products are presented without consideration of subordinate liens on the property.
(e) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by the Firm at least on a quarterly basis.
(f) For senior lien home equity loans, prior-period amounts have been revised to conform with the current-period presentation.
(g) At December 31, 2011 and 2010, included mortgage loans insured by U.S. government agencies of $\$ 15.6$ billion and $\$ 12.9$ billion, respectively.
(h) At December 31, 2011 and 2010, excluded mortgage loans insured by U.S. government agencies of $\$ 12.6$ billion and $\$ 10.3$ billion, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.
(table continued from previous page)


The following table represents the Firm's delinquency statistics for junior lien home equity loans as of December 31, 2011 and 2010.

| December 31, 2011 (in millions, except ratios) | Delinquencies |  |  |  |  |  | Total Ioans |  | Total 30+ day delinquency rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30-89 days past due |  | 90-149 dayspast due |  | $\begin{aligned} & 150+\text { days past } \\ & \text { due } \end{aligned}$ |  |  |  |  |
| HELOCs: ${ }^{\text {a) }}$ |  |  |  |  |  |  |  |  |  |
| Within the revolving period ${ }^{(b)}$ | \$ | 606 | \$ | 314 | \$ | 173 | \$ | 47,760 | 2.29\% |
| Within the required amortization period |  | 45 |  | 19 |  | 15 |  | 1,636 | 4.83 |
| HELOANs |  | 188 |  | 100 |  | 42 |  | 6,639 | 4.97 |
| Total | \$ | 839 | \$ | 433 | \$ | 230 | \$ | 56,035 | 2.68\% |


| December 31, 2010 (in millions, except ratios) | Delinquencies |  |  |  |  |  | Total loans |  | Total 30+ day delinquency rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { 30-89 days } \\ \text { past due } \end{gathered}$ |  | $\begin{aligned} & \text { 90-149 days } \\ & \text { past due } \end{aligned}$ |  | $\begin{aligned} & 150+\text { days past } \\ & \text { due } \end{aligned}$ |  |  |  |  |
| HELOCs: ${ }^{(\mathrm{a})}$ |  |  |  |  |  |  |  |  |  |
| Within the revolving period ${ }^{(b)}$ | \$ | 665 | \$ | 384 | \$ | 145 | \$ | 54,434 | 2.19\% |
| Within the required amortization period |  | 41 |  | 19 |  | 10 |  | 1,177 | 5.95 |
| HELOANs |  | 250 |  | 149 |  | 31 |  | 8,398 | 5.12 |
| Total | \$ | 956 | \$ | 552 | \$ | 186 | \$ | 64,009 | 2.65\% |

(a) In general, HELOCs are open-ended, revolving loans for a 10-year period, after which time the HELOC converts to a loan with a 20-year amortization period.
(b) The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are experiencing financial difficulty or when the collateral does not support the loan amount.

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

## Impaired loans

The table below sets forth information about the Firm's residential real estate impaired loans, excluding PCI. These loans are considered to be impaired as they have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 on pages 252-255 of this Annual Report.

| December 31, (in millions) | Home equity |  |  |  |  |  |  |  | Mortgages |  |  |  |  |  |  |  | Total residential real estate - excluding PCI |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Senior lien |  |  |  | Junior lien |  |  |  | Prime, including option ARMs |  |  |  | Subprime |  |  |  |  |  |  |  |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Impaired loans |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| With an allowance | \$ | 319 | \$ | 211 | \$ | 622 | \$ | 258 | \$ | 4,332 | \$ | 1,525 | \$ | 3,047 | \$ | 2,563 | \$ | 8,320 | \$ | 4,557 |
| Without an allowance ${ }^{(a)}$ |  | 16 |  | 15 |  | 35 |  | 25 |  | 545 |  | 559 |  | 172 |  | 188 |  | 768 |  | 787 |
| Total impaired loans ${ }^{(b)}$ | \$ | 335 | \$ | 226 | \$ | 657 | \$ | 283 | \$ | 4,877 | \$ | 2,084 | \$ | 3,219 | \$ | 2,751 | \$ | 9,088 | \$ | 5,344 |
| Allowance for Ioan losses related to impaired loans | \$ | 80 | \$ | 77 | \$ | 141 | \$ | 82 | \$ | 4 | \$ | 97 | \$ | 366 | \$ | 555 | \$ | 591 | \$ | 811 |
| Unpaid principal balance of impaired loans ${ }^{(\mathrm{C})}$ |  | 433 |  | 265 |  | 994 |  | 402 |  | 6,190 |  | 2,751 |  | 4,827 |  | 3,777 |  | 12,444 |  | 7,195 |
| Impaired loans on nonaccrual status |  | 77 |  | 38 |  | 159 |  | 63 |  | 922 |  | 534 |  | 832 |  | 632 |  | 1,990 |  | 1,267 |

(a) When discounted cash flows or collateral value equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when an impaired loan has been partially charged off.
(b) At December 31, 2011 and 2010, $\$ 4.3$ billion and $\$ 3.0$ billion, respectively, of loans modified subsequent to repurchase from Ginnie Mae in accordance with the standards of the appropriate government agency (i.e., Federal Housing Administration ("FHA"), U.S. Department of Veterans Affairs ("VA"), Rural Housing Services ("RHS")) were excluded from loans accounted for as TDRs. 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, 2011 and 2010. 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.

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

| Year ended December 31, | Average impaired loans |  |  |  |  |  | Interest income on impaired loans ${ }^{(a)}$ |  |  |  |  |  | Interest income on impaired Ioans on a cash basis ${ }^{(a)}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in millions) | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  |
| Home equity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Senior lien | \$ | 287 | \$ | 207 | \$ | 142 | \$ | 10 | \$ | 15 | \$ | 7 | \$ | 1 | \$ | 1 | \$ | 1 |
| Junior lien |  | 521 |  | 266 |  | 187 |  | 18 |  | 10 |  | 9 |  | 2 |  | 1 |  | 1 |
| Mortgages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Prime, including option ARMs |  | 3,859 |  | 1,530 |  | 496 |  | 147 |  | 70 |  | 34 |  | 14 |  | 14 |  | 8 |
| Subprime |  | 3,083 |  | 2,539 |  | 1,948 |  | 148 |  | 121 |  | 98 |  | 16 |  | 19 |  | 6 |
| Total residential real estate - excluding PCI | \$ | 7,750 | \$ | 4,542 | \$ | 2,773 | \$ | 323 | \$ | 216 | \$ | 148 | \$ | 33 | \$ | 35 | \$ | 16 |

(a) Generally, interest income on loans modified in a TDR is recognized on a cash basis until such time as the borrower has made a minimum of six payments under the new terms. As of December 31, 2011 and 2010, $\$ 886$ million and $\$ 580$ million, respectively, of loans were TDRs for which the borrowers had not yet made six payments under their modified terms.

## Loan modifications

The Firm is participating in the U.S. Treasury's Making Home Affordable ("MHA") programs and is continuing to expand its other loss-mitigation efforts for financially distressed borrowers who do not qualify for the U.S. Treasury's programs. The MHA programs include the Home Affordable Modification Program ("HAMP") and the Second Lien Modification Program ("2MP"). The Firm’s other lossmitigation programs for troubled borrowers who do not qualify for HAMP include the traditional modification programs offered by the GSEs and Ginnie Mae, as well as the Firm's proprietary modification programs, which include concessions similar to those offered under HAMP and 2MP but with expanded eligibility criteria. In addition, the Firm has offered specific targeted modification programs to higher risk borrowers, many of whom were current on their mortgages prior to modification.

In order to be offered a permanent modification under HAMP, a borrower must successfully make three payments under the new terms during a trial modification period. The Firm also offers one proprietary modification program that is similar to HAMP and that includes a comparable trial modification period. Borrowers who do not successfully complete the trial modification period do not qualify to
have their loans permanently modified under that particular program; however, in certain cases, the Firm considers whether the borrower might qualify for a different loan modification program.

Permanent modifications of residential real estate loans, excluding PCI loans, are generally accounted for and reported as TDRs. In addition, in the fourth quarter of 2011, the Firm began to characterize as TDRs loans to borrowers who have been approved for a trial modification either under HAMP or under the proprietary program noted above, even though such loans have not yet been permanently modified. Regardless of whether the borrower successfully completes the trial modification, such loans will continue to be reported as TDRs until charged-off, repaid or otherwise liquidated. The Firm previously considered the risk characteristics of loans in a trial modification in determining its formula-based allowance for loan losses. As a result, the recharacterization of trial modifications as TDRs during the fourth quarter of 2011 did not have a significant impact on the Firm's allowance for loan losses.
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 tables reconcile the beginning and ending balances of residential real estate loans, excluding PCI loans, modified in TDRs for the periods presented.

| Year ended December 31, 2011 (in millions) | Home equity |  |  |  | Mortgages |  |  |  | Total residential real estate (excluding PCI) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Senior lien |  | Junior lien |  | Prime, including option ARMs |  | Subprime |  |  |  |
| Beginning balance of TDRs | \$ | 226 | \$ | 283 | \$ | 2,084 | \$ | 2,751 | \$ | 5,344 |
| New TDRs ${ }^{(a)}$ |  | 138 |  | 518 |  | 3,268 |  | 883 |  | 4,807 |
| Charge-offs post-modification ${ }^{(b)}$ |  | (15) |  | (78) |  | (119) |  | (234) |  | (446) |
| Foreclosures and other liquidations (e.g., short sales) |  | - |  | (11) |  | (108) |  | (82) |  | (201) |
| Principal payments and other |  | (14) |  | (55) |  | (248) |  | (99) |  | (416) |
| Ending balance of TDRs | \$ | 335 | \$ | 657 | \$ | 4,877 | \$ | 3,219 | \$ | 9,088 |
| Permanent modifications | \$ | 285 | \$ | 634 | \$ | 4,601 | \$ | 3,029 | \$ | 8,549 |
| Trial modifications | \$ | 50 | \$ | 23 | \$ | 276 | \$ | 190 | \$ | 539 |

(a) Includes all loans to borrowers who were approved for trial modification on or after January 1, 2011, as well as all loans permanently modified during the year ended December 31, 2011. In the event that a trial modification is reported as a new TDR, any subsequent permanent modification of that same loan is not reported as a new TDR.
(b) Includes charge-offs on unsuccessful trial modifications.

## Notes to consolidated financial statements

## Nature and extent of modifications

MHA, as well as the Firm's proprietary modification programs, generally provide various concessions to financially troubled borrowers including, but not limited to, interest rate reductions, term or payment extensions and deferral of principal and/or interest payments that would otherwise have been required under the terms of the original agreement. The following table provides information about how residential real estate loans, excluding PCI loans, were permanently modified during the period presented.

| Year ended December 31, 2011 | Home equity |  | Mortgages |  | Total residential real estate (excluding PCI) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Senior lien | Junior lien | Prime, including option ARMs | Subprime |  |
| Number of loans approved for a trial modification, but not permanently modified | 654 | 778 | 898 | 1,730 | 4,060 |
| Number of loans permanently modified | 1,006 | 9,142 | 9,579 | 4,972 | 24,699 |
| Permanent concession granted: ${ }^{(\mathrm{a})(\mathrm{b})}$ |  |  |  |  |  |
| Interest rate reduction | 80\% | 95\% | 53\% | 80\% | 75\% |
| Term or payment extension | 88 | 81 | 71 | 72 | 75 |
| Principal and/or interest deferred | 10 | 21 | 17 | 19 | 19 |
| Principal forgiveness | 7 | 20 | 2 | 13 | 11 |
| Other ${ }^{(c)}$ | 29 | 7 | 68 | 26 | 35 |

(a) As a percentage of the number of loans permanently modified. The sum of the percentages exceeds $100 \%$ because predominantly all of the permanent modifications include more than one type of concession.
(b) Except for the "Other" category, the percentages representing the various types of concessions granted are estimated to be materially consistent with those related to loans approved for trial modification.
(c) Represents variable interest rate to fixed interest rate modifications. To date, these concessions have solely related to permanent modifications.

## Financial effects of modifications and redefaults

The following table provides information about the financial effects of the various concessions granted in permanent modifications of residential real estate loans, excluding PCI, and also about redefaults of certain loans modified in TDRs for the period presented.

| Year ended December 31, 2011 <br> (in millions, except weighted-average data and number of loans) | Home equity |  |  |  | Mortgages |  |  |  | Total residential real estate (excluding PCI) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Senior lien |  | Junior lien |  | rime, including option ARMs |  | Subprime |  |  |
| Weighted-average interest rate of Ioans with interest rate reductions - before TDR ${ }^{\text {(a) }}$ |  | 7.25\% |  | 5.46\% |  | 5.98\% |  | 8.25\% |  | 6.44\% |
| Weighted-average interest rate of loans with interest rate reductions - after TDR ${ }^{\text {(a) }}$ |  | 3.51 |  | 1.49 |  | 3.34 |  | 3.46 |  | 3.09 |
| Weighted-average remaining contractual term (in years) of loans with term or payment extensions - before TDR ${ }^{(\mathrm{a})}$ |  | 18 |  | 21 |  | 25 |  | 23 |  | 24 |
| Weighted-average remaining contractual term (in years) of loans with term or payment extensions - after TDR ${ }^{(a)}$ |  | 30 |  | 34 |  | 35 |  | 34 |  | 35 |
| Charge-offs recognized upon permanent modification | \$ | 1 | \$ | 117 | \$ | 61 | \$ | 19 | \$ | 198 |
| Principal deferred ${ }^{(b)}$ |  | 4 |  | 35 |  | 167 |  | 61 |  | 267 |
| Principal forgiven ${ }^{(b)}$ |  | 1 |  | 62 |  | 20 |  | 46 |  | 129 |
| Number of loans that redefaulted within one year of permanent modification ${ }^{\text {(c) }}$ |  | 222 |  | 1,310 |  | 1,142 |  | 1,989 |  | 4,663 |
| Balance of loans that redefaulted within one year of permanent modification ${ }^{(c)}$ | \$ | 18 | \$ | 52 | \$ | 340 | \$ | 281 | \$ | 691 |
| Cumulative permanent modification redefault rates ${ }^{(d)}$ |  | 21\% |  | 14\% |  | 13\% |  | 28\% |  | 18\% |

(a) Represents information about loans that have been permanently modified. The financial effects of such concessions related to loans approved for trial modification are estimated to be materially consistent with the financial effects presented above.
(b) Represents information about loans that have been permanently modified. Principal deferred and principal forgiven related to loans approved for trial modification totaled \$125 million for the year ended December 31, 2011.
(c) Represents loans permanently modified in TDRs that experienced a payment default in the period presented, and for which the payment default occurred within one year of the modification. The dollar amounts presented represent the balance of such loans at the end of the reporting period in which they 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.
(d) Based upon permanent modifications completed after October 1, 2009, that are seasoned more than six months.

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.

At December 31, 2011, the weighted-average estimated remaining lives of residential real estate loans, excluding PCI loans, permanently modified in TDRs were 7.0 years, 6.9 years, 9.0 years and 6.7 years for senior lien home equity, junior lien home equity, prime mortgage, including option ARMs, and subprime mortgage, respectively. 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 tables below provide information for other consumer retained loan classes, including auto, business banking and student loans.

(a) Loans insured by U.S. government agencies under the Federal Family Education Loan Program ("FFELP") are included in the delinquency classifications presented based on their payment status. Prior-period amounts have been revised to conform with the current-period presentation.
(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, 2011 and 2010, excluded loans 30 days or more past due and still accruing, which are insured by U.S. government agencies under the FFELP, of $\$ 989$ million and $\$ 1.1$ billion, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.

## Notes to consolidated financial statements

## Other consumer impaired loans and loan modifications

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

| December 31, (in millions) | Auto |  |  |  | Business banking |  |  |  | Total other consumer ${ }^{(c)}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Impaired loans |  |  |  |  |  |  |  |  |  |  |  |  |
| With an allowance | \$ | 88 | \$ | 102 | \$ | 713 | \$ | 774 | \$ | 801 | \$ | 876 |
| Without an allowance ${ }^{()^{(a)}}$ |  | 3 |  | - |  | - |  | - |  | 3 |  | - |
| Total impaired loans | \$ | 91 | \$ | 102 | \$ | 713 | \$ | 774 | \$ | 804 | \$ | 876 |
| Allowance for loan losses related to impaired loans | \$ | 12 | \$ | 16 | \$ | 225 | \$ | 248 | \$ | 237 | \$ | 264 |
| Unpaid principal balance of impaired loans ${ }^{(b)}$ |  | 126 |  | 132 |  | 822 |  | 899 |  | 948 |  | 1,031 |
| Impaired loans on nonaccrual status |  | 41 |  | 50 |  | 551 |  | 647 |  | 592 |  | 697 |

(a) When discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, then the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged off and/or there have been interest payments received and applied to the loan balance.
(b) Represents the contractual amount of principal owed at December 31, 2011 and 2010. 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, 2011 and 2010.

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

| Year ended December 31, (in millions) | Average impaired loans ${ }^{(b)}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2009 |  |
| Auto | \$ | 92 | \$ | 120 | \$ | 100 |
| Business banking |  | 760 |  | 682 |  | 396 |
| Total other consumer ${ }^{(a)}$ | \$ | 852 | \$ | 802 | \$ | 496 |

(a) There were no impaired student and other loans for the years ended 2011, 2010 and 2009.
(b) The related interest income on impaired loans, including those on a cash basis, was not material for the years ended 2011, 2010 and 2009.

## Loan modifications

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

| December 31, (in millions) | Auto |  |  |  |  |  | Business banking |  |  |  | Total other consumer ${ }^{(c)}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  |  | 2010 |  |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Loans modified in troubled debt restructurings ${ }^{(\mathrm{a})(\mathrm{b})}$ | \$ |  | 88 | \$ |  | 91 | \$ | 415 | \$ | 395 | \$ | 503 | \$ | 486 |
| TDRs on nonaccrual status |  |  | 38 |  |  | 39 |  | 253 |  | 268 |  | 291 |  | 307 |

(a) These modifications generally provided interest rate concessions to the borrower or deferral of principal repayments.
(b) Additional commitments to lend to borrowers whose loans have been modified in TDRs as of December 31, 2011 and 2010, were immaterial.
(c) There were no student and other loans modified in TDRs at December 31, 2011 and 2010.

## TDR activity rollforward

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

Year ended December 31, 2011

| (in millions) | Auto |  | Business banking |  | Total other consumer |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning balance of TDRs | \$ | 91 | \$ | 395 | \$ | 486 |
| New TDRs |  | 54 |  | 195 |  | 249 |
| Charge-offs |  | (5) |  | (11) |  | (16) |
| Foreclosures and other liquidations |  | - |  | (3) |  | (3) |
| Principal payments and other |  | (52) |  | (161) |  | (213) |
| Ending balance of TDRs | \$ | 88 | \$ | 415 | \$ | 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.

For business banking loans, concessions are dependent on individual borrower circumstances and can be of a shortterm 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.
For the year ended December 31, 2011, the interest rates on auto loans modified in TDRs were reduced on average from $12.45 \%$ to $5.70 \%$, and the interest rates on business banking loans modified in TDRs were reduced on average from $7.55 \%$ to $5.52 \%$. For business banking loans, the weighted-average remaining term of all loans modified in TDRs during the year ended December 31, 2011, increased from 1.4 years to 2.6 years. For all periods presented, principal forgiveness related to auto loans was immaterial.
The balance of business banking loans modified in TDRs that experienced a payment default during the year ended December 31, 2011, and for which the payment default occurred within one year of the modification, was $\$ 80$ million; the corresponding balance of redefaulted auto loans modified in TDRs 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.

## Purchased credit-impaired loans

PCI loans are initially recorded at fair value at acquisition; PCI loans acquired in the same fiscal quarter may be aggregated into one or more pools, provided that the loans have common risk characteristics. A pool is then accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows. With respect to the Washington Mutual transaction, all of the consumer loans were aggregated into pools of loans with common risk characteristics.
On a quarterly basis, the Firm estimates the total cash flows (both principal and interest) expected to be collected over the remaining life of each pool. These estimates incorporate assumptions regarding default rates, loss severities, the amounts and timing of prepayments and other factors that reflect then-current market conditions. Probable decreases in expected cash flows (i.e., increased credit losses) trigger the recognition of impairment, which is then measured as the present value of the expected principal loss plus any related foregone interest cash flows, discounted at the pool's effective interest rate. Impairments are recognized through the provision for credit losses and an increase in the allowance for loan losses. Probable and significant increases in expected cash flows (e.g., decreased credit losses, the net benefit of modifications) would first reverse any previously recorded allowance for loan losses with any remaining increases recognized prospectively as a yield adjustment over the remaining estimated lives of the underlying loans. The impacts of (i) pre-payments, (ii)
changes in variable interest rates, and (iii) any other changes in the timing of expected cash flows are recognized prospectively as adjustments to interest income. Disposals of loans - which may include sales of loans, receipt of payments in full by the borrower, or foreclosure - result in removal of the loans from the PCI portfolio.
The Firm continues to modify certain PCI loans. The impact of these modifications is incorporated into the Firm's quarterly assessment of whether a probable and significant change in expected cash flows has occurred, and the loans continue to be accounted for and reported as PCI loans. In evaluating the effect of modifications on expected cash flows, the Firm incorporates the effect of any foregone interest and also considers the potential for redefault. The Firm develops product-specific probability of default estimates, which are used to compute expected credit losses. In developing these probabilities of default, the Firm considers the relationship between the credit quality characteristics of the underlying loans and certain assumptions about home prices and unemployment based upon industry-wide data. The Firm also considers its own historical loss experience to date based on actual redefaulted PCI modified Ioans.
The excess of cash flows expected to be collected over the carrying value of the underlying loans is referred to as the accretable yield. This amount is not reported on the Firm's Consolidated Balance Sheets but is accreted into interest income at a level rate of return over the remaining estimated lives of the underlying pools of loans.
If the timing and/or amounts of expected cash flows on PCI loans were determined not to be reasonably estimable, no interest would be accreted and the loans would be reported as nonaccrual loans; however, since the timing and amounts of expected cash flows for the Firm's PCI consumer loans are reasonably estimable, interest is being accreted and the loans are being reported as performing loans.
Charge-offs are not recorded on PCI loans until actual losses exceed the estimated losses that were recorded as purchase accounting adjustments at acquisition date. To date, no charge-offs have been recorded for these consumer loans.
The PCI portfolio affects the Firm's results of operations primarily through: (i) contribution to net interest margin; (ii) expense related to defaults and servicing resulting from the liquidation of the loans; and (iii) any provision for loan losses. The PCI loans acquired in the Washington Mutual transaction were funded based on the interest rate characteristics of the loans. For example, variable-rate loans were funded with variable-rate liabilities and fixedrate 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, 2011, to have a remaining weighted-average life of 7.5 years.

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

| December 31, (in millions, except ratios) | Home equity |  | Prime mortgage |  | Subprime mortgage |  |  |  | Option ARMs |  | Total PCI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2010 | 2011 | 2010 |  | 2011 |  | 2010 | 2011 | 2010 | 2011 | 2010 |
| Carrying value ${ }^{\text {(a) }}$ | \$22,697 | \$24,459 | \$15,180 | \$17,322 | \$ | 4,976 | \$ | 5,398 | \$22,693 | \$25,584 | \$65,546 | \$72,763 |
| Related allowance for loan losses ${ }^{(b)}$ | 1,908 | 1,583 | 1,929 | 1,766 |  | 380 |  | 98 | 1,494 | 1,494 | 5,711 | 4,941 |
| Loan delinquency (based on unpaid principal balance) |  |  |  |  |  |  |  |  |  |  |  |  |
| Current and less than 30 days past due | \$22,682 | \$25,783 | \$12,148 | \$13,035 | \$ | 4,388 | \$ | 4,312 | \$17,919 | \$18,672 | \$57,137 | \$61,802 |
| 30-149 days past due | 1,130 | 1,348 | 912 | 1,468 |  | 782 |  | 1,020 | 1,467 | 2,215 | 4,291 | 6,051 |
| 150 or more days past due | 1,252 | 1,181 | 3,000 | 4,425 |  | 2,059 |  | 2,710 | 6,753 | 9,904 | 13,064 | 18,220 |
| Total loans | \$25,064 | \$28,312 | \$16,060 | \$18,928 | \$ | 7,229 | \$ | 8,042 | \$26,139 | \$30,791 | \$74,492 | \$86,073 |
| \% of 30+ days past due to total loans | 9.50\% | 8.93\% | 24.36\% | 31.13\% |  | 39.30\% |  | 46.38\% | 31.45\% | 39.36\% | 23.30\% | 28.20\% |
| Current estimated LTV ratios (based on unpaid principal balance) ${ }^{(\mathrm{c}(\mathrm{d})(\mathrm{e})}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Greater than $125 \%$ and refreshed FICO scores: |  |  |  |  |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 | \$ 5,915 | \$ 6,289 | \$ 2,313 | \$ 2,400 | \$ | 473 | \$ | 432 | \$ 2,509 | \$ 2,681 | \$11,210 | \$11,802 |
| Less than 660 | 3,299 | 4,043 | 2,319 | 2,744 |  | 1,939 |  | 2,129 | 4,608 | 6,330 | 12,165 | 15,246 |
| 101\% to 125\% and refreshed FICO scores: |  |  |  |  |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 | 5,393 | 6,053 | 3,328 | 3,815 |  | 434 |  | 424 | 3,959 | 4,292 | 13,114 | 14,584 |
| Less than 660 | 2,304 | 2,696 | 2,314 | 3,011 |  | 1,510 |  | 1,663 | 3,884 | 5,005 | 10,012 | 12,375 |
| 80\% to 100\% and refreshed FICO scores: |  |  |  |  |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 | 3,482 | 3,995 | 1,629 | 1,970 |  | 372 |  | 374 | 3,740 | 4,152 | 9,223 | 10,491 |
| Less than 660 | 1,264 | 1,482 | 1,457 | 1,857 |  | 1,197 |  | 1,477 | 3,035 | 3,551 | 6,953 | 8,367 |
| Lower than 80\% and refreshed FICO scores: |  |  |  |  |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 | 2,409 | 2,641 | 1,276 | 1,443 |  | 198 |  | 186 | 2,189 | 2,281 | 6,072 | 6,551 |
| Less than 660 | 998 | 1,113 | 1,424 | 1,688 |  | 1,106 |  | 1,357 | 2,215 | 2,499 | 5,743 | 6,657 |
| Total unpaid principal balance | \$25,064 | \$28,312 | \$16,060 | \$18,928 | \$ | 7,229 | \$ | 8,042 | \$26,139 | \$30,791 | \$74,492 | \$86,073 |
| Geographic region (based on unpaid principal balance) |  |  |  |  |  |  |  |  |  |  |  |  |
| California | \$15,091 | \$17,012 | \$ 9,121 | \$10,891 | \$ | 1,661 | \$ | 1,971 | \$13,565 | \$16,130 | \$39,438 | \$46,004 |
| New York | 1,179 | 1,316 | 1,018 | 1,111 |  | 709 |  | 736 | 1,548 | 1,703 | 4,454 | 4,866 |
| Florida | 2,307 | 2,595 | 1,265 | 1,519 |  | 812 |  | 906 | 3,201 | 3,916 | 7,585 | 8,936 |
| Illinois | 558 | 627 | 511 | 562 |  | 411 |  | 438 | 702 | 760 | 2,182 | 2,387 |
| Texas | 455 | 525 | 168 | 194 |  | 405 |  | 435 | 140 | 155 | 1,168 | 1,309 |
| New Jersey | 471 | 540 | 445 | 486 |  | 297 |  | 316 | 969 | 1,064 | 2,182 | 2,406 |
| Arizona | 468 | 539 | 254 | 359 |  | 126 |  | 165 | 362 | 528 | 1,210 | 1,591 |
| Washington | 1,368 | 1,535 | 388 | 451 |  | 160 |  | 178 | 649 | 745 | 2,565 | 2,909 |
| Ohio | 32 | 38 | 79 | 91 |  | 114 |  | 122 | 111 | 131 | 336 | 382 |
| Michigan | 81 | 95 | 239 | 279 |  | 187 |  | 214 | 268 | 345 | 775 | 933 |
| All other | 3,054 | 3,490 | 2,572 | 2,985 |  | 2,347 |  | 2,561 | 4,624 | 5,314 | 12,597 | 14,350 |
| Total unpaid principal balance | \$25,064 | \$28,312 | \$16,060 | \$18,928 | \$ | 7,229 | \$ | 8,042 | \$26,139 | \$30,791 | \$74,492 | \$86,073 |

(a) Carrying value includes the effect of fair value adjustments that were applied to the consumer PCI portfolio at the date of acquisition.
(b) Management concluded as part of the Firm's regular assessment of the PCI loan pools that it was probable that higher expected credit losses would result in a decrease in expected cash flows. As a result, an allowance for loan losses for impairment of these pools has been recognized.
(c) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. These property values do not represent actual appraised loan level collateral values; as such, the resulting ratios are necessarily imprecise and should be viewed as estimates. Current estimated combined LTV for junior lien home equity loans considers all available lien positions related to the property.
(d) Refreshed FICO scores represent each borrower's most recent credit score obtained by the Firm. The Firm obtains refreshed FICO scores at least quarterly.
(e) For home equity loans, prior-period amounts have been revised to conform with the current-period presentation.

Approximately $20 \%$ of the PCI home equity portfolio are senior lien loans; the remaining balance are junior lien HELOANs or HELOCs. The following table represents delinquency statistics for PCI junior lien home equity loans based on unpaid principal balance as of December 31, 2011 and 2010.

| December 31, 2011 (in millions, except ratios) | Delinquencies |  |  |  |  |  | Total Ioans |  | Total 30+ day delinquency rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { 30-89 days } \\ & \text { past due } \end{aligned}$ |  | 90-149 days past due |  | $\begin{aligned} & 150+\text { days past } \\ & \text { due } \end{aligned}$ |  |  |  |  |
| HELOCs: ${ }^{(a)}$ |  |  |  |  |  |  |  |  |  |
| Within the revolving period ${ }^{(b)}$ | \$ | 500 | \$ | 296 | \$ | 543 | \$ | 18,246 | 7.34\% |
| Within the required amortization period ${ }^{(\mathrm{c})}$ |  | 16 |  | 11 |  | 5 |  | 400 | 8.00 |
| HELOANs |  | 53 |  | 29 |  | 44 |  | 1,327 | 9.50 |
| Total | \$ | 569 | \$ | 336 | \$ | 592 | \$ | 19,973 | 7.50\% |


| December 31, 2010 (in millions, except ratios) | Delinquencies |  |  |  |  |  | Total loans |  | Total 30+ day delinquency rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30-89 days past due |  | 90-149 days past due |  | $\begin{aligned} & 150+\text { days past } \\ & \text { due } \end{aligned}$ |  |  |  |  |
| HELOCs: ${ }^{\text {a) }}$ |  |  |  |  |  |  |  |  |  |
| Within the revolving period ${ }^{(b)}$ | \$ | 601 | \$ | 404 | \$ | 428 | \$ | 21,172 | 6.77\% |
| Within the required amortization period ${ }^{(\mathrm{c})}$ |  | 1 |  | - |  | 1 |  | 37 | 5.41 |
| HELOANs |  | 79 |  | 49 |  | 46 |  | 1,573 | 11.06 |
| Total | \$ | 681 | \$ | 453 | \$ | 475 | \$ | 22,782 | 7.06\% |

(a) In general, HELOCs are open-ended, revolving loans for a 10-year period, after which time the HELOC converts to a loan with a 20-year amortization period.
(b) Substantially all undrawn HELOCs within the revolving period have been closed.
(c) Predominantly all of these loans have been modified to provide a more affordable payment to the borrower.

The table below sets forth the accretable yield activity for the Firm's PCI consumer loans for the years ended December 31, 2011, 2010 and 2009, and represents the Firm's estimate of gross interest income expected to be earned over the remaining life of the PCI loan portfolios. This table excludes the cost to fund the PCI portfolios, and therefore does not represent net interest income expected to be earned on these portfolios.

| Year ended December 31, (in millions, except ratios) | Total PCI |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2009 |  |
| Beginning balance | \$ | 19,097 | \$ | 25,544 | \$ | 32,619 |
| Accretion into interest income |  | $(2,767)$ |  | $(3,232)$ |  | $(4,363)$ |
| Changes in interest rates on variable-rate loans |  | (573) |  | (819) |  | $(4,849)$ |
| Other changes in expected cash flows ${ }^{(2)}$ |  | 3,315 |  | $(2,396)$ |  | 2,137 |
| Balance at December 31 | \$ | 19,072 | \$ | 19,097 | \$ | 25,544 |
| Accretable yield percentage |  | 4.33\% |  | 4.35\% |  | 5.14\% |

(a) Other changes in expected cash flows may vary from period to period as the Firm continues to refine its cash flow model and periodically updates model assumptions. For the year ended December 31, 2011, other changes in expected cash flows were largely driven by the impact of modifications, but also related to changes in prepayment assumptions. For the years ended December 31, 2010 and 2009, other changes in expected cash flows were principally driven by changes in prepayment assumptions, as well as reclassification to the nonaccretable difference. Changes to prepayment assumptions change the expected remaining life of the portfolio, which drives changes in expected future interest cash collections. Such changes do not have a significant impact on the accretable yield percentage.

The factors that most significantly affect estimates of gross cash flows expected to be collected, and accordingly the accretable yield balance, include: (i) changes in the benchmark interest rate indices for variable-rate products such as option ARM and home equity loans; and (ii) changes in prepayment assumptions.
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 loan liquidation periods, affect the timing of expected cash flows but not the amount of cash expected to
be received (i.e., the accretable yield balance). Extended Ioan 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.

## Notes to consolidated financial statements

## Credit card loan portfolio

The Credit card portfolio segment includes credit card loans originated and purchased by the Firm, including those acquired in the Washington Mutual transaction.

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

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

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

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

| As of or for the year ended December 31, (in millions, except ratios) | Chase, excluding Washington Mutual portfolio ${ }^{(b)}$ |  |  |  | Washington Mutual portfolio ${ }^{(b)}$ |  |  |  | Total credit $\operatorname{card}^{(b)}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Net charge-offs | \$ | 5,668 | \$ | 11,191 | \$ | 1,257 | \$ | 2,846 | \$ | 6,925 | \$ | 14,037 |
| \% of net charge-offs to retained loans |  | 4.91\% |  | 8.73\% |  | 10.49\% |  | 17.73\% |  | 5.44\% |  | 9.73\% |
| Loan delinquency |  |  |  |  |  |  |  |  |  |  |  |  |
| Current and less than 30 days past due and still accruing | \$ | 118,054 | \$ | 117,248 | \$ | 10,410 | \$ | 12,670 | \$ | 128,464 | \$ | 129,918 |
| 30-89 days past due and still accruing |  | 1,509 |  | 2,092 |  | 299 |  | 459 |  | 1,808 |  | 2,551 |
| 90 or more days past due and still accruing |  | 1,558 |  | 2,449 |  | 344 |  | 604 |  | 1,902 |  | 3,053 |
| Nonaccrual loans |  | 1 |  | 2 |  | - |  | - |  | 1 |  | 2 |
| Total retained loans | \$ | 121,122 | \$ | 121,791 | \$ | 11,053 | \$ | 13,733 | \$ | 132,175 | \$ | 135,524 |
| Loan delinquency ratios |  |  |  |  |  |  |  |  |  |  |  |  |
| \% of 30+ days past due to total retained loans |  | 2.53\% |  | 3.73\% |  | 5.82\% |  | 7.74\% |  | 2.81\% |  | 4.14\% |
| \% of 90+ days past due to total retained loans |  | 1.29 |  | 2.01 |  | 3.11 |  | 4.40 |  | 1.44 |  | 2.25 |
| Credit card loans by geographic region |  |  |  |  |  |  |  |  |  |  |  |  |
| California | \$ | 15,479 | \$ | 15,454 | \$ | 2,119 | \$ | 2,650 | \$ | 17,598 | \$ | 18,104 |
| New York |  | 9,755 |  | 9,540 |  | 839 |  | 1,032 |  | 10,594 |  | 10,572 |
| Texas |  | 9,418 |  | 9,217 |  | 821 |  | 1,006 |  | 10,239 |  | 10,223 |
| Florida |  | 6,658 |  | 6,724 |  | 925 |  | 1,165 |  | 7,583 |  | 7,889 |
| Illinois |  | 7,108 |  | 7,077 |  | 440 |  | 542 |  | 7,548 |  | 7,619 |
| New Jersey |  | 5,208 |  | 5,070 |  | 396 |  | 494 |  | 5,604 |  | 5,564 |
| Ohio |  | 4,882 |  | 5,035 |  | 320 |  | 401 |  | 5,202 |  | 5,436 |
| Pennsylvania |  | 4,434 |  | 4,521 |  | 345 |  | 424 |  | 4,779 |  | 4,945 |
| Michigan |  | 3,777 |  | 3,956 |  | 217 |  | 273 |  | 3,994 |  | 4,229 |
| Virginia |  | 3,061 |  | 3,020 |  | 237 |  | 295 |  | 3,298 |  | 3,315 |
| Georgia |  | 2,737 |  | 2,834 |  | 315 |  | 398 |  | 3,052 |  | 3,232 |
| Washington |  | 2,081 |  | 2,053 |  | 359 |  | 438 |  | 2,440 |  | 2,491 |
| All other |  | 46,524 |  | 47,290 |  | 3,720 |  | 4,615 |  | 50,244 |  | 51,905 |
| Total retained loans | \$ | 121,122 | \$ | 121,791 | \$ | 11,053 | \$ | 13,733 | \$ | 132,175 | \$ | 135,524 |
| Percentage of portfolio based on carrying value with estimated refreshed FICO scores ${ }^{(2)}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Equal to or greater than 660 |  | 83.3\% |  | 80.6\% |  | 62.6\% |  | 56.4\% |  | 81.4\% |  | 77.9\% |
| Less than 660 |  | 16.7 |  | 19.4 |  | 37.4 |  | 43.6 |  | 18.6 |  | 22.1 |

[^7]
## Credit card impaired loans and loan modifications

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

| December 31, (in millions) | Chase, excluding Washington Mutual portfolio |  |  |  | Washington Mutual portfolio |  |  |  | Total credit card |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2011 |  | 2010 |  | 2011 |  | 2010 |  |
| Impaired loans with an allowance ${ }^{(\text {())(b) }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Credit card loans with modified payment terms ${ }^{(c)}$ | \$ | 4,959 | \$ | 6,685 | \$ | 1,116 | \$ | 1,570 | \$ | 6,075 | \$ | 8,255 |
| Modified credit card loans that have reverted to premodification payment terms ${ }^{(d)}$ |  | 930 |  | 1,439 |  | 209 |  | 311 |  | 1,139 |  | 1,750 |
| Total impaired loans | \$ | 5,889 | \$ | 8,124 | \$ | 1,325 | \$ | 1,881 | \$ | 7,214 | \$ | 10,005 |
| Allowance for loan losses related to impaired loans | \$ | 2,195 | \$ | 3,175 | \$ | 532 | \$ | 894 | \$ | 2,727 | \$ | 4,069 |

(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, 2011 and 2010, $\$ 762$ million and $\$ 1.2$ billion, 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. Based on the Firm's historical experience a substantial portion of these loans is expected to be charged-off in accordance with the Firm's standard charge-off policy. The remaining $\$ 377$ million and $\$ 590$ million at December 31, 2011 and 2010, respectively, of these loans are to borrowers who have successfully completed a short-term modification program. The Firm continues to report these loans as TDRs since the borrowers' credit lines remain closed.

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

| Year ended December 31, | Average impaired loans |  |  |  |  |  | Interest income on impaired loans |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in millions) | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  |
| Chase, excluding Washington Mutual portfolio | \$ | 6,914 | \$ | 8,747 | \$ | 3,059 | \$ | 360 | \$ | 479 | \$ | 181 |
| Washington Mutual portfolio |  | 1,585 |  | 1,983 |  | 991 |  | 103 |  | 126 |  | 70 |
| Total credit card | \$ | 8,499 | \$ | 10,730 | \$ | 4,050 | \$ | 463 | \$ | 605 | \$ | 251 |

## Loan modifications

JPMorgan Chase may offer one of a number of loan modification programs to credit card borrowers who are experiencing financial difficulty. The Firm has short-term programs for borrowers who may be in need of temporary relief, and long-term programs for borrowers who are experiencing a more fundamental level of financial difficulties. Most of the credit card loans have been modified under long-term programs. Modifications under long-term programs involve placing the customer on a fixed payment plan, generally for 60 months. Modifications under all short- and long-term programs typically include reducing the interest rate on the credit card. Certain borrowers enrolled in a short-term modification program may be given the option to re-enroll in a long-term program. Substantially all modifications are considered to be TDRs.

If the cardholder does not comply with the modified payment terms, then the credit card loan agreement reverts back to its pre-modification payment terms. Assuming that the cardholder does not begin to perform in accordance with those payment terms, the loan continues to age and will ultimately be charged-off in accordance with the Firm's standard charge-off policy. In addition, if a borrower successfully completes a short-term modification program, then the loan reverts back to its pre-modification payment terms. However, in most cases, the Firm does not reinstate the borrower's line of credit.

## Notes to consolidated financial statements

The following tables provide information regarding the nature and extent of modifications of credit card loans for the period presented.

|  | Chase, excluding Washington Mutual portfolio |  |  |  | Washington Mutual portfolio |  |  |  | Total credit card |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, 2011 (in millions) | Short-term programs |  | Long-term programs |  | Short-term programs |  | Long-term programs |  | Short-term programs |  | Long-term programs |  |
| New enrollments | \$ | 141 | \$ | 2,075 | \$ | 26 | \$ | 448 | \$ | 167 | \$ | 2,523 |

## Financial effects of modifications and redefaults

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

| Year ended December 31, 2011 <br> (in millions, except weighted-average data) | Chase, excluding Washington <br> Mutual portfolio | Washington Mutual portfolio |
| :--- | :---: | :---: | :---: | :---: |

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

For credit card loans modified in TDRs, payment default is deemed to have occurred when the loans become two payments past due. At the time of default, a loan is removed from the modification program and reverts back to its pre-modification terms. Based on historical experience, a substantial portion of these loans are expected to be charged-off in accordance with the Firm's standard chargeoff policy. Also based on historical experience, the estimated weighted-average ultimate default rate for modified credit card Ioans was $35.47 \%$ at December 31, 2011, and 36.45\% at December 31, 2010.

## Note 15 - Allowance for credit losses

JPMorgan Chase's allowance for loan losses covers the wholesale and consumer, including credit card, loan portfolios, and represents management's estimate of probable credit losses inherent in the Firm's loan portfolio. The allowance for loan losses includes an asset-specific component, a formula-based component and a component related to PCI loans, as described below. Management also estimates an allowance for wholesale and consumer lending-related commitments using methodologies similar to those used to estimate the allowance on the underlying loans. During 2011, the Firm did not make any significant changes to the methodologies or policies used to determine its allowance for credit losses; such policies are described in the following paragraphs.
The asset-specific component of the allowance relates to loans considered to be impaired, which includes loans that have been modified in TDRs as well as risk-rated loans that have been placed on nonaccrual status. To determine the asset-specific component of the allowance, larger loans are evaluated individually, while smaller loans are evaluated as pools using historical loss experience for the respective class of assets. Risk-rated loans (primarily wholesale Ioans) are segmented by risk rating, while scored loans (i.e.,
consumer loans) are pooled by product type.
The Firm generally measures the asset-specific allowance as the difference between the recorded investment in the loan and the present value of the cash flows expected to be collected, discounted at the loan's original effective interest rate. Subsequent changes in impairment are reported as an adjustment to the provision for loan losses. In certain cases, the asset-specific allowance is determined using an observable market price, and the allowance is measured as the difference between the recorded investment in the loan and the Ioan'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 assetspecific reserve as for other impaired loans. See Note 14 on pages 231-252 of this Annual Report for more information about charge-offs and collateral-dependent loans.

The asset-specific component of the allowance for impaired loans that have been modified in TDRs incorporates the effects of foregone interest, if any, in the present value calculation and also incorporates the effect of the modification on the loan's expected cash flows, which considers the potential for redefault. For 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. For residential real estate loans modified in TDRs, the Firm develops product-specific probability of default estimates, which are applied at a loan level to compute expected losses. In developing these probabilities of default, the Firm considers the relationship between the credit quality characteristics of the underlying loans and certain assumptions about home prices and unemployment, based upon industry-wide data. The Firm also considers its own historical loss experience to date based on actual redefaulted modified loans. For credit card loans modified in TDRs, expected losses incorporate projected redefaults based on the Firm's
historical experience by type of modification program.
The formula-based component is based on a statistical calculation to provide for probable principal losses inherent in performing risk-rated loans and all consumer loans, except for any loans restructured in TDRs and PCI loans. See Note 14 on pages 231-252 of this Annual Report for more information on PCI loans.
For risk-rated loans, the statistical calculation is the product of an estimated probability of default ("PD") and an estimated loss given default ("LGD"). These factors are differentiated by risk rating and expected maturity. In assessing the risk rating of a particular loan, among the factors considered are the obligor's debt capacity and financial flexibility, the level of the obligor's earnings, the amount and sources for repayment, the level and nature of contingencies, management strength, and the industry and geography in which the obligor operates. These factors are based on an evaluation of historical and current information, and involve subjective assessment and interpretation. Emphasizing one factor over another or considering additional factors could impact the risk rating assigned by the Firm to that loan. PD estimates are based on observable external through-the-cycle data, using creditrating agency default statistics. LGD estimates are based on the Firm's history of actual credit losses over more than one credit cycle.
For scored loans, the statistical calculation is performed on pools of loans with similar risk characteristics (e.g., product type) and generally computed by applying expected loss factors to outstanding principal balances over an estimated loss emergence period. The loss emergence period represents the time period between the date at which the loss is estimated to have been incurred and the ultimate realization of that loss (through a charge-off). Estimated loss emergence periods may vary by product and may change over time; management applies judgment in estimating loss emergence periods, using available credit information and trends.

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

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

Management applies judgment within an established framework to adjust the results of applying the statistical calculation described above. The determination of the appropriate adjustment is based on management's view of uncertainties that have occurred but that are not yet reflected in the loss factors and that relate to current macroeconomic and political conditions, the quality of underwriting standards and other relevant internal and external factors affecting the credit quality of the portfolio. In addition, for the risk-rated portfolios, any adjustments made to the statistical calculation also consider concentrated and deteriorating industries. For the scored Ioan 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 foreclosurerelated 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.
Management establishes an asset-specific allowance for lending-related commitments that are considered impaired and computes a formula-based allowance for performing wholesale and consumer 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 Ioan portfolio, in light of the factors then prevailing, may result in significant changes in the allowances for loan losses and lending-related commitments in future periods.

At least quarterly, the allowance for credit losses is reviewed by the Chief Risk Officer, the Chief Financial Officer and the Controller of the Firm and discussed with the Risk Policy and Audit Committees of the Board of Directors of the Firm. As of December 31, 2011, JPMorgan Chase deemed the allowance for credit losses to be appropriate (i.e., sufficient to absorb probable credit losses that are inherent in the portfolio).

## Notes to consolidated financial statements

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

| Year ended December 31, (in millions) | 2011 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Wholesale |  | Consumer, excluding credit card |  | Credit card |  | Total |  |
| Allowance for loan losses |  |  |  |  |  |  |  |  |
| Beginning balance at January 1, | \$ | 4,761 | \$ | 16,471 | \$ | 11,034 | \$ | 32,266 |
| Cumulative effect of change in accounting principles ${ }^{(2)}$ |  | - |  | - |  | - |  | - |
| Gross charge-offs |  | 916 |  | 5,419 |  | 8,168 |  | 14,503 |
| Gross recoveries |  | (476) |  | (547) |  | $(1,243)$ |  | $(2,266)$ |
| Net charge-offs |  | 440 |  | 4,872 |  | 6,925 |  | 12,237 |
| Provision for loan losses |  | 17 |  | 4,670 |  | 2,925 |  | 7,612 |
| Other |  | (22) |  | 25 |  | (35) |  | (32) |
| Ending balance at December 31, | \$ | 4,316 | \$ | 16,294 | \$ | 6,999 | \$ | 27,609 |
| Allowance for loan losses by impairment methodology |  |  |  |  |  |  |  |  |
| Asset-specific ${ }^{(b)}$ | \$ | 516 | \$ | 828 | \$ | 2,727 | \$ | 4,071 |
| Formula-based |  | 3,800 |  | 9,755 |  | 4,272 |  | 17,827 |
| PCI |  | - |  | 5,711 |  | - |  | 5,711 |
| Total allowance for loan losses | \$ | 4,316 | \$ | 16,294 | \$ | 6,999 | \$ | 27,609 |
| Loans by impairment methodology |  |  |  |  |  |  |  |  |
| Asset-specific | \$ | 2,549 | \$ | 9,892 | \$ | 7,214 | \$ | 19,655 |
| Formula-based |  | 275,825 |  | 232,989 |  | 124,961 |  | 633,775 |
| PCI |  | 21 |  | 65,546 |  | - |  | 65,567 |
| Total retained loans | \$ | 278,395 | \$ | 308,427 | \$ | 132,175 | \$ | 718,997 |
| Impaired collateral-dependent loans |  |  |  |  |  |  |  |  |
| Net charge-offs ${ }^{(c)}$ | \$ | 128 | \$ | 110 | \$ | - | \$ | 238 |
| Loans measured at fair value of collateral less cost to sell ${ }^{(c)}$ |  | 833 |  | 830 |  | - |  | 1,663 |
| Allowance for lending-related commitments |  |  |  |  |  |  |  |  |
| Beginning balance at January 1, | \$ | 711 | \$ | 6 | \$ | - | \$ | 717 |
| Cumulative effect of change in accounting principles ${ }^{(2)}$ |  | - |  | - |  | - |  | - |
| Provision for lending-related commitments |  | (40) |  | 2 |  | - |  | (38) |
| Other |  | (5) |  | (1) |  | - |  | (6) |
| Ending balance at December 31, | \$ | 666 | \$ | 7 | \$ | - | \$ | 673 |
| Allowance for lending-related commitments by impairment methodology |  |  |  |  |  |  |  |  |
| Asset-specific | \$ | 150 | \$ | - | \$ | - | \$ | 150 |
| Formula-based |  | 516 |  | 7 |  | - |  | 523 |
| Total allowance for lending-related commitments | \$ | 666 | \$ | 7 | \$ | - | \$ | 673 |
| Lending-related commitments by impairment methodology |  |  |  |  |  |  |  |  |
| Asset-specific | \$ | 865 | \$ | - | \$ | - | \$ | 865 |
| Formula-based |  | 381,874 |  | 62,307 |  | 530,616 |  | 974,797 |
| Total lending-related commitments | \$ | 382,739 | \$ | 62,307 | \$ | 530,616 | \$ | 975,662 |

[^8] portion of principal is deferred.
(table continued from previous page)


## Notes to consolidated financial statements

## Note 16 - Variable interest entities

For a further description of JPMorgan Chase's accounting policies regarding consolidation of VIEs, see Note 1 on pages 182183 of this Annual Report.

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

| Line-of-Business | Transaction Type | Activity | Annual Report page reference |
| :---: | :---: | :---: | :---: |
| Card | Credit card securitization trusts | Securitization of both originated and purchased credit card receivables | 257 |
|  | Other securitization trusts | Securitization of originated automobile and student loans | 257-260 |
| RFS | Mortgage securitization trusts | Securitization of originated and purchased residential mortgages | 257-260 |
| IB | Mortgage and other securitization trusts | Securitization of both originated and purchased residential and commercial mortgages, automobile and student loans | 257-260 |
|  | Multi-seller conduits | Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to | 260 |
|  | Investor intermediation activities: | meet investor needs |  |
|  | Municipal bond vehicles |  | 260-261 |
|  | Credit-related note and asset swap vehicles |  | 261-263 |

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

- Asset Management: Sponsors and manages certain funds that are deemed VIEs. As asset manager of the funds, AM earns a fee based on assets managed; the fee varies with each fund's investment objective and is competitively priced. For fund entities that qualify as VIEs, AM's interests are, in certain cases, considered to be significant variable interests that result in consolidation of the financial results of these entities.
- Treasury \& Securities Services: Provides services to a number of VIEs that are similar to those provided to non-VIEs. TSS earns market-based fees for the services it provides. TSS's interests are generally not considered to be potentially significant variable interests and/or TSS does not control these VIEs; therefore, TSS does not consolidate these VIEs.
- Commercial Banking: CB makes investments in and provides lending to community development entities that may meet the definition of a VIE. In addition, CB provides financing and lending related services to certain client-sponsored VIEs. In general, CB does not control the activities of these entities and does not consolidate these entities.
- Corporate/Private Equity: Corporate uses VIEs to issue guaranteed capital debt securities. See Note 21 on pages 273-275 of this Annual Report for further information. The Private Equity business, within Corporate/Private Equity, may be involved with entities that are deemed VIEs. However, the Firm's private equity business is subject to specialized investment company accounting, which does not require the consolidation of investments, including VIEs.

The Firm also invests in and provides financing and other services to VIEs sponsored by third parties, as described on page 263 of this Note.

## Significant Firm-sponsored variable interest entities <br> Credit card securitizations

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

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

Effective January 1, 2010, the Firm consolidated the assets and liabilities of the Firm-sponsored credit card securitization trusts as a result of the implementation of VIE consolidation accounting guidance. See the table on page 264 of this Note for more information on the consolidation of credit card securitizations.

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

The agreements with the credit card securitization trusts require the Firm to maintain a minimum undivided interest in the credit card trusts (which generally ranges from 4\% to $12 \%$ ). As of December 31, 2011 and 2010, the Firm held undivided interests in Firm-sponsored credit card securitization trusts of $\$ 13.7$ billion and $\$ 17.2$ billion, respectively. The Firm maintained an average undivided interest in principal receivables owned by those trusts of approximately $22 \%$ and $19 \%$ for the years ended December 31, 2011 and 2010, respectively. The Firm also retained $\$ 541$ million and $\$ 1.1$ billion of senior securities and $\$ 3.0$ billion and $\$ 3.2$ billion of subordinated securities in certain of its credit card securitization trusts as of December 31, 2011 and 2010, respectively. The Firm's undivided interests in the credit card trusts and securities retained are eliminated in consolidation.

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

## Notes to consolidated financial statements

The following table presents the total unpaid principal amount of assets held in Firm-sponsored securitization entities in which the Firm has continuing involvement, including those that are consolidated or not consolidated by the Firm. Continuing involvement includes servicing the loans; holding senior interests or subordinated interests; recourse or guarantee arrangements; and derivative transactions. In certain instances, the Firm's only continuing involvement is servicing the loans. See Securitization activity on pages 264-265 of this Note for further information regarding the Firm's cash flows with and interests retained in nonconsolidated VIEs.

| December 31, $2011{ }^{\text {(a) }}$ (in billions) | Principal amount outstanding |  |  |  |  |  | JPMorgan Chase interest in securitized assets in nonconsolidated VIEs ${ }^{(d)(e)(f)}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total assets held by securitization VIEs |  | Assets held in consolidated securitization VIEs |  | Assets held in nonconsolidated securitization VIEs with continuing involvement |  | Trading assets |  | AFSsecurities |  | Total interests held by JPMorgan Chase |  |
| Securitization-related |  |  |  |  |  |  |  |  |  |  |  |  |
| Residential mortgage: |  |  |  |  |  |  |  |  |  |  |  |  |
| Prime ${ }^{(b)}$ | \$ | 129.5 | \$ | 2.4 | \$ | 101.0 | \$ | 0.6 | \$ | - | \$ | 0.6 |
| Subprime |  | 38.3 |  | 0.2 |  | 35.8 |  | - |  | - |  | - |
| Option ARMs |  | 31.1 |  | - |  | 31.1 |  | - |  | - |  | - |
| Commercial and other ${ }^{(c)}$ |  | 139.3 |  | - |  | 93.3 |  | 1.7 |  | 2.0 |  | 3.7 |
| Student |  | 4.1 |  | 4.1 |  | - |  | - |  | - |  | - |
| Total | \$ | 342.3 | \$ | 6.7 | \$ | 261.2 | \$ | 2.3 | \$ | 2.0 | \$ | 4.3 |



## Securitization-related

Residential mortgage:

| Prime ${ }^{(b)}$ | \$ | 153.1 | \$ | 2.2 | \$ | 143.8 | \$ | 0.7 | \$ | - | \$ | 0.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subprime |  | 44.0 |  | 1.6 |  | 40.7 |  | - |  | - |  | - |
| Option ARMs |  | 36.1 |  | 0.3 |  | 35.8 |  | - |  | - |  | - |
| Commercial and other ${ }^{(c)}$ |  | 153.4 |  | - |  | 106.2 |  | 2.0 |  | 0.9 |  | 2.9 |
| Student |  | 4.5 |  | 4.5 |  | - |  | - |  | - |  | - |
| Total | \$ | 391.1 | \$ | 8.6 | \$ | 326.5 | \$ | 2.7 | \$ | 0.9 | \$ | 3.6 |

(a) Excludes U.S. government agency securitizations. See page 265 of this Note for information on the Firm's loan sales to U.S. government agencies.
(b) Includes Alt-A loans.
(c) Consists of securities backed by commercial loans (predominantly real estate) and non-mortgage-related consumer receivables purchased from third parties. The Firm generally does not retain a residual interest in its sponsored commercial mortgage securitization transactions.
(d) The table above excludes the following: retained servicing (see Note 17 on pages 267-271 of this Annual Report for a discussion of MSRs); securities retained from loans sales to U.S. government agencies; interest rate and foreign exchange derivatives primarily used to manage interest rate and foreign exchange risks of securitization entities (See Note 6 on pages 202-210 of this Annual Report for further information on derivatives); senior and subordinated securities of $\$ 110$ million and $\$ 8$ million, respectively, at December 31,2011 , and $\$ 182$ million and $\$ 18$ million, respectively, at December 31, 2010, which the Firm purchased in connection with IB's secondary market-making activities.
(e) Includes interests held in re-securitization transactions.
(f) As of December 31, 2011 and 2010, 68\% and $66 \%$, respectively, of the Firm's retained securitization interests, which are carried at fair value, were riskrated " $A$ " or better, on an S\&P-equivalent basis. The retained interests in prime residential mortgages consisted of $\$ 136$ million and $\$ 157$ million of investment-grade and $\$ 427$ million and $\$ 552$ million of noninvestment-grade retained interests at December 31, 2011 and 2010, respectively. The retained interests in commercial and other securitizations trusts consisted of $\$ 3.4$ billion and $\$ 2.6$ billion of investment-grade and $\$ 283$ million and $\$ 250$ million of noninvestment-grade retained interests at December 31, 2011 and 2010, respectively.

## Residential mortgage

The Firm securitizes residential mortgage loans originated by RFS, as well as residential mortgage loans purchased from third parties by either RFS or IB. RFS generally retains servicing for all residential mortgage loans originated or purchased by RFS, and for certain mortgage loans purchased by IB. For securitizations serviced by RFS, the Firm has the power to direct the significant activities of the VIE because it is responsible for decisions related to loan modifications and workouts. RFS may retain an interest upon securitization.
In addition, IB engages in underwriting and trading activities involving securities issued by Firm-sponsored securitization trusts. As a result, IB 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 IB or held by RFS, when considered together with the servicing arrangements entered into by RFS, the Firm is deemed to be the primary beneficiary of certain securitization trusts. See the table on page 264 of this Note for more information on the consolidated residential mortgage securitizations.
The Firm does not consolidate a mortgage securitization (Firm-sponsored or third-party-sponsored) when it is not the servicer (and therefore does not have the power to direct the most significant activities of the trust) or does not hold a beneficial interest in the trust that could potentially be significant to the trust. At December 31, 2011 and 2010, the Firm did not consolidate the assets of certain Firm-sponsored residential mortgage securitization VIEs, in which the Firm had continuing involvement, primarily due to the fact that the Firm did not hold an interest in these trusts that could potentially be significant to the trusts. See the table on page 258 of this Note for further information on interests held in nonconsolidated securitizations.
Commercial mortgages and other consumer securitizations IB originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts. IB may retain unsold senior and/or subordinated interests in commercial mortgage securitizations at the time of securitization but, generally, the Firm does not service commercial loan securitizations. For commercial mortgage securitizations the power to direct the significant activities of the VIE generally is held by the servicer or investors in a specified class of securities ("controlling class"). See the table on page 264 of this Note for more information on the consolidated commercial mortgage securitizations, and the table on page 258 of this Note for further information on interests held in nonconsolidated securitizations.
The Firm also securitizes automobile and student loans. The Firm retains servicing responsibilities for all originated and certain purchased student and automobile loans and has the power to direct the activities of these VIEs through these servicing responsibilities. See the table on page 264
of this Note for more information on the consolidated student loan securitizations, and the table on page 258 of this Note for further information on interests held in nonconsolidated securitizations.

## Re-securitizations

The Firm engages in certain re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. These transfers occur in connection with both agency (Fannie Mae, Freddie Mac and Ginnie Mae) and nonagency (private-label) sponsored VIEs, which may be backed by either residential or commercial mortgages. The Firm's consolidation analysis is largely dependent on the Firm's role and interest in the resecuritization trusts. During the years ended December 31, 2011, 2010 and 2009, the Firm transferred $\$ 24.9$ billion, $\$ 33.9$ billion and $\$ 19.1$ billion, respectively, of securities to agency VIEs, and $\$ 381$ million, $\$ 1.3$ billion and $\$ 4.0$ billion, respectively, of securities to private-label VIEs.
Most re-securitizations with which the Firm is involved are client-driven transactions in which a specific client or group of clients are seeking a specific return or risk profile. For these transactions, the Firm has concluded that the decision-making power of the entity is shared between the Firm and its client(s), considering the joint effort and decisions in establishing the re-securitization trust and its assets, as well as the significant economic interest the client holds in the re-securitization trust; therefore the Firm does not consolidate the re-securitization VIE.

In more limited circumstances, the Firm creates a resecuritization trust independently and not in conjunction with specific clients. In these circumstances, the Firm is deemed to have the unilateral ability to direct the most significant activities of the re-securitization trust because of the decisions made during the establishment and design of the trust; therefore, the Firm consolidates the resecuritization VIE if the Firm holds an interest that could potentially be significant.
Additionally, the Firm may invest in beneficial interests of third-party securitizations and generally purchases these interests in the secondary market. In these circumstances, the Firm does not have the unilateral ability to direct the most significant activities of the re-securitization trust, either because it wasn't involved in the initial design of the trust, or the Firm is involved with an independent third party sponsor and demonstrates shared power over the creation of the trust; therefore, the Firm does not consolidate the re-securitization VIE.
As of December 31, 2011 and 2010, the Firm did not consolidate any agency re-securitizations. As of December 31, 2011 and 2010, the Firm consolidated \$348 million and $\$ 477$ million, respectively, of assets, and \$139 million and $\$ 230$ million, respectively, of liabilities of private-label re-securitizations. See the table on page 264 of this Note for more information on the consolidated resecuritization transactions.

## Notes to consolidated financial statements

As of December 31, 2011 and 2010, total assets of nonconsolidated Firm-sponsored private-label resecuritization entities were $\$ 3.3$ billion and $\$ 3.6$ billion, respectively. At December 31, 2011 and 2010, the Firm held approximately $\$ 3.6$ billion and $\$ 3.5$ billion, respectively, of interests in nonconsolidated agency resecuritization entities, and $\$ 14$ million and $\$ 46$ million, respectively, of senior and subordinated interests in nonconsolidated private-label re-securitization entities. See the table on page 258 of this Note for further information on interests held in nonconsolidated securitizations.

## Multi-seller conduits

Multi-seller conduit entities are separate bankruptcy remote entities that purchase interests in, and make loans secured by, pools of receivables and other financial assets pursuant to agreements with customers of the Firm. The conduits fund their purchases and loans through the issuance of highly rated commercial paper. The primary source of repayment of the commercial paper is the cash flows from the pools of assets. In most instances, the assets are structured with deal-specific credit enhancements provided to the conduits by the customers (i.e., sellers) or other third parties. Deal-specific credit enhancements are generally structured to cover a multiple of historical losses expected on the pool of assets, and are typically in the form of overcollateralization provided by the seller. The dealspecific credit enhancements mitigate the Firm's potential losses on its agreements with the conduits.
To ensure timely repayment of the commercial paper, each asset pool financed by the conduits has a minimum $100 \%$ deal-specific liquidity facility associated with it provided by JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A., also provides the multi-seller conduit vehicles with uncommitted program-wide liquidity facilities and programwide credit enhancement in the form of standby letters of credit. The amount of program-wide credit enhancement required varies by conduit and ranges between $5 \%$ and $10 \%$ of the commercial paper that is outstanding.
The Firm consolidates its Firm-administered multi-seller conduits, as the Firm has both the power to direct the significant activities of the conduits and a potentially significant economic interest in the conduits. As administrative agent and in its role in structuring transactions, the Firm makes decisions regarding asset types and credit quality, and manages the commercial paper funding needs of the conduits. The Firm's interests that could potentially be significant to the VIEs include the fees received as administrative agent and liquidity and program-wide credit enhancement provider, as well as the potential exposure to the liquidity and credit enhancement facilities provided to the conduits. See page 264 of this Note for further information on consolidated VIE assets and liabilities.

In the normal course of business, JPMorgan Chase trades and invests in commercial paper, including commercial paper issued by the Firm-administered multi-seller conduits. The Firm held $\$ 11.3$ billion of the commercial
paper issued by the Firm-administered multi-seller conduits at December 31, 2011, which was eliminated in consolidation. The Firm did not hold commercial paper issued by the Firm-administered multi-seller conduits at December 31, 2010. The Firm's investments were not driven by market illiquidity and the Firm is not obligated under any agreement to purchase the commercial paper issued by the Firm-administered multi-seller conduits.

Deal-specific liquidity facilities, program-wide liquidity and credit enhancement provided by the Firm have been eliminated in consolidation. The Firm provides lendingrelated commitments to certain clients of the Firmadministered multi-seller conduits. The unfunded portion of these commitments was $\$ 10.8$ billion and $\$ 10.0$ billion at December 31, 2011 and 2010 respectively, which are reported as off-balance sheet lending-related commitments. For more information on off-balance sheet lending-related commitments, see Note 29 on pages 283-289 of this Annual Report.
VIEs associated with investor intermediation activities As a financial intermediary, the Firm creates certain types of VIEs and also structures transactions with these VIEs, typically using derivatives, to meet investor needs. The Firm may also provide liquidity and other support. The risks inherent in the derivative instruments or liquidity commitments are managed similarly to other credit, market or liquidity risks to which the Firm is exposed. The principal types of VIEs for which the Firm is engaged in on behalf of clients are municipal bond vehicles, credit-related note vehicles and asset swap vehicles.

## Municipal bond vehicles

The Firm has created a series of trusts that provide shortterm investors with qualifying tax-exempt investments, and that allow investors in tax-exempt securities to finance their investments at short-term tax-exempt rates. In a typical transaction, the vehicle purchases fixed-rate longer-term highly rated municipal bonds and funds the purchase by issuing two types of securities: (1) puttable floating-rate certificates and (2) inverse floating-rate residual interests ("residual interests"). The maturity of each of the puttable floating-rate certificates and the residual interests is equal to the life of the vehicle, while the maturity of the underlying municipal bonds is typically longer. Holders of the puttable floating-rate certificates may "put," or tender, the certificates if the remarketing agent cannot successfully remarket the floating-rate certificates to another investor. A liquidity facility conditionally obligates the liquidity provider to fund the purchase of the tendered floating-rate certificates. Upon termination of the vehicle, proceeds from the sale of the underlying municipal bonds would first repay any funded liquidity facility or outstanding floating-rate certificates and the remaining amount, if any, would be paid to the residual interests. If the proceeds from the sale of the underlying municipal bonds are not sufficient to repay the liquidity facility, in certain transactions the liquidity provider has recourse to the residual interest holders for reimbursement. Certain residual interest holders may be required to post collateral with the Firm, as liquidity
provider, to support such reimbursement obligations should the market value of the municipal bonds decline.
JPMorgan Chase Bank, N.A. often serves as the sole liquidity provider, and J.P. Morgan Securities LLC as remarketing agent, of the puttable floating-rate certificates. The liquidity provider's obligation to perform is conditional and is limited by certain termination events, which include bankruptcy or failure to pay by the municipal bond issuer or credit enhancement provider, an event of taxability on the municipal bonds or the immediate downgrade of the municipal bond to below investment grade. In addition, the Firm's exposure as liquidity provider is further limited by the high credit quality of the underlying municipal bonds, the excess collateralization in the vehicle or in certain transactions the reimbursement agreements with the residual interest holders. However, a downgrade of JPMorgan Chase Bank, N.A.'s short-term rating does not affect the Firm's obligation under the liquidity facility.
The long-term credit ratings of the puttable floating rate certificates are directly related to the credit ratings of the underlying municipal bonds, to the credit rating of any insurer of the underlying municipal bond, and the Firm's short-term credit rating as liquidity provider. A downgrade in any of these ratings would affect the rating of the puttable floating-rate certificates and could cause demand
for these certificates by investors to decline or disappear.
As remarketing agent, the Firm may hold puttable floatingrate certificates of the municipal bond vehicles. At December 31, 2011 and 2010, respectively, the Firm held $\$ 637$ million and $\$ 248$ million of these certificates on its Consolidated Balance Sheets. The largest amount held by the Firm at any time during 2011 was $\$ 1.1$ billion, or $7.6 \%$, of the municipal bond vehicles' aggregate outstanding puttable floating-rate certificates. The Firm did not have and continues not to have any intent to protect any residual interest holder from potential losses on any of the municipal bond holdings.
The Firm consolidates municipal bond vehicles if it owns the residual interest. The residual interest generally allows the owner to make decisions that significantly impact the economic performance of the municipal bond vehicle, primarily by directing the sale of the municipal bonds owned by the vehicle. In addition, the residual interest owners have the right to receive benefits and bear losses that could potentially be significant to the municipal bond vehicle. The Firm does not consolidate municipal bond vehicles if it does not own the residual interests, since the Firm does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle.

The Firm's exposure to nonconsolidated municipal bond VIEs at December 31, 2011 and 2010, including the ratings profile of the VIEs' assets, was as follows.

| December 31, (in billions) | Fair value of assets held by VIEs |  | Liquidity facilities ${ }^{(\mathrm{a})}$ |  | Excess/(deficit) ${ }^{(b)}$ |  | Maximum exposure |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nonconsolidated municipal bond vehicles |  |  |  |  |  |  |  |  |
| 2011 | \$ | 13.5 | \$ | 7.9 | \$ | 5.6 | \$ | 7.9 |
| 2010 |  | 13.7 |  | 8.8 |  | 4.9 |  | 8.8 |


| December 31, (in billions, except where otherwise noted) | Ratings profile of VIE assets ${ }^{(c)}$ |  |  |  |  |  |  |  |  |  | Fair value of assets held by VIEs |  | Wt. avg. expected life of assets (years) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Investment-grade |  |  |  |  |  |  |  | Noninvestmentgrade <br> BB+ and below |  |  |  |  |
|  | AAA to AAA- |  | AA+ to AA- |  | A+ to A- |  | $\begin{gathered} \text { BBB+ to } \\ \text { BBB- } \end{gathered}$ |  |  |  |  |  |  |
| 2011 | \$ | 1.5 | \$ | 11.2 | \$ | 0.7 | \$ |  | \$ | 0.1 | \$ | 13.5 | 6.6 |
| 2010 |  | 1.9 |  | 11.2 |  | 0.6 |  | - |  | - |  | 13.7 | 15.5 |

(a) The Firm may serve as credit enhancement provider to municipal bond vehicles in which it serves as liquidity provider. The Firm provided insurance on underlying municipal bonds, in the form of letters of credit, of $\$ 10$ million at December 31, 2010. The Firm did not provide insurance on underlying municipal bonds at December 31, 2011.
(b) Represents the excess/(deficit) of the fair values of municipal bond assets available to repay the liquidity facilities, if drawn.
(c) The ratings scale is based on the Firm's internal risk ratings and is presented on an S\&P-equivalent basis.

## Credit-related note and asset swap vehicles

## Credit-related note vehicles

The Firm structures transactions with credit-related note vehicles in which the VIE purchases highly rated assets, such as asset-backed securities, and enters into a credit derivative contract with the Firm to obtain exposure to a referenced credit which the VIE otherwise does not hold. The VIE then issues credit-linked notes ("CLNs") with maturities predominantly ranging from one to 10 years in order to transfer the risk of the referenced credit to the

VIE's investors. Clients and investors often prefer using a CLN vehicle since the CLNs issued by the VIE generally carry a higher credit rating than such notes would if issued directly by JPMorgan Chase. As a derivative counterparty in a credit-related note structure, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its Consolidated Balance Sheets at fair value. The collateral purchased by such VIEs is largely investment-grade, with a significant amount being rated "AAA." The Firm divides its credit-related note structures broadly into two types: static and managed.

## Notes to consolidated financial statements

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

## Asset swap vehicles

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

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

Exposure to nonconsolidated credit-related note and asset swap VIEs at December 31, 2011 and 2010, was as follows.

| December 31, 2011 (in billions) | Net derivative receivables |  | Total exposure ${ }^{(a)}$ |  | Par value of collateral held by VIEs ${ }^{(b)}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Credit-related notes |  |  |  |  |  |  |
| Static structure | \$ | 1.0 | \$ | 1.0 | \$ | 9.1 |
| Managed structure |  | 2.7 |  | 2.7 |  | 7.7 |
| Total credit-related notes |  | 3.7 |  | 3.7 |  | 16.8 |
| Asset swaps |  | 0.6 |  | 0.6 |  | 8.6 |
| Total | \$ | 4.3 | \$ | 4.3 | \$ | 25.4 |
| December 31, 2010 (in billions) | Net derivative receivables |  | Total exposure ${ }^{(a)}$ |  | Par value of collateral held by $\mathrm{VIEs}^{(b)}$ |  |
| Credit-related notes |  |  |  |  |  |  |
| Static structure | \$ | 1.0 | \$ | 1.0 | \$ | 9.5 |
| Managed structure |  | 2.8 |  | 2.8 |  | 10.7 |
| Total credit-related notes |  | 3.8 |  | 3.8 |  | 20.2 |
| Asset swaps |  | 0.3 |  | 0.3 |  | 7.6 |
| Total | \$ | 4.1 | \$ | 4.1 | \$ | 27.8 |

(a) On-balance sheet exposure that includes net derivative receivables and trading assets - debt and equity instruments. At both December 31, 2011 and 2010 , the amount of trading assets issued by nonconsolidated credit-related note and asset swap vehicles that were held by the Firm were immaterial.
(b) The Firm's maximum exposure arises through the derivatives executed with the VIEs; the exposure varies over time with changes in the fair value of the derivatives. The Firm relies on the collateral held by the VIEs to pay any amounts due under the derivatives; the vehicles are structured at inception so that the par value of the collateral is expected to be sufficient to pay amounts due under the derivative contracts.

The Firm consolidated credit-related note vehicles with collateral fair values of $\$ 231$ million and $\$ 394$ million, at December 31, 2011 and 2010, respectively. The Firm consolidated these vehicles, because in its role as secondary market-maker, it held positions in these entities that provided the Firm with control of certain vehicles. The Firm did not consolidate any asset swap vehicles at December 31, 2011 and 2010.

## VIEs sponsored by third parties

Investment in a third-party credit card securitization trust The Firm holds two interests in a third-party-sponsored VIE, which is a credit card securitization trust that owns credit card receivables issued by a national retailer. The Firm is not the primary beneficiary of the trust as the Firm does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance. The Firm's interests in the VIE include investments classified as AFS securities that had fair values of $\$ 2.9$ billion and $\$ 3.1$ billion at December 31, 2011 and 2010, respectively, and other interests which are classified as loans and have a fair value of approximately $\$ 1.0$ billion and $\$ 1.0$ billion at December 31, 2011 and 2010, respectively. For more information on AFS securities and loans, see Notes 12 and 14 on pages 225-230 and 231-252, respectively, of this Annual Report.

## VIE used in FRBNY transaction

In conjunction with the Bear Stearns merger, in June 2008, the Federal Reserve Bank of New York ("FRBNY") took control, through an LLC formed for this purpose, of a portfolio of $\$ 30.0$ billion in assets, based on the value of the portfolio as of March 14, 2008. The assets of the LLC
were funded by a $\$ 28.85$ billion term loan from the FRBNY and a $\$ 1.15$ billion subordinated loan from JPMorgan Chase. The JPMorgan Chase loan is subordinated to the FRBNY Ioan and will bear the first $\$ 1.15$ billion of any losses of the portfolio. Any remaining assets in the portfolio after repayment of the FRBNY Ioan, repayment of the JPMorgan Chase loan and the expense of the LLC will be for the account of the FRBNY. The extent to which the FRBNY and JPMorgan Chase loans will be repaid will depend on the value of the assets in the portfolio and the liquidation strategy directed by the FRBNY. The Firm does not consolidate the LLC, as it does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance.

## Other VIEs sponsored by third parties

The Firm enters into transactions with VIEs structured by other parties. These include, for example, acting as a derivative counterparty, liquidity provider, investor, underwriter, placement agent, trustee or custodian. These transactions are conducted at arm's-length, and individual credit decisions are based on the analysis of the specific VIE, taking into consideration the quality of the underlying assets. Where the Firm does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance, or a variable interest that could potentially be significant, the Firm records and reports these positions on its Consolidated Balance Sheets similarly to the way it would record and report positions in respect of any other third-party transaction.

## Notes to consolidated financial statements

## Consolidated VIE assets and liabilities

The following table presents information on assets and liabilities related to VIEs consolidated by the Firm as of December 31, 2011 and 2010.

(a) Includes residential and commercial mortgage securitizations as well as re-securitizations.
(b) Primarily comprises student loan securitization entities and municipal bond entities. The Firm consolidated $\$ 4.1$ billion and $\$ 4.5$ billion of student loan securitization entities as of December 31, 2011 and 2010, respectively, and $\$ 9.3$ billion and $\$ 4.6$ billion of municipal bond vehicles as of December 31 , 2011 and 2010, respectively.
(c) Includes assets classified as cash, derivative receivables, AFS securities, and other assets within the Consolidated Balance Sheets.
(d) The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those entities. The difference between total assets and total liabilities recognized for consolidated VIEs represents the Firm's interest in the consolidated VIEs for each program type.
(e) The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item on the Consolidated Balance Sheets titled, "Beneficial interests issued by consolidated variable interest entities." The holders of these beneficial interests do not have recourse to the general credit of JPMorgan Chase. Included in beneficial interests in VIE assets are long-term beneficial interests of $\$ 39.7$ billion and $\$ 52.6$ billion at December 31 , 2011 and 2010, respectively. The maturities of the long-term beneficial interests as of December 31, 2011, were as follows: $\$ 13.5$ billion under one year, $\$ 17.8$ billion between one and five years, and $\$ 8.4$ billion over five years, all respectively.
(f) Includes liabilities classified as accounts payable and other liabilities in the Consolidated Balance Sheets.

## Supplemental information on loan securitizations

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

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

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

## Securitization activity

The following tables provide information related to the Firm's securitization activities for the years ended December 31, 2011, 2010 and 2009, related to assets held in JPMorgan Chase-sponsored securitization entities that were not consolidated by the Firm, and sale accounting was achieved based on the accounting rules in effect at the time of the securitization.

For the year ended December 31, 2009, there were no mortgage loans that were securitized, except for commercial and other, and there were no cash flows from the Firm to the SPEs related to recourse arrangements.

Effective January 1, 2010, all of the Firm-sponsored credit card securitization trusts and predominantly all of the Firmsponsored student loan and auto securitization trusts were consolidated as a result of the accounting guidance related to VIEs and, accordingly, are not included in the securitization activity tables below for the years ended December 31, 2011 and 2010.

Prior to January 1, 2010, the Firm did not consolidate its credit card, residential and commercial mortgage, automobile, and certain student loan securitizations based on the accounting guidance in effect at that time. The Firm recorded only its retained interests in the entities on its Consolidated Balance Sheets.

| Year ended December 31, (in millions, except rates) | 2011 |  |  |  | 2010 |  |  |  |  | 2009 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Residential mortgage ${ }^{(d)(e)}$ |  | Commercial and other ${ }^{(f)}$ |  | Residential mortgage ${ }^{(\mathrm{d})(\mathrm{e})}$ |  |  | Commercial and other ${ }^{(f)}$ |  | Residential mortgage ${ }^{(d)(e)}$ |  |  | Commercial and other ${ }^{(f)}$ |  | $\frac{\text { Credit card }}{\$ \$ 26,538}$ |  |
| Principal securitized | \$ | - | \$ | 5,961 |  | \$ | 35 | \$ | 2,237 |  | \$ | - | \$ | 500 |  |  |
| Pretax gains |  | - |  | - | (g) |  | - |  | - | (g) |  | - |  | - | (g) | 22 |
| All cash flows during the period: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proceeds from new securitizations ${ }^{\left({ }^{(2)}\right.}$ | \$ | - | \$ | 6,142 |  | \$ | 36 | \$ | 2,369 |  | \$ | - | \$ | 542 |  | \$ 26,538 |
| Servicing fees collected |  | 755 |  | 4 |  |  | 968 |  | 4 |  |  | 1,111 |  | 18 |  | 1,251 |
| Other cash flows received |  | - |  | - |  |  | - |  | - |  |  | 11 |  | - |  | 5,000 |
| Proceeds from collections reinvested in revolving securitizations |  | - |  | - |  |  | - |  | - |  |  | - |  | - |  | 161,428 |
| Purchases of previously transferred financial assets (or the underlying collateral) ${ }^{(b)}$ |  | 772 |  | - |  |  | 321 |  | - |  |  | 165 |  | 249 |  | - |
| Cash flows received on the interests that continue to be held by the Firm |  | 235 |  | 178 |  |  | 319 |  | 143 |  |  | 538 |  | 120 |  | 261 |

Key assumptions used to measure retained interests originated during the year (rates per annum)

| Prepayment rate ${ }^{(c)}$ | $-\%$ | $100 \%$ | $100 \%$ |
| :--- | :---: | :---: | :---: |
|  | CPY | CPY | $16.7 \%$ |
| Peighted-average life (in years) | 1.7 | 7.1 | 9.0 |
| Expected credit losses | $-\%$ | $-\%$ | $-\%$ |
| Discount rate | 3.5 | 7.7 | 10.7 |

(a) Proceeds from residential and commercial mortgage securitizations are received in the form of securities. During 2011, \$4.0 billion and \$2.1 billion of commercial mortgage securitizations were classified in levels 2 and 3 of the fair value hierarchy, respectively. During 2010, $\$ 2.2$ billion and $\$ 172$ million of residential and commercial mortgage securitizations were classified in levels 2 and 3 of the fair value hierarchy, respectively. During 2009, $\$ 380$ million and $\$ 162$ million of residential and commercial mortgage securitizations were classified in levels 2 and 3 of the fair value hierarchy, respectively; and $\$ 12.8$ billion of proceeds from credit card securitizations were received as securities and were classified in level 2 of the fair value hierarchy.
(b) Includes cash paid by the Firm to reacquire assets from off-balance sheet, nonconsolidated entities - for example, loan repurchases due to representation and warranties and servicer clean-up calls.
(c) CPY: constant prepayment yield; PPR: principal payment rate.
(d) Includes prime, Alt-A, subprime, option ARMS, and re-securitizations. Excludes sales for which the Firm did not securitize the loan (including loans sold to Ginnie Mae, Fannie Mae and Freddie Mac).
(e) There were no retained interests held in the residential mortgage securitization completed in 2010. There were no residential mortgage securitizations in 2011 and 2009.
(f) Includes commercial, student loan and automobile loan securitizations.
(g) The Firm elected the fair value option for loans pending securitization. The carrying value of these loans accounted for at fair value approximated the proceeds received from securitization.

## Loans sold to agencies and other third-party-sponsored securitization entities

In addition to the amounts reported in the securitization activity tables above, the Firm, in the normal course of business, sells originated and purchased mortgage loans on a nonrecourse basis, predominantly to Ginnie Mae, Fannie Mae and Freddie Mac (the "Agencies"). These loans are sold primarily for the purpose of securitization by the Agencies, which also provide credit enhancement of the loans through certain guarantee provisions. The Firm does not consolidate these securitization vehicles as it is not the primary beneficiary. For a limited number of loan sales, the Firm is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. See Note 29 on pages 283-289 of this Annual Report for additional
information about the Firm's loans sales- and securitizationrelated indemnifications.

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) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carrying value of loans sold ${ }^{(a)(b)}$ | \$ | 150,632 | \$ | 156,615 | \$ | 154,571 |
| Proceeds received from Ioan sales as cash |  | 2,864 |  | 3,887 |  | 1,702 |
| Proceeds from loans sales as securities ${ }^{(\mathrm{c})}$ |  | 145,340 |  | 149,786 |  | 149,343 |
| Total proceeds received from loan sales | \$ | 148,204 | \$ | 153,673 | \$ | 151,045 |
| Gains on loan sales |  | 133 |  | 212 |  | 89 |

(a) Predominantly to U.S. government agencies.

## Notes to consolidated financial statements

(b) MSRs were excluded from the above table. See Note 17 on pages $267-$ 271 of this Annual Report for further information on originated MSRs.
(c) Predominantly includes securities from U.S. government agencies that are generally sold shortly after receipt.

## Options to repurchase delinquent loans

In addition to the Firm's obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 29 on pages 283-289 of this Annual Report, the Firm also has the option to repurchase delinquent loans that it services for Ginnie Mae, as well as for other U.S. government agencies in certain arrangements. The Firm typically elects to repurchase delinquent loans from Ginnie Mae as it continues to service them and/or manage the foreclosure process in accordance with the applicable requirements, and such loans continue
to be insured or guaranteed. When the Firm's repurchase option becomes exercisable, such loans must be reported on the Consolidated Balance Sheets as a loan with a corresponding liability. As of December 31, 2011 and 2010, the Firm had recorded on its Consolidated Balance Sheets $\$ 15.7$ billion and $\$ 13.0$ billion, respectively, of Ioans that either had been repurchased or for which the Firm had an option to repurchase. Predominately all of the amounts presented above relate to loans that have been repurchased from Ginnie Mae. Additionally, real estate owned resulting from voluntary repurchases of loans was $\$ 1.0$ billion and $\$ 1.9$ billion as of December 31, 2011 and 2010, respectively. Substantially all of these loans and real estate owned are insured or guaranteed by U.S. government agencies, and where applicable, reimbursement is proceeding normally. For additional information, refer to Note 14 on pages 231-252 of this Annual Report.

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

The following table outlines the key economic assumptions used to determine the fair value, as of December 31, 2011 and 2010, of certain of the Firm's retained interests in nonconsolidated VIEs (other than MSRs), that are valued using modeling techniques. The table also outlines the sensitivities of those fair values to immediate $10 \%$ and $20 \%$ adverse changes in assumptions used to determine fair value. For a discussion of MSRs, see Note 17 on pages 267-271 of this Annual Report.

| December 31, (in millions, except rates and where otherwise noted) | Commercial and other |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  |
| JPMorgan Chase interests in securitized assets ${ }^{(a)(\text { (b) }}$ | \$ | 3,663 | \$ | 2,906 |
| Weighted-average life (in years) |  | 3.0 |  | 3.3 |
| Weighted-average constant prepayment rate ${ }^{(c)}$ |  | -\% |  | -\% |
|  |  | CPR |  | CPR |
| Impact of 10\% adverse change | \$ | - | \$ | - |
| Impact of 20\% adverse change |  | - |  | - |
| Weighted-average loss assumption |  | 0.2\% |  | 2.1\% |
| Impact of 10\% adverse change | \$ | (61) | \$ | (76) |
| Impact of 20\% adverse change |  | (119) |  | (151) |
| Weighted-average discount rate |  | 28.2\% |  | 16.4\% |
| Impact of 10\% adverse change | \$ | (75) | \$ | (69) |
| Impact of 20\% adverse change |  | (136) |  | (134) |

(a) The Firm's interests in prime mortgage securitizations were $\$ 555$ million and $\$ 708$ million, as of December 31, 2011 and 2010, respectively. These include retained interests in Alt-A loans and re-securitization transactions. The Firm's interests in subprime mortgage securitizations were $\$ 31$ million and $\$ 14$ million, as of December 31, 2011 and 2010, respectively. Additionally, the Firm had interests in option ARM mortgage securitizations of $\$ 23$ million and $\$ 29$ million at December 31, 2011 and 2010, respectively.
(b) Includes certain investments acquired in the secondary market but predominantly held for investment purposes.
(c) CPR: constant prepayment rate.

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

## Loan delinquencies and liquidation losses

The table below includes information about delinquencies, liquidation losses and components of nonconsolidated securitized financial assets in which the Firm has continuing involvement as of December 31, 2011 and 2010.

| As of or for the year ended December 31, (in millions) | Securitized assets |  | 90 days past due |  |  |  | Liquidation losses |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2010 |  | 2011 |  | 2010 |  | 2011 | 2010 |  |
| Securitized loans ${ }^{\text {(a) }}$ |  |  |  |  |  |  |  |  |  |  |
| Residential mortgage: |  |  |  |  |  |  |  |  |  |  |
| Prime mortgage ${ }^{(b)}$ | \$ 101,004 | \$ 143,764 | \$ | 24,285 | \$ | 33,093 | \$ | 5,650 | \$ | 6,257 |
| Subprime mortgage | 35,755 | 40,721 |  | 14,293 |  | 15,456 |  | 3,086 |  | 3,598 |
| Option ARMs | 31,075 | 35,786 |  | 9,999 |  | 10,788 |  | 1,907 |  | 2,305 |
| Commercial and other | 93,336 | 106,245 |  | 4,836 |  | 5,791 |  | 1,101 |  | 618 |
| Total loans securitized ${ }^{(c)}$ | \$ 261,170 | \$ 326,516 | \$ | 53,413 | \$ | 65,128 | \$ | 11,744 | \$ | 12,778 |

(a) Total assets held in securitization-related SPEs were $\$ 342.3$ billion and $\$ 391.1$ billion, respectively, at December 31, 2011 and 2010 . The $\$ 261.2$ billion and $\$ 326.5$ billion, respectively, of loans securitized at December 31, 2011 and 2010, excludes: $\$ 74.4$ billion and $\$ 56.0$ billion, respectively, of securitized loans in which the Firm has no continuing involvement, and $\$ 6.7$ billion and $\$ 8.6$ billion, respectively, of loan securitizations consolidated on the Firm's Consolidated Balance Sheets at December 31, 2011 and 2010.
(b) Includes Alt-A loans.
(c) Includes securitized loans that were previously recorded at fair value and classified as trading assets

Implementation of change in consolidation accounting guidance for VIEs
On January 1, 2010, the Firm implemented consolidation accounting guidance related to VIEs. The following table summarizes the incremental impact at adoption of the new guidance.

| (in millions, except ratios) | U.S. GAAP <br> assets | U.S. GAAP <br> liabilities | Stockholders' <br> equity | Tier 1 <br> capital |
| :--- | ---: | ---: | ---: | ---: |
| As of December 31, 2009 | $\$ 2,031,989$ | $\$$ | $1,866,624$ | $\$$ |
| Impact of new accounting guidance for consolidation of VIEs |  | 165,365 | $11.10 \%$ |  |
| Credit card | 60,901 | 65,353 | $(4,452)$ | $(0.30)$ |
| Multi-seller conduits | 17,724 | 17,744 | $(20)$ | - |
| Mortgage \& other | 9,059 | 9,107 | $(48)$ | $(0.04)$ |
| Total impact of new guidance | 87,684 | 92,204 | $(4,520)$ | $(0.34)$ |
| Beginning balance as of January 1, 2010 | $\$ 2,119,673$ | $\$$ | $1,958,828$ | $\$$ |

## Note 17 - Goodwill and other intangible assets

Goodwill and other intangible assets consist of the following.

| December 31, (in millions) | 2011 | 2010 | 2009 |  |
| :--- | ---: | ---: | ---: | ---: |
| Goodwill | $\mathbf{\$ 4 8 , 1 8 8}$ | $\$ 48,854$ | $\$ 48,357$ |  |
| Mortgage servicing rights | $\mathbf{7 , 2 2 3}$ | 13,649 | 15,531 |  |
| Other intangible assets: |  |  |  |  |
| $\quad$ Purchased credit card relationships | $\mathbf{\$}$ | $\mathbf{6 0 2}$ | $\$$ | 897 |
| Other credit card-related intangibles | $\mathbf{4 8 8}$ | 593 | 1,246 |  |
| Core deposit intangibles | $\mathbf{5 9 4}$ | 879 | 1,207 |  |
| Other intangibles | $\mathbf{1 , 5 2 3}$ | 1,670 | 1,477 |  |
| Total other intangible assets | $\mathbf{\$ 3 , 2 0 7}$ | $\$$ | 4,039 | $\$ 4,621$ |

## Goodwill

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

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

| December 31, (in millions) | $\mathbf{c}$ 2011 | 2010 | 2009 |  |
| :--- | ---: | ---: | ---: | ---: |
| Investment Bank | $\$ \mathbf{5 , 2 7 6}$ | $\$$ | 5,278 | $\$$ |
| 4,959 |  |  |  |  |
| Retail Financial Services | $\mathbf{1 6 , 4 8 9}$ | 16,496 | 16,514 |  |
| Card Services \& Auto | $\mathbf{1 4 , 5 0 7}$ | 14,522 | 14,451 |  |
| Commercial Banking | $\mathbf{2 , 8 6 4}$ | 2,866 | 2,868 |  |
| Treasury \& Securities Services | $\mathbf{1 , 6 6 8}$ | 1,680 | 1,667 |  |
| Asset Management | $\mathbf{7 , 0 0 7}$ | $\mathbf{7 , 6 3 5}$ | 7,521 |  |
| Corporate/Private Equity | $\mathbf{3 7 7}$ | 377 | 377 |  |
| Total goodwill | $\$ \mathbf{4 8 , 1 8 8}$ | $\$ 48,854$ | $\$ \mathbf{4 8 , 3 5 7}$ |  |

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

| Year ended December 31, <br> (in millions) | 2011 | 2010 | 2009 |
| :--- | ---: | :---: | ---: |
| Balance at beginning of period ${ }^{(\mathrm{a})}$ | $\$ 48,854$ | $\$ 48,357$ | $\$ 48,027$ |
| Changes during the period from: |  |  |  |
| $\quad$ Business combinations | $\mathbf{9 7}$ | 556 | 271 |
| Dispositions | $\mathbf{( 6 8 5 )}$ | $(19)$ | - |
| Other ${ }^{(\mathrm{b})}$ | $\mathbf{( 7 8 )}$ | $(40)$ | 59 |
| Balance at December 31, ${ }^{(\mathrm{a})}$ | $\$ 48,188$ | $\$ 48,854$ | $\$ 48,357$ |

## Notes to consolidated financial statements

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

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

## Impairment testing

Goodwill was not impaired at December 31, 2011 or 2010, nor was any goodwill written off due to impairment during 2011, 2010 or 2009.
The goodwill impairment test is performed in two steps. In the first step, the current fair value of each reporting unit is compared with its carrying value, including goodwill. If the fair value is in excess of the carrying value (including goodwill), then the reporting unit's goodwill is considered not to be impaired. If the fair value is less than the carrying value (including goodwill), then a second step is performed. In the second step, the implied current fair value of the reporting unit's goodwill is determined by comparing the fair value of the reporting unit (as determined in step one) to the fair value of the net assets of the reporting unit, as if the reporting unit were being acquired in a business combination. The resulting implied current fair value of goodwill is then compared with the carrying value of the reporting unit's goodwill. If the carrying value of the goodwill exceeds its implied current fair value, then an impairment charge is recognized for the excess. If the carrying value of goodwill is less than its implied current fair value, then no goodwill impairment is recognized.
The primary method the Firm uses to estimate the fair value of its reporting units is the income approach. The models project cash flows for the forecast period and use the perpetuity growth method to calculate terminal values. These cash flows and terminal values are then discounted using an appropriate discount rate. Projections of cash flows are based on the reporting units' earnings forecasts, which include the estimated effects of regulatory and legislative changes (including, but not limited to the DoddFrank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), the CARD Act, and limitations on nonsufficient funds and overdraft fees), and which are reviewed with the Operating Committee of the Firm. The discount rate used for each reporting unit represents an estimate of the cost of equity for that reporting unit and is determined considering the Firm's overall estimated cost of equity (estimated using the Capital Asset Pricing Model), as adjusted for the risk characteristics specific to each reporting unit (for example, for higher levels of risk or uncertainty associated with the business or management's forecasts and assumptions). To assess the reasonableness of the discount rates used for each reporting unit management compares the discount rate to the estimated cost of equity for publicly traded institutions with similar businesses and risk characteristics. In addition, the weighted average cost of equity (aggregating the various reporting units) is compared with the Firms' overall estimated cost of equity to ensure reasonableness.

The valuations derived from the discounted cash flow models are then compared with market-based trading and transaction multiples for relevant competitors. Trading and transaction comparables are used as general indicators to assess the general reasonableness of the estimated fair values, although precise conclusions generally cannot be drawn due to the differences that naturally exist between the Firm's businesses and competitor institutions. Management also takes into consideration a comparison between the aggregate fair value of the Firm's reporting units and JPMorgan Chase's market capitalization. In evaluating this comparison, management considers several factors, including (a) a control premium that would exist in a market transaction, (b) factors related to the level of execution risk that would exist at the firmwide level that do not exist at the reporting unit level and (c) short-term market volatility and other factors that do not directly affect the value of individual reporting units.
While no impairment of goodwill was recognized, the Firm's consumer lending businesses in RFS and Card remain at an elevated risk of goodwill impairment due to their exposure to U.S. consumer credit risk and the effects of economic, regulatory and legislative changes. The valuation of these businesses is particularly dependent upon economic conditions (including new unemployment claims and home prices), regulatory and legislative changes (for example, those related to residential mortgage servicing, foreclosure and loss mitigation activities, and those that may affect consumer credit card use), and the amount of equity capital required. In addition, the earnings or estimated cost of equity of the Firm's capital markets businesses could also be affected by regulatory or legislative changes. The assumptions used in the discounted cash flow valuation models were determined using management's best estimates. The cost of equity reflected the related risks and uncertainties, and was evaluated in comparison to relevant market peers. Deterioration in these assumptions could cause the estimated fair values of these reporting units and their associated goodwill to decline, which may result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

## Mortgage servicing rights

Mortgage servicing rights represent the fair value of expected future cash flows for performing servicing activities for others. The fair value considers estimated future servicing fees and ancillary revenue, offset by estimated costs to service the loans, and generally declines over time as net servicing cash flows are received, effectively amortizing the MSR asset against contractual servicing and ancillary fee income. MSRs are either purchased from third parties or recognized upon sale or securitization of mortgage loans if servicing is retained.
As permitted by U.S. GAAP, the Firm elected to account for its MSRs at fair value. The Firm treats its MSRs as a single class of servicing assets based on the availability of market inputs used to measure the fair value of its MSR asset and its treatment of MSRs as one aggregate pool for risk
management purposes. The Firm estimates the fair value of MSRs using an option-adjusted spread ("OAS") model, which projects MSR cash flows over multiple interest rate scenarios in conjunction with the Firm's prepayment model, and then discounts these cash flows at risk-adjusted rates. The model considers portfolio characteristics, contractually specified servicing fees, prepayment assumptions, delinquency rates, late charges, other ancillary revenue and costs to service, and other economic factors. The Firm compares fair value estimates and assumptions to observable market data where available, and also considers recent market activity and actual portfolio experience.
The fair value of MSRs is sensitive to changes in interest rates, including their effect on prepayment speeds. MSRs typically decrease in value when interest rates decline because declining interest rates tend to increase prepayments and therefore reduce the expected life of the net servicing cash flows that comprise the MSR asset. Conversely, securities (e.g., mortgage-backed securities), principal-only certificates and certain derivatives (i.e., those for which the Firm receives fixed-rate interest payments) increase in value when interest rates decline. JPMorgan Chase uses combinations of derivatives and securities to manage changes in the fair value of MSRs. The intent is to offset any interest-rate related changes in the fair value of MSRs with changes in the fair value of the related risk management instruments.
The following table summarizes MSR activity for the years ended December 31, 2011, 2010 and 2009.

| Year ended December 31, <br> (in millions, except where otherwise noted) | 2011 | 2010 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: |
| Fair value at beginning of period | \$ 13,649 | \$ 15,531 | \$ | 9,403 |
| MSR activity |  |  |  |  |
| Originations of MSRS | 2,570 | 3,153 |  | 3,615 |
| Purchase of MSRs | 33 | 26 |  | 2 |
| Disposition of MSRs | - | (407) |  | (10) |
| Changes due to modeled amortization | $(1,910)$ | $(2,386)$ |  | $(3,286)$ |
| Net additions and amortization | 693 | 386 |  | 321 |
| Changes due to market interest rates | $(5,392)$ | $(2,224)$ |  | 5,844 |
| Other changes in valuation due to inputs and assumptions ${ }^{(2)}$ | $(1,727)$ | (44) |  | (37) |
| Total change in fair value of MSRs ${ }^{(b)}$ | $(7,119)$ | $(2,268)$ |  | 5,807 |
| Fair value at December 31 ${ }^{\text {c }}$ | \$ 7,223 | \$ 13,649 |  | 15,531 |
| Change in unrealized gains/(losses) included in income related to MSRs held at December 31 | \$ $(7,119)$ | \$ $(2,268)$ |  | 5,807 |
| Contractual service fees, late fees and other ancillary fees included in income | \$ 3,977 | \$ 4,484 |  | 4,818 |
| Third-party mortgage loans serviced at December 31 (in billions) | \$ 910 | \$ 976 |  | 1,091 |
| $\begin{aligned} & \text { Servicer advances at December } 31 \\ & \text { (in billions)(d) } \end{aligned}$ | \$ 11.1 | \$ 9.9 | \$ | 7.7 |

[^9]$\$(1)$ million and $\$(4)$ million for the years ended December 31, 2011, 2010 and 2009, respectively.
(c) Includes $\$ 31$ million, $\$ 40$ million and $\$ 41$ million related to commercial real estate at December 31, 2011, 2010 and 2009, respectively.
(d) Represents amounts the Firm pays as the servicer (e.g., scheduled principal and interest to a trust, taxes and insurance), which will generally be reimbursed within a short period of time after the advance from future cash flows from the trust or the underlying loans. The Firm's credit risk associated with these advances is minimal because reimbursement of the advances is senior to all cash payments to investors. In addition, the Firm maintains the right to stop payment if the collateral is insufficient to cover the advance.

During the year ended December 31, 2011, the fair value of the MSR decreased by $\$ 6.4$ billion. This decrease was predominately due to a decline in market interest rates, which resulted in a loss of $\$ 5.4$ billion. These losses were offset by gains of $\$ 5.6$ billion on derivatives used to hedge the MSR asset; these derivatives are recognized on the Consolidated Balance Sheets separately from the MSR asset. Also contributing to the decline in fair value of the MSR asset was a $\$ 1.7$ billion decrease related to revised cost to service and ancillary income assumptions incorporated in the MSR valuation. The increased cost to service assumptions reflect the estimated impact of higher servicing costs to enhance servicing processes, particularly loan modification and foreclosure procedures, including costs to comply with Consent Orders entered into with banking regulators. The increase in the cost to service assumption contemplates significant and prolonged increases in staffing levels in the core and default servicing functions. The decreased ancillary income assumption is similarly related to a reassessment of business practices in consideration of the Consent Orders and the existing industry-wide regulatory environment, which is broadly affecting market participants.
Also in the fourth quarter of 2011, the Firm revised its OAS assumption and updated its proprietary prepayment model; these changes had generally offsetting effects. The Firm's OAS assumption is based upon capital and return requirements that the Firm believes a market participant would consider, taking into account factors such as the pending Basel III capital rules. Consequently, the OAS assumption for the Firm's portfolio increased by approximately 400 basis points and decreased the fair value of the MSR asset by approximately $\$ 1.2$ billion.
Since 2009, the Firm has continued to refine its proprietary prepayment model based on a number of market-related factors, including a downward trend in home prices, a general tightening of credit underwriting standards and the associated impact on refinancing activity. In the fourth quarter of 2011, the Firm further enhanced its proprietary prepayment model to incorporate: (i) the impact of the Home Affordable Refinance Program ("HARP") 2.0), and (ii) assumptions that will limit modeled refinancings due to the combined influences of relatively strict underwriting standards and reduced levels of expected home price appreciation. In the aggregate, these refinements increased the fair value of the MSR asset by approximately $\$ 1.2$ billion.

## Notes to consolidated financial statements

The decrease in the fair value of the MSR results in a lower asset value that will amortize in future periods against contractual and ancillary fee income received in future periods. While there is expected to be higher levels of noninterest expense associated with higher servicing costs in those future periods, there will also be less MSR amortization, which will have the effect of increasing mortgage fees and related income. The amortization of the MSR is reflected in the tables above under "Changes due to modeled amortization."

The following table presents the components of mortgage fees and related income (including the impact of MSR risk management activities) for the years ended December 31, 2011, 2010 and 2009.

| Year ended December 31, <br> (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |
| :--- | :---: | :---: | :---: | :---: |
| RFS mortgage fees and related <br> income |  |  |  |
| Net production revenue: <br> Production revenue <br> Repurchase losses | $\mathbf{\$ 3 , 3 9 5}$ | $\$ 3,440$ | $\$ 2,115$ |
| (1,347) | $(2,912)$ | $(1,612)$ |  |
| Net production revenue | $\mathbf{2 , 0 4 8}$ | 528 | 503 |
| Operating revenue: <br> Loan servicing revenue <br> Changes in MSR asset fair value <br> due to modeled amortization | $\mathbf{( 1 , 9 0 4 )}$ | $(2,384)$ | $(3,279)$ |
| Total operating revenue | $\mathbf{2 , 2 3 0}$ | 2,191 | 1,663 |
| Risk management: <br> Changes in MSR asset fair value due <br> to market interest rates | $\mathbf{( 5 , 3 9 0 )}$ | $(2,224)$ | 5,804 |
| Other changes in MSR asset fair <br> value due to inputs or assumptions <br> in model | $\mathbf{( 1 , 7 2 7 )}$ |  |  |

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

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSRs at December 31, 2011 and 2010; and it outlines the sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

| Year ended December 31, (in millions, except rates) | 2011 | 2010 |
| :---: | :---: | :---: |
| Weighted-average prepayment speed assumption ("CPR") | 18.07\% | 11.29\% |
| Impact on fair value of $10 \%$ adverse change | \$ (585) | \$ (809) |
| Impact on fair value of $20 \%$ adverse change | $(1,118)$ | $(1,568)$ |
| Weighted-average option adjusted spread | 7.83\% | 3.94\% |
| Impact on fair value of 100 basis points adverse change | \$ (269) | \$ (578) |
| Impact on fair value of 200 basis points adverse change | (518) | $(1,109)$ |

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

## Other intangible assets

Other intangible assets are recorded at their fair value upon completion of a business combination or certain other transactions, and generally represent the value of customer relationships or arrangements. Subsequently, the Firm's intangible assets with finite lives, including core deposit intangibles, purchased credit card relationships, and other intangible assets, are amortized over their useful lives in a manner that best reflects the economic benefits of the intangible asset. The $\$ 832$ million decrease in other intangible assets during 2011, was due to $\$ 848$ million in amortization.
The components of credit card relationships, core deposits and other intangible assets were as follows.

| December 31, (in millions) | December 31, 2011 |  |  |  |  |  | December 31, 2010 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross amount ${ }^{(\mathrm{a})}$ |  | Accumulated amortization ${ }^{\text {(a) }}$ |  | Net carrying value |  | Gross amount |  | Accumulated amortization |  | Net carrying value |  |
| Purchased credit card relationships | \$ | 3,826 | \$ | 3,224 | \$ | 602 | \$ | 5,789 | \$ | 4,892 | \$ | 897 |
| Other credit card-related intangibles |  | 844 |  | 356 |  | 488 |  | 907 |  | 314 |  | 593 |
| Core deposit intangibles |  | 4,133 |  | 3,539 |  | 594 |  | 4,280 |  | 3,401 |  | 879 |
| Other intangibles |  | 2,467 |  | 944 |  | 1,523 |  | 2,515 |  | 845 |  | 1,670 |

(a) The decrease in the gross amount and accumulated amortization from December 31, 2010, was due to the removal of fully amortized assets.

In addition to the finite lived intangible assets in the previous table, the Firm has intangible assets of approximately $\$ 600$ million consisting primarily of asset management advisory contracts, which were determined to have an indefinite life and are not amortized.

## Amortization expense

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

| December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purchased credit card relationships | \$ | 295 | \$ | 355 | \$ | 421 |
| Other credit card-related intangibles |  | 106 |  | 111 |  | 94 |
| Core deposit intangibles |  | 285 |  | 328 |  | 390 |
| Other intangibles |  | 162 |  | 142 |  | 145 |
| Total amortization expense | \$ | 848 | \$ | 936 | \$ | 1,050 |

## 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, 2011.

| For the year ended December 31, (in millions) | Purchased credit card relationships |  | Other credit card-related intangibles |  | Core deposit intangibles |  | Other intangibles |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012 | \$ | 253 | \$ | 106 | \$ | 240 | \$ | 147 | \$ | 746 |
| 2013 |  | 212 |  | 103 |  | 195 |  | 140 |  | 650 |
| 2014 |  | 109 |  | 102 |  | 103 |  | 122 |  | 436 |
| 2015 |  | 23 |  | 94 |  | 26 |  | 105 |  | 248 |
| 2016 |  | 4 |  | 34 |  | 14 |  | 98 |  | 150 |

## Impairment testing

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

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

## Notes to consolidated financial statements

## Note 18 - Premises and equipment

Premises and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. JPMorgan Chase computes depreciation using the straight-line method over the estimated useful life of an asset. For leasehold improvements, the Firm uses the straight-line method computed over the lesser of the remaining term of the leased facility or the estimated useful life of the leased asset. JPMorgan Chase has recorded immaterial asset retirement obligations related to asbestos remediation in those cases where it has sufficient information to estimate the obligations' fair value.
JPMorgan Chase capitalizes certain costs associated with the acquisition or development of internal-use software. Once the software is ready for its intended use, these costs are amortized on a straight-line basis over the software's expected useful life and reviewed for impairment on an ongoing basis.

## Note 19 - Deposits

At December 31, 2011 and 2010, noninterest-bearing and interest-bearing deposits were as follows.

| December 31, (in millions) | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| U.S. offices |  |  |  |  |
| Noninterest-bearing | \$ | 346,670 | \$ | 228,555 |
| Interest-bearing |  |  |  |  |
| Demand ${ }^{(a)}$ |  | 47,075 |  | 33,368 |
| Savings ${ }^{(b)}$ |  | 375,051 |  | 334,632 |
| Time (included \$3,861 and \$2,733 at fair value) ${ }^{(\mathrm{c})}$ |  | 82,738 |  | 87,237 |
| Total interest-bearing deposits |  | 504,864 |  | 455,237 |
| Total deposits in U.S. offices |  | 851,534 |  | 683,792 |
| Non-U.S. offices |  |  |  |  |
| Noninterest-bearing |  | 18,790 |  | 10,917 |
| Interest-bearing |  |  |  |  |
| Demand |  | 188,202 |  | 174,417 |
| Savings |  | 687 |  | 607 |
| Time (included \$1,072 and \$1,636 at fair value) ${ }^{(c)}$ |  | 68,593 |  | 60,636 |
| Total interest-bearing deposits |  | 257,482 |  | 235,660 |
| Total deposits in non-U.S. offices |  | 276,272 |  | 246,577 |
| Total deposits | \$ | 1,127,806 | \$ | 930,369 |

(a) Includes Negotiable Order of Withdrawal ("NOW") accounts, and certain trust accounts.
(b) Includes Money Market Deposit Accounts ("MMDAs").
(c) Includes structured notes classified as deposits for which the fair value option has been elected. For further discussion, see Note 4 on pages 198-200 of this Annual Report.

At December 31, 2011 and 2010, time deposits in denominations of $\$ 100,000$ or more were as follows.

| December 31, (in millions) | 2011 | 2010 |
| :--- | ---: | ---: |
| U.S. offices | $\$ 57,802$ | $\$ 59,653$ |
| Non-U.S. offices | $\mathbf{5 0 , 6 1 4}$ | 44,544 |
| Total | $\mathbf{\$ 1 0 8 , 4 1 6}$ | $\$ 104,197$ |

At December 31, 2011, the maturities of interest-bearing time deposits were as follows.

| December 31, 2011 <br> (in millions) | U.S. | Non-U.S. | Total |  |
| :--- | ---: | ---: | ---: | ---: |
| 2012 | $\$ 68,345$ | $\$ 67,107$ | $\$$ | 135,452 |
| 2013 | 7,222 | 1,086 | 8,308 |  |
| 2014 | 1,947 | 219 | 2,166 |  |
| 2015 | 2,051 | 22 | 2,073 |  |
| 2016 | 2,532 | 102 | 2,634 |  |
| After 5 years | 641 | 57 | 698 |  |
| Total | $\$ 82,738$ | $\$ 68,593$ | $\$$ | 151,331 |

## Note 20 - Accounts payable and other liabilities

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

| December 31, (in millions) | $\mathbf{2 0 1 1}$ |  | 2010 |  |
| :--- | ---: | ---: | ---: | ---: |
| Brokerage payables $^{(\mathrm{a})}$ | $\$ \mathbf{1 2 1 , 3 5 3}$ | $\$$ | 95,359 |  |
| Accounts payable and other liabilities $^{(\mathrm{b})}$ |  | $\mathbf{8 1 , 5 4 2}$ |  | 74,971 |
| Total | $\mathbf{\$}$ | $\mathbf{2 0 2 , 8 9 5}$ | $\$$ | 170,330 |

(a) Includes payables to customers, brokers, dealers and clearing organizations, and securities fails.
(b) Includes $\$ 51$ million and $\$ 236$ million accounted for at fair value at December 31, 2011 and 2010, respectively.

## Note 21 - Long-term debt

JPMorgan Chase issues long-term debt denominated in various currencies, although predominantly U.S. dollars, with both fixed and variable interest rates. Included in senior and subordinated debt below are various equity-linked or other indexed instruments, which the Firm has elected to measure at fair value. Changes in fair value are recorded in principal transactions revenue in the Consolidated Statements of Income. The following table is a summary of long-term debt carrying values (including unamortized original issue discount, valuation adjustments and fair value adjustments, where applicable) by remaining contractual maturity as of December 31, 2011.

| By remaining maturity at <br> December 31, <br> (in millions, except rates) |  | 2011 |  |  |  |  |  |  |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Under |  | 1-5 years |  | After |  | Total |  |  |  |
|  |  |  | 1 year |  |  |  | 5 years |  |  | Total |  |
| Parent company |  |  |  |  |  |  |  |  |  |  |  |
| Senior debt: | Fixed rate ${ }^{(a)}$ | \$ | 17,142 | \$ | 40,060 | \$ | 39,276 | \$ | 96,478 | \$ | 98,787 |
|  | Variable rate ${ }^{(b)}$ |  | 24,186 |  | 25,684 |  | 5,909 |  | 55,779 |  | 59,027 |
|  | Interest rates ${ }^{(c)}$ | 0.32-7.00\% |  | 0.60-7.00\% |  | 0.41-7.25\% |  | 0.32-7.25\% |  | 0.24-7.25\% |  |
| Subordinated debt: | Fixed rate | \$ | 1,005 | \$ | 8,919 | \$ | 9,243 | \$ | 19,167 | \$ | 22,000 |
|  | Variable rate |  | 118 |  | 1,827 |  | 9 |  | 1,954 |  | 1,996 |
|  | Interest rates ${ }^{(c)}$ | 6.63-6.63\% |  | 1.09-5.75\% |  | 2.16-8.53\% |  | 1.09-8.53\% |  | 1.37-8.53\% |  |
|  | Subtotal | \$ 42,451 |  | \$ | 76,490 | \$ | 54,437 | \$ | 173,378 | \$ | \$ 181,810 |
| Subsidiaries |  |  |  |  |  |  |  |  |  |  |  |
| FHLB advances: ${ }^{(d)}$ | Fixed rate | \$ | 18 | \$ | 4,548 | \$ | 172 | \$ | 4,738 |  | \$ 7,324 |
|  | Variable rate |  | 5,500 |  | 6,822 |  | 763 |  | 13,085 |  | 15,660 |
|  | Interest rates ${ }^{(c)}$ | 0.32-0.44\% |  | 0.32-2.04\% |  | 0.41-0.44\% |  | 0.32-2.04\% |  | 0.21-4.05\% |  |
| Senior debt: | Fixed rate | \$ | 699 | \$ | 2,963 | \$ | 2,884 | \$ | 6,546 | \$ | 5,228 |
|  | Variable rate |  | 6,465 |  | 17,327 |  | 4,465 |  | 28,257 |  | 30,545 |
|  | Interest rates ${ }^{(c)}$ | 0.33-0.57\% |  | 0.13-4.28\% |  | 4.00-14.21\% |  | 0.13-14.21\% |  | 0.21-14.21\% |  |
| Subordinated debt: | Fixed rate |  | - | \$ | 1,672 | \$ | 7,083 | \$ | 8,755 | \$ | 8,605 |
|  | Variable rate |  | - |  | 1,150 |  | - |  | 1,150 |  | 1,150 |
|  | Interest rates ${ }^{(c)}$ | \$ | -\% |  | 87-5.88\% |  | -8.25\% | 0.87-8.25\% |  | 0.63-8.25\% |  |
|  | Subtotal | \$ | 12,682 | \$ | 34,482 | \$ | 15,367 | \$ | 62,531 | \$ | 68,512 |
| Junior subordinated debt: | Fixed rate | \$ | - | \$ | - | \$ | 15,784 | \$ | 15,784 | \$ | 15,249 |
|  | Variable rate |  | - |  | - |  | 5,082 |  | 5,082 |  | $5,082$ |
|  | Interest rates ${ }^{(c)}$ |  | -\% |  | -\% |  | 0.93-8.75\% | 0.93-8.75\% |  | 0.79-8.75\% |  |
|  | Subtotal | \$ | - | \$ | - | \$ | 20,866 | \$ | 20,866 | \$ | 20,331 |
| Total long-term debt ${ }^{(\text {(e) (f)(g) }}$ |  |  | 55,133 | \$ | 110,972 | \$ | 90,670 | \$ | 256,775 | \$ | 270,653 |
| Long-term beneficial interests: |  |  |  |  |  |  |  |  |  |  |  |
|  | Fixed rate | \$ | 2,012 | \$ | 2,474 | \$ | 1,775 | \$ | 6,261 | \$ | 9,795 |
|  | Variable rate |  | 11,474 |  | 15,306 |  | 6,693 |  | 33,473 |  | 42,759 |
|  | Interest rates | 0.06-11.00\% |  | 0.06-5.63\% |  | 0.02-9.19\% |  | 0.02-11.00\% |  | 0.05-11.00\% |  |
| Total long-term beneficial interests ${ }^{\text {(h) }}$ |  | \$ | 13,486 | \$ | 17,780 | \$ | 8,468 | \$ | 39,734 | \$ | 52,554 |

(a) Included $\$ 8.4$ billion and $\$ 18.5$ billion as of December 31, 2011 and 2010, respectively, guaranteed by the FDIC under the Temporary Liquidity Guarantee ("TLG") Program.
(b) Included $\$ 11.9$ billion and $\$ 17.9$ billion as of December 31, 2011 and 2010, respectively, guaranteed by the FDIC under the TLG Program.
(c) The interest rates shown are the range of contractual rates in effect at year-end, including non-U.S. dollar fixed- and variable-rate issuances, which excludes the effects of the associated derivative instruments used in hedge accounting relationships, if applicable. The use of these derivative instruments modifies the Firm's exposure to the contractual interest rates disclosed in the table above. Including the effects of the hedge accounting derivatives, the range of modified rates in effect at December 31, 2011, for total long-term debt was (0.37) \% to $14.21 \%$, versus the contractual range of $0.13 \%$ to $14.21 \%$ presented in the table above. The interest rate ranges shown exclude structured notes accounted for at fair value.
(d) Effective January 1, 2011, $\$ 23.0$ billion of long-term advances from FHLBs were reclassified from other borrowed funds to long-term debt. The prioryear period has been revised to conform with the current presentation.
(e) Included long-term debt of $\$ 23.8$ billion and $\$ 31.3$ billion secured by assets totaling $\$ 89.4$ billion and $\$ 92.0$ billion at December 31 , 2011 and 2010 , respectively. The amount of long-term debt secured by assets does not include amounts related to hybrid instruments.
(f) Included $\$ 34.7$ billion and $\$ 38.8$ billion of outstanding structured notes accounted for at fair value at December 31, 2011 and 2010, respectively.
(g) Included $\$ 2.1$ billion and $\$ 879$ million of outstanding zero-coupon notes at December 31, 2011 and 2010, respectively. The aggregate principal amount of these notes at their respective maturities was $\$ 5.0$ billion and $\$ 2.7$ billion, respectively.
(h) Included on the Consolidated Balance Sheets in beneficial interests issued by consolidated VIEs. Also included $\$ 1.3$ billion and $\$ 1.5$ billion of outstanding structured notes accounted for at fair value at December 31, 2011 and 2010, respectively. Excluded short-term commercial paper and other short-term beneficial interests of $\$ 26.2$ billion and $\$ 25.1$ billion at December 31, 2011 and 2010, respectively.

## Notes to consolidated financial statements

(i) At December 31, 2011, long-term debt in the aggregate of $\$ 28.6$ billion was redeemable at the option of JPMorgan Chase, in whole or in part, prior to maturity, based on the terms specified in the respective notes.
(j) The aggregate carrying values of debt that matures in each of the five years subsequent to 2011 is $\$ 55.1$ billion in 2012 , $\$ 34.9$ billion in 2013 , $\$ 30.4$ billion in 2014, $\$ 21.6$ billion in 2015 and $\$ 24.1$ billion in 2016.

The weighted-average contractual interest rates for total long-term debt excluding structured notes accounted for at fair value were $3.57 \%$ and $3.50 \%$ as of December 31, 2011 and 2010, respectively. In order to modify exposure to interest rate and currency exchange rate movements, JPMorgan Chase utilizes derivative instruments, primarily interest rate and cross-currency interest rate swaps, in conjunction with some of its debt issues. The use of these instruments modifies the Firm's interest expense on the associated debt. The modified weighted-average interest rates for total long-term debt, including the effects of related derivative instruments, were $2.67 \%$ and $2.36 \%$ as of December 31, 2011 and 2010, respectively.

The Firm commenced its participation in the TLG Program in December 2008. The TLG Program was available to, among others, all U.S. depository institutions insured by the FDIC and all U.S. bank holding companies, unless they opted out or the FDIC terminated their participation. Under the TLG Program, the FDIC guaranteed through the earlier of maturity or December 31, 2012, certain senior unsecured debt issued though October 31, 2009, in return for a fee to be paid based on the amount and maturity of the debt. Under the TLG Program, the FDIC would pay the unpaid principal and interest on an FDIC-guaranteed debt instrument upon the failure of the participating entity to make a timely payment of principal or interest in accordance with the terms of the instrument.

The Parent Company has guaranteed certain long-term debt of its subsidiaries, including both long-term debt and structured notes sold as part of the Firm's market-making
activities. These guarantees rank on parity with all of the Firm's other unsecured and unsubordinated indebtedness. Guaranteed liabilities were $\$ 3.0$ billion and $\$ 3.7$ billion at December 31, 2011 and 2010, respectively.

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

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

At December 31, 2011, the Firm had established 26 whollyowned Delaware statutory business trusts ("issuer trusts") that had issued guaranteed capital debt securities.

The junior subordinated deferrable interest debentures issued by the Firm to the issuer trusts, totaling $\$ 20.9$ billion and $\$ 20.3$ billion at December 31, 2011 and 2010, respectively, were reflected in the Firm's Consolidated Balance Sheets in long-term debt, and in the table on the preceding page under the caption "Junior subordinated debt" (i.e., trust preferred capital debt securities). The Firm also records the common capital securities issued by the issuer trusts in other assets in its Consolidated Balance Sheets at December 31, 2011 and 2010. The debentures issued to the issuer trusts by the Firm, less the common capital securities of the issuer trusts, qualified as Tier 1 capital as of December 31, 2011.

The following is a summary of the outstanding trust preferred capital debt 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, 2011.

| December 31, 2011 (in millions) | Amount of trust preferred capital debt securities issued by trust ${ }^{(\mathrm{a})}$ | Principal amount of debenture issued to trust ${ }^{(b)}$ | Issue date | Stated maturity of trust preferred capital securities and debentures | Earliest redemption date | Interest rate of trust preferred capital securities and debentures | Interest payment/ distribution dates |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bank One Capital III | \$474 | \$765 | 2000 | 2030 | Any time | 8.75\% | Semiannually |
| Bank One Capital VI | 525 | 552 | 2001 | 2031 | Any time | 7.20\% | Quarterly |
| Chase Capital II | 482 | 497 | 1997 | 2027 | Any time | LIBOR + 0.50\% | Quarterly |
| Chase Capital III | 295 | 305 | 1997 | 2027 | Any time | LIBOR + 0.55\% | Quarterly |
| Chase Capital VI | 241 | 249 | 1998 | 2028 | Any time | LIBOR + 0.625\% | Quarterly |
| First Chicago NBD Capital I | 249 | 256 | 1997 | 2027 | Any time | LIBOR + 0.55\% | Quarterly |
| J.P. Morgan Chase Capital X | 1,000 | 1,016 | 2002 | 2032 | Any time | 7.00\% | Quarterly |
| J.P. Morgan Chase Capital XI | 1,075 | 1,009 | 2003 | 2033 | Any time | 5.88\% | Quarterly |
| J.P. Morgan Chase Capital XII | 400 | 391 | 2003 | 2033 | Any time | 6.25\% | Quarterly |
| JPMorgan Chase Capital XIII | 465 | 480 | 2004 | 2034 | 2014 | LIBOR + 0.95\% | Quarterly |
| JPMorgan Chase Capital XIV | 600 | 587 | 2004 | 2034 | Any time | 6.20\% | Quarterly |
| JPMorgan Chase Capital XV | 93 | 132 | 2005 | 2035 | Any time | 5.88\% | Semiannually |
| JPMorgan Chase Capital XVI | 500 | 493 | 2005 | 2035 | Any time | 6.35\% | Quarterly |
| JPMorgan Chase Capital XVII | 496 | 720 | 2005 | 2035 | Any time | 5.85\% | Semiannually |
| JPMorgan Chase Capital XVIII | 748 | 749 | 2006 | 2036 | Any time | 6.95\% | Semiannually |
| JPMorgan Chase Capital XIX | 563 | 564 | 2006 | 2036 | Any time | 6.63\% | Quarterly |
| JPMorgan Chase Capital XX | 905 | 907 | 2006 | 2036 | Any time | 6.55\% | Semiannually |
| JPMorgan Chase Capital XXI | 836 | 837 | 2007 | 2037 | 2012 | LIBOR + 0.95\% | Quarterly |
| JPMorgan Chase Capital XXII | 911 | 912 | 2007 | 2037 | Any time | 6.45\% | Semiannually |
| JPMorgan Chase Capital XXIII | 643 | 643 | 2007 | 2047 | 2012 | LIBOR + 1.00\% | Quarterly |
| JPMorgan Chase Capital XXIV | 700 | 700 | 2007 | 2047 | 2012 | 6.88\% | Quarterly |
| JPMorgan Chase Capital XXV | 1,493 | 2,292 | 2007 | 2037 | 2037 | 6.80\% | Semiannually |
| JPMorgan Chase Capital XXVI | 1,815 | 1,815 | 2008 | 2048 | 2013 | 8.00\% | Quarterly |
| JPMorgan Chase Capital XXVII | 995 | 995 | 2009 | 2039 | 2039 | 7.00\% | Semiannually |
| JPMorgan Chase Capital XXVIII | 1,500 | 1,500 | 2009 | 2039 | 2014 | 7.20\% | Quarterly |
| JPMorgan Chase Capital XXIX | 1,500 | 1,500 | 2010 | 2040 | 2015 | 6.70\% | Quarterly |
| Total | \$19,504 | \$20,866 |  |  |  |  |  |

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

## Notes to consolidated financial statements

## Note 22 - Preferred stock

At December 31, 2011 and 2010, JPMorgan Chase was authorized to issue 200 million shares of preferred stock, in one or more series, with a par value of \$1 per share.

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

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

On August 20, 2010, the Firm redeemed all of the outstanding shares of its 6.15\% Cumulative Preferred Stock, Series E; 5.72\% Cumulative Preferred Stock, Series F; and 5.49\% Cumulative Preferred Stock, Series G at their stated redemption value. On June 17, 2009, the Firm redeemed all outstanding shares of the Fixed Rate Cumulative Perpetual Preferred Stock, Series K ("Series K Preferred Stock") and repaid the full $\$ 25.0$ billion principal amount together with accrued but unpaid dividends. The following is a summary of JPMorgan Chase's preferred stock outstanding as of December 31, 2011 and 2010.

| December 31, | Fixed-toFloating Rate NonCumulative Perpetual Preferred Stock, Series I | 8.625\% Non- <br> Cumulative Perpetual Preferred Stock, Series J | Total preferred stock |
| :---: | :---: | :---: | :---: |
| Contractual rate in effect at December 31, 2011 | 7.900\% | 8.625\% |  |
| Shares ${ }^{(a)} 2011$ | 600,000 | 180,000 | 780,000 |
| 2010 | 600,000 | 180,000 | 780,000 |
| Carrying value 2011 | \$ 6,000 | \$ 1,800 | \$ 7,800 |
| (in millions) 2010 | 6,000 | 1,800 | 7,800 |
| Earliest redemption date | 4/30/2018 | 9/1/2013 |  |
| Share value and redemption price per share ${ }^{(b)}$ | \$ 10,000 | \$ 10,000 |  |

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

## Dividend and stock repurchase restrictions

Prior to the redemption of the Series K Preferred Stock on June 17, 2009, the Firm was subject to certain restrictions regarding the declaration of dividends and share repurchases. As a result of the redemption of the Series K Preferred Stock, JPMorgan Chase is no longer subject to any of these restrictions.

## Note 23 - Common stock

At December 31, 2011 and 2010, JPMorgan Chase was authorized to issue 9.0 billion shares of common stock with a par value of \$1 per share. On June 5, 2009, the Firm issued $\$ 5.8$ billion, or 163 million new shares, of its common stock at \$35.25 per share.

Common shares issued (newly issued or distributed from treasury) by JPMorgan Chase during the years ended December 31, 2011, 2010 and 2009 were as follows.

| Year ended December 31, (in millions) | 2011 | 2010 | 2009 |
| :---: | :---: | :---: | :---: |
| Issued - balance at January 1 | 4,104.9 | 4,104.9 | 3,941.6 |
| New open market issuances | - | - | 163.3 |
| Total issued - balance at December 31 | 4,104.9 | 4,104.9 | 4,104.9 |
| Treasury - balance at January 1 | (194.6) | (162.9) | (208.8) |
| Purchase of treasury stock | (226.9) | (77.9) | - |
| Share repurchases related to employee stock-based awards ${ }^{(\mathrm{a})}$ | (0.1) | (0.1) | (1.1) |
| Issued from treasury: |  |  |  |
| Employee benefits and compensation plans | 88.3 | 45.3 | 45.7 |
| Employee stock purchase plans | 1.1 | 1.0 | 1.3 |
| Total issued from treasury | 89.4 | 46.3 | 47.0 |
| Total treasury - balance at December 31 | (332.2) | (194.6) | (162.9) |
| Outstanding | 3,772.7 | 3,910.3 | 3,942.0 |

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

Pursuant to the U.S. Treasury's Capital Purchase Program, the Firm issued to the U.S. Treasury a Warrant to purchase up to $88,401,697$ shares of the Firm's common stock, at an exercise price of $\$ 42.42$ per share, subject to certain antidilution and other adjustments. The U.S. Treasury exchanged the Warrant for 88,401,697 warrants, each of which was a warrant to purchase a share of the Firm's common stock at an exercise price of $\$ 42.42$ per share and, on December 11,2009 , sold the warrants in a secondary public offering for $\$ 950$ million. The warrants are exercisable, in whole or in part, at any time and from time to time until October 28, 2018. As part of its common equity repurchase program discussed below, the Firm repurchased $10,167,698$ warrants during 2011, with 78,233,999 warrants remaining outstanding at December 31, 2011. The repurchase of the warrants resulted in a $\$ 122$ million adjustment to capital surplus.

On March 18, 2011, the Board of Directors approved a $\$ 15.0$ billion common equity (i.e., common stock and warrants) repurchase program, of which $\$ 8.95$ billion was authorized for repurchase in 2011. The $\$ 15.0$ billion repurchase program superseded a $\$ 10.0$ billion repurchase program approved in 2007. During 2011 and 2010, the Firm repurchased (on a trade-date basis) an aggregate of 240 million and 78 million shares of common stock and warrants, for $\$ 8.95$ billion and $\$ 3.0$ billion, at an average price per unit of $\$ 37.35$ and $\$ 38.49$, respectively. The Firm
did not repurchase any of the warrants during 2010, and did not repurchase any shares of its common stock or warrants during 2009. For additional information regarding repurchases of the Firm's equity securities, see Part II, Item 5: Market for registrant's common equity, related stockholder matters and issuer purchases of equity securities, on pages 18-20 of JPMorgan Chase's 2011 Form 10-K.

The Firm may, from time to time, enter into written trading plans under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate repurchases in accordance with the repurchase program. A Rule 10b5-1 repurchase plan allows the Firm to repurchase its equity during periods when it would not otherwise be repurchasing common equity - for example, during internal trading "black-out periods." All purchases under a Rule 10b5-1 plan must be made according to a predefined plan established when the Firm is not aware of material nonpublic information.
As of December 31, 2011, approximately 408 million unissued shares of common stock were reserved for issuance under various employee incentive, compensation, option and stock purchase plans, director compensation plans, and the warrants sold by the U.S. Treasury as discussed above.

## Note 24 - Earnings per share

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

The following table presents the calculation of basic and diluted EPS for the years ended December 31, 2011, 2010 and 2009.

| Year ended December 31, (in millions, except per share amounts) | 2011 | 2010 | 2009 |  |
| :---: | :---: | :---: | :---: | :---: |
| Basic earnings per share |  |  |  |  |
| Income before extraordinary gain | \$18,976 | \$17,370 | \$11,652 |  |
| Extraordinary gain | - | - | 76 |  |
| Net income | \$18,976 | \$17,370 | \$11,728 |  |
| Less: Preferred stock dividends | 629 | 642 | 1,327 |  |
| Less: Accelerated amortization from redemption of preferred stock issued to the U.S. Treasury | - | - | 1,112 | (c) |
| Net income applicable to common equity | 18,347 | 16,728 | 9,289 | (c) |
| Less: Dividends and undistributed earnings allocated to participating securities | 779 | 964 | 515 |  |
| Net income applicable to common stockholders | \$17,568 | \$15,764 | \$ 8,774 |  |
| Total weighted-average basic shares outstanding | 3,900.4 | 3,956.3 | 3,862.8 |  |
| Per share |  |  |  |  |
| Income before extraordinary gain | \$ 4.50 | \$ 3.98 | \$ 2.25 | (c) |
| Extraordinary gain | - | - | 0.02 |  |
| Net income | \$ 4.50 | \$ 3.98 | \$ 2.27 | (c) |


| Year ended December 31, (in millions, except per share amounts) | 2011 | 2010 | 2009 |  |
| :---: | :---: | :---: | :---: | :---: |
| Diluted earnings per share |  |  |  |  |
| Net income applicable to common stockholders | \$17,568 | \$15,764 | \$ 8,774 |  |
| Total weighted-average basic shares outstanding | 3,900.4 | 3,956.3 | 3,862.8 |  |
| Add: Employee stock options, SARs and warrants ${ }^{(a)}$ | 19.9 | 20.6 | 16.9 |  |
| Total weighted-average diluted shares outstanding ${ }^{(b)}$ | 3,920.3 | 3,976.9 | 3,879.7 |  |
| Per share |  |  |  |  |
| Income before extraordinary gain | \$ 4.48 | \$ 3.96 | \$ 2.24 | (c) |
| Extraordinary gain | - | - | 0.02 |  |
| Net income per share | \$ 4.48 | \$ 3.96 | \$ 2.26 | (c) |

(a) Excluded from the computation of diluted EPS (due to the antidilutive effect) were options issued under employee benefit plans and the warrants originally issued in 2008 under the U.S. Treasury's Capital Purchase Program to purchase shares of the Firm's common stock. The aggregate number of shares issuable upon the exercise of such options and warrants was 133 million, 233 million and 266 million for the full years ended December 31, 2011, 2010 and 2009 respectively.
(b) Participating securities were included in the calculation of diluted EPS using the two-class method, as this computation was more dilutive than the calculation using the treasury stock method.
(c) The calculation of basic and diluted EPS and net income applicable to common equity for full year 2009 includes a one-time, noncash reduction of $\$ 1.1$ billion, or $\$ 0.27$ per share, resulting from repayment of the U.S. Troubled Asset Relief Program ("TARP") preferred capital.

## Notes to consolidated financial statements

## Note 25 - Accumulated other comprehensive income/(loss)

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

| As of or for the year ended December 31, <br> (in millions) | Unrealized gains/ (losses) on AFS securities ${ }^{(b)}$ |  |  | Translation adjustments, net of hedges |  | Cash flow hedges |  | Net loss and prior service costs/(credit) of defined benefit pension and OPEB plans |  | Accumulated other comprehensive income/(loss) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at December 31, 2008 | \$ | $(2,101)$ |  | \$ | (598) | \$ | (202) | \$ | $(2,786)$ | \$ | $(5,687)$ |
| Net change |  | 4,133 | (c) |  | 582 |  | 383 |  | 498 |  | 5,596 |
| Balance at December 31, 2009 | \$ | 2,032 | ${ }^{\text {(d) }}$ | \$ | (16) | \$ | 181 | \$ | $(2,288)$ | \$ | (91) |
| Cumulative effect of changes in accounting principles ${ }^{(a)}$ |  | (144) |  |  | - |  | - |  | - |  | (144) |
| Net change |  | 610 | (e) |  | 269 |  | 25 |  | 332 |  | 1,236 |
| Balance at December 31, 2010 | \$ | 2,498 | (d) | \$ | 253 | \$ | 206 | \$ | $(1,956)$ | \$ | 1,001 |
| Net change |  | 1,067 | ${ }^{(1)}$ |  | (279) |  | (155) |  | (690) |  | (57) |
| Balance at December 31, 2011 | \$ | 3,565 | (d) | \$ | (26) | \$ | 51 | \$ | $(2,646)$ | \$ | 944 |

(a) Reflects the effect of the adoption of accounting guidance related to the consolidation of VIEs, and to embedded credit derivatives in beneficial interests in securitized financial assets. AOCI decreased by $\$ 129$ million due to the adoption of the accounting guidance related to VIEs, as a result of the reversal of the fair value adjustments taken on retained AFS securities that were eliminated in consolidation; for further discussion see Note 16 on pages 256-267 of this Annual Report. AOCI decreased by $\$ 15$ million due to the adoption of the new guidance related to credit derivatives embedded in certain of the Firm's AFS securities; for further discussion see Note 6 on pages 202-210 of this Annual Report.
(b) Represents the after-tax difference between the fair value and amortized cost of securities accounted for as AFS.
(c) The net change during 2009 was due primarily to overall market spread and market liquidity improvement as well as changes in the composition of investments.
(d) Included after-tax unrealized losses not related to credit on debt securities for which credit losses have been recognized in income of \$(56) million, \$(81) million and $\$(226)$ million at December 31, 2011, 2010 and 2009, respectively.
(e) The net change during 2010 was due primarily to the narrowing of spreads on commercial and non-agency MBS as well as on collateralized loan obligations; also reflects increased market value on pass-through MBS due to narrowing of spreads and other market factors.
(f) The net change for 2011 was due primarily to increased market value on agency MBS and municipal securities, partially offset by the widening of spreads on non-U.S. corporate debt and the realization of gains due to portfolio repositioning.

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

|  | 2011 |  |  | 2010 |  |  | 2009 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended December 31, (in millions) | Before tax | Tax effect | After tax | Before tax | Tax effect | After tax | Before tax | Tax effect | After tax |
| Unrealized gains/(losses) on AFS securities: |  |  |  |  |  |  |  |  |  |
| Net unrealized gains/(losses) arising during the period | \$ 3,361 | \$ $(1,322)$ | \$ 2,039 | \$ 3,982 | \$ $(1,540)$ | \$ 2,442 | \$ 7,870 | \$ $(3,029)$ | \$ 4,841 |
| Reclassification adjustment for realized (gains)/ losses included in net income | $(1,593)$ | 621 | (972) | $(2,982)$ | 1,150 | $(1,832)$ | $(1,152)$ | 444 | (708) |
| Net change | 1,768 | (701) | 1,067 | 1,000 | (390) | 610 | 6,718 | $(2,585)$ | 4,133 |
| Translation adjustments: |  |  |  |  |  |  |  |  |  |
| Translation | (672) | 255 | (417) | 402 | (139) | 263 | 1,139 | (398) | 741 |
| Hedges | 226 | (88) | 138 | 11 | (5) | 6 | (259) | 100 | (159) |
| Net change | (446) | 167 | (279) | 413 | (144) | 269 | 880 | (298) | 582 |
| Cash flow hedges: |  |  |  |  |  |  |  |  |  |
| Net unrealized gains/(losses) arising during the period | 50 | (19) | 31 | 247 | (96) | 151 | 767 | (308) | 459 |
| Reclassification adjustment for realized (gains)/ losses included in net income | (301) | 115 | (186) | (206) | 80 | (126) | (124) | 48 | (76) |
| Net change | (251) | 96 | (155) | 41 | (16) | 25 | 643 | (260) | 383 |
| Net loss and prior service cost/(credit) of defined benefit pension and OPEB plans: |  |  |  |  |  |  |  |  |  |
| Net gains/(losses) and prior service credits arising during the period | $(1,291)$ | 502 | (789) | 294 | (96) | 198 | 494 | (200) | 294 |
| Reclassification adjustment for net loss and prior service credits included in net income | 162 | (63) | 99 | 224 | (90) | 134 | 337 | (133) | 204 |
| Net change | $(1,129)$ | 439 | (690) | 518 | (186) | 332 | 831 | (333) | 498 |
| Total other comprehensive income/(loss) | \$ (58) | \$ 1 | \$ (57) | \$ 1,972 | \$ (736) | \$ 1,236 | \$ 9,072 | \$ $(3,476)$ | \$ 5,596 |

## Note 26 - Income taxes

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

Due to the inherent complexities arising from the nature of the Firm's businesses, and from conducting business and being taxed in a substantial number of jurisdictions, significant judgments and estimates are required to be made. Agreement of tax liabilities between JPMorgan Chase and the many tax jurisdictions in which the Firm files tax returns may not be finalized for several years. Thus, the Firm's final tax-related assets and liabilities may ultimately be different from those currently reported.
The components of income tax expense/(benefit) included in the Consolidated Statements of Income were as follows for each of the years ended December 31, 2011, 2010, and 2009.

| Year ended December 31, (in millions) |  | 2011 |  | 2010 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current income tax expense |  |  |  |  |  |  |
| U.S. federal | \$ | 3,719 | \$ | 4,001 | \$ | 4,698 |
| Non-U.S. |  | 1,183 |  | 2,712 |  | 2,368 |
| U.S. state and local |  | 1,178 |  | 1,744 |  | 971 |
| Total current income tax expense |  | 6,080 |  | 8,457 |  | 8,037 |
| Deferred income tax expense/ (benefit) |  |  |  |  |  |  |
| U.S. federal |  | 2,109 |  | (753) |  | $(2,867)$ |
| Non-U.S. |  | 102 |  | 169 |  | (454) |
| U.S. state and local |  | (518) |  | (384) |  | (301) |
| Total deferred income tax expense/(benefit) |  | 1,693 |  | (968) |  | $(3,622)$ |
| Total income tax expense | \$ | 7,773 | \$ | 7,489 | \$ | 4,415 |

Total income tax expense includes \$76 million, \$485 million and $\$ 280$ million of tax benefits recorded in 2011, 2010, and 2009, respectively, as a result of tax audit resolutions.

The preceding table does not reflect the tax effect of certain items that are recorded each period directly in stockholders' equity and certain tax benefits associated with the Firm's employee stock-based compensation plans. The tax effect of all items recorded directly to stockholders' equity resulted in an increase of $\$ 927$ million in 2011, an
increase of $\$ 1.8$ billion in 2010, and a decrease of $\$ 3.7$ billion in 2009.
U.S. federal income taxes have not been provided on the undistributed earnings of certain non-U.S. subsidiaries, to the extent that such earnings have been reinvested abroad for an indefinite period of time. Based on JPMorgan Chase's ongoing review of the business requirements and capital needs of its non-U.S. subsidiaries, combined with the formation of specific strategies and steps taken to fulfill these requirements and needs, the Firm has determined that the undistributed earnings of certain of its subsidiaries would be indefinitely reinvested to fund current and future growth of the related businesses. As management does not intend to use the earnings of these subsidiaries as a source of funding for its U.S. operations, such earnings will not be distributed to the U.S. in the foreseeable future. For 2011, pretax earnings of approximately $\$ 2.6$ billion were generated and will be indefinitely reinvested in these subsidiaries. At December 31, 2011, the cumulative amount of undistributed pretax earnings in these subsidiaries approximated $\$ 21.8$ billion. If the Firm were to record a deferred tax liability associated with these undistributed earnings, the amount would be approximately $\$ 4.9$ billion at December 31, 2011.

Tax expense applicable to securities gains and losses for the years 2011, 2010 and 2009 was $\$ 617$ million, $\$ 1.1$ billion, and $\$ 427$ million, respectively.

A reconciliation of the applicable statutory U.S. income tax rate to the effective tax rate for each of the years ended December 31, 2011, 2010 and 2009, is presented in the following table.

| Year ended December 31, | $\mathbf{2 0 1 1}$ | 2010 | 2009 |
| :--- | :---: | :---: | :---: |
| Statutory U.S. federal tax rate | $\mathbf{3 5 . 0} \%$ | $35.0 \%$ | $35.0 \%$ |
| Increase/(decrease) in tax rate <br> resulting from: |  |  |  |
| U.S. state and local income <br> taxes, net of U.S. federal <br> income tax benefit | $\mathbf{1 . 6}$ | 3.6 | 2.7 |
| Tax-exempt income | $\mathbf{( 2 . 1 )}$ | $(2.4)$ | $(3.9)$ |
| Non-U.S. subsidiary earnings ${ }^{(a)}$ | $\mathbf{( 2 . 3 )}$ | $(2.2)$ | $\mathbf{1 . 7 )}$ |
| Business tax credits | $\mathbf{( 4 . 0 )}$ | $\mathbf{( 3 . 7 )}$ | $\mathbf{( 5 . 5 )}$ |
| Other, net | $\mathbf{0 . 9}$ | $(0.2)$ | 0.9 |
| Effective tax rate | $\mathbf{2 9 . 1 \%}$ | $30.1 \%$ | $27.5 \%$ |

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

Deferred income tax expense/(benefit) results from differences between assets and liabilities measured for financial reporting purposes versus income tax return purposes. Deferred tax assets are recognized if, in management's judgment, their realizability is determined to be more likely than not. If a deferred tax asset is determined to be unrealizable, a valuation allowance is established. The significant components of deferred tax assets and liabilities are reflected in the following table as of December 31, 2011 and 2010.

| December 31, (in millions) | 2011 |  |  | 2010 |
| :---: | :---: | :---: | :---: | :---: |
| Deferred tax assets |  |  |  |  |
| Allowance for Ioan losses | \$ | 10,689 | \$ | 12,287 |
| Employee benefits |  | 4,570 |  | 4,279 |
| Accrued expenses and other ${ }^{(a)}$ |  | 9,186 |  | 7,850 |
| Non-U.S. operations |  | 2,943 |  | 956 |
| Tax attribute carryforwards ${ }^{(a)}$ |  | 1,547 |  | 2,348 |
| Gross deferred tax assets | \$ | 28,935 | \$ | 27,720 |
| Valuation allowance |  | $(1,303)$ |  | $(1,784)$ |
| Deferred tax assets, net of valuation allowance | \$ | 27,632 | \$ | 25,936 |
| Deferred tax liabilities |  |  |  |  |
| Depreciation and amortization ${ }^{(1)}$ | \$ | 6,358 | \$ | 4,823 |
| Leasing transactions |  | 2,569 |  | 2,160 |
| Non-U.S. operations |  | 2,790 |  | 1,136 |
| Other, net ${ }^{\text {(a) }}$ |  | 1,139 |  | 1,497 |
| Gross deferred tax liabilities | \$ | 12,856 | \$ | 9,616 |
| Net deferred tax assets | \$ | 14,776 | \$ | 16,320 |

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

JPMorgan Chase has recorded deferred tax assets of \$1.5 billion at December 31, 2011, in connection with U.S. federal, state and local, and non-U.S. subsidiary net operating loss carryforwards. At December 31, 2011, the U.S. federal net operating loss carryforwards were approximately $\$ 4.1$ billion; the state and local net operating loss carryforward was approximately $\$ 642$ million; and the non-U.S. subsidiary net operating loss carryforward was $\$ 116$ million. If not utilized, the U.S. federal net operating loss carryforwards and the state and local net operating loss carryforward will expire between 2027 and 2030. The non-U.S. subsidiary net operating loss carryforward has an unlimited carryforward period. A valuation allowance has been recorded for losses associated with non-U.S. subsidiaries and certain portfolio investments, and certain state and local tax benefits. During 2011, the valuation allowance decreased by $\$ 481$ million predominantly related to the realization of state and local tax benefits.

At December 31, 2011, 2010 and 2009, JPMorgan Chase's unrecognized tax benefits, excluding related interest expense and penalties, were $\$ 7.2$ billion, $\$ 7.8$ billion and $\$ 6.6$ billion, respectively, of which $\$ 4.0$ billion, $\$ 3.8$ billion and $\$ 3.5$ billion, respectively, if recognized, would reduce the annual effective tax rate. As JPMorgan Chase is presently under audit by a number of taxing authorities, it is reasonably possible that significant changes in the gross balance of unrecognized tax benefits may occur within the next 12 months. JPMorgan Chase does not expect that any changes over the next twelve months in its gross balance of unrecognized tax benefits caused by such audits would result in a significant change in its annual effective tax rate. The following table presents a reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2011, 2010 and 2009.

Unrecognized tax benefits

| Year ended December 31, (in millions) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, | \$ | 7,767 | \$ | 6,608 | \$ | 5,894 |
| Increases based on tax positions related to the current period |  | 516 |  | 813 |  | 584 |
| Decreases based on tax positions related to the current period |  | (110) |  | (24) |  | (6) |
| Increases based on tax positions related to prior periods |  | 496 |  | 1,681 |  | 703 |
| Decreases based on tax positions related to prior periods |  | $(1,433)$ |  | $(1,198)$ |  | (322) |
| Decreases related to settlements with taxing authorities |  | (16) |  | (74) |  | (203) |
| Decreases related to a lapse of applicable statute of limitations |  | (31) |  | (39) |  | (42) |
| Balance at December 31, | \$ | 7,189 | \$ | 7,767 | \$ | 6,608 |

After-tax interest expense/(benefit) and penalties related to income tax liabilities recognized in income tax expense were $\$ 184$ million, $\$(54)$ million and $\$ 101$ million in 2011, 2010 and 2009, respectively.

At December 31, 2011 and 2010, in addition to the liability for unrecognized tax benefits, the Firm had accrued
$\$ 1.7$ billion and $\$ 1.6$ billion, respectively, for income taxrelated interest and penalties.
JPMorgan Chase is continually under examination by the Internal Revenue Service, by taxing authorities throughout the world, and by many states throughout the U.S. The following table summarizes the status of significant income tax examinations of JPMorgan Chase and its consolidated subsidiaries as of December 31, 2011.

| December 31, 2011 | Periods under <br> examination | Status |
| :--- | :---: | :---: |
| JPMorgan Chase - U.S. | 1993-2002 | Refund claims under review <br> Field examination completed, <br> JPMorgan Chase intends to <br> file refund claims |
| JPMorgan Chase - U.S. | 2003-2005 |  |

(a) JPMorgan Chase anticipates that the IRS will commence in 2012 an examination of the years 2006 through 2008.

The following table presents the U.S. and non-U.S. components of income before income tax expense and extraordinary gain for the years ended December 31, 2011, 2010 and 2009.

| Year ended December 31, <br> (in millions) | 2011 | 2010 |  | 2009 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| U.S. | $\$ 16,336$ | $\$ 16,568$ | $\$$ | 6,263 |
| Non-U.S. ${ }^{(2)}$ |  |  |  |  |

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

## Note 27 - Restrictions on cash and intercompany funds transfers

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

The Board of Governors of the Federal Reserve System (the "Federal Reserve") requires depository institutions to maintain cash reserves with a Federal Reserve Bank. The average amount of reserve balances deposited by the Firm's bank subsidiaries with various Federal Reserve Banks was approximately $\$ 4.4$ billion and $\$ 803$ million in 2011 and 2010, respectively.
Restrictions imposed by U.S. federal law prohibit JPMorgan Chase and certain of its affiliates from borrowing from banking subsidiaries unless the loans are secured in specified amounts. Such secured loans to the Firm or to other affiliates are generally limited to $10 \%$ of the banking subsidiary's total capital, as determined by the risk-based capital guidelines; the aggregate amount of all such loans is limited to $20 \%$ of the banking subsidiary's total capital.
The principal sources of JPMorgan Chase's income (on a parent company-only basis) are dividends and interest from JPMorgan Chase Bank, N.A., and the other banking and nonbanking subsidiaries of JPMorgan Chase. In addition to
dividend restrictions set forth in statutes and regulations, the Federal Reserve, the OCC and the FDIC have authority under the Financial Institutions Supervisory Act to prohibit or to limit the payment of dividends by the banking organizations they supervise, including JPMorgan Chase and its subsidiaries that are banks or bank holding companies, if, in the banking regulator's opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization.

At January 1, 2012, JPMorgan Chase's banking subsidiaries could pay, in the aggregate, $\$ 7.4$ billion in dividends to their respective bank holding companies without the prior approval of their relevant banking regulators. The capacity to pay dividends in 2012 will be supplemented by the banking subsidiaries' earnings during the year.
In compliance with rules and regulations established by U.S. and non-U.S. regulators, as of December 31, 2011 and 2010, cash in the amount of $\$ 25.4$ billion and $\$ 25.0$ billion, respectively, and securities with a fair value of $\$ 23.4$ billion and $\$ 9.7$ billion, respectively, were segregated in special bank accounts for the benefit of securities and futures brokerage customers. In addition, as of December 31, 2011 and 2010, the Firm had other restricted cash of $\$ 4.2$ billion and $\$ 2.7$ billion, respectively, primarily representing cash reserves held at non-U.S. central banks and held for other general purposes.

## Note 28 - Regulatory capital

The Federal Reserve establishes capital requirements, including well-capitalized standards for the consolidated financial holding company. The OCC establishes similar capital requirements and standards for the Firm's national banks, including JPMorgan Chase Bank, N.A., and Chase Bank USA, N.A.
There are two categories of risk-based capital: Tier 1 capital and Tier 2 capital. Tier 1 capital consists of common stockholders' equity, perpetual preferred stock, noncontrolling interests in subsidiaries and trust preferred capital debt securities, less goodwill and certain other adjustments. Tier 2 capital consists of preferred stock not qualifying as Tier 1 capital, subordinated long-term debt and other instruments qualifying as Tier 2 capital, and the aggregate allowance for credit losses up to a certain percentage of risk-weighted assets. Total capital is Tier 1 capital plus Tier 2 capital. Under the risk-based capital guidelines of the Federal Reserve, JPMorgan Chase is required to maintain minimum ratios of Tier 1 and Total capital to risk-weighted assets, as well as minimum leverage ratios (which are defined as Tier 1 capital divided by adjusted quarterly average assets). Failure to meet these minimum requirements could cause the Federal Reserve to take action. Banking subsidiaries also are subject to these capital requirements by their respective primary regulators. As of December 31, 2011 and 2010, JPMorgan Chase and all of its banking subsidiaries were well-capitalized and met all capital requirements to which each was subject.

## Notes to consolidated financial statements

The following table presents the regulatory capital, assets and risk-based capital ratios for JPMorgan Chase and its significant banking subsidiaries at December 31, 2011 and 2010. These amounts are determined in accordance with regulations issued by the Federal Reserve and/or OCC.

| December 31, | JPMorgan Chase \& Co. ${ }^{(\mathrm{e})}$ |  | JPMorgan Chase Bank, N.A. ${ }^{(\text {e) }}$ |  | Chase Bank USA, N.A. ${ }^{(\mathrm{e})}$ |  | Wellcapitalized ratios ${ }^{(f)}$ | Minimum capital ratios ${ }^{(f)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in millions, except ratios) | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 |  |  |


| Regulatory capital |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Tier $1^{(\text {a) }}$ | $\$ 150,384$ | $\$ 142,450$ | $\$$ | $\mathbf{9 8 , 4 2 6}$ | $\$$ | 91,764 | $\mathbf{1 1 , 9 0 3}$ | $\$ 12,966$ |  |  |
| Total |  | $\mathbf{1 8 8 , 0 8 8}$ |  | 182,216 |  | $\mathbf{1 3 6 , 0 1 7}$ |  | 130,444 | $\mathbf{1 5 , 4 4 8}$ | 16,659 |

Assets

|  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Risk-weighted |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| (b)(c) | $\mathbf{\$ 1 , 2 2 1 , 1 9 8}$ | $\$ 1,174,978$ | $\mathbf{\$ 1 , 0 4 2 , 8 9 8}$ | $\$ 965,897$ | $\mathbf{\$ 1 0 7 , 4 2 1}$ | $\$ 116,992$ |
| Adjusted average $^{(\mathrm{d})}$ | $\mathbf{2 , 2 0 2 , 0 8 7}$ | $2,024,515$ | $\mathbf{1 , 7 8 9 , 1 9 4}$ | $1,611,486$ | $\mathbf{1 0 6 , 3 1 2}$ | 117,368 |

## Capital ratios

|  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier $1^{\text {(a) }}$ | $\mathbf{1 2 . 3 \%}$ | $12.1 \%$ | $\mathbf{9 . 4 \%}$ | $9.5 \%$ | $\mathbf{1 1 . 1 \%}$ | $11.1 \%$ | $6.0 \%$ | $4.0 \%$ |
| Total | $\mathbf{1 5 . 4}$ | 15.5 | $\mathbf{1 3 . 0}$ | 13.5 | $\mathbf{1 4 . 4}$ | 14.2 | 10.0 | 8.0 |
| Tier 1 leverage | $\mathbf{6 . 8}$ | 7.0 | 5.5 | 5.7 | $\mathbf{1 1 . 2}$ | 11.0 | 5.0 | (g) |

(a) At December 31, 2011, for JPMorgan Chase and JPMorgan Chase Bank, N.A., trust preferred capital debt securities were $\$ 19.6$ billion and $\$ 600$ million, respectively. If these securities were excluded from the calculation at December 31, 2011, Tier 1 capital would be $\$ 130.8$ billion and $\$ 97.8$ billion, respectively, and the Tier 1 capital ratio would be $10.7 \%$ and $9.4 \%$, respectively. At December 31, 2011, Chase Bank USA, N.A. had no trust preferred capital debt securities.
(b) 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 perceived credit risk associated with the obligor or counterparty, the nature of any collateral, and the guarantor, if any. Off-balance sheet assets such as lending-related commitments, guarantees, 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 the market risk related to applicable trading assets-debt and equity instruments, and foreign exchange and commodity derivatives. The resulting risk-weighted values for each of the risk categories are then aggregated to determine total risk-weighted assets.
(c) Includes off-balance sheet risk-weighted assets at December 31, 2011, of $\$ 301.1$ billion, $\$ 291.0$ billion and $\$ 38$ million, and at December 31, 2010, of $\$ 282.9$ billion, $\$ 274.2$ billion and $\$ 31$ million, for JPMorgan Chase, JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., respectively.
(d) Adjusted average assets, for purposes of calculating the leverage ratio, include total quarterly average assets adjusted for unrealized gains/(losses) on securities, less deductions for disallowed goodwill and other intangible assets, investments in certain subsidiaries, and the total adjusted carrying value of nonfinancial equity investments that are subject to deductions from Tier 1 capital.
(e) Asset and capital amounts for JPMorgan Chase's banking subsidiaries reflect intercompany transactions; whereas the respective amounts for JPMorgan Chase reflect the elimination of intercompany transactions.
(f) As defined by the regulations issued by the Federal Reserve, OCC and FDIC.
(g) Represents requirements for banking subsidiaries pursuant to regulations issued under the FDIC Improvement Act. There is no Tier 1 leverage component in the definition of a well-capitalized bank holding company.
(h) The minimum Tier 1 leverage ratio for bank holding companies and banks is $3 \%$ or $4 \%$, depending on factors specified in regulations issued by the Federal Reserve and OCC.
Note: Rating agencies allow measures of capital to be adjusted upward for deferred tax liabilities, which have resulted from both nontaxable business combinations and from tax-deductible goodwill. The Firm had deferred tax liabilities resulting from nontaxable business combinations totaling $\$ 414$ million and $\$ 647$ million at December 31, 2011 and 2010, respectively; and deferred tax liabilities resulting from tax-deductible goodwill of $\$ 2.3$ billion and $\$ 1.9$ billion at December 31, 2011 and 2010, respectively.

A reconciliation of the Firm's Total stockholders' equity to Tier 1 capital and Total qualifying capital is presented in the table below.

| December 31, (in millions) |  | 2011 |  | 2010 |
| :---: | :---: | :---: | :---: | :---: |
| Tier 1 capital |  |  |  |  |
| Total stockholders' equity | \$ | 183,573 | \$ | 176,106 |
| Effect of certain items in accumulated other comprehensive income/(loss) excluded from Tier 1 capital |  | (970) |  | (748) |
| Qualifying hybrid securities and noncontrolling interests ${ }^{(\mathrm{a})}$ |  | 19,668 |  | 19,887 |
| Less: Goodwill ${ }^{(6)}$ |  | 45,873 |  | 46,915 |
| Fair value DVA on derivative and structured note liabilities related to the Firm's credit quality |  | 2,150 |  | 1,261 |
| Investments in certain subsidiaries and other |  | 993 |  | 1,032 |
| Other intangible assets ${ }^{(b)}$ |  | 2,871 |  | 3,587 |
| Total Tier 1 capital |  | 150,384 |  | 142,450 |
| Tier 2 capital |  |  |  |  |
| Long-term debt and other instruments qualifying as Tier 2 |  | 22,275 |  | 25,018 |
| Qualifying allowance for credit losses |  | 15,504 |  | 14,959 |
| Adjustment for investments in certain subsidiaries and other |  | (75) |  | (211) |
| Total Tier 2 capital |  | 37,704 |  | 39,766 |
| Total qualifying capital | \$ | 188,088 | \$ | 182,216 |

[^10]
## Note 29 - Off-balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the counterparty draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm's view, representative of its actual future credit exposure or funding requirements.
To provide for the risk of loss inherent in wholesale and consumer (excluding credit card) contracts, an allowance for credit losses on lending-related commitments is maintained. See Note 15 on pages 252-255 of this Annual Report for further discussion regarding the allowance for credit losses on lending-related commitments. The following table summarizes the contractual amounts and carrying values of off-balance sheet lending-related financial instruments, guarantees and other commitments at December 31, 2011 and 2010. The amounts in the table below for credit card and home equity lending-related commitments represent the total available credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. The Firm can reduce or cancel credit card lines of credit by providing the borrower notice or, in some cases, without notice as permitted by law. The Firm may reduce or close home equity lines of credit when there are significant decreases in the value of the underlying property, or when there has been a demonstrable decline in the creditworthiness of the borrower. Also, the Firm typically closes credit card lines when the borrower is 60 days or more past due.

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

| By remaining maturity at December 31, (in millions) | Contractual amount |  |  |  |  |  |  |  |  | Carrying value ${ }^{(\mathrm{i})}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  |  |  |  |  |  |  | 2010 | 2011 |  | 2010 |  |
|  | Expires in <br> 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 | \$ 933 | \$ 4,780 | \$ 4,870 | \$ | 5,959 | \$ | 16,542 | \$ | 17,662 | \$ | - | \$ | - |
| Home equity - junior lien | 2,096 | 8,964 | 8,075 |  | 7,273 |  | 26,408 |  | 30,948 |  | - |  | - |
| Prime mortgage | 1,500 | - | - |  | - |  | 1,500 |  | 1,266 |  | - |  | - |
| Subprime mortgage | - | - | - |  | - |  | - |  | - |  | - |  | - |
| Auto | 6,431 | 97 | 149 |  | 17 |  | 6,694 |  | 5,246 |  | 1 |  | 2 |
| Business banking | 9,480 | 430 | 63 |  | 326 |  | 10,299 |  | 9,702 |  | 6 |  | 4 |
| Student and other | 82 | 169 | 127 |  | 486 |  | 864 |  | 579 |  | - |  | - |
| Total consumer, excluding credit card | 20,522 | 14,440 | 13,284 |  | 14,061 |  | 62,307 |  | 65,403 |  | 7 |  | 6 |
| Credit card | 530,616 | - | - |  | - |  | 530,616 |  | 547,227 |  | - |  | - |
| Total consumer | 551,138 | 14,440 | 13,284 |  | 14,061 |  | 592,923 |  | 612,630 |  | 7 |  | 6 |
| Wholesale: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other unfunded commitments to extend credit ${ }^{(\mathrm{a})(\mathrm{b})}$ | 61,083 | 61,628 | 87,830 |  | 4,710 |  | 215,251 |  | 199,859 |  | 347 |  | 364 |
| Standby letters of credit and other financial guarantees ${ }^{(\mathrm{a})(b)(\mathrm{b})(\mathrm{c}(\mathrm{d})}$ | 27,982 | 34,671 | 36,448 |  | 2,798 |  | 101,899 |  | 94,837 |  | 696 |  | 705 |
| Unused advised lines of credit | 46,695 | 11,324 | 327 |  | 1,857 |  | 60,203 |  | 44,720 |  | - |  | - |
| Other letters of credit ${ }^{(\mathrm{a})(\mathrm{d})}$ | 4,218 | 1,020 | 148 |  | - |  | 5,386 |  | 6,663 |  | 2 |  | 2 |
| Total wholesale | 139,978 | 108,643 | 124,753 |  | 9,365 |  | 382,739 |  | 346,079 |  | 1,045 |  | 1,071 |
| Total lending-related | \$ 691,116 | \$ 123,083 | \$ 138,037 | \$ | 23,426 | \$ | 975,662 | \$ | 958,709 | \$ | 1,052 | \$ | 1,077 |
| Other guarantees and commitments |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Securities lending indemnifications ${ }^{(\mathrm{e})}$ | \$ 186,077 | \$ | \$ | \$ | - | \$ | 186,077 | \$ | 181,717 |  | NA |  | NA |
| Derivatives qualifying as guarantees ${ }^{(f)}$ | 2,998 | 5,117 | 31,097 |  | 36,381 |  | 75,593 |  | 87,768 | \$ | 457 | \$ | 294 |
| Unsettled reverse repurchase and securities borrowing agreements | 39,939 | - | - |  | - |  | 39,939 |  | 39,927 |  | - |  | - |
| Loan sale and securitization-related indemnifications: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mortgage repurchase liability ${ }^{(\mathrm{g})}$ | NA | NA | NA |  | NA |  | NA |  | NA |  | 3,557 |  | 3,285 |
| Loans sold with recourse | NA | NA | NA |  | NA |  | 10,397 |  | 10,982 |  | 148 |  | 153 |
| Other guarantees and commitments ${ }^{(\mathrm{h})}$ | 1,030 | 279 | 299 |  | 4,713 |  | 6,321 |  | 6,492 |  | (5) |  | (6) |

(a) At December 31, 2011 and 2010, reflects the contractual amount net of risk participations totaling $\$ 1.1$ billion and $\$ 542$ million, respectively, for other unfunded commitments to extend credit; $\$ 19.8$ billion and $\$ 22.4$ billion, respectively, for standby letters of credit and other financial guarantees; and $\$ 974$ million and $\$ 1.1$ billion, 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, 2011 and 2010, included credit enhancements and bond and commercial paper liquidity commitments to U.S. states and municipalities, hospitals and other not-for-profit entities of $\$ 48.6$ billion and $\$ 43.4$ billion, respectively. These commitments also include liquidity facilities to nonconsolidated municipal bond VIEs; for further information, see Note 16 on pages 256-267 of this Annual Report.
(c) At December 31, 2011 and 2010, included unissued standby letters of credit commitments of $\$ 44.1$ billion and $\$ 41.6$ billion, respectively.
(d) At December 31, 2011 and 2010, JPMorgan Chase held collateral relating to $\$ 41.5$ billion and $\$ 37.8$ billion, respectively, of standby letters of credit; and $\$ 1.3$ billion and $\$ 2.1$ billion, respectively, of other letters of credit.
(e) At December 31, 2011 and 2010, collateral held by the Firm in support of securities lending indemnification agreements was $\$ 186.3$ billion and $\$ 185.0$ 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) Represents notional amounts of derivatives qualifying as guarantees.
(g) Represents the estimated mortgage repurchase liability related to indemnifications for breaches of representations and warranties in loan sale and securitization agreements. For additional information, see Loan sale and securitization-related indemnifications on pages 286-287 of this Note.
(h) At December 31, 2011 and 2010, included unfunded commitments of $\$ 789$ million and $\$ 1.0$ billion, respectively, to third-party private equity funds; and $\$ 1.5$ billion and $\$ 1.4$ billion, respectively, to other equity investments. These commitments included $\$ 820$ million and $\$ 1.0$ billion, respectively, related to investments that are generally fair valued at net asset value as discussed in Note 3 on pages 184-198 of this Annual Report. In addition, at December 31, 2011 and 2010, included letters of credit hedged by derivative transactions and managed on a market risk basis of $\$ 3.9$ billion and $\$ 3.8$ billion, respectively.
(i) For lending-related products, the carrying value represents the allowance for lending-related commitments and the guarantee liability; for derivativerelated products, the carrying value represents the fair value. For all other products the carrying value represents the valuation reserve.

## Other unfunded commitments to extend credit

Other unfunded commitments to extend credit generally comprise commitments for working capital and general corporate purposes, as well as extensions of credit to support commercial paper facilities and bond financings in the event that those obligations cannot be remarketed to new investors.

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 $\$ 6.1$ billion and $\$ 5.9$ billion at December 31, 2011 and 2010, respectively. For further information, see Note 3 and Note 4 on pages 184-198 and 198-200 respectively, of this Annual Report.

## Guarantees

U.S. GAAP requires that a guarantor recognize, at the inception of a guarantee, a liability in an amount equal to the fair value of the obligation undertaken in issuing the guarantee. U.S. GAAP defines a guarantee as a contract that contingently requires the guarantor to pay a guaranteed party based upon: (a) changes in an underlying asset, liability or equity security of the guaranteed party; or (b) a third party's failure to perform under a specified agreement. The Firm considers the following off-balance sheet lending-related arrangements to be guarantees under U.S. GAAP: standby letters of credit and financial guarantees, securities lending indemnifications, certain indemnification agreements included within third-party contractual arrangements and certain derivative contracts.

As required by U.S. GAAP, the Firm initially records guarantees at the inception date fair value of the obligation assumed (e.g., the amount of consideration received or the net present value of the premium receivable). For certain types of guarantees, the Firm records this fair value amount in other liabilities with an offsetting entry recorded in cash (for premiums received), or other assets (for premiums
receivable). Any premium receivable recorded in other assets is reduced as cash is received under the contract, and the fair value of the liability recorded at inception is amortized into income as lending and deposit-related fees over the life of the guarantee contract. For indemnifications provided in sales agreements, a portion of the sale proceeds is allocated to the guarantee, which adjusts the gain or loss that would otherwise result from the transaction. For these indemnifications, the initial liability is amortized to income as the Firm's risk is reduced (i.e., over time or when the indemnification expires). Any contingent liability that exists as a result of issuing the guarantee or indemnification is recognized when it becomes probable and reasonably estimable. The contingent portion of the liability is not recognized if the estimated amount is less than the carrying amount of the liability recognized at inception (adjusted for any amortization). The recorded amounts of the liabilities related to guarantees and indemnifications at December 31, 2011 and 2010, excluding the allowance for credit losses on lending-related commitments, are discussed below.

## Standby letters of credit and other financial guarantees

Standby letters of credit ("SBLC") and other financial guarantees are conditional lending commitments issued by the Firm to guarantee the performance of a customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade and similar transactions. The carrying values of standby and other letters of credit were
$\$ 698$ million and $\$ 707$ million at December 31, 2011 and 2010, respectively, which were classified in accounts payable and other liabilities on the Consolidated Balance Sheets; these carrying values included $\$ 319$ million and $\$ 347$ million, respectively, for the allowance for lendingrelated commitments, and $\$ 379$ million and $\$ 360$ million, respectively, for the guarantee liability and corresponding asset.

The following table summarizes the types of facilities under which standby letters of credit and other letters of credit arrangements are outstanding by the ratings profiles of the Firm's customers, as of December 31, 2011 and 2010.

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

|  | 2011 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, (in millions) | Standby letters of credit and other financial guarantees |  | Other letters of credit |  | Standby letters of credit and other financial guarantees |  | Other letters of credit |  |
| Investment-grade ${ }^{\text {(a) }}$ | \$ | 78,884 | \$ | 4,105 | \$ | 70,236 | \$ | 5,289 |
| Noninvestment-grade ${ }^{(\mathrm{a})}$ |  | 23,015 |  | 1,281 |  | 24,601 |  | 1,374 |
| Total contractual amount ${ }^{(b)}$ | \$ | 101,899 ${ }^{\text {(c) }}$ | \$ | 5,386 | \$ | 94,837 ${ }^{\text {(c) }}$ | \$ | 6,663 |
| Allowance for lending-related commitments | \$ | 317 | \$ | 2 | \$ | 345 | \$ | 2 |
| Commitments with collateral |  | 41,529 |  | 1,264 |  | 37,815 |  | 2,127 |

[^11]
## Notes to consolidated financial statements

## Advised lines of credit

An advised line of credit is a revolving credit line which specifies the maximum amount the Firm may make available to an obligor, on a nonbinding basis. The borrower receives written or oral advice of this facility. The Firm may cancel this facility at any time by providing the borrower notice or, in some cases, without notice as permitted by law.

## Securities lending indemnifications

Through the Firm's securities lending program, customers' securities, via custodial and non-custodial arrangements, may be lent to third parties. As part of this program, the Firm provides an indemnification in the lending agreements which protects the lender against the failure of the thirdparty borrower to return the lent securities in the event the Firm did not obtain sufficient collateral. To minimize its liability under these indemnification agreements, the Firm obtains cash or other highly liquid collateral with a market value exceeding $100 \%$ of the value of the securities on loan from the borrower. Collateral is marked to market daily to help assure that collateralization is adequate. Additional collateral is called from the borrower if a shortfall exists, or collateral may be released to the borrower in the event of overcollateralization. If a borrower defaults, the Firm would use the collateral held to purchase replacement securities in the market or to credit the lending customer with the cash equivalent thereof.

## Derivatives qualifying as guarantees

In addition to the contracts described above, the Firm transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. These contracts include written put options that require the Firm to purchase assets upon exercise by the option holder at a specified price by a specified date in the future. The Firm may enter into written put option contracts in order to meet client needs, or for other trading purposes. The terms of written put options are typically five years or less. Derivative guarantees also include contracts such as stable value derivatives that require the Firm to make a payment of the difference between the market value and the book value of a counterparty's reference portfolio of assets in the event that market value is less than book value and certain other conditions have been met. Stable value derivatives, commonly referred to as "stable value wraps", are transacted in order to allow investors to realize investment returns with less volatility than an unprotected portfolio and are typically longer-term or may have no stated maturity, but allow the Firm to terminate the contract under certain conditions.

Derivative guarantees are recorded on the Consolidated Balance Sheets at fair value in trading assets and trading liabilities. The total notional value of the derivatives that the Firm deems to be guarantees was $\$ 75.6$ billion and $\$ 87.8$ billion at December 31, 2011 and 2010, respectively. The notional amount generally represents the Firm's maximum exposure to derivatives qualifying as guarantees. However, exposure to certain stable value contracts is contractually limited to a substantially lower percentage of the notional amount; the notional amount on
these stable value contracts was $\$ 26.1$ billion and $\$ 25.9$ billion and the maximum exposure to loss was $\$ 2.8$ billion and $\$ 2.7$ billion, at December 31, 2011 and 2010, respectively. The fair values of the contracts reflect the probability of whether the Firm will be required to perform under the contract. The fair value related to derivatives that the Firm deems to be guarantees were derivative payables of $\$ 555$ million and $\$ 390$ million and derivative receivables of $\$ 98$ million and $\$ 96$ million at December 31, 2011 and 2010, respectively. The Firm reduces exposures to these contracts by entering into offsetting transactions, or by entering into contracts that hedge the market risk related to the derivative guarantees. In addition to derivative contracts that meet the characteristics of a guarantee, the Firm is both a purchaser and seller of credit protection in the credit derivatives market. For a further discussion of credit derivatives, see Note 6 on pages 202-210 of this Annual Report.

## Unsettled reverse repurchase and securities borrowing agreements

In the normal course of business, the Firm enters into reverse repurchase agreements and securities borrowing agreements that settle at a future date. At settlement, these commitments require that the Firm advance cash to and accept securities from the counterparty. These agreements generally do not meet the definition of a derivative, and therefore, are not recorded on the Consolidated Balance Sheets until settlement date. At December 31, 2011 and 2010, the amount of commitments related to forward starting reverse repurchase agreements and securities borrowing agreements were $\$ 14.4$ billion and $\$ 14.4$ billion, respectively. Commitments related to unsettled reverse repurchase agreements and securities borrowing agreements with regular way settlement periods were $\$ 25.5$ billion and $\$ 25.5$ billion at December 31, 2011 and 2010, respectively.

Loan sales- and securitization-related indemnifications Mortgage repurchase liability
In connection with the Firm's loan sale and securitization activities with the GSEs and other loan sale and privatelabel securitization transactions, as described in Note 16 on pages 256-267 of this Annual Report, the Firm has made representations and warranties that the loans sold meet certain requirements. The Firm may be, and has been, required to repurchase loans and/or indemnify the GSEs and other investors for losses due to material breaches of these representations and warranties. Although there have been both generalized allegations, as well as specific demands that the Firm should repurchase loans sold or deposited into private-label securitizations, and the Firm experienced an increase in the number of requests for loan files ("file requests") in the latter part of 2011, loan-level repurchase demands and repurchases from private-label securitizations have been limited to date. Generally, the maximum amount of future payments the Firm would be required to make for breaches of these representations and warranties would be equal to the unpaid principal balance of such loans that are deemed to have defects that were
sold to purchasers (including securitization-related SPEs) plus, in certain circumstances, accrued and unpaid interest on such loans and certain expense.
Subsequent to the Firm's acquisition of certain assets and liabilities of Washington Mutual from the FDIC in September 2008, the Firm resolved and/or limited certain current and future repurchase demands for loans sold to the GSEs by Washington Mutual, although it remains the Firm's position that such obligations remain with the FDIC receivership. The Firm will continue to evaluate and may pay (subject to reserving its rights for indemnification by the FDIC) certain future repurchase demands related to individual loans, subject to certain limitations, and has considered such potential repurchase demands in its repurchase liability.
To estimate the Firm's mortgage repurchase liability arising from breaches of representations and warranties, the Firm considers:
(i) the level of outstanding unresolved repurchase demands,
(ii) estimated probable future repurchase demands considering information about file requests, delinquent and liquidated loans, resolved and unresolved mortgage insurance rescission notices and the Firm's historical experience,
(iii) the potential ability of the Firm to cure the defects identified in the repurchase demands ("cure rate"),
(iv) the estimated severity of loss upon repurchase of the loan or collateral, make-whole settlement, or indemnification,
(v) the Firm's potential ability to recover its losses from third-party originators, and
(vi) the terms of agreements with certain mortgage insurers and other parties.
Based on these factors, the Firm has recognized a mortgage repurchase liability of $\$ 3.6$ billion and $\$ 3.3$ billion, as of December 31, 2011 and 2010, respectively, which is reported in accounts payable and other liabilities net of probable recoveries from third-party correspondents of $\$ 577$ million and $\$ 517$ million at December 31, 2011 and 2010, respectively.
Substantially all of the estimates and assumptions underlying the Firm's established methodology for computing its recorded mortgage repurchase liability including factors such as the amount of probable future demands from purchasers, trustees or investors, the ability of the Firm to cure identified defects, the severity of loss upon repurchase or foreclosure, and recoveries from third parties - require application of a significant level of management judgment. Estimating the mortgage repurchase liability is further complicated by historical data and uncertainty surrounding numerous external factors, including: (i) macro-economic factors and (ii) the level of future demands, which is dependent, in part, on actions taken by third parties such as the GSEs, mortgage insurers, trustees and investors.

While the Firm uses the best information available to it in estimating its mortgage repurchase liability, the estimation process is inherently uncertain and imprecise and, accordingly, losses in excess of the amounts accrued as of December 31, 2011, are reasonably possible. The Firm believes the estimate of the range of reasonably possible losses, in excess of its established repurchase liability, is from $\$ 0$ to approximately $\$ 2$ billion at December 31, 2011. This estimated range of reasonably possible loss considers the Firm's GSE-related exposure based on an assumed peak to trough decline in home prices of $44 \%$, which is an additional 9 percentage point decline in home prices beyond the Firm's current assumptions which were derived from a nationally recognized home price index. Although the Firm does not consider a further decline in home prices of this magnitude likely to occur, such a decline could increase the level of loan delinquencies, thereby potentially increasing the repurchase demand rate from the GSEs and increasing loss severity on repurchased loans, each of which could affect the Firm's mortgage repurchase liability. Claims related to private-label securitizations have, thus far, generally manifested themselves through threatened or pending litigation, which the Firm has considered with other litigation matters as discussed in Note 31 on pages 290299 of this Annual Report. Actual repurchase losses could vary significantly from the Firm's recorded mortgage repurchase liability or this estimate of reasonably possible additional losses, depending on the outcome of various factors, including those considered above.
The following table summarizes the change in the mortgage repurchase liability for each of the periods presented.

## Summary of changes in mortgage repurchase liability ${ }^{(a)}$

| Year ended December 31, <br> (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Repurchase liability at <br> beginning of period | $\mathbf{\$}$ | $\mathbf{3 , 2 8 5}$ | $\$$ | 1,705 | $\$$ |
| Realized losses |  |  |  |  |  |
| (b) | $\mathbf{( 1 , 2 6 3 )}$ |  | 1,093 |  |  |
| Provision for repurchase <br> losses | $\mathbf{1 , 5 3 5}$ |  | 3,003 |  | 1,865 |
| Repurchase liability at | $\mathbf{3 , 5 5 7}$ | (c) | $\$$ | 3,285 | $\$$ |


| end of period | $\$ 3,557$ | (c) | $\$$ | 3,285 | $\$$ | 1,705 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(a) Mortgage repurchase liabilities associated with pending or threatened litigation are not reported in this table because the Firm separately evaluates its exposure to such repurchases in establishing its litigation reserves.
(b) Includes principal losses and accrued interest on repurchased loans, "make-whole" settlements, settlements with claimants, and certain related expense. For the years ended December 31, 2011, 2010 and 2009, make-whole settlements were and $\$ 640$ million, $\$ 632$ million and $\$ 277$ million, respectively.
(c) Includes $\$ 173$ million at December 31, 2011, related to future demands on loans sold by Washington Mutual to the GSEs.
(d) Includes the Firm's resolution of certain current and future repurchase demands for certain loans sold by Washington Mutual.

## Loans sold with recourse

The Firm provides servicing for mortgages and certain commercial lending products on both a recourse and nonrecourse basis. In nonrecourse servicing, the principal credit risk to the Firm is the cost of temporary servicing

## Notes to consolidated financial statements

advances of funds (i.e., normal servicing advances). In recourse servicing, the servicer agrees to share credit risk with the owner of the mortgage loans, such as Fannie Mae or Freddie Mac or a private investor, insurer or guarantor. Losses on recourse servicing predominantly occur when foreclosure sales proceeds of the property underlying a defaulted loan are less than the sum of the outstanding principal balance, plus accrued interest on the loan and the cost of holding and disposing of the underlying property. The Firm's securitizations are predominantly nonrecourse, thereby effectively transferring the risk of future credit losses to the purchaser of the mortgage-backed securities issued by the trust. At December 31, 2011 and 2010, the unpaid principal balance of loans sold with recourse totaled $\$ 10.4$ billion and $\$ 11.0$ billion, respectively. The carrying value of the related liability that the Firm has recorded, which is representative of the Firm's view of the likelihood it will have to perform under its recourse obligations, was $\$ 148$ million and $\$ 153$ million at December 31, 2011 and 2010, respectively.

Other off-balance sheet arrangements
Indemnification agreements - general
In connection with issuing securities to investors, the Firm may enter into contractual arrangements with third parties that require the Firm to make a payment to them in the event of a change in tax law or an adverse interpretation of tax law. In certain cases, the contract also may include a termination clause, which would allow the Firm to settle the contract at its fair value in lieu of making a payment under the indemnification clause. The Firm may also enter into indemnification clauses in connection with the licensing of software to clients ("software licensees") or when it sells a business or assets to a third party ("third-party purchasers"), pursuant to which it indemnifies software licensees for claims of liability or damages that may occur subsequent to the licensing of the software, or third-party purchasers for losses they may incur due to actions taken by the Firm prior to the sale of the business or assets. It is difficult to estimate the Firm's maximum exposure under these indemnification arrangements, since this would require an assessment of future changes in tax law and future claims that may be made against the Firm that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

## Credit card charge-backs

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

Under the rules of Visa USA, Inc., and MasterCard International, JPMorgan Chase Bank, N.A., is liable primarily for the amount of each processed credit card sales transaction that is the subject of a dispute between a cardmember and a merchant. If a dispute is resolved in the cardmember's favor, Chase Paymentech will (through the cardmember's issuing bank) credit or refund the amount to the cardmember and will charge back the transaction to the
merchant. If Chase Paymentech is unable to collect the amount from the merchant, Chase Paymentech will bear the loss for the amount credited or refunded to the cardmember. Chase Paymentech mitigates this risk by withholding future settlements, retaining cash reserve accounts or by obtaining other security. However, in the unlikely event that: (1) a merchant ceases operations and is unable to deliver products, services or a refund; (2) Chase Paymentech does not have sufficient collateral from the merchant to provide customer refunds; and (3) Chase Paymentech does not have sufficient financial resources to provide customer refunds, JPMorgan Chase Bank, N.A., would be liable for the amount of the transaction. For the year ended December 31, 2011, Chase Paymentech incurred aggregate credit losses of \$13 million on \$553.7 billion of aggregate volume processed, and at December 31, 2011, it held $\$ 204$ million of collateral. For the year ended December 31, 2010, Chase Paymentech incurred aggregate credit losses of $\$ 12$ million on $\$ 469.3$ billion of aggregate volume processed, and at December 31,2010 , it held $\$ 189$ million of collateral. For the year ended December 31, 2009, Chase Paymentech incurred aggregate credit losses of $\$ 11$ million on $\$ 409.7$ billion of aggregate volume processed, and at December 31,2009 , it held $\$ 213$ million of collateral. The Firm believes that, based on historical experience and the collateral held by Chase Paymentech, the fair value of the Firm's charge back-related obligations, which are representative of the payment or performance risk to the Firm, is immaterial.

## Exchange and clearinghouse guarantees

The Firm is a member of several securities and futures exchanges and clearinghouses, both in the U.S. and other countries. Membership in some of these organizations requires the Firm to pay a pro rata share of the losses incurred by the organization as a result of the default of another member. Such obligations vary with different organizations. These obligations may be limited to members who dealt with the defaulting member or to the amount (or a multiple of the amount) of the Firm's contribution to a member's guarantee fund, or, in a few cases, the obligation may be unlimited. It is difficult to estimate the Firm's maximum exposure under these membership agreements, since this would require an assessment of future claims that may be made against the Firm that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.
The Firm clears transactions on behalf of its clients through various clearinghouses, and the Firm stands behind the performance of its clients on such trades. The Firm mitigates its exposure to loss in the event of a client default by requiring that clients provide appropriate amounts of margin at the inception and throughout the life of the transaction, and can cease the provision of clearing services if clients do not adhere to their obligations under the clearing agreement. It is difficult to estimate the Firm's maximum exposure under such transactions, as this would
require an assessment of transactions that clients may execute in the future. However, based upon historical experience, management believes it is unlikely that the Firm will have to make any material payments under these arrangements and the risk of loss is expected to be remote.

## Guarantees of subsidiaries

In the normal course of business, JPMorgan Chase \& Co. ("Parent Company") may provide counterparties with guarantees of certain of the trading and other obligations of its subsidiaries on a contract-by-contract basis, as negotiated with the Firm's counterparties. The obligations of the subsidiaries are included on the Firm's Consolidated Balance Sheets, or are reflected as off-balance sheet commitments; therefore, the Parent Company has not recognized a separate liability for these guarantees. The Firm believes that the occurrence of any event that would trigger payments by the Parent Company under these guarantees is remote.
The Parent Company has guaranteed certain debt of its subsidiaries, including both long-term debt and structured notes sold as part of the Firm's market-making activities. These guarantees are not included in the table on page 284 of this Note. For additional information, see Note 21 on pages 273-275 of this Annual Report.

## Note 30 - Commitments, pledged assets and collateral

## Lease commitments

At December 31, 2011, JPMorgan Chase and its subsidiaries were obligated under a number of noncancelable operating leases for premises and equipment used primarily for banking purposes, and for energy-related tolling service agreements. Certain leases contain renewal options or escalation clauses providing for increased rental payments based on maintenance, utility and tax increases, or they require the Firm to perform restoration work on leased premises. No lease agreement imposes restrictions on the Firm's ability to pay dividends, engage in debt or equity financing transactions or enter into further lease agreements.
The following table presents required future minimum rental payments under operating leases with noncancelable lease terms that expire after December 31, 2011.

Year ended December 31, (in millions)

| 2012 | $\$$ | 1,753 |
| :--- | ---: | ---: |
| 2013 |  | 1,758 |
| 2014 |  | 1,577 |
| 2015 | 1,438 |  |
| 2016 | 1,300 |  |
| After 2016 | 7,188 |  |
| Total minimum payments required ${ }^{(\mathrm{a})}$ | 15,014 |  |
| Less: Sublease rentals under noncancelable subleases | $(1,542)$ |  |
| Net minimum payment required | $\$$ | 13,472 |

(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, <br> (in millions) | $\mathbf{2 0 1 1}$ |  | 2010 |  | 2009 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross rental expense | $\$$ | $\mathbf{2 , 2 2 8}$ | $\$$ | 2,212 | $\$$ | 1,884 |
| Sublease rental income |  |  |  |  |  |  |

## Pledged assets

At December 31, 2011, assets were pledged to collateralize repurchase agreements, other securities financing agreements, derivative transactions and for other purposes, including to secure borrowings and public deposits. Certain of these pledged assets may be sold or repledged by the secured parties and are identified as financial instruments owned (pledged to various parties) on the Consolidated Balance Sheets. In addition, at December 31, 2011 and 2010, the Firm had pledged $\$ 270.3$ billion and $\$ 288.7$ billion, respectively, of financial instruments it owns that may not be sold or repledged by the secured parties. Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. The significant components of the Firm's pledged assets were as follows.

| December 31, (in billions) |  | 2011 |  | 2010 |
| :--- | :---: | :---: | :---: | :---: |
| Securities | $\$$ | $\mathbf{1 3 4 . 8}$ | $\$$ | 112.1 |
| Loans |  | $\mathbf{1 9 8 . 6}$ |  | 214.8 |
| Trading assets and other |  | $\mathbf{1 2 2 . 8}$ |  | 123.2 |
| Total assets pledged ${ }^{(a)}$ | $\$$ | $\mathbf{4 5 6 . 2}$ | $\$$ | 450.1 |

(a) Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. See Note 16 on pages 256267 of this Annual Report for additional information on assets and liabilities of consolidated VIEs.

## Collateral

At December 31, 2011 and 2010, the Firm had accepted assets as collateral that it could sell or repledge, deliver or otherwise use with a fair value of approximately $\$ 742.1$ billion and $\$ 655.0$ billion, respectively. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. Of the collateral received, approximately $\$ 515.8$ billion and $\$ 521.3$ 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.

## Notes to consolidated financial statements

## Note 31 - Litigation

## Contingencies

As of December 31, 2011, the Firm and its subsidiaries are defendants or putative defendants in numerous legal proceedings, including private, civil litigations and regulatory/government investigations. The litigations range from individual actions involving a single plaintiff to class action lawsuits with potentially millions of class members. Investigations involve both formal and informal proceedings, by both governmental agencies and selfregulatory organizations. These legal proceedings are at varying stages of adjudication, arbitration or investigation, and involve each of the Firm's lines of business and geographies and a wide variety of claims (including common law tort and contract claims and statutory antitrust, securities and consumer protection claims), some of which present novel legal theories.
The Firm believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for its legal proceedings is from \$0 to approximately $\$ 5.1$ billion at December 31,2011 . This estimated aggregate range of reasonably possible losses is based upon currently available information for those proceedings in which the Firm is involved, taking into account the Firm's best estimate of such losses for those cases for which such estimate can be made. For certain cases, the Firm does not believe that an estimate can currently be made. The Firm's estimate involves significant judgment, given the varying stages of the proceedings (including the fact that many are currently in preliminary stages), the existence in many such proceedings of multiple defendants (including the Firm) whose share of liability has yet to be determined, the numerous yet-unresolved issues in many of the proceedings (including issues regarding class certification and the scope of many of the claims) and the attendant uncertainty of the various potential outcomes of such proceedings. Accordingly, the Firm's estimate will change from time to time, and actual losses may be more than the current estimate.
Set forth below are descriptions of the Firm's material legal proceedings.
Auction-Rate Securities Investigations and Litigation. Beginning in March 2008, several regulatory authorities initiated investigations of a number of industry participants, including the Firm, concerning possible state and federal securities law violations in connection with the sale of auction-rate securities. The market for many such securities had frozen and a significant number of auctions for those securities began to fail in February 2008.
The Firm, on behalf of itself and affiliates, agreed to a settlement in principle with the New York Attorney General's Office which provided, among other things, that the Firm would offer to purchase at par certain auction-rate securities purchased from J.P. Morgan Securities LLC, Chase Investment Services Corp. and Bear, Stearns \& Co. Inc. by individual investors, charities and small- to medium-sized businesses. The Firm also agreed to a substantively similar
settlement in principle with the Office of Financial Regulation for the State of Florida and the North American Securities Administrators Association ("NASAA") Task Force, which agreed to recommend approval of the settlement to all remaining states, Puerto Rico and the U.S. Virgin Islands. The Firm has finalized the settlement agreements with the New York Attorney General's Office and the Office of Financial Regulation for the State of Florida. The settlement agreements provide for the payment of penalties totaling $\$ 25$ million to all states. The Firm is currently in the process of finalizing consent agreements with NASAA's member states; more than 45 of these consent agreements have been finalized to date.

The Firm also faces a number of civil actions relating to the Firm's sales of auction-rate securities, including a putative securities class action in the United States District Court for the Southern District of New York that seeks unspecified damages, and individual arbitrations and lawsuits in various forums brought by institutional and individual investors that, together, seek damages totaling approximately \$50 million. The actions generally allege that the Firm and other firms manipulated the market for auction-rate securities by placing bids at auctions that affected these securities’ clearing rates or otherwise supported the auctions without properly disclosing these activities. Some actions also allege that the Firm misrepresented that auction-rate securities were short-term instruments. The lawsuits are being coordinated before the federal District Court in New York.
Additionally, the Firm was named in two putative antitrust class actions. The actions allege that the Firm, along with numerous other financial institution defendants, colluded to maintain and stabilize the auction-rate securities market and then to withdraw their support for the auction-rate securities market. In January 2010, the District Court dismissed both actions. An appeal is pending in the United States Court of Appeals for the Second Circuit.
Bear Stearns Hedge Fund Matters. The Bear Stearns Companies LLC (formerly The Bear Stearns Companies Inc.) ("Bear Stearns"), certain current or former subsidiaries of Bear Stearns, including Bear Stearns Asset Management, Inc. ("BSAM") and Bear, Stearns \& Co. Inc., and certain individuals formerly employed by Bear Stearns are named defendants (collectively the "Bear Stearns defendants") in multiple civil actions and arbitrations relating to alleged losses resulting from the failure of the Bear Stearns High Grade Structured Credit Strategies Master Fund, Ltd. (the "High Grade Fund") and the Bear Stearns High Grade Structured Credit Strategies Enhanced Leverage Master Fund, Ltd. (the "Enhanced Leverage Fund") (collectively, the "Funds"). BSAM served as investment manager for both of the Funds, which were organized such that there were U.S. and Cayman Islands "feeder funds" that invested substantially all their assets, directly or indirectly, in the Funds. The Funds are in liquidation.

There are currently three civil actions pending in the United States District Court for the Southern District of New York
relating to the Funds. One of these actions involves a derivative lawsuit brought on behalf of purchasers of partnership interests in the U.S. feeder fund to the Enhanced Leverage Fund, alleging that the Bear Stearns defendants mismanaged the Funds. This action seeks, among other things, unspecified compensatory damages based on alleged investor losses. The parties have reached an agreement to settle this derivative action, pursuant to which BSAM would pay a maximum of approximately $\$ 18$ million. BSAM has reserved the right not to proceed with this settlement if plaintiff is unable to secure the participation of investors whose net contributions meet a prescribed percentage of the aggregate net contributions to this feeder fund. The court has preliminarily approved the settlement, which remains subject to final court approval. (A separate derivative action, also alleging that the Bear Stearns defendants mismanaged the Funds, was brought on behalf of purchasers of partnership interests in the U.S. feeder fund to the High Grade Fund, and was dismissed following a Court-approved settlement with similar terms, pursuant to which BSAM paid approximately $\$ 19$ million). The second pending action, brought by the Joint Voluntary Liquidators of the Cayman Islands feeder funds, makes allegations similar to those asserted in the derivative lawsuits related to the U.S. feeder funds, alleges net losses of approximately $\$ 700$ million and seeks compensatory and punitive damages. The parties presently are engaged in discovery.
The third action was brought by Bank of America and Banc of America Securities LLC (together "BofA") alleging breach of contract and fraud in connection with a $\$ 4$ billion securitization in May 2007 known as a "CDO-squared," for which BSAM served as collateral manager. This securitization was composed of certain collateralized debt obligation holdings that were purchased by BofA from the Funds. BofA alleges that it incurred losses in excess of $\$ 3$ billion and seeks damages in an amount to be determined, although the amount of damages that BofA seeks may be substantially less than its alleged losses. Discovery is ongoing.
Bear Stearns Shareholder Litigation and Related Matters. Various shareholders of Bear Stearns have commenced purported class actions against Bear Stearns and certain of its former officers and/or directors on behalf of all persons who purchased or otherwise acquired common stock of Bear Stearns between December 14, 2006, and March 14, 2008 (the "Class Period"). During the Class Period, Bear Stearns had between 115 million and 120 million common shares outstanding, and the price per share of those securities declined from a high of $\$ 172.61$ to a low of $\$ 30$ at the end of the period. The actions, originally commenced in several federal courts, allege that the defendants issued materially false and misleading statements regarding Bear Stearns' business and financial results and that, as a result of those false statements, Bear Stearns' common stock traded at artificially inflated prices during the Class Period. In addition, several individual shareholders of Bear Stearns have also commenced or threatened to commence their
own arbitration proceedings and lawsuits asserting claims similar to those in the putative class actions. Certain of these matters have been dismissed or settled.
Separately, an agreement in principle has been reached to resolve a class action brought under the Employee Retirement Income Security Act ("ERISA") against Bear Stearns and certain of its former officers and/or directors on behalf of participants in the Bear Stearns Employee Stock Ownership Plan for alleged breaches of fiduciary duties in connection with the management of that Plan. Under the settlement, which remains subject to final documentation and court approval, the class will receive $\$ 10$ million.
Bear Stearns, former members of Bear Stearns' Board of Directors and certain of Bear Stearns' former executive officers have also been named as defendants in a shareholder derivative and class action suit which is pending in the United States District Court for the Southern District of New York. Plaintiffs assert claims for breach of fiduciary duty, violations of federal securities laws, waste of corporate assets and gross mismanagement, unjust enrichment, abuse of control and indemnification and contribution in connection with the losses sustained by Bear Stearns as a result of its purchases of subprime loans and certain repurchases of its own common stock. Certain individual defendants are also alleged to have sold their holdings of Bear Stearns common stock while in possession of material nonpublic information. Plaintiffs seek compensatory damages in an unspecified amount. The District Court dismissed the action, and plaintiffs have appealed.
City of Milan Litigation and Criminal Investigation. In January 2009, the City of Milan, Italy (the "City") issued civil proceedings against (among others) JPMorgan Chase Bank, N.A. and J.P. Morgan Securities Ltd. (together, "JPMorgan Chase") in the District Court of Milan. The proceedings relate to (a) a bond issue by the City in June 2005 (the "Bond"), and (b) an associated swap transaction, which was subsequently restructured on a number of occasions between 2005 and 2007 (the "Swap"). The City seeks damages and/or other remedies against JPMorgan Chase (among others) on the grounds of alleged "fraudulent and deceitful acts" and alleged breach of advisory obligations in connection with the Swap and the Bond, together with related swap transactions with other counterparties. The civil proceedings have been stayed pending the determination of an application by JPMorgan Chase to the Supreme Court in Rome challenging jurisdiction, which was heard in November 2011.
In March 2010, a criminal judge directed four current and former JPMorgan Chase personnel and JPMorgan Chase Bank, N.A. (as well as other individuals and three other banks) to go forward to a full trial that started in May 2010. Although the Firm is not charged with any crime and does not face criminal liability, if one or more of its employees were found guilty, the Firm could be subject to administrative sanctions, including restrictions on its ability

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to conduct business in Italy and monetary penalties. Hearings have continued on a weekly basis since May 2010.
Enron Litigation. JPMorgan Chase and certain of its officers and directors are involved in several lawsuits seeking damages arising out of the Firm's banking relationships with Enron Corp. and its subsidiaries ("Enron"). A number of actions and other proceedings against the Firm previously were resolved, including a class action lawsuit captioned Newby v. Enron Corp. and adversary proceedings brought by Enron's bankruptcy estate. The remaining Enron-related actions include an individual action by an Enron investor, an action by an Enron counterparty and a purported class action filed on behalf of JPMorgan Chase employees who participated in the Firm's 401(k) plan asserting claims under ERISA for alleged breaches of fiduciary duties by JPMorgan Chase, its directors and named officers. The class action has been dismissed, and is on appeal to the United States Court of Appeals for the Second Circuit. Motions to dismiss are pending in the other two actions.

Interchange Litigation. A group of merchants has filed a series of putative class action complaints in several federal courts. The complaints allege that Visa and MasterCard, as well as certain other banks and their respective bank holding companies, conspired to set the price of credit and debit card interchange fees, enacted respective association rules in violation of antitrust laws, and engaged in tying/ bundling and exclusive dealing. The complaint seeks unspecified damages and injunctive relief based on the theory that interchange fees would be lower or eliminated but for the challenged conduct. Based on publicly available estimates, Visa and MasterCard branded payment cards generated approximately $\$ 40$ billion of interchange fees industry-wide in 2010. All cases have been consolidated in the United States District Court for the Eastern District of New York for pretrial proceedings. The Court has dismissed all claims relating to periods prior to January 2004. The Court has not yet ruled on motions relating to the remainder of the case or plaintiffs' class certification motion. Fact and expert discovery have closed.
In addition to the consolidated class action complaint, plaintiffs filed supplemental complaints challenging the initial public offerings ("IPOs") of MasterCard and Visa (the "IPO Complaints"). With respect to the MasterCard IPO, plaintiffs allege that the offering violated Section 7 of the Clayton Act and Section 1 of the Sherman Act and that the offering was a fraudulent conveyance. With respect to the Visa IPO, plaintiffs are challenging the Visa IPO on antitrust theories parallel to those articulated in the MasterCard IPO pleading. Defendants have filed motions to dismiss the IPO Complaints. The Court has not yet ruled on those motions.
The parties also have filed motions seeking summary judgment as to various claims in the complaints. Oral argument on these summary judgment motions was heard in November 2011.

Investment Management Litigation. Four cases have been filed claiming that investment portfolios managed by J.P. Morgan Investment Management Inc. ("JPMorgan

Investment Management") were inappropriately invested in securities backed by subprime residential real estate collateral. Plaintiffs claim that JPMorgan Investment Management and related defendants are liable for losses of more than \$1 billion in market value of these securities. The first case was filed by NM Homes One, Inc. in federal District Court in New York. Following rulings on motions addressed to the pleadings, plaintiff's claims for breach of contract, breach of fiduciary duty, negligence and gross negligence survive, and discovery is proceeding. In the second case, filed by Assured Guaranty (U.K.) in New York state court, discovery is proceeding on plaintiff's claims for breach of contract, breach of fiduciary duty and gross negligence. In the third case, filed by Ambac Assurance UK Limited in New York state court, the lower court granted JPMorgan Investment Management's motion to dismiss. The New York State Appellate Division reversed the lower court's decision and discovery is proceeding. The fourth case, filed by CMMF LLP in New York state court, asserts claims under New York law for breach of fiduciary duty, gross negligence, breach of contract and negligent misrepresentation. The lower court denied in part defendants' motion to dismiss and discovery is proceeding.

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 demise. The Firm has moved to dismiss plaintiffs' amended complaint in its entirety, and has also moved to transfer the litigation from the Bankruptcy Court to the United States District Court for the Southern District of New York. Neither motion has yet been decided, but following argument on the motion to transfer the litigation, the District Court directed the Bankruptcy Court to decide the motion to dismiss while the District Court is considering the transfer motion. The Firm also filed counterclaims against LBHI alleging that LBHI fraudulently induced the Firm to make large clearing advances to Lehman against inappropriate collateral, which left the Firm with more than $\$ 25$ billion in claims (the "Clearing Claims") against the estate of Lehman Brothers Inc. ("LBI"), LBHI's broker-dealer subsidiary. These claims have been paid in full, subject to the outcome of the litigation. Discovery is underway with a trial scheduled for 2012. In August 2011, LBHI and the Committee filed an objection to the deficiency claims asserted by JPMorgan Chase Bank, N.A. against LBHI with respect to the Clearing Claims, principally on the grounds that the Firm had not conducted the sale of the securities collateral held for such claims in a commercially reasonable manner. The Firm has received and is in various
stages of responding to regulatory investigations regarding Lehman.
LIBOR Investigations and Litigation. JPMorgan Chase has received various subpoenas and requests for documents and, in some cases, interviews, from the United States Department of Justice, United States Commodity Futures Trading Commission, United States Securities and Exchange Commission, European Commission, United Kingdom Financial Services Authority, Canadian Competition Bureau and Swiss Competition Commission. The documents and information sought all relate to the process by which rates were submitted to the British Bankers Association ("BBA") in connection with the setting of the BBA's London Interbank Offered Rate ("LIBOR"), principally in 2007 and 2008. The inquiries from some of the regulators also relate to similar processes by which EURIBOR rates are submitted to the European Banking Federation and TIBOR rates are submitted to the Japanese Bankers' Association during similar time periods. The Firm is cooperating with these inquiries.

In addition, the Firm has been named as a defendant along with other banks in a series of individual and class actions filed in various U.S. federal courts alleging that since 2006 the defendants either individually suppressed the LIBOR rate artificially or colluded in submitting rates for LIBOR that were artificially low. Plaintiffs allege that they transacted in U.S. dollar LIBOR-based derivatives or other financial instruments whose values are impacted by changes in U.S. dollar LIBOR, and assert a variety of claims including antitrust claims seeking treble damages. All cases have been consolidated for pre-trial purposes in the United States District Court for the Southern District of New York. In November 2011, the District Court entered an Order appointing interim lead counsel for the two proposed classes: (i) plaintiffs who allegedly purchased U.S. dollar LIBOR-based financial instruments directly from the defendants in the over-the-counter market, and (ii) plaintiffs who allegedly purchased U.S. dollar LIBOR-based financial instruments on an exchange.
Madoff Litigation. JPMorgan Chase \& Co., JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC, and J.P. Morgan Securities Ltd. have been named as defendants in a lawsuit brought by the trustee (the "Trustee") for the liquidation of Bernard L. Madoff Investment Securities LLC ("Madoff"). The Trustee has served an amended complaint in which he has asserted 28 causes of action against JPMorgan Chase, 20 of which seek to avoid certain transfers (direct or indirect) made to JPMorgan Chase that are alleged to have been preferential or fraudulent under the federal Bankruptcy Code and the New York Debtor and Creditor Law. The remaining causes of action involve claims for, among other things, aiding and abetting fraud, aiding and abetting breach of fiduciary duty, conversion, contribution and unjust enrichment. The complaint generally alleges that JPMorgan Chase, as Madoff's long-time bank, facilitated the maintenance of Madoff's Ponzi scheme and overlooked signs of wrongdoing in order to obtain profits and fees. The complaint asserts common law claims that purport to seek
approximately $\$ 19$ billion in damages, together with bankruptcy law claims to recover approximately $\$ 425$ million in transfers that JPMorgan Chase allegedly received directly or indirectly from Bernard Madoff's brokerage firm. By order dated October 31, 2011, the United States District Court for the Southern District of New York granted JPMorgan Chase's motion to dismiss the common law claims asserted by the Trustee, and returned the remaining claims to the Bankruptcy Court for further proceedings. The Trustee has appealed this decision.

Separately, J.P. Morgan Trust Company (Cayman) Limited, JPMorgan (Suisse) SA, J.P. Morgan Securities Ltd., Bear Stearns Alternative Assets International Ltd. and J.P. Morgan Clearing Corp. have been named as defendants in lawsuits presently pending in Bankruptcy Court in New York arising out of the liquidation proceedings of Fairfield Sentry Limited and Fairfield Sigma Limited (together, "Fairfield"), so-called Madoff feeder funds. These actions are based on theories of mistake and restitution and seek to recover payments made to defendants by the funds totaling approximately $\$ 150$ million. Pursuant to an agreement with the Trustee, the liquidators of Fairfield have voluntarily dismissed their action against J.P. Morgan Securities Ltd. without prejudice to refiling. The other actions remain outstanding. The Bankruptcy Court has stayed these actions. In addition, a purported class action was brought against JPMorgan Chase in the United States District Court for the Southern District of New York, as is a motion by separate potential class plaintiffs to add claims against JPMorgan Chase, JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC and J.P. Morgan Securities Ltd. to an alreadypending 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.

Finally, JPMorgan Chase is a defendant in five actions pending in New York state court and two purported class actions in federal court in New York. The allegations in all of these actions are essentially identical, and involve claims against the Firm for aiding and abetting fraud, aiding and abetting breach of fiduciary duty, conversion and unjust enrichment. In the state court actions, the Firm's motion to dismiss is pending. The Firm has moved to dismiss the state court actions and intends to move to dismiss the federal actions.
The Firm is also responding to various governmental inquiries concerning the Madoff matter.
MF Global. JPMorgan Chase \& Co. has been named as one of several defendants in six putative class action lawsuits brought by customers of MF Global in federal district courts in Montana and New York. The actions allege, among other things, that the Firm aided and abetted MF Global's alleged misuse of customer money and breaches of fiduciary duty and was unjustly enriched by the transfer of $\$ 200$ million in customer segregated funds by MF Global.
In addition, J.P. Morgan Securities LLC has been named as one of several defendants in a putative class action filed in

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federal district court in New York on behalf of purchasers of MF Global's publicly traded securities including the securities issued pursuant to MF Global's February 2011 and August 2011 convertible note offerings. The complaint, which asserts violations of the Securities Act of 1933 against the underwriter defendants, alleges that the offering documents contained materially false and misleading statements and omissions regarding MF Global's financial position, including its exposure to European sovereign debt. The Firm is also responding to various governmental inquiries concerning MF Global.
Mortgage-Backed Securities and Repurchase Litigation and Regulatory Investigations. JPMorgan Chase and affiliates, Bear Stearns and affiliates and Washington Mutual affiliates have been named as defendants in a number of cases in their various roles as issuer or underwriter in MBS offerings. These cases include purported class action suits, actions by individual purchasers of securities or by trustees for the benefit of purchasers of securities, and actions by monoline insurance companies that guaranteed payments of principal and interest for particular tranches of securities offerings. Although the allegations vary by lawsuit, these cases generally allege that the offering documents for securities issued by dozens of securitization trusts contained material misrepresentations and omissions, including with regard to the underwriting standards pursuant to which the underlying mortgage loans were issued, or assert that various representations or warranties relating to the loans were breached at the time of origination. There are currently pending and tolled investor and monoline claims involving approximately $\$ 120$ billion of such securities, a number that decreased significantly in the fourth quarter of 2011 largely due to favorable rulings on standing in the class actions discussed below.

In the actions against the Firm as an MBS issuer (and, in some cases, also as an underwriter of its own MBS offerings), three purported class actions are pending against JPMorgan Chase and Bear Stearns, and/or certain of their affiliates and current and former employees, in the United States District Courts for the Eastern and Southern Districts of New York. Defendants moved to dismiss these actions. In the first of these three actions, the court dismissed claims relating to all but one of the offerings. In the second action, the court dismissed claims as to certain offerings and tranches for lack of standing, but allowed claims to proceed relating to some offerings and certificates including ones raised by newly intervening plaintiffs; both parties have sought leave to appeal these rulings. In the third action, the Firm's motion to dismiss remains pending. In a fourth purported class action pending in the United States District Court for the Western District of Washington, Washington Mutual affiliates, WaMu Asset Acceptance Corp. and WaMu Capital Corp., along with certain former officers or directors of WaMu Asset Acceptance Corp., have been named as defendants. The court there denied plaintiffs' motion for leave to amend their complaint to add JPMorgan Chase Bank, N.A., as a defendant on the theory that it is a successor to Washington Mutual Bank. In October 2011, the
court certified a class of plaintiff investors to pursue the claims asserted, but limited those claims to the 13 tranches of MBS in which a named plaintiff purchased. Discovery is proceeding.
In addition to class actions, the Firm is also a defendant in individual actions brought against certain affiliates of JPMorgan Chase, Bear Stearns and Washington Mutual as issuers (and, in some cases, as underwriters). These actions involve claims by governmental agencies, including the Federal Housing Finance Administration, the National Credit Union Administration and the Federal Home Loan Banks of Pittsburgh, Seattle, San Francisco, Chicago, Indianapolis, Atlanta and Boston, as well as by or to benefit various institutional investors, including Cambridge Place Investment Management, various affiliates of the Allstate Corporation, the Charles Schwab Corporation, Massachusetts Mutual Life Insurance Company, Western \& Southern Life Insurance Company, HSH Nordbank, IKB International, S.A., Sealink Funding, Ltd., Landesbank Baden-Wurttemberg, Stichting Pensioenfonds ABP, Bayerische Landesbank, Union Central Life Insurance Company, Capital Ventures International, John Hancock Life Insurance Company and certain affiliates, Dexia SA/NV and certain affiliates, Deutsche Zentral-Genossenschaftsbank and Asset Management Fund and certain affiliates. These actions are pending in federal and state courts across the country and are at various stages of litigation.
EMC Mortgage LLC (formerly EMC Mortgage Corporation) ("EMC"), an indirect subsidiary of JPMorgan Chase \& Co., and certain other JPMorgan Chase entities currently are defendants in four pending actions commenced by bond insurers that guaranteed payments of principal and interest on approximately $\$ 3.5$ billion of certain classes of six different MBS offerings sponsored by EMC. One of those actions, commenced by Syncora Guarantee, Inc., is pending in the United States District Court for the Southern District of New York against EMC only. Syncora has also filed two actions in New York state court: the first, against J.P. Morgan Securities LLC, asserts tort claims arising out of the same transaction as its federal complaint; the second asserts various tort and contract claims relating to a separate transaction against J.P. Morgan Securities LLC, JPMorgan Chase Bank, N.A. and Bear Stearns Asset-Backed Securities I LLC. Ambac has filed a similar complaint in New York state court relating to four MBS offerings, which alleges various contract and tort claims against EMC, J.P. Morgan Securities LLC and JPMorgan Chase Bank, N.A. These Ambac and Syncora actions seek unspecified damages and specific performance. In December 2011, Assured Guaranty Corp. dismissed its case filed against EMC with respect to one MBS offering that was pending in the United States District Court for the Southern District of New York.

In actions against the Firm solely as an underwriter of other issuers' MBS offerings, the Firm has contractual rights to indemnification from the issuers, but those indemnity rights may prove effectively unenforceable where the issuers are now defunct, such as affiliates of IndyMac Bancorp
("IndyMac Trusts") and Thornburg Mortgage ("Thornburg"). The Firm may also be contractually obligated to indemnify underwriters in certain deals it issued. With respect to the IndyMac Trusts, J.P. Morgan Securities LLC, along with numerous other underwriters and individuals, is named as a defendant, both in its own capacity and as successor to Bear Stearns, in a purported class action pending in the United States District Court for the Southern District of New York brought on behalf of purchasers of securities in various IndyMac Trust MBS offerings. The court in that action has dismissed claims as to certain such securitizations, including all offerings in which no named plaintiff purchased securities, and allowed claims as to other offerings to proceed. Plaintiffs' motion to certify a class of investors in certain offerings is pending, and discovery is ongoing. In addition, J.P. Morgan Securities LLC and JPMorgan Chase are named as defendants in an individual action filed by the Federal Home Loan Bank of Pittsburgh in connection with a single offering by an affiliate of IndyMac Bancorp. Discovery in that action is ongoing and defendants moved for partial summary judgment in November 2011. Separately, J.P. Morgan Securities LLC, as successor to Bear, Stearns \& Co. Inc., along with other underwriters and certain individuals, are defendants in an action pending in state court in California brought by MBIA Insurance Corp. ("MBIA"). The action relates to certain securities issued by IndyMac trusts in offerings in which Bear Stearns was an underwriter, and as to which MBIA provided guaranty insurance policies. MBIA purports to be subrogated to the rights of the MBS holders, and seeks recovery of sums it has paid and will pay pursuant to those policies. Discovery is ongoing. With respect to Thornburg, a Bear Stearns subsidiary is also a named defendant in a purported class action pending in the United States District Court for the District of New Mexico along with a number of other financial institutions that served as depositors and/or underwriters for three Thornburg MBS offerings. The Court granted in part defendants' motion to dismiss but indicated that plaintiffs could replead. Plaintiffs filed another amended complaint in December 2011, while defendants have asked the court to reconsider its ruling denying in part the defendants' motion to dismiss.

The Firm or its affiliates are defendants in three actions brought by trustees of MBS on behalf of the purchasers of securities. In the first, Wells Fargo, as trustee for a single MBS trust, has filed an action against EMC Mortgage in Delaware state court alleging that EMC breached various representations and warranties and seeking the repurchase of more than 800 mortgage loans by EMC and indemnification for the trustee attorneys' fees and costs. In the second, a trustee for a single MBS trust filed a summons with notice in New York state court against EMC, Bear Stearns \& Co. Inc. and JPMorgan Chase \& Co., seeking damages for breach of contract. The Firm has not yet been served with the complaint. In the third, the Firm is a defendant in an action commenced by Deutsche Bank National Trust Co., acting as trustee for various MBS trusts. That case is described in more detail below with respect to
the Washington Mutual Litigations.
There is no assurance that the Firm will not be named as a defendant in additional MBS-related litigation, and the Firm has entered into agreements with a number of entities that purchased such securities which toll the statutes of limitations and repose with respect to their claims. In addition, the Firm has received several demands by securitization trustees that threaten litigation, as well as demands by investors directing or threatening to direct trustees to investigate claims or bring litigation, based on purported obligations to repurchase loans out of securitization trusts and alleged servicing deficiencies. These include but are not limited to a demand from a law firm, as counsel to a group of certificateholders who purport to have $25 \%$ or more of the voting rights in as many as 191 different trusts sponsored by the Firm with an original principal balance of more than $\$ 174$ billion (excluding 52 trusts sponsored by Washington Mutual, with an original principal balance of more than $\$ 58$ billion), made to various trustees to investigate potential repurchase and servicing claims.

A shareholder complaint has been filed in New York state court against the Firm and two affiliates, members of the boards of directors thereof and certain employees, asserting claims based on alleged wrongful actions and inactions relating to residential mortgage originations and securitizations. The action seeks an accounting and damages. The defendants have moved to dismiss the action.
In addition to the above-described litigation, the Firm has also received, and responded to, a number of subpoenas and informal requests for information from federal and state authorities concerning mortgage-related matters, including inquiries concerning a number of transactions involving the Firm's origination and purchase of whole loans, underwriting and issuance of MBS, treatment of early payment defaults and potential breaches of securitization representations and warranties, and due diligence in connection with securitizations. In January 2012, the Firm was advised by SEC staff that they are considering recommending to the Commission that civil or administrative actions be pursued arising out of two separate investigations they have been conducting. The first involves potential claims against J.P. Morgan Securities LLC relating to due diligence conducted for two mortgagebacked securitizations and corresponding disclosures. The second involves potential claims against Bear Stearns entities, JPMorgan Chase \& Co. and J.P. Morgan Securities LLC relating to settlements of claims against originators involving loans included in a number of Bear Stearns securitizations. In both investigations, the SEC staff has invited the Firm to submit responses to the proposed actions.
Mortgage Foreclosure Investigations and Litigation. JPMorgan Chase and four other firms have agreed to a settlement in principle (the "global settlement") with a number of federal and state government agencies, including the U.S. Department of Justice, the U.S.

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Department of Housing and Urban Development, the Consumer Financial Protection Bureau and the State Attorneys General, relating to the servicing and origination of mortgages. The global settlement, which is subject to the execution of a definitive agreement and court approval, calls for the Firm to, among other things: (i) make cash payments of approximately $\$ 1.1$ billion (a portion of which will be set aside for payments to borrowers); (ii) provide approximately $\$ 500$ million of refinancing relief to certain "underwater" borrowers whose loans are owned by the Firm; and (iii) provide approximately $\$ 3.7$ billion of additional relief for certain borrowers, including reductions of principal on first and second liens, payments to assist with short sales, deficiency balance waivers on past foreclosures and short sales, and forbearance assistance for unemployed homeowners. (If the Firm does not meet certain targets for provision of the refinancing or other borrower relief within certain prescribed time periods, the Firm will instead make cash payments.) In addition, under the global settlement the Firm will be required to adhere to certain enhanced mortgage servicing standards.

The global settlement releases the Firm from further claims 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 respecting mortgage-backed securities; criminal claims; and repurchase demands from the GSEs, among other items.

The Firm also entered into agreements in principle 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. The Firm's payment obligations under those agreements will be deemed satisfied by the Firm's payments and provisions of relief under the global settlement.

The Attorneys General of Massachusetts and New York have separately filed lawsuits against the Firm, other servicers and a mortgage recording company asserting claims for various alleged wrongdoings relating to mortgage assignments and use of the industry's electronic mortgage registry. The Firm has moved to dismiss the Massachusetts action, and has yet to respond to the New York action.

Five purported class action lawsuits were filed against the Firm relating to its mortgage foreclosure procedures. Two of those suits were dismissed with prejudice. A third suit has been resolved, and its dismissal will be obtained shortly. Additionally, the Firm is defending a purported class action brought against Bank of America involving an EMC Ioan.

A shareholder derivative action has been filed in New York state court against the Firm's board of directors alleging that the board failed to exercise adequate oversight as to wrongful conduct by the Firm regarding mortgage servicing. The action seeks a declaratory judgment and damages.

Municipal Derivatives Investigations and Litigation. Purported class action lawsuits and individual actions (the "Municipal Derivatives Actions") have been filed against JPMorgan Chase and Bear Stearns, as well as numerous other providers and brokers, alleging antitrust violations in the reportedly $\$ 100$ billion to $\$ 300$ billion annual market for financial instruments related to municipal bond offerings referred to collectively as "municipal derivatives." In July 2011, the Firm settled with federal and state governmental agencies to resolve their investigations into similar alleged conduct. The Municipal Derivatives Actions have been consolidated and/or coordinated in the United States District Court for the Southern District of New York. The court denied in part and granted in part defendants' motions to dismiss the purported class and individual actions, permitting certain claims to proceed against the Firm and others under federal and California state antitrust laws and under the California false claims act. Subsequently, a number of additional individual actions asserting substantially similar claims, including claims under New York and West Virginia state antitrust statutes, were filed against JPMorgan Chase, Bear Stearns and numerous other defendants. These cases are also being coordinated for pretrial purposes in the United States District Court for the Southern District of New York. Discovery is ongoing.

In addition, civil actions have been commenced against the Firm relating to certain Jefferson County, Alabama (the "County") warrant underwritings and swap transactions. In November 2009, J.P. Morgan Securities LLC settled with the SEC to resolve its investigation into those transactions. Following that settlement, the County and a putative class of sewer rate payers filed complaints against the Firm and several other defendants in Alabama state court. The suits allege that the Firm made payments to certain third parties in exchange for being chosen to underwrite more than \$3 billion in warrants issued by the County and to act as the counterparty for certain swaps executed by the County. The complaints also allege that the Firm concealed these thirdparty payments and that, but for this concealment, the County would not have entered into the transactions. The Court denied the Firm's motions to dismiss the complaints in both proceedings. The Firm filed mandamus petitions with the Alabama Supreme Court, seeking immediate appellate review of these decisions. The mandamus petition in the County's lawsuit was denied in April 2011. In November and December, 2011, the County filed notices of bankruptcy with the trial court in each of the cases and with the Alabama Supreme Court stating that it was a Chapter 9 Debtor in the U.S. Bankruptcy Court for the Northern District of Alabama and providing notice of the automatic stay. Subsequently, the portion of the sewer rate payer action involving claims against the Firm was removed by certain defendants to the United States District Court for the Northern District of Alabama. In its order finding that removal of this action was proper, the District Court referred the action to the District's Bankruptcy Court, where the action remains pending.

Two insurance companies that guaranteed the payment of principal and interest on warrants issued by the County have filed separate actions against the Firm in New York state court. Their complaints assert that the Firm fraudulently misled them into issuing insurance based upon substantially the same alleged conduct described above and other alleged non-disclosures. One insurer claims that it insured an aggregate principal amount of nearly \$1.2 billion and seeks unspecified damages in excess of \$400 million as well as unspecified punitive damages. The other insurer claims that it insured an aggregate principal amount of more than $\$ 378$ million and seeks recovery of $\$ 4$ million allegedly paid under the policies to date as well as any future payments and unspecified punitive damages. In December 2010, the court denied the Firm's motions to dismiss each of the complaints. The Firm has filed a crossclaim and a third party claim against the County for indemnity and contribution. The County moved to dismiss, which the court denied in August 2011. In consequence of its November 2011 bankruptcy filing, the County has asserted that these actions are stayed.

Overdraft Fee/Debit Posting Order Litigation. JPMorgan Chase Bank, N.A. has been named as a defendant in several purported class actions relating to its practices in posting debit card transactions to customers' deposit accounts. Plaintiffs allege that the Firm improperly re-ordered debit card transactions from the highest amount to the lowest amount before processing these transactions in order to generate unwarranted overdraft fees. Plaintiffs contend that the Firm should have processed such transactions in the chronological order they were authorized. Plaintiffs seek the disgorgement of all overdraft fees paid to the Firm by plaintiffs since approximately 2003 as a result of the reordering of debit card transactions. The claims against the Firm have been consolidated with numerous complaints against other national banks in multi-District litigation pending in the United States District Court for the Southern District of Florida. The Firm's motion to compel arbitration of certain plaintiffs' claims was initially denied by the District Court. On appeal, the United States Court of Appeals for the Eleventh Circuit vacated the District Court's order and remanded the case for reconsideration in light of a recent ruling by the United States Supreme Court in an unrelated case addressing the enforcement of an arbitration provision in a consumer product agreement. The Firm has reached an agreement in principle to settle this matter in exchange for the Firm paying $\$ 110$ million and agreeing to change certain overdraft fee practices. The settlement is subject to documentation and court approval.

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

Securities Lending Litigation. JPMorgan Chase Bank, N.A. has been named as a defendant in four putative class actions asserting ERISA and other claims pending in the United States District Court for the Southern District of New York brought by participants in the Firm's securities lending business. A fifth lawsuit was filed in New York state court by an individual participant in the program. Three of the purported class actions, which have been consolidated, relate to investments of approximately $\$ 500$ million in medium-term notes of Sigma Finance Inc. ("Sigma"). In August 2010, the Court certified a plaintiff class consisting of all securities lending participants that held Sigma medium-term notes on September 30, 2008, including those that held the notes by virtue of participation in the investment of cash collateral through a collective fund, as well as those that held the notes by virtue of the investment of cash collateral through individual accounts. The Court granted JPMorgan Chase's motion for partial summary judgment as to plaintiffs' duty of loyalty claim, finding that the Firm did not have a conflict of interest when it provided repurchase financing to Sigma while also holding Sigma medium-term notes in securities lending accounts. Trial on the remaining duty of prudence claim is scheduled to begin in February 2012. In December 2011, JPMorgan Chase filed third-party claims for indemnification and contribution against the investment fiduciaries for three unnamed class members that maintained individual securities lending accounts. The parties have reached an agreement in principle to settle this action. The settlement is subject to documentation and court approval.

The fourth putative class action concerns investments of approximately $\$ 500$ million in Lehman Brothers mediumterm notes. The Firm has moved to dismiss the amended complaint and is awaiting a decision. Discovery is proceeding while the motion is pending. The New York state court action, which is not a class action, concerns the plaintiff's alleged loss of money in both Sigma and Lehman Brothers medium-term notes. The Firm has answered the complaint. Discovery is proceeding.

Service Members Civil Relief Act and Housing and Economic Recovery Act Investigations and Litigation. Multiple government officials have conducted inquiries into the Firm's procedures related to the Service Members Civil Relief Act ("SCRA") and the Housing and Economic Recovery Act of 2008 ("HERA"). These inquiries were prompted by the Firm's public statements about its SCRA and HERA

## Notes to consolidated financial statements

compliance and actions to remedy certain instances in which the Firm mistakenly charged active or recently-active military personnel mortgage interest and fees in excess of that permitted by SCRA and HERA, and in a number of instances, foreclosed on borrowers protected by SCRA and HERA. The Firm has implemented a number of procedural enhancements and controls to strengthen its SCRA and HERA compliance. In addition, an individual borrower filed a nationwide class action in United States District Court for South Carolina against the Firm alleging violations of the SCRA related to home loans. The Firm agreed to pay $\$ 27$ million plus attorneys' fees, in addition to reimbursements previously paid by the Firm, to settle the class action. Additional borrowers were subsequently added to the class, and the Firm agreed to pay an additional $\$ 8$ million into the settlement fund. The court entered a final order approving the settlement in January 2012.

Washington Mutual Litigations. Subsequent to JPMorgan Chase's acquisition from the FDIC of substantially all of the assets and certain specified liabilities of Washington Mutual Bank ("Washington Mutual Bank") in September 2008, Washington Mutual Bank's parent holding company, Washington Mutual, Inc. ("WMI") and its wholly-owned subsidiary, WMI Investment Corp. (together, the "Debtors"), both commenced voluntary cases under Chapter 11 of Title 11 of the United States Code in the United States Bankruptcy Court for the District of Delaware (the "Bankruptcy Case"). In the Bankruptcy Case, the Debtors have asserted rights and interests in certain assets. The assets in dispute include principally the following: (a) approximately $\$ 4$ billion in trust securities contributed by WMI to Washington Mutual Bank (the "Trust Securities"); (b) the right to tax refunds arising from overpayments attributable to operations of Washington Mutual Bank and its subsidiaries; (c) ownership of and other rights in approximately $\$ 4$ billion that WMI contends are deposit accounts at Washington Mutual Bank and one of its subsidiaries; and (d) ownership of and rights in various other contracts and other assets (collectively, the "Disputed Assets").

WMI, JPMorgan Chase and the FDIC have since been involved in litigations over these and other claims pending in the Bankruptcy Court for the District of Delaware (the "Bankruptcy Court") and the United States District Court for the District of Columbia.

In May 2010, WMI, JPMorgan Chase and the FDIC announced a global settlement agreement among themselves and significant creditor groups (the "WaMu Global Settlement"). The WaMu Global Settlement is incorporated into WMI's Chapter 11 plan ("the Plan") submitted to the Bankruptcy Court. The WaMu Global Settlement resolves numerous disputes among WMI, JPMorgan Chase, the FDIC in its capacity as receiver for Washington Mutual Bank and the FDIC in its corporate capacity, as well as those of significant creditor groups, including disputes relating to the Disputed Assets. After several amendments to the Plan to address deficiencies
identified by the Bankruptcy Court that were unrelated to the WaMu Global Settlement, in February 2012 the Bankruptcy Court confirmed the Plan, including the WaMu Global Settlement.

Other proceedings related to Washington Mutual's failure are also pending before the Bankruptcy Court. Among other actions, in July 2010, certain holders of the Trust Securities commenced an adversary proceeding in the Bankruptcy Court against JPMorgan Chase, WMI, and other entities seeking, among other relief, a declaratory judgment that WMI and JPMorgan Chase do not have any right, title or interest in the Trust Securities. In early January 2011, the Bankruptcy Court granted summary judgment to JPMorgan Chase and denied summary judgment to the plaintiffs in the Trust Securities adversary proceeding. The plaintiffs have appealed that decision to the United States District Court for the District of Delaware. In connection with the current Plan, these plaintiffs filed a motion seeking a stay of further confirmation proceedings pending their appeal from the Bankruptcy Court's determination that they have no interest in the Trust Securities and are instead owners of WMI preferred equity. In January 2012, the Bankruptcy Court denied their motion, and the District Court denied their motions for a stay pending appeal and mandamus relief.
Other 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 WMI subsidiaries in connection with those securitization agreements. The case includes assertions that JPMorgan Chase may have assumed liabilities for the alleged breaches of representations and warranties in the mortgage securitization agreements. The District Court denied as premature motions by the Firm and the FDIC that sought a ruling on whether the FDIC retained liability for Deutsche Bank's claims. Discovery is underway.
In addition, JPMorgan Chase was sued in an action originally filed in state court in Texas (the "Texas Action") by certain holders of WMI common stock and debt of WMI and Washington Mutual Bank who seek unspecified damages alleging that JPMorgan Chase acquired substantially all of the assets of Washington Mutual Bank from the FDIC at a price that was allegedly too low. The Texas Action was transferred to the United States District Court for the District of Columbia, which ultimately granted JPMorgan Chase's and the FDIC's motions to dismiss the complaint, but the United States Court of Appeals for the District of Columbia Circuit reversed the trial court's dismissal and remanded the case for further proceedings. Plaintiffs, which now include only holders of Washington Mutual Bank debt following their voluntary dismissal of claims brought as holders of WMI common stock and debt, have filed an amended complaint alleging that JPMorgan Chase caused
the closure of Washington Mutual Bank and damaged them by causing their bonds issued by Washington Mutual Bank to lose substantially all of their value. JPMorgan Chase and the FDIC have again moved to dismiss this action.

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries are named as defendants or are otherwise involved in a substantial number of other legal proceedings. The Firm believes it has meritorious defenses to the claims asserted against it in its currently outstanding legal proceedings and it intends to defend itself vigorously in all such matters. Additional legal proceedings may be initiated from time to time in the future.
The Firm has established reserves for several hundred of its currently outstanding legal proceedings. The Firm accrues for potential liability arising from such proceedings when it is probable that such liability has been incurred and the amount of the loss can be reasonably estimated. The Firm evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upwards or downwards, as appropriate, based on management's best judgment after consultation with counsel. During the years ended December 31, 2011, 2010 and 2009, the Firm incurred $\$ 4.9$ billion, $\$ 7.4$ billion
and $\$ 161$ million, respectively, of litigation expense. There is no assurance that the Firm's litigation reserves will not need to be adjusted in the future.
In view of the inherent difficulty of predicting the outcome of legal proceedings, particularly where the claimants seek very large or indeterminate damages, or where the matters present novel legal theories, involve a large number of parties or are in early stages of discovery, the Firm cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or impact related to those matters. JPMorgan Chase believes, based upon its current knowledge, after consultation with counsel and after taking into account its current litigation reserves, that the legal proceedings currently pending against it should not have a material adverse effect on the Firm's consolidated financial condition. The Firm notes, however, that in light of the uncertainties involved in such proceedings, there is no assurance the ultimate resolution of these matters will not significantly exceed the reserves it has currently accrued; as a result, the outcome of a particular matter may be material to JPMorgan Chase's operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of JPMorgan Chase's income for that period.

As the Firm's operations are highly integrated, estimates and subjective assumptions have been made to apportion revenue and expense between U.S. and international operations. These estimates and assumptions are consistent with the allocations used for the Firm's segment reporting as set forth in Note 33 on pages 300-303 of this Annual Report.
The Firm's long-lived assets for the periods presented are not considered by management to be significant in relation to total assets. The majority of the Firm's long-lived assets are located in the United States.

| As of or for the year ended December 31, (in millions) | Revenue ${ }^{(c)}$ |  | Expense ${ }^{(d)}$ |  | Income before income tax expense and extraordinary gain |  | Net income |  | Total assets |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 |  |  |  |  |  |  |  |  |  |  |
| Europe/Middle East and Africa | \$ | 16,212 | \$ | 9,157 | \$ | 7,055 | \$ | 4,844 | \$ | 566,866 |
| Asia and Pacific |  | 5,992 |  | 3,802 |  | 2,190 |  | 1,380 |  | 156,411 |
| Latin America and the Caribbean |  | 2,273 |  | 1,711 |  | 562 |  | 340 |  | 51,481 |
| Total international |  | 24,477 |  | 14,670 |  | 9,807 |  | 6,564 |  | 774,758 |
| North America ${ }^{\left({ }^{(1)}\right.}$ |  | 72,757 |  | 55,815 |  | 16,942 |  | 12,412 |  | 1,491,034 |
| Total | \$ | 97,234 | \$ | 70,485 | \$ | 26,749 | \$ | 18,976 | \$ | 2,265,792 |
| $2010{ }^{\text {(b) }}$ |  |  |  |  |  |  |  |  |  |  |
| Europe/Middle East and Africa | \$ | 14,135 | \$ | 8,777 | \$ | 5,358 | \$ | 3,635 | \$ | 446,547 |
| Asia and Pacific |  | 6,073 |  | 3,677 |  | 2,396 |  | 1,614 |  | 151,379 |
| Latin America and the Caribbean |  | 1,750 |  | 1,181 |  | 569 |  | 362 |  | 33,192 |
| Total international |  | 21,958 |  | 13,635 |  | 8,323 |  | 5,611 |  | 631,118 |
| North America ${ }^{\left({ }^{\text {a }}\right.}$ |  | 80,736 |  | 64,200 |  | 16,536 |  | 11,759 |  | 1,486,487 |
| Total | \$ | 102,694 | \$ | 77,835 | \$ | 24,859 | \$ | 17,370 | \$ | 2,117,605 |
| $2009{ }^{\text {(b) }}$ |  |  |  |  |  |  |  |  |  |  |
| Europe/Middle East and Africa | \$ | 16,294 | \$ | 8,620 | \$ | 7,674 | \$ | 5,212 | \$ | 375,406 |
| Asia and Pacific |  | 5,429 |  | 3,528 |  | 1,901 |  | 1,286 |  | 112,798 |
| Latin America and the Caribbean |  | 1,867 |  | 1,083 |  | 784 |  | 463 |  | 23,692 |
| Total international |  | 23,590 |  | 13,231 |  | 10,359 |  | 6,961 |  | 511,896 |
| North America ${ }^{\left({ }^{(1)}\right.}$ |  | 76,844 |  | 71,136 |  | 5,708 |  | 4,767 |  | 1,520,093 |
| Total | \$ | 100,434 | \$ | 84,367 | \$ | 16,067 | \$ | 11,728 | \$ | 2,031,989 |

(a) Substantially reflects the U.S.
(b) The regional allocation of revenue, expense and net income for 2010 and 2009 has been modified to conform with current allocation methodologies.
(c) Revenue is composed of net interest income and noninterest revenue.
(d) Expense is composed of noninterest expense and the provision for credit losses.

## Note 33 - Business segments

The Firm is managed on a line of business basis. There are six major reportable business segments - Investment Bank, Retail Financial Services, Card Services \& Auto, Commercial Banking, Treasury \& Securities Services and Asset Management, as well as a Corporate/Private Equity segment. The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by management. Results of these lines of business are presented on a managed basis. For a definition of managed basis, see Explanation and Reconciliation of the Firm's use of non-GAAP financial measures, on pages 76-78 of this Annual Report. For a further discussion concerning JPMorgan Chase's business segments, see Business Segment Results on pages 79-80 of this Annual Report.
The following is a description of each of the Firm's business segments:

## Investment Bank

J.P. Morgan is one of the world's leading investment banks, with deep client relationships and broad product capabilities. The clients of IB are corporations, financial institutions, governments and institutional investors. The Firm offers a full range of investment banking products and services in all major capital markets, including advising on
corporate strategy and structure, capital-raising in equity and debt markets, sophisticated risk management, marketmaking in cash securities and derivative instruments, prime brokerage, and research.

## Retail Financial Services

RFS serves consumers and businesses through personal service at bank branches and through ATMs, online banking and telephone banking. RFS is organized into Consumer \& Business Banking and Mortgage Banking (including Mortgage Production and Servicing, and Real Estate Portfolios). Consumer \& Business Banking includes branch banking and business banking activities. Mortgage Production and Servicing includes mortgage origination and servicing activities. Real Estate Portfolios comprises residential mortgages and home equity loans, including the PCI portfolio acquired in the Washington Mutual transaction. Customers can use more than 5,500 bank branches (third largest nationally) and more than 17,200 ATMs (second largest nationally), as well as online and mobile banking around the clock. More than 33,500 branch salespeople assist customers with checking and savings accounts, mortgages, home equity and business loans, and investments across the 23 -state footprint from New York and Florida to California. As one of the largest mortgage originators in the U.S., Chase helps customers buy or refinance homes resulting in approximately $\$ 150$ billion of
mortgage originations annually. Chase also services more than 8 million mortgages and home equity loans.

## Card Services \& Auto

Card Services \& Auto is one of the nation's largest credit card issuers, with over $\$ 132$ billion in credit card loans. Customers have over 65 million open credit card accounts (excluding the commercial card portfolio), and used Chase credit cards to meet over $\$ 343$ billion of their spending needs in 2011. Through its Merchant Services business, Chase Paymentech Solutions, Card is a global leader in payment processing and merchant acquiring. Consumers also can obtain loans through more than 17,200 auto dealerships and 2,000 schools and universities nationwide.

## Commercial Banking

CB delivers extensive industry knowledge, local expertise and dedicated service to more than 24,000 clients nationally, including corporations, municipalities, financial institutions and not-for-profit entities with annual revenue generally ranging from $\$ 10$ million to $\$ 2$ billion, and nearly 35,000 real estate investors/owners. CB partners with the Firm's other businesses to provide comprehensive solutions, including lending, treasury services, investment banking and asset management, to meet its clients' domestic and international financial needs.

## Treasury \& Securities Services

TSS is a global leader in transaction, investment and information services. TSS is one of the world's largest cash management providers and a leading global custodian. Treasury Services ("TS") provides cash management, trade, wholesale card and liquidity products and services to smalland mid-sized companies, multinational corporations, financial institutions and government entities. TS partners with IB, CB, RFS and Asset Management businesses to serve clients firmwide. Certain TS revenue is included in other segments' results. Worldwide Securities Services holds, values, clears and services securities, cash and alternative investments for investors and broker-dealers, and manages depositary receipt programs globally.

## Asset Management

AM, with assets under supervision of $\$ 1.9$ trillion, is a global leader in investment and wealth management. AM clients include institutions, retail investors and high-networth individuals in every major market throughout the world. AM offers global investment management in equities, fixed income, real estate, hedge funds, private equity and
liquidity products, including money-market instruments and bank deposits. AM also provides trust and estate, banking and brokerage services to high-net-worth clients, and retirement services for corporations and individuals. The majority of AM's client assets are in actively managed portfolios.

## Corporate/Private Equity

The Corporate/Private Equity sector comprises Private Equity, Treasury, the Chief Investment Office, corporate staff units and expense that is centrally managed. Treasury and the Chief Investment Office manage capital, liquidity, and structural risks of the Firm. The corporate staff units include Central Technology and Operations, Internal Audit, Executive Office, Finance, Human Resources, Marketing \& Communications, Legal \& Compliance, Corporate Real Estate and General Services, Risk Management, Corporate Responsibility and Strategy \& Development. Other centrally managed expense includes the Firm's occupancy and pension-related expense, net of allocations to the business.

## Business segment changes

Commencing July 1, 2011, the Firm's business segments have been reorganized as follows:
Auto and Student Lending transferred from the RFS segment and are reported with Card in a single segment. Retail Financial Services continues as a segment, organized in two components: Consumer \& Business Banking (formerly Retail Banking) and Mortgage Banking (including Mortgage Production and Servicing, and Real Estate Portfolios).
The business segment information associated with RFS and Card have been revised to reflect the business reorganization retroactive to January $1,2009$.
Effective January 1, 2010, the Firm enhanced its line of business equity framework to better align equity assigned to the lines of business with changes anticipated to occur in each line of business, and to reflect the competitive and regulatory landscape. The lines of business are now capitalized based on the Tier 1 common standard, rather than the Tier 1 capital standard. In addition, effective January 1, 2011, capital allocated to Card was reduced, largely reflecting portfolio runoff and the improving risk profile of the business; and capital allocated to TSS was increased, reflecting growth in the underlying business.

## Segment results

The following tables provide a summary of the Firm's segment results for 2011, 2010 and 2009 on a managed basis. Prior to the January 1,2010 , adoption of the accounting guidance related to VIEs, the impact of credit card securitization adjustments had been included in reconciling items; as a result, the total Firm results are on a reported basis. Finally, total net revenue (noninterest revenue and net interest income) for each of the segments is presented on a tax-equivalent basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities. This non-GAAP financial measure allows management to assess the comparability of revenue arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense/(benefit).

## Segment results and reconciliation ${ }^{(2)}$

| As of or the year ended | Investment Bank |  |  |  |  |  | Retail Financial Services |  |  |  |  |  | Card Services \& Auto ${ }^{(f)}$ |  |  |  |  |  | Commercial Banking |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in millions, except ratios) |  | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |
| Noninterest revenue | \$ | 17,971 | \$ | 18,253 | \$ | 18,522 | \$ | 10,405 | \$ | 11,227 | \$ | 11,414 | \$ | 4,892 | \$ | 4,278 | \$ | 3,706 | \$ | 2,195 | \$ | 2,200 | \$ | 1,817 |
| Net interest income |  | 8,303 |  | 7,964 |  | 9,587 |  | 16,133 |  | 17,220 |  | 18,383 |  | 14,249 |  | 16,194 |  | 19,493 |  | 4,223 |  | 3,840 |  | 3,903 |
| Total net revenue |  | 26,274 |  | 26,217 |  | 28,109 |  | 26,538 |  | 28,447 |  | 29,797 |  | 19,141 |  | 20,472 |  | 23,199 |  | 6,418 |  | 6,040 |  | 5,720 |
| Provision for credit losses |  | (286) |  | $(1,200)$ |  | 2,279 |  | 3,999 |  | 8,919 |  | 14,754 |  | 3,621 |  | 8,570 |  | 19,648 |  | 208 |  | 297 |  | 1,454 |
| Credit allocation income/ (expense) ${ }^{(b)}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Noninterest expense ${ }^{(c)}$ |  | 16,116 |  | 17,265 |  | 15,401 |  | 19,458 |  | 16,483 |  | 15,512 |  | 8,045 |  | 7,178 |  | 6,617 |  | 2,278 |  | 2,199 |  | 2,176 |
| Income/(loss) before income tax expense/ (benefit) and extraordinary gain |  | 10,444 |  | 10,152 |  | 10,429 |  | 3,081 |  | 3,045 |  | (469) |  | 7,475 |  | 4,724 |  | $(3,066)$ |  | 3,932 |  | 3,544 |  | 2,090 |
| Income tax expense/ (benefit) |  | 3,655 |  | 3,513 |  | 3,530 |  | 1,403 |  | 1,317 |  | (134) |  | 2,931 |  | 1,852 |  | $(1,273)$ |  | 1,565 |  | 1,460 |  | 819 |
| Income/(loss) before extraordinary gain |  | 6,789 |  | 6,639 |  | 6,899 |  | 1,678 |  | 1,728 |  | (335) |  | 4,544 |  | 2,872 |  | $(1,793)$ |  | 2,367 |  | 2,084 |  | 1,271 |
| Extraordinary gain ${ }^{(d)}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Net income/(loss) | \$ | 6,789 | \$ | 6,639 | \$ | 6,899 | \$ | 1,678 | \$ | 1,728 | \$ | (335) | \$ | 4,544 | \$ | 2,872 | \$ | $(1,793)$ | \$ | 2,367 | \$ | 2,084 | \$ | 1,271 |
| Average common equity | \$ | 40,000 | \$ | 40,000 | \$ | 33,000 | \$ | 25,000 | \$ | 24,600 | \$ | 22,457 | \$ | 16,000 | \$ | 18,400 | \$ | 17,543 | \$ | 8,000 | \$ | 8,000 | \$ | 8,000 |
| Total assets |  | 776,430 |  | 825,150 |  | 706,944 |  | 274,795 |  | 299,950 |  | 322,185 |  | 208,467 |  | 208,793 |  | 255,029 |  | 158,040 |  | 142,646 |  | 130,280 |
| Return on average common equity ${ }^{(\text {e })}$ |  | 17\% |  | 17\% |  | 21\% |  | 7\% |  | 7\% |  | (1)\% |  | 28\% |  | 16\% |  | (10)\% |  | 30\% |  | 26\% |  | 16\% |
| Overhead ratio |  | 61 |  | 66 |  | 55 |  | 73 |  | 58 |  | 52 |  | 42 |  | 35 |  | 29 |  | 35 |  | 36 |  | 38 |

(a) In addition to analyzing the Firm's results on a reported basis, management reviews the Firm's lines of business results on a "managed basis," which is a non-GAAP financial measure. The Firm's definition of managed basis starts with the reported U.S. GAAP results and includes certain reclassifications as discussed below that do not have any impact on net income as reported by the lines of business or by the Firm as a whole.
(b) IB manages traditional credit exposures related to the Global Corporate Bank ("GCB") on behalf of IB and TSS. Effective January 1, 2011, IB and TSS share the economics related to the Firm's GCB clients. Included within this allocation are net revenue, provision for credit losses and expenses. Prior years reflected a reimbursement to IB for a portion of the total costs of managing the credit portfolio. IB recognizes this credit allocation as a component of all other income.
(c) Includes merger costs, which are reported in the Corporate/Private Equity segment. There were no merger costs in 2011 and 2010. Merger costs attributed to the business segments for 2009 was as follows.

| Year ended December 31, (in millions) | 2009 |
| :--- | ---: |
| Investment Bank | 27 |
| Retail Financial Services | 228 |
| Card Services \& Auto | 40 |
| Commercial Banking | 6 |
| Treasury \& Securities Services | 11 |
| Asset Management | 6 |
| Corporate/Private Equity | 163 |

(d) On September 25, 2008, JPMorgan Chase acquired the banking operations of Washington Mutual from the FDIC for $\$ 1.9$ billion. The fair value of the net assets acquired exceeded the purchase price, which resulted in negative goodwill. In accordance with U.S. GAAP for business combinations, nonfinancial assets that are not held-for-sale, such as premises and equipment and other intangibles, acquired in the Washington Mutual transaction were written down against that negative goodwill. The negative goodwill that remained after writing down nonfinancial assets was recognized as an extraordinary gain. A preliminary gain of $\$ 1.9$ billion was recognized at December 31, 2008. As a result of the final refinement of the purchase price allocation in 2009, the Firm recognized a $\$ 76$ million increase in the extraordinary gain. The final total extraordinary gain that resulted from the Washington Mutual transaction was $\$ 2.0$ billion.
(e) Ratio is based on income/(loss) before extraordinary gain for 2009.
(f) Effective January 1, 2010, the Firm adopted accounting guidance related to VIEs. Prior to the adoption of the new guidance, managed results for credit Card excluded the impact of credit card securitizations on total net revenue, provision for credit losses and average assets, as JPMorgan Chase treated the sold receivables as if they were still on the balance sheet in evaluating the credit performance of the entire managed credit card portfolio, as operations are funded, and decisions are made about allocating resources, such as employees and capital, based on managed information. These adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results. The related securitization adjustments were as follows.

| Year ended December 31, (in millions) | $\mathbf{c}$ |
| :--- | :---: |
| Noninterest revenue | $(1,494)$ |
| Net interest income | 7,937 |
| Provision for credit losses | 6,443 |
| Total assets | 80,882 |

(table continued from previous page)

| Treasury \& Securities Services |  |  |  |  | Asset Management |  |  |  |  |  | Corporate/Private Equity |  |  |  |  |  | Reconciling Items ${ }^{(f)(\mathrm{g})}$ |  |  |  |  |  | Total |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 | 2011 |  | 2010 |  | 2009 |  | 2011 |  | 2010 |  | 2009 |  |
| \$ 4,544 | \$ | 4,757 | \$ | 4,747 | \$ | 7,895 | \$ | 7,485 | \$ | 6,372 | \$ | 3,638 | \$ | 5,359 | \$ | 2,771 | \$ | $(1,995)$ | \$ | $(1,866)$ | \$ | (67) | \$ | 49,545 | \$ | 51,693 | \$ | 49,282 |
| 3,158 |  | 2,624 |  | 2,597 |  | 1,648 |  | 1,499 |  | 1,593 |  | 505 |  | 2,063 |  | 3,863 |  | (530) |  | (403) |  | $(8,267)$ |  | 47,689 |  | 51,001 |  | 51,152 |
| 7,702 |  | 7,381 |  | 7,344 |  | 9,543 |  | 8,984 |  | 7,965 |  | 4,143 |  | 7,422 |  | 6,634 |  | $(2,525)$ |  | $(2,269)$ |  | $(8,334)$ |  | 97,234 |  | 102,694 |  | 100,434 |
| 1 |  | (47) |  | 55 |  | 67 |  | 86 |  | 188 |  | (36) |  | 14 |  | 80 |  | - |  | - |  | $(6,443)$ |  | 7,574 |  | 16,639 |  | 32,015 |
| 8 |  | (121) |  | (121) |  | - |  | - |  | - |  | - |  | - |  | - |  | (8) |  | 121 |  | 121 |  | - |  | - |  | - |
| 5,863 |  | 5,604 |  | 5,278 |  | 7,002 |  | 6,112 |  | 5,473 |  | 4,149 |  | 6,355 |  | 1,895 |  | - |  | - |  | - |  | 62,911 |  | 61,196 |  | 52,352 |
| 1,846 |  | 1,703 |  | 1,890 |  | 2,474 |  | 2,786 |  | 2,304 |  | 30 |  | 1,053 |  | 4,659 |  | $(2,533)$ |  | $(2,148)$ |  | $(1,770)$ |  | 26,749 |  | 24,859 |  | 16,067 |
| 642 |  | 624 |  | 664 |  | 882 |  | 1,076 |  | 874 |  | (772) |  | (205) |  | 1,705 |  | $(2,533)$ |  | $(2,148)$ |  | $(1,770)$ |  | 7,773 |  | 7,489 |  | 4,415 |
| 1,204 |  | 1,079 |  | 1,226 |  | 1,592 |  | 1,710 |  | 1,430 |  | 802 |  | 1,258 |  | 2,954 |  | - |  | - |  | - |  | 18,976 |  | 17,370 |  | 11,652 |
| - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 76 |  | - |  | - |  | - |  | - |  | - |  | 76 |
| \$ 1,204 | \$ | 1,079 |  | 1,226 | \$ | 1,592 |  | 1,710 | \$ | 1,430 | \$ | 802 | \$ | 1,258 |  | 3,030 | \$ | - | \$ | - | \$ | - | \$ | 18,976 | \$ | 17,370 | \$ | 11,728 |
| \$ 7,000 | \$ | 6,500 |  | 5,000 | \$ | 6,500 | \$ | 6,500 | \$ | 7,000 | \$ | 70,766 | \$ | 57,520 |  | 52,903 | \$ | - | \$ | - | \$ | - | \$ | 173,266 | \$ | 161,520 | \$ | 145,903 |
| 68,665 |  | 45,481 |  | 38,054 |  | 86,242 |  | 68,997 |  | 64,502 |  | 693,153 |  | 526,588 |  | 595,877 |  | NA |  | NA |  | $(80,882)$ |  | ,265,792 |  | 117,605 |  | 031,989 |
| 17\% |  | 17\% |  | 25\% |  | 25\% |  | 26\% |  | 20\% |  | NM |  | NM |  | NM |  | NM |  | NM |  | NM |  | 11\% |  | 10\% |  | 6\% |
| 76 |  | 76 |  | 72 |  | 73 |  | 68 |  | 69 |  | NM |  | NM |  | NM |  | NM |  | NM |  | NM |  | 65 |  | 60 |  | 52 |

(g) Segment managed results reflect revenue on a tax-equivalent basis with the corresponding income tax impact recorded within income tax expense/ (benefit). These adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results. Tax-equivalent adjustments for the years ended December 31, 2011, 2010 and 2009 were as follows.

| Year ended December 31, (in millions) | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 0 9}$ |
| :--- | ---: | ---: | ---: |
| Noninterest revenue | $\mathbf{2 , 0 0 3}$ | $\mathbf{\$}$ | $\mathbf{1 , 7 4 5}$ |
| Net interest income | $\mathbf{5 3 0}$ | 403 | 330 |
| Income tax expense | $\mathbf{2 , 5 3 3}$ | 2,148 |  |

## Note 34 - Parent company

## Parent company - Statements of income

Year ended December 31,

| (in millions) | $\mathbf{2 0 1 1}$ | 2010 | 2009 |
| :--- | ---: | ---: | ---: |
| Income |  |  |  |
| Dividends from subsidiaries: |  |  |  |
| $\quad$ Bank and bank holding company | $\mathbf{1 0 , 8 5 2}$ | $\$ 16,554$ | $\$ 15,235$ |
| $\quad$ Nonbank ${ }^{(a)}$ | $\mathbf{2 , 6 5 1}$ | 932 | 1,036 |
| Interest income from subsidiaries | $\mathbf{1 , 0 9 9}$ | 985 | 1,501 |
| Other interest income | $\mathbf{3 8 4}$ | 294 | 266 |
| Other income from subsidiaries, |  |  |  |
| $\quad$ primarily fees: |  |  |  |
| $\quad$ Bank and bank holding company | $\mathbf{8 0 9}$ | 680 | 233 |
| $\quad$ Nonbank | $\mathbf{9 2}$ | 312 | 742 |
| Other income/(loss) | $\mathbf{( 8 5 )}$ | 157 | 844 |
| Total income | $\mathbf{1 5 , 8 0 2}$ | 19,914 | 19,857 |
| Expense |  |  |  |
| Interest expense to subsidiaries ${ }^{(\mathrm{a})}$ | $\mathbf{1 , 1 2 1}$ | 1,263 | 1,118 |
| Other interest expense | $\mathbf{4 , 4 4 7}$ | 3,782 | 4,696 |
| Other noninterest expense | $\mathbf{6 4 9}$ | 540 | 988 |
| Total expense | $\mathbf{6 , 2 1 7}$ | 5,585 | 6,802 |


| Income before income tax benefit <br> and undistributed net income of |  |  |  |
| :--- | ---: | ---: | ---: |
| subsidiaries | $\mathbf{9 , 5 8 5}$ | 14,329 | 13,055 |
| Income tax benefit | $\mathbf{1 , 0 8 9}$ | 511 | 1,269 |
| Equity in undistributed net income of <br> subsidiaries | $\mathbf{8 , 3 0 2}$ | 2,530 | $(2,596)$ |
| Net income | $\mathbf{\$ 1 8 , 9 7 6}$ | $\mathbf{\$ 1 7 , 3 7 0}$ | $\mathbf{\$ 1 1 , 7 2 8}$ |


| Parent company - Balance sheets |  |  |  |
| :--- | ---: | ---: | ---: |
| December 31, (in millions) | $\mathbf{2 0 1 1}$ | 2010 |  |
| Assets | $\mathbf{\$}$ | $\mathbf{1 3 2}$ | $\$$ |
| Cash and due from banks | $\mathbf{9 1 , 6 2 2}$ | 80,201 |  |
| Deposits with banking subsidiaries | $\mathbf{1 8 , 4 8 5}$ | 16,038 |  |
| Trading assets | $\mathbf{3 , 6 5 7}$ | 3,176 |  |
| Available-for-sale securities | $\mathbf{1 , 8 8 0}$ | 1,849 |  |


|  |  |  |
| :---: | :---: | :---: |
| Advances to, and receivables from, subsidiaries: |  |  |
| Bank and bank holding company | 39,888 | 54,887 |
| Nonbank | 83,138 | 72,080 |
| Investments (at equity) in subsidiaries: |  |  |
| Bank and bank holding company | 157,160 | 150,876 |
| Nonbank ${ }^{\text {(a) }}$ | 42,231 | 38,000 |
| Goodwill and other intangibles | 1,027 | 1,050 |
| Other assets | 15,506 | 17,171 |
| Total assets | \$ 454,726 | \$ 435,424 |
| Liabilities and stockholders' equity |  |  |
| Borrowings from, and payables to, subsidiaries ${ }^{(a)}$ | \$ 30,231 | \$ 28,332 |
| Other borrowed funds, primarily commercial paper | 59,891 | 41,874 |
| Other liabilities | 7,653 | 7,302 |
| Long-term debt ${ }^{(b)(c)}$ | 173,378 | 181,810 |
| Total liabilities ${ }^{(c)}$ | 271,153 | 259,318 |
| Total stockholders' equity | 183,573 | 176,106 |
| Total liabilities and stockholders' equity | \$ 454,726 | \$ 435,424 |

Parent company - Statements of cash flows
Year ended December 31,

| (in millions) | 2011 | 2010 | 2009 |
| :--- | :--- | :--- | :--- |

Operating activities

| Net income | \$ 18,976 | \$ 17,370 | \$ 11,728 |
| :---: | :---: | :---: | :---: |
| Less: Net income of subsidiaries ${ }^{(a)}$ | 21,805 | 20,016 | 13,675 |
| Parent company net loss | $(2,829)$ | $(2,646)$ | $(1,947)$ |
| Cash dividends from subsidiaries ${ }^{(a)}$ | 13,414 | 17,432 | 16,054 |
| Other, net | 889 | 1,685 | 1,852 |
| Net cash provided by operating activities | 11,474 | 16,471 | 15,959 |
| Investing activities |  |  |  |
| Net change in: |  |  |  |
| Deposits with banking subsidiaries | 20,866 | 7,692 | $(27,342)$ |
| Available-for-sale securities: |  |  |  |
| Purchases | $(1,109)$ | $(1,387)$ | $(1,454)$ |
| Proceeds from sales and maturities | 886 | 745 | 522 |
| Loans, net | 153 | (90) | 209 |
| Advances to subsidiaries, net | $(28,105)$ | 8,051 | 28,808 |
| Investments (at equity) in subsidiaries, net ${ }^{(a)}$ | $(1,530)$ | (871) | $(6,582)$ |
| Net cash (used in)/provided by investing activities | $(8,839)$ | 14,140 | $(5,839)$ |


| Financing activities |  |  |  |
| :---: | :---: | :---: | :---: |
| Net change in borrowings from subsidiaries ${ }^{(\mathrm{a})}$ | 2,827 | $(2,039)$ | $(4,935)$ |
| Net change in other borrowed funds | 16,268 | $(11,843)$ | 1,894 |
| Proceeds from the issuance of longterm debt | 33,566 | 21,610 | 32,304 |
| Proceeds from the assumption of subsidiaries long-term debt ${ }^{(\mathrm{d})}$ | - | - | 15,264 |
| Repayments of long-term debt | $(41,747)$ | $(32,893)$ | $(31,964)$ |
| Excess tax benefits related to stockbased compensation | 867 | 26 | 17 |
| Redemption of preferred stock issued to the U.S. Treasury | - | - | $(25,000)$ |
| Redemption of other preferred stock | - | (352) | - |
| Proceeds from issuance of common stock | - | - | 5,756 |
| Treasury stock and warrants repurchased | $(8,863)$ | $(2,999)$ | - |
| Dividends paid | $(3,895)$ | $(1,486)$ | $(3,422)$ |
| All other financing activities, net | $(1,622)$ | (641) | 33 |
| Net cash used in financing activities | $(2,599)$ | $(30,617)$ | $(10,053)$ |
| Net increase/(decrease) in cash and due from banks | 36 | (6) | 67 |
| Cash and due from banks at the beginning of the year, primarily with bank subsidiaries | 96 | 102 | 35 |
| Cash and due from banks at the end of the year, primarily with bank subsidiaries | \$ 132 | \$ 96 | \$ 102 |
| Cash interest paid | \$ 5,800 | \$ 5,090 | \$ 5,629 |
| Cash income taxes paid, net | 5,885 | 7,001 | 3,124 |

(a) Subsidiaries include trusts that issued guaranteed capital debt securities ("issuer trusts"). The Parent received dividends of $\$ 13$ million, $\$ 13$ million and $\$ 14$ million from the issuer trusts in 2011, 2010 and 2009, respectively. For further discussion on these issuer trusts, see Note 21 on pages 273-275 of this Annual Report.
(b) At December 31, 2011, long-term debt that contractually matures in 2012 through 2016 totaled $\$ 42.5$ billion, $\$ 17.4$ billion, $\$ 24.9$ billion, $\$ 16.7$ billion and $\$ 17.5$ billion, respectively.
(c) For information regarding the Firm's guarantees of its subsidiaries' obligations, see Note 21 and Note 29 on pages 273-275 and 283-289, respectively, of this Annual Report.
(d) Represents the assumption of Bear Stearns long-term debt by JPMorgan Chase \& Co.

Selected quarterly financial data (unaudited)

| (Table continued on next page) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| As of or for the period ended <br> (in millions, except per share, ratio and headcount data) | 2011 |  |  |  |  |  |  |  | 2010 |  |  |  |  |  |  |  |
|  |  | 4th quarter |  | 3rd quarter |  | nd quarter |  | 1st quarter |  | th quarter |  | rd quarter |  | nd quarter |  | st quarter |
| Selected income statement data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Noninterest revenue | \$ | 9,340 | \$ | 11,946 | \$ | 14,943 | \$ | 13,316 | \$ | 13,996 | \$ | 11,322 | \$ | 12,414 | \$ | 13,961 |
| Net interest income |  | 12,131 |  | 11,817 |  | 11,836 |  | 11,905 |  | 12,102 |  | 12,502 |  | 12,687 |  | 13,710 |
| Total net revenue |  | 21,471 |  | 23,763 |  | 26,779 |  | 25,221 |  | 26,098 |  | 23,824 |  | 25,101 |  | 27,671 |
| Total noninterest expense |  | 14,540 |  | 15,534 |  | 16,842 |  | 15,995 |  | 16,043 |  | 14,398 |  | 14,631 |  | 16,124 |
| Pre-provision profit ${ }^{(a)}$ |  | 6,931 |  | 8,229 |  | 9,937 |  | 9,226 |  | 10,055 |  | 9,426 |  | 10,470 |  | 11,547 |
| Provision for credit losses |  | 2,184 |  | 2,411 |  | 1,810 |  | 1,169 |  | 3,043 |  | 3,223 |  | 3,363 |  | 7,010 |
| Income before income tax expense |  | 4,747 |  | 5,818 |  | 8,127 |  | 8,057 |  | 7,012 |  | 6,203 |  | 7,107 |  | 4,537 |
| Income tax expense |  | 1,019 |  | 1,556 |  | 2,696 |  | 2,502 |  | 2,181 |  | 1,785 |  | 2,312 |  | 1,211 |
| Net income | \$ | 3,728 | \$ | 4,262 | \$ | 5,431 | \$ | 5,555 | \$ | 4,831 | \$ | 4,418 | \$ | 4,795 | \$ | 3,326 |
| Per common share data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average: Basic | \$ | 0.90 | \$ | 1.02 | \$ | 1.28 | \$ | 1.29 | \$ | 1.13 | \$ | 1.02 | \$ | 1.10 | \$ | 0.75 |
| Diluted |  | 0.90 |  | 1.02 |  | 1.27 |  | 1.28 |  | 1.12 |  | 1.01 |  | 1.09 |  | 0.74 |
| Cash dividends declared per share ${ }^{(b)}$ |  | 0.25 |  | 0.25 |  | 0.25 |  | 0.25 |  | 0.05 |  | 0.05 |  | 0.05 |  | 0.05 |
| Book value per share |  | 46.59 |  | 45.93 |  | 44.77 |  | 43.34 |  | 43.04 |  | 42.29 |  | 40.99 |  | 39.38 |
| Common shares outstanding |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average: Basic |  | 3,801.9 |  | 3,859.6 |  | 3,958.4 |  | 3,981.6 |  | 3,917.0 |  | 3,954.3 |  | 3,983.5 |  | 3,970.5 |
| Diluted |  | 3,811.7 |  | 3,872.2 |  | 3,983.2 |  | 4,014.1 |  | 3,935.2 |  | 3,971.9 |  | 4,005.6 |  | 3,994.7 |
| Common shares at period-end |  | 3,772.7 |  | 3,798.9 |  | 3,910.2 |  | 3,986.6 |  | 3,910.3 |  | 3,925.8 |  | 3,975.8 |  | 3,975.4 |
| Share price ${ }^{(c)}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High | \$ | 37.54 | \$ | 42.55 | \$ | 47.80 | \$ | 48.36 | \$ | 43.12 | \$ | 41.70 | \$ | 48.20 | \$ | 46.05 |
| Low |  | 27.85 |  | 28.53 |  | 39.24 |  | 42.65 |  | 36.21 |  | 35.16 |  | 36.51 |  | 37.03 |
| Close |  | 33.25 |  | 30.12 |  | 40.94 |  | 46.10 |  | 42.42 |  | 38.06 |  | 36.61 |  | 44.75 |
| Market capitalization |  | 125,442 |  | 114,422 |  | 160,083 |  | 183,783 |  | 165,875 |  | 149,418 |  | 145,554 |  | 177,897 |
| Financial ratios |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Return on common equity |  | 8\% |  | 9\% |  | 12\% |  | 13\% |  | 11\% |  | 10\% |  | 12\% |  | 8\% |
| Return on tangible common equity |  | 11 |  | 13 |  | 17 |  | 18 |  | 16 |  | 15 |  | 17 |  | 12 |
| Return on assets |  | 0.65 |  | 0.76 |  | 0.99 |  | 1.07 |  | 0.92 |  | 0.86 |  | 0.94 |  | 0.66 |
| Overhead ratio |  | 68 |  | 65 |  | 63 |  | 63 |  | 61 |  | 60 |  | 58 |  | 58 |
| Deposits-to-loans ratio |  | 156 |  | 157 |  | 152 |  | 145 |  | 134 |  | 131 |  | 127 |  | 130 |
| Tier 1 capital ratio |  | 12.3 |  | 12.1 |  | 12.4 |  | 12.3 |  | 12.1 |  | 11.9 |  | 12.1 |  | 11.5 |
| Total capital ratio |  | 15.4 |  | 15.3 |  | 15.7 |  | 15.6 |  | 15.5 |  | 15.4 |  | 15.8 |  | 15.1 |
| Tier 1 leverage ratio |  | 6.8 |  | 6.8 |  | 7.0 |  | 7.2 |  | 7.0 |  | 7.1 |  | 6.9 |  | 6.6 |
| Tier 1 common capital ratio ${ }^{(d)}$ |  | 10.1 |  | 9.9 |  | 10.1 |  | 10.0 |  | 9.8 |  | 9.5 |  | 9.6 |  | 9.1 |
| Selected balance sheet data (period-end) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trading assets | \$ | 443,963 | \$ | 461,531 | \$ | 458,722 | \$ | 501,148 | \$ | 489,892 | \$ | 475,515 | \$ | 397,508 | \$ | 426,128 |
| Securities |  | 364,793 |  | 339,349 |  | 324,741 |  | 334,800 |  | 316,336 |  | 340,168 |  | 312,013 |  | 344,376 |
| Loans |  | 723,720 |  | 696,853 |  | 689,736 |  | 685,996 |  | 692,927 |  | 690,531 |  | 699,483 |  | 713,799 |
| Total assets |  | 2,265,792 |  | 2,289,240 |  | 2,246,764 |  | 2,198,161 |  | 2,117,605 |  | 2,141,595 |  | ,014,019 |  | 2,135,796 |
| Deposits |  | 1,127,806 |  | 1,092,708 |  | 1,048,685 |  | 995,829 |  | 930,369 |  | 903,138 |  | 887,805 |  | 925,303 |
| Long-term debt ${ }^{(f)}$ |  | 256,775 |  | 273,688 |  | 279,228 |  | 269,616 |  | 270,653 |  | 271,495 |  | 260,442 |  | 278,685 |
| Common stockholders' equity |  | 175,773 |  | 174,487 |  | 175,079 |  | 172,798 |  | 168,306 |  | 166,030 |  | 162,968 |  | 156,569 |
| Total stockholders' equity |  | 183,573 |  | 182,287 |  | 182,879 |  | 180,598 |  | 176,106 |  | 173,830 |  | 171,120 |  | 164,721 |
| Headcount |  | 260,157 |  | 256,663 |  | 250,095 |  | 242,929 |  | 239,831 |  | 236,810 |  | 232,939 |  | 226,623 |

(Table continued from previous page)

| As of or for the period ended (in millions, except ratio data) | 2011 |  |  |  |  |  |  |  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4th quarter |  | 3rd quarter |  | 2nd quarter |  | 1st quarter |  | 4th quarter |  | 3rd quarter |  | 2nd quarter |  | 1st quarter |  |
| Credit quality metrics |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance for credit losses | \$ | 28,282 | \$ | 29,036 | \$ | 29,146 | \$ | 30,438 | \$ | 32,983 | \$ | 35,034 | \$ | 36,748 | \$ | 39,126 |
| Allowance for loan losses to total retained loans |  | 3.84\% |  | 4.09\% |  | 4.16\% |  | 4.40\% |  | 4.71\% |  | 4.97\% |  | 5.15\% |  | 5.40\% |
| Allowance for loan losses to retained loans excluding purchased credit-impaired loans ${ }^{(8)}$ |  | 3.35 |  | 3.74 |  | 3.83 |  | 4.10 |  | 4.46 |  | 5.12 |  | 5.34 |  | 5.64 |
| Nonperforming assets | \$ | 11,036 | \$ | 12,194 | \$ | 13,240 | \$ | 14,986 | \$ | 16,557 | \$ | 17,656 | \$ | 18,156 | \$ | 19,019 |
| Net charge-offs ${ }^{(\text {(h) }}$ |  | 2,907 |  | 2,507 |  | 3,103 |  | 3,720 |  | 5,104 |  | 4,945 |  | 5,714 |  | 7,910 |
| Net charge-off rate ${ }^{(\mathrm{h})}$ |  | 1.64\% |  | 1.44\% |  | 1.83\% |  | 2.22\% |  | 2.95\% |  | 2.84\% |  | 3.28\% |  | 4.46\% |

(a) Pre-provision profit is total net revenue less noninterest expense. The Firm believes that this financial measure is useful in assessing the ability of a lending institution to generate income in excess of its provision for credit losses.
(b) On March 18, 2011, the Board of Directors increased the Firm's quarterly stock dividend from $\$ 0.05$ to $\$ 0.25$ per share.
(c) Share prices shown for JPMorgan Chase's common stock are from the New York Stock Exchange. JPMorgan Chase's common stock is also listed and traded on the London Stock Exchange and the Tokyo Stock Exchange.
(d) Tier 1 common capital ratio ("Tier 1 common ratio") is Tier 1 common capital ("Tier 1 common") divided by risk-weighted assets. The Firm uses Tier 1 common capital along with the other capital measures to assess and monitor its capital position. For further discussion of Tier 1 common ratio, see Regulatory capital on pages 119-122 of this Annual Report.
(f) Effective January 1, 2011, the long-term portion of advances from FHLBs was reclassified from other borrowed funds to long-term debt. Prior periods have been revised to conform with the current presentation.
(g) Excludes the impact of residential real estate PCI loans. For further discussion, see Allowance for credit losses on pages 155-157 of this Annual Report.
(h) Net charge-offs and net charge-off rates for the fourth quarter of 2010 include the effect of $\$ 632$ million of charge-offs related to the estimated net realizable value of the collateral underlying delinquent residential home loans. Because these losses were previously recognized in the provision and allowance for loan losses, this adjustment had no impact on the Firm's net income.

## Short-term and other borrowed funds

The following table provides a summary of JPMorgan Chase's short-term and other borrowed funds for the years indicated.

| As of or for the year ended December 31, (in millions, except rates) | 2011 |  | 2010 |  | 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Federal funds purchased and securities loaned or sold under repurchase agreements: |  |  |  |  |  |  |
| Balance at year-end | \$ | 213,532 | \$ | 276,644 | \$ | 261,413 |
| Average daily balance during the year |  | 256,283 |  | 278,603 |  | 275,862 |
| Maximum month-end balance |  | 289,835 |  | 314,161 |  | 310,802 |
| Weighted-average rate at December 31 |  | 0.16\% |  | 0.18\% |  | 0.04\% |
| Weighted-average rate during the year |  | 0.21 |  | (0.07) ${ }^{\text {(d) }}$ |  | 0.21 |

Commercial paper:
Balance at year-end
Average daily balance during the year
Maximum month-end balance
Weighted-average rate at December 31
Weighted-average rate during the year

Other borrowed funds: ${ }^{(a)(b)}$
Balance at year-end
Average daily balance during the yea

Maximum month-end balance
Weighted-average rate at December 31
Weighted-average rate during the year

| \$ | 51,631 | \$ | 35,363 | \$ | 41,794 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 42,653 |  | 36,000 |  | 39,055 |
|  | 51,631 |  | 50,554 |  | 53,920 |
|  | 0.12\% |  | 0.21\% |  | 0.18\% |
|  | 0.17 |  | 0.20 |  | 0.28 |
| \$ | 88,626 | \$ | 111,272 | \$ | 97,838 |
|  | 107,543 |  | 104,951 |  | 99,785 |
|  | 127,517 |  | 120,437 |  | 155,693 |
|  | 1.60\% |  | 5.71\% |  | 3.92\% |
|  | 2.50 |  | 2.89 |  | 2.83 |
| \$ | 26,243 | \$ | 25,095 | \$ | 4,787 |
|  | 25,125 |  | 21,853 |  | 3,275 |
|  | 26,780 |  | 25,095 |  | 7,751 |
|  | 0.18\% |  | 0.25\% |  | 0.17\% |
|  | 0.23 |  | 0.27 |  | 0.24 |

(a) Includes securities sold but not yet purchased.
(b) Effective January 1, 2011, $\$ 23.0$ billion of long-term advances from FHLBs were reclassified from other borrowed funds to long-term debt. The prior periods have been revised to conform with the current presentation.
(c) Included on the Consolidated Balance Sheets in beneficial interests issued by consolidated variable interest entities.
(d) Reflects a benefit from the favorable market environments for U.S. dollar-roll financings.

Federal funds purchased represent overnight funds. Securities loaned or sold under repurchase agreements generally mature between one day and three months. Commercial paper generally is issued in amounts not less than $\$ 100,000$, and with maturities of 270 days or less. Other borrowed funds consist of demand notes, term federal funds purchased, and various other borrowings that generally have maturities of one year or less.

## Glossary of Terms

ACH: Automated Clearing House.
Active mobile customers - Retail banking users of all mobile platforms, which include: SMS text, Mobile Browser, iPhone, iPad and Android, who have been active in the past 90 days.

## Allowance for Ioan losses to total loans: Represents period-end allowance for loan losses divided by retained loans.

Assets under management: Represent assets actively managed by AM on behalf of Private Banking, Institutional and Retail clients. Includes "Committed capital not Called," on which AM earns fees. Excludes assets managed by American Century Companies, Inc., in which the Firm sold its ownership interest on August 31, 2011.
Assets under supervision: Represent assets under management as well as custody, brokerage, administration and deposit accounts.
Average managed assets: Refers to total assets on the Firm's Consolidated Balance Sheets plus credit card receivables that have been securitized and removed from the Firm's Consolidated Balance Sheets, for periods ended prior to the January 1, 2010, adoption of new accounting guidance requiring the consolidation of the Firm-sponsored credit card securitization trusts.

## Beneficial interests issued by consolidated VIEs:

Represents the third-party interests issued by VIEs that JPMorgan Chase consolidates where the third-party interest holders do not have recourse to the general credit of JPMorgan Chase. The underlying obligations of the VIEs consist of short-term borrowings, commercial paper and long-term debt.
Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.
Client advisors: Investment product specialists, including Private Client Advisors, Financial Advisors, Financial Advisor Associates, Senior Financial Advisors, Independent Financial Advisors and Financial Advisor Associate trainees, who advise clients on investment options, including annuities, mutual funds, stock trading services, etc., sold by the Firm or by third party vendors through retail branches, Chase Private Client branches and other channels.
Client investment managed accounts - Assets actively managed by Chase Wealth Management on behalf of clients. The percentage of managed accounts is calculated by dividing managed account assets by total client investment assets.
Contractual credit card charge-off: In accordance with the Federal Financial Institutions Examination Council policy, credit card loans are charged off by the end of the month in which the account becomes 180 days past due or within 60 days from receiving notification about a specific event (e.g., bankruptcy of the borrower), whichever is earlier.

Corporate/Private Equity: Includes Private Equity, Treasury and Chief Investment Office, and Corporate Other, which
includes other centrally managed expense and discontinued operations.
Credit card securitizations: For periods ended prior to the January 1, 2010, adoption of new guidance relating to the accounting for the transfer of financial assets and the consolidation of VIEs, Card's results were presented on a "managed" basis that assumed that credit card loans that had been securitized and sold in accordance with U.S. GAAP remained on the Consolidated Balance Sheets and that earnings on the securitized loans were classified in the same manner as the earnings on retained loans recorded on the Consolidated Balance Sheets. "Managed" results excluded the impact of credit card securitizations on total net revenue, the provision for credit losses, net charge-offs and loans. Securitization did not change reported net income; however, it did affect the classification of items on the Consolidated Statements of Income and Consolidated Balance Sheets.
Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third party issuer (the reference entity) which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Upon the occurrence of a credit event, which may include, among other events, the bankruptcy or failure to pay by, or certain restructurings of the debt of, the reference entity, neither party has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the credit default swap contract and the fair value of the reference obligation at the time of settling the credit derivative contract. The determination as to whether a credit event has occurred is made by the relevant ISDA Determination Committee, comprised of 10 sell-side and five buy-side ISDA member firms.
Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again. The duration of a credit cycle can vary from a couple of years to several years.
CUSIP number: A CUSIP (i.e., Committee on Uniform Securities Identification Procedures) number identifies most securities, including: stocks of all registered U.S. and Canadian companies, and U.S. government and municipal bonds. The CUSIP system - owned by the American Bankers Association and operated by Standard \& Poor's - facilitates the clearing and settlement process of securities. The number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security. A similar system is used to identify non-U.S. securities (CUSIP International Numbering System).
Deposit margin: Represents net interest income expressed as a percentage of average deposits.
FASB: Financial Accounting Standards Board.
FDIC: Federal Deposit Insurance Corporation.
FICO score: A measure of consumer credit risk provided by
credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

Forward points: Represents the interest rate differential between two currencies, which is either added to or subtracted from the current exchange rate (i.e., "spot rate") to determine the forward exchange rate.

G7 government bonds: Bonds issued by the government of one of countries in the "Group of Seven" ("G7") nations. Countries in the G7 are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.
Global Corporate Bank: TSS and IB formed a joint venture to create the Firm’s Global Corporate Bank. With a team of bankers, the Global Corporate Bank serves multinational clients by providing them access to TSS products and services and certain IB products, including derivatives, foreign exchange and debt. The cost of this effort and the credit that the Firm extends to these clients is shared between TSS and IB.
Headcount-related expense: Includes salary and benefits (excluding performance-based incentives), and other noncompensation costs related to employees.

Home equity - senior lien: Represents loans where JP Morgan Chase holds the first security interest on the property.
Home equity - junior lien: Represents loans where JP Morgan Chase holds a security interest that is subordinate in rank to other liens.
Interchange income: A fee paid to a credit card issuer in the clearing and settlement of a sales or cash advance transaction.
Interests in purchased receivables: Represents an ownership interest in cash flows of an underlying pool of receivables transferred by a third-party seller into a bankruptcy-remote entity, generally a trust.
Investment-grade: An indication of credit quality based on JPMorgan Chase's internal risk assessment system. "Investment grade" generally represents a risk profile similar to a rating of a "BBB-"/"Baa3" or better, as defined by independent rating agencies.

ISDA: International Swaps and Derivatives Association.
LLC: Limited Liability Company.
Loan-to-value ("LTV") ratio: For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

## Origination date LTV ratio

The LTV ratio at the origination date of the loan. Origination date LTV ratios are calculated based on the actual appraised values of collateral (i.e., loan-level data) at the origination date.

## Current estimated LTV ratio

An estimate of the LTV as of a certain date. The current estimated LTV ratios are calculated using estimated
collateral values derived from a nationally recognized home price index measured at the metropolitan statistical area ("MSA") level. These MSA-level home price indices comprise actual data to the extent available and forecasted data where actual data is not available. As a result, the estimated collateral values used to calculate these ratios do not represent actual appraised loan-level collateral values; as such, the resulting LTV ratios are necessarily imprecise and should therefore be viewed as estimates.

## Combined LTV ratio

The LTV ratio considering all lien positions related to the property. Combined LTV ratios are used for junior lien home equity products.

Managed basis: A non-GAAP presentation of financial results that includes reclassifications to present revenue on a fully taxable-equivalent basis. For periods ended prior to the January 1, 2010, adoption of accounting guidance requiring the consolidation of the Firm-sponsored credit card securitization trusts, the Firm's managed-basis presentation also included certain reclassification adjustments that assumed credit card loans that were securitized remained on the Consolidated Balance Sheets. Management uses this non-GAAP financial measure at the segment level, because it believes this provides information to enable investors to understand the underlying operational performance and trends of the particular business segment and facilitates a comparison of the business segment with the performance of competitors.

Managed credit card portfolio: Refers to credit card receivables on the Firm's Consolidated Balance Sheets plus credit card receivables that have been securitized and removed from the Firm's Consolidated Balance Sheets, for periods ended prior to the January 1, 2010, adoption of accounting guidance requiring the consolidation of the Firm-sponsored credit card securitization trusts.
Mark-to-market exposure: A measure, at a point in time, of the value of a derivative or foreign exchange contract in the open market. When the fair value is positive, it indicates the counterparty owes JPMorgan Chase and, therefore, creates credit risk for the Firm. When the fair value is negative, JPMorgan Chase owes the counterparty; in this situation, the Firm has liquidity risk.

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-Ioan-to-value ("CLTV") ratio; (iii) loans secured by non-

## Glossary of Terms

owner occupied properties; or (iv) a debt-to-income ratio above normal limits. Perhaps the most important characteristic is limited documentation. A substantial proportion of traditional 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 adjustablerate 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 Ioans 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 generally have low default risk and 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 designed for customers with one or more high risk characteristics, including but not limited to: (i) unreliable or poor payment histories; (ii) a high LTV ratio of greater than $80 \%$ (without borrower-paid mortgage insurance); (iii) a high debt-to-income ratio; (iv) an occupancy type for the loan is other than the borrower's primary residence; or (v) a history of delinquencies or late payments on the loan.
MSR risk management revenue: Includes changes in the fair value of the MSR asset due to market-based inputs, such as interest rates and volatility, as well as updates to assumptions used in the MSR valuation model; and derivative valuation adjustments and other, which represents changes in the fair value of derivative instruments used to offset the impact of changes in the market-based inputs to the MSR valuation model.
Multi-asset: Any fund or account that allocates assets under management to more than one asset class (e.g., longterm fixed income, equity, cash, real assets, private equity or hedge funds).
NA: Data is not applicable or available for the period presented.

Net charge-off rate: Represents net charge-offs (annualized) divided by average retained loans for the reporting period.
Net yield on interest-earning assets: The average rate for interest-earning assets less the average rate paid for all sources of funds.
NM: Not meaningful.
OPEB: Other postretirement employee benefits.
Overhead ratio: Noninterest expense as a percentage of total net revenue.
Participating securities: Represents unvested stock-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings-per-share calculation using the two-class method.
Personal bankers: Retail branch office personnel who acquire, retain and expand new and existing customer relationships by assessing customer needs and recommending and selling appropriate banking products and services.
Portfolio activity: Describes changes to the risk profile of existing lending-related exposures and their impact on the allowance for credit losses from changes in customer profiles and inputs used to estimate the allowances.
Pre-provision profit: Total net revenue less noninterest expense. The Firm believes that this financial measure is useful in assessing the ability of a lending institution to generate income in excess of its provision for credit losses.

Pretax margin: Represents income before income tax expense divided by total net revenue, which is, in management's view, a comprehensive measure of pretax performance derived by measuring earnings after all costs are taken into consideration. It is, therefore, another basis that management uses to evaluate the performance of TSS and $A M$ against the performance of their respective competitors.
Purchased credit-impaired ("PCI") loans: Acquired loans deemed to be credit-impaired under the FASB guidance for PCI loans. 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., FICO score, 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. Wholesale loans are determined to be credit-impaired if they meet the definition of an impaired loan under U.S. GAAP at the acquisition date. Consumer loans are determined to be credit-impaired based on specific risk characteristics of the loan, including product type, LTV ratios, FICO scores, and past due status.
Real estate investment trust ("REIT"): A special purpose investment vehicle that provides investors with the ability to participate directly in the ownership or financing of realestate related assets by pooling their capital to purchase and manage income property (i.e., equity REIT) and/or
mortgage loans (i.e., mortgage REIT). REITs can be publiclyor privately-held and they also qualify for certain favorable tax considerations.
Reported basis: Financial statements prepared under U.S. GAAP, which excludes the impact of taxable-equivalent adjustments.
Retained loans: Loans that are held-for-investment excluding 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 perceived credit risk associated with the obligor or counterparty, the nature of any collateral, and the guarantor, if any. Offbalance 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. RWA also incorporate a measure for the market risk related to applicable trading assets-debt and equity instruments, and foreign exchange and commodity derivatives. The resulting risk-weighted values for each of the risk categories are then aggregated to determine total RWA.
Sales specialists: Retail branch office and field personnel, including Business Bankers, Relationship Managers and Loan Officers, who specialize in marketing and sales of various business banking products (i.e., business loans, letters of credit, deposit accounts, Chase Paymentech, etc.) and mortgage products to existing and new clients.
Seed capital: Initial JPMorgan capital invested in products, such as mutual funds, with the intention of ensuring the fund is of sufficient size to represent a viable offering to clients, enabling pricing of its shares, and allowing the manager to develop a commercially attractive track record. After these goals are achieved, the intent is to remove the Firm's capital from the investment.
Stress testing: A scenario that measures market risk under unlikely but plausible events in abnormal markets.

TARP: Troubled Asset Relief Program.

Taxable-equivalent basis: For managed results, total net revenue for each of the business segments and the Firm is presented on a tax-equivalent basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities. This nonGAAP financial measure allows management to assess the comparability of revenue arising from both taxable and taxexempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense.
Troubled debt restructuring ("TDR"): Occurs when the Firm modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty.
Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.
u.S. GAAP: Accounting principles generally accepted in the United States of America.

## U.S. government-sponsored enterprise obligations:

Obligations of agencies originally established or chartered by the U.S. government to serve public purposes as specified by the U.S. Congress; these obligations are not explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government.
U.S. Treasury: U.S. Department of the Treasury.

Value-at-risk ("VaR"): A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.
Washington Mutual transaction: On September 25, 2008, JPMorgan Chase acquired the banking operations of Washington Mutual Bank ("Washington Mutual") from the FDIC. The Washington Mutual acquisition resulted in negative goodwill, and accordingly, the Firm recorded an extraordinary gain. A preliminary gain of $\$ 1.9$ billion was recognized at December 31, 2008. The final total extraordinary gain that resulted from the Washington Mutual transaction was $\$ 2.0$ billion.


[^0]:    (a) For more information on exposures to SPEs included within All other see Note 16 on pages 256-267 of this Annual Report.
    (b) As of December 31, 2011, credit exposure for total consumer, excluding credit card, includes receivables from customers of $\$ 100$ million.
    (c) Represents lending-related financial instruments.

[^1]:    (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.
    (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 spot foreign currency rates, were recorded in principal transactions revenue.
    (c) Consists of overall fair value hedges of certain commodities inventories. Gains and losses were recorded in principal transactions revenue.
    (d) Included $\$ 4.9$ billion, $\$ 278$ million and $\$(1.6)$ billion for the years ended December 31, 2011, 2010 and 2009, respectively, of revenue related to certain foreign exchange trading derivatives designated as fair value hedging instruments.
    (e) Hedge ineffectiveness is the amount by which the gain or loss on the designated derivative instrument does not exactly offset the gain or loss on the hedged item attributable to the hedged risk.
    (f) 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.

[^2]:    (a) The ratings scale is based on the Firm's internal ratings, which generally correspond to ratings as defined by S\&P and Moody's.
    (b) Amounts are shown on a gross basis, before the benefit of legally enforceable master netting agreements and cash collateral received by the Firm.

[^3]:    (a) Includes various defined benefit pension plans which are individually immaterial.

[^4]:    (a) Debt securities primarily include corporate debt, U.S. federal, state, local and non-U.S. government, and mortgage-backed securities.
    (b) Alternatives primarily include limited partnerships.
    (c) Represents the U.S. OPEB plan only, as the U.K. OPEB plan is unfunded.

[^5]:    (a) At December 31, 2011 and 2010, included resale agreements of $\$ 24.9$ billion and $\$ 20.3$ billion, respectively, accounted for at fair value.
    (b) At December 31, 2011 and 2010, included securities borrowed of $\$ 15.3$ billion and $\$ 14.0$ billion, respectively, accounted for at fair value.
    (c) At December 31, 2011 and 2010, included repurchase agreements of $\$ 9.5$ billion and $\$ 4.1$ billion, respectively, accounted for at fair value.

[^6]:    (a) Sales and other are predominantly sales and paydowns, but may include performing loans restructured at market rates that are no longer reported as TDRs.
    (b) Includes loans to Financial institutions, Government agencies and Other

[^7]:    (a) Refreshed FICO scores are estimated based on a statistically significant random sample of credit card accounts in the credit card portfolio for the period shown. The Firm obtains refreshed FICO scores at least quarterly.
    (b) Includes billed finance charges and fees net of an allowance for uncollectible amounts.

[^8]:    (a) Effective January 1, 2010, the Firm adopted accounting guidance related to VIEs. Upon adoption of the guidance, the Firm consolidated its Firmsponsored credit card securitization trusts, its Firm-administered multi-seller conduits and certain other consumer loan securitization entities, primarily mortgage-related. As a result, $\$ 7.4$ billion, $\$ 14$ million and $\$ 127$ million, respectively, of allowance for loan losses were recorded on-balance sheet with the consolidation of these entities. For further discussion, see Note 16 on pages 256-267 of this Annual Report.
    (b) Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR.
    (c) Prior periods have been revised to conform with the current presentation.
    (d) Includes collateral-dependent residential mortgage loans that are charged off to the fair value of the underlying collateral less cost to sell. These loans are considered collateral-dependent under regulatory guidance because they involve modifications where an interest-only period is provided or a significant

[^9]:    (a) Represents the aggregate impact of changes in model inputs and assumptions such as costs to service, home prices, mortgage spreads, ancillary income, and assumptions used to derive prepayment speeds, as well as changes to the valuation models themselves.
    (b) Includes changes related to commercial real estate of \$(9) million,

[^10]:    (a) Primarily includes trust preferred capital debt securities of certain business trusts.
    (b) Goodwill and other intangible assets are net of any associated deferred tax liabilities.

[^11]:    (a) The ratings scale is based on the Firm's internal ratings which generally correspond to ratings as defined by S\&P and Moody's.
    (b) At December 31, 2011 and 2010, reflects the contractual amount net of risk participations totaling $\$ 19.8$ billion and $\$ 22.4$ billion, respectively, for standby letters of credit and other financial guarantees; and $\$ 974$ million and $\$ 1.1$ billion, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.
    (c) At December 31, 2011 and 2010, included unissued standby letters of credit commitments of $\$ 44.1$ billion and $\$ 41.6$ billion, respectively.

