

Management's report on internal control over financial reporting

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

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

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

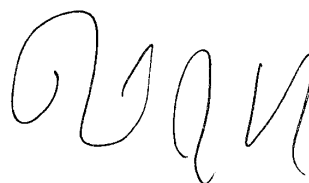
Management has completed an assessment of the effectiveness of the Firm's internal control over financial reporting as of December 31, 2008. In making the assessment, management used the framework in "Internal Control – Integrated Framework" promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.

Based upon the assessment performed, management concluded that as of December 31, 2008, 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, 2008.

The effectiveness of the Firm's internal control over financial reporting as of December 31, 2008, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.



James Dimon
Chairman and Chief Executive Officer



Michael J. Cavanagh
Executive Vice President and Chief Financial Officer

February 27, 2009

Report of independent registered public accounting firm



PRICEWATERHOUSECOOPERS LLP • 300 MADISON AVENUE • NEW YORK, NY 10017

Report of Independent Registered Public Accounting Firm To the Board of Directors and Stockholders of JPMorgan Chase & Co.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, 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, 2008 and 2007, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2008 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, 2008, 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.

As discussed in Note 4, Note 5, and Note 28 to the Consolidated Financial Statements, effective January 1, 2007 the Firm adopted Statement of Financial Accounting Standards No. 157, "Fair Value Measurement," Statement of Financial Accounting Standards No. 159, "Fair Value Option for Financial Assets and Financial Liabilities," and FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes."

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 27, 2009

Consolidated statements of income

Year ended December 31, (in millions, except per share data)	2008	2007	2006
Revenue			
Investment banking fees	\$ 5,526	\$ 6,635	\$ 5,520
Principal transactions	(10,699)	9,015	10,778
Lending & deposit-related fees	5,088	3,938	3,468
Asset management, administration and commissions	13,943	14,356	11,855
Securities gains (losses)	1,560	164	(543)
Mortgage fees and related income	3,467	2,118	591
Credit card income	7,419	6,911	6,913
Other income	2,169	1,829	2,175
Noninterest revenue	28,473	44,966	40,757
Interest income	73,018	71,387	59,107
Interest expense	34,239	44,981	37,865
Net interest income	38,779	26,406	21,242
Total net revenue	67,252	71,372	61,999
Provision for credit losses	20,979	6,864	3,270
Noninterest expense			
Compensation expense	22,746	22,689	21,191
Occupancy expense	3,038	2,608	2,335
Technology, communications and equipment expense	4,315	3,779	3,653
Professional & outside services	6,053	5,140	4,450
Marketing	1,913	2,070	2,209
Other expense	3,740	3,814	3,272
Amortization of intangibles	1,263	1,394	1,428
Merger costs	432	209	305
Total noninterest expense	43,500	41,703	38,843
Income from continuing operations before income tax expense (benefit)	2,773	22,805	19,886
Income tax expense (benefit)	(926)	7,440	6,237
Income from continuing operations	3,699	15,365	13,649
Income from discontinued operations	—	—	795
Income before extraordinary gain	3,699	15,365	14,444
Extraordinary gain	1,906	—	—
Net income	\$ 5,605	\$ 15,365	\$ 14,444
Net income applicable to common stock	\$ 4,931	\$ 15,365	\$ 14,440
Per common share data			
Basic earnings per share:			
Income from continuing operations	\$ 0.86	\$ 4.51	\$ 3.93
Net income	1.41	4.51	4.16
Diluted earnings per share:			
Income from continuing operations	0.84	4.38	3.82
Net income	1.37	4.38	4.04
Average basic shares	3,501	3,404	3,470
Average diluted shares	3,605	3,508	3,574
Cash dividends per common share	\$ 1.52	\$ 1.48	\$ 1.36

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

Consolidated balance sheets

December 31, (in millions, except share data)	2008	2007
Assets		
Cash and due from banks	\$ 26,895	\$ 40,144
Deposits with banks	138,139	11,466
Federal funds sold and securities purchased under resale agreements (included \$20,843 and \$19,131 at fair value at December 31, 2008 and 2007, respectively)	203,115	170,897
Securities borrowed (included \$3,381 and zero at fair value at December 31, 2008 and 2007, respectively)	124,000	84,184
Trading assets (included assets pledged of \$75,063 and \$79,229 at December 31, 2008 and 2007, respectively)	509,983	491,409
Securities (included \$205,909 and \$85,406 at fair value at December 31, 2008 and 2007, respectively, and assets pledged of \$25,942 and \$3,958 at December 31, 2008 and 2007, respectively)	205,943	85,450
Loans (included \$7,696 and \$8,739 at fair value at December 31, 2008 and 2007, respectively)	744,898	519,374
Allowance for loan losses	(23,164)	(9,234)
Loans, net of allowance for loan losses	721,734	510,140
Accrued interest and accounts receivable	60,987	24,823
Premises and equipment	10,045	9,319
Goodwill	48,027	45,270
Other intangible assets:		
Mortgage servicing rights	9,403	8,632
Purchased credit card relationships	1,649	2,303
All other intangibles	3,932	3,796
Other assets (included \$29,199 and \$22,151 at fair value at December 31, 2008 and 2007, respectively)	111,200	74,314
Total assets	\$ 2,175,052	\$ 1,562,147
Liabilities		
Deposits (included \$5,605 and \$6,389 at fair value at December 31, 2008 and 2007, respectively)	\$ 1,009,277	\$ 740,728
Federal funds purchased and securities loaned or sold under repurchase agreements (included \$2,993 and \$5,768 at fair value at December 31, 2008 and 2007, respectively)	192,546	154,398
Commercial paper	37,845	49,596
Other borrowed funds (included \$14,713 and \$10,777 at fair value at December 31, 2008 and 2007, respectively)	132,400	28,835
Trading liabilities	166,878	157,867
Accounts payable and other liabilities (including the allowance for lending-related commitments of \$659 and \$850 at December 31, 2008 and 2007, respectively, and zero and \$25 at fair value at December 31, 2008 and 2007, respectively)	187,978	94,476
Beneficial interests issued by consolidated variable interest entities (included \$1,735 and \$3,004 at fair value at December 31, 2008 and 2007, respectively)	10,561	14,016
Long-term debt (included \$58,214 and \$70,456 at fair value at December 31, 2008 and 2007, respectively)	252,094	183,862
Junior subordinated deferrable interest debentures held by trusts that issued guaranteed capital debt securities	18,589	15,148
Total liabilities	2,008,168	1,438,926
Commitments and contingencies (see Note 31 on page 213 of this Annual Report)		
Stockholders' equity		
Preferred stock (\$1 par value; authorized 200,000,000 shares at December 31, 2008 and 2007; issued 5,038,107 and 0 shares at December 31, 2008 and 2007, respectively)	31,939	—
Common stock (\$1 par value; authorized 9,000,000,000 shares at December 31, 2008 and 2007; issued 3,941,633,895 shares and 3,657,671,234 shares at December 31, 2008 and 2007, respectively)	3,942	3,658
Capital surplus	92,143	78,597
Retained earnings	54,013	54,715
Accumulated other comprehensive income (loss)	(5,687)	(917)
Shares held in RSU Trust, at cost (4,794,723 shares at December 31, 2008)	(217)	—
Treasury stock, at cost (208,833,260 shares and 290,288,540 shares at December 31, 2008 and 2007, respectively)	(9,249)	(12,832)
Total stockholders' equity	166,884	123,221
Total liabilities and stockholders' equity	\$ 2,175,052	\$ 1,562,147

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)	2008	2007	2006
Preferred stock			
Balance at beginning of year	\$ —	\$ —	\$ 139
Issuance of preferred stock	31,550	—	—
Issuance of preferred stock – conversion of the Bear Stearns preferred stock	352	—	—
Accretion of preferred stock discount on issuance to U.S. Treasury	37	—	—
Redemption of preferred stock	—	—	(139)
Balance at end of year	31,939	—	—
Common stock			
Balance at beginning of year	3,658	3,658	3,618
Issuance of common stock	284	—	40
Balance at end of year	3,942	3,658	3,658
Capital surplus			
Balance at beginning of year	78,597	77,807	74,994
Issuance of common stock	11,201	—	—
Shares issued and commitments to issue common stock for employee stock-based compensation awards and related tax effects	859	790	2,813
Net change from the Bear Stearns merger:			
Reissuance of treasury stock and the Share Exchange agreement	48	—	—
Employee stock awards	242	—	—
Warrant issued to U.S. Treasury in connection with issuance of preferred stock	1,250	—	—
Preferred stock issue cost	(54)	—	—
Balance at end of year	92,143	78,597	77,807
Retained earnings			
Balance at beginning of year	54,715	43,600	33,848
Cumulative effect of change in accounting principles	—	915	172
Balance at beginning of year, adjusted	54,715	44,515	34,020
Net income	5,605	15,365	14,444
Dividends declared:			
Preferred stock	(674)	—	(4)
Common stock (\$1.52, \$1.48 and \$1.36 per share for the years ended December 31, 2008, 2007 and 2006, respectively)	(5,633)	(5,165)	(4,860)
Balance at end of year	54,013	54,715	43,600
Accumulated other comprehensive income (loss)			
Balance at beginning of year	(917)	(1,557)	(626)
Cumulative effect of change in accounting principles	—	(1)	—
Balance at beginning of year, adjusted	(917)	(1,558)	(626)
Other comprehensive income (loss)	(4,770)	641	171
Adjustment to initially apply SFAS 158	—	—	(1,102)
Balance at end of year	(5,687)	(917)	(1,557)
Shares held in RSU Trust			
Balance at beginning of year	—	—	—
Resulting from the Bear Stearns merger	(269)	—	—
Reissuance from RSU Trust	52	—	—
Balance at end of year	(217)	—	—
Treasury stock, at cost			
Balance at beginning of year	(12,832)	(7,718)	(4,762)
Purchase of treasury stock	—	(8,178)	(3,938)
Reissuance from treasury stock	2,454	3,199	1,334
Share repurchases related to employee stock-based compensation awards	(21)	(135)	(352)
Net change from the Bear Stearns merger as a result of the reissuance of treasury stock and the Share Exchange agreement	1,150	—	—
Balance at end of year	(9,249)	(12,832)	(7,718)
Total stockholders' equity	\$ 166,884	\$ 123,221	\$ 115,790
Comprehensive income			
Net income	\$ 5,605	\$ 15,365	\$ 14,444
Other comprehensive income (loss)	(4,770)	641	171
Comprehensive income	\$ 835	\$ 16,006	\$ 14,615

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

Consolidated statements of cash flows

Year ended December 31, (in millions)	2008	2007	2006
Operating activities			
Net income	\$ 5,605	\$ 15,365	\$ 14,444
Adjustments to reconcile net income to net cash (used in) provided by operating activities:			
Provision for credit losses	20,979	6,864	3,270
Depreciation and amortization	3,143	2,427	2,149
Amortization of intangibles	1,263	1,394	1,428
Deferred tax (benefit) expense	(2,637)	1,307	(1,810)
Investment securities (gains) losses	(1,560)	(164)	543
Proceeds on sale of investment	(1,540)	—	—
Gains on disposition of businesses	(199)	—	(1,136)
Stock-based compensation	2,637	2,025	2,368
Originations and purchases of loans held-for-sale	(34,902)	(116,471)	(178,355)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	38,036	107,350	173,448
Net change in:			
Trading assets	(12,787)	(121,240)	(61,664)
Securities borrowed	15,408	(10,496)	916
Accrued interest and accounts receivable	10,221	(1,932)	(1,170)
Other assets	(33,629)	(21,628)	(7,193)
Trading liabilities	24,061	12,681	(4,521)
Accounts payable and other liabilities	1,012	4,284	7,815
Other operating adjustments	(12,013)	7,674	(111)
Net cash provided by (used in) operating activities	23,098	(110,560)	(49,579)
Investing activities			
Net change in:			
Deposits with banks	(118,929)	2,081	8,168
Federal funds sold and securities purchased under resale agreements	(44,597)	(29,814)	(6,939)
Held-to-maturity securities:			
Proceeds	10	14	19
Available-for-sale securities:			
Proceeds from maturities	44,414	31,143	24,909
Proceeds from sales	96,806	98,450	123,750
Purchases	(248,599)	(122,507)	(201,530)
Proceeds from sales and securitizations of loans held-for-investment	27,531	34,925	20,809
Other changes in loans, net	(59,123)	(83,437)	(70,837)
Net cash received (used) in business acquisitions or dispositions	2,128	(70)	185
Proceeds from assets sale to the FRBNY	28,850	—	—
Net purchases of asset-backed commercial paper guaranteed by the FRBB	(11,228)	—	—
All other investing activities, net	(3,609)	(3,903)	1,839
Net cash used in investing activities	(286,346)	(73,118)	(99,627)
Financing activities			
Net change in:			
Deposits	177,331	113,512	82,105
Federal funds purchased and securities loaned or sold under repurchase agreements	15,250	(7,833)	36,248
Commercial paper and other borrowed funds	9,186	41,412	12,657
Proceeds from the issuance of long-term debt and capital debt securities	72,407	95,141	56,721
Repayments of long-term debt and capital debt securities	(62,691)	(49,410)	(34,267)
Excess tax benefits related to stock-based compensation	148	365	302
Proceeds from issuance of common stock	11,969	1,467	1,659
Proceeds from issuance of preferred stock and warrant to the U.S. Treasury	25,000	—	—
Proceeds from issuance of preferred stock	7,746	—	—
Redemption of preferred stock	—	—	(139)
Repurchases of treasury stock	—	(8,178)	(3,938)
Cash dividends paid	(5,911)	(5,051)	(4,846)
All other financing activities, net	71	1,561	6,247
Net cash provided by financing activities	250,506	182,986	152,749
Effect of exchange rate changes on cash and due from banks	(507)	424	199
Net (decrease) increase in cash and due from banks	(13,249)	(268)	3,742
Cash and due from banks at the beginning of the year	40,144	40,412	36,670
Cash and due from banks at the end of the year	\$ 26,895	\$ 40,144	\$ 40,412
Cash interest paid	\$ 37,267	\$ 43,472	\$ 36,415
Cash income taxes paid	2,280	7,472	5,563

Note: In 2008, the fair values of noncash assets acquired and liabilities assumed in the merger with Bear Stearns were \$288.2 billion and \$287.7 billion, respectively; approximately 26 million shares of common stock, valued at approximately \$1.2 billion, were issued in connection with the Bear Stearns merger. Also, in 2008 the fair values of noncash assets acquired and liabilities assumed in the Washington Mutual transaction were \$260.0 billion and \$259.8 billion, respectively. In 2006, the Firm exchanged selected corporate trust businesses for The Bank of New York's consumer, business banking and middle-market banking businesses. The fair values of the noncash assets exchanged were \$2.15 billion.

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

Notes to consolidated financial statements

Note 1 – Basis of presentation

JPMorgan Chase & Co. (“JPMorgan Chase” or the “Firm”), a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America (“U.S.”), with operations worldwide. The Firm is a leader in investment banking, financial services for consumers and businesses, financial transaction processing and asset management. For a discussion of the Firm’s business segment information, see Note 37 on pages 226–227 of this Annual Report.

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

Certain amounts 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 usual condition for a controlling financial interest is the ownership of a majority of the voting interests of the entity. However, a controlling financial interest also may be deemed to exist with respect to entities, such as special purpose entities (“SPEs”), through arrangements that do not involve controlling voting interests.

SPEs are an important part of the financial markets, providing market liquidity by facilitating investors’ access to specific portfolios of assets and risks. For example, they are critical to the functioning of the mortgage- and asset-backed securities and commercial paper markets. SPEs may be organized as trusts, partnerships or corporations and are typically established for a single, discrete purpose. SPEs are not typically operating entities and usually have a limited life and no employees. The basic SPE structure involves a company selling assets to the SPE. The SPE funds the purchase of those assets by issuing securities to investors. 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.

There are two different accounting frameworks applicable to SPEs: The qualifying SPE (“QSPE”) framework under SFAS 140 and the variable interest entity (“VIE”) framework under FIN 46R. The applicable framework depends on the nature of the entity and the Firm’s relation to that entity. The QSPE framework is applicable when an entity transfers (sells) financial assets to an SPE meeting certain criteria defined in SFAS 140. These criteria are designed to ensure that the activities of the entity are essentially predetermined at the inception of the vehicle and that the transferor of the financial assets cannot exercise control over the entity and the assets therein. Entities

meeting these criteria are not consolidated by the transferor or other counterparties as long as they do not have the unilateral ability to liquidate or to cause the entity to no longer meet the QSPE criteria. The Firm primarily follows the QSPE model for securitizations of its residential and commercial mortgages, and credit card, automobile and student loans. For further details, see Note 16 on pages 180–188 of this Annual Report.

When an SPE does not meet the QSPE criteria, consolidation is assessed pursuant to FIN 46R. Under FIN 46R, a VIE is defined as an entity that: (1) lacks enough equity investment at risk to permit the entity to finance its activities without additional subordinated financial support from other parties; (2) has equity owners that lack the right to make significant decisions affecting the entity’s operations; and/or (3) has equity owners that do not have an obligation to absorb the entity’s losses or the right to receive the entity’s returns.

FIN 46R requires a variable interest holder (i.e., a counterparty to a VIE) to consolidate the VIE if that party will absorb a majority of the expected losses of the VIE, receive the majority of the expected residual returns of the VIE, or both. This party is considered the primary beneficiary. In making this determination, the Firm thoroughly evaluates the VIE’s design, capital structure and relationships among the variable interest holders. When the primary beneficiary cannot be identified through a qualitative analysis, the Firm performs a quantitative analysis, which computes and allocates expected losses or residual returns to variable interest holders. The allocation of expected cash flows in this analysis is based upon the relative rights and preferences of each variable interest holder in the VIE’s capital structure. The Firm reconsiders whether it is the primary beneficiary of a VIE when certain events occur as required by FIN 46R. For further details, see Note 17 on pages 189–198 of this Annual Report.

All retained interests and significant transactions between the Firm, QSPEs and nonconsolidated VIEs are reflected on JPMorgan Chase’s Consolidated Balance Sheets and in the Notes to consolidated financial statements.

Investments in companies that are considered to be voting-interest entities under FIN 46R in which the Firm has significant influence over operating and financing decisions are either accounted for in accordance with the equity method of accounting or at fair value if elected under SFAS 159 (“Fair Value Option”). These investments are generally included in other assets, with income or loss included in other income.

For a discussion of the accounting for private equity investments, see Note 6 on pages 159–160 of this Annual Report.

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 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. For discussion of Critical Accounting Estimates used by the Firm, see pages 119–123 of this Annual Report.

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) 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.

Foreclosed property

The Firm acquires property from borrowers through loan restructurings, workouts, and foreclosures. Property acquired may include real property (e.g., land, buildings, and fixtures) and personal property (e.g., aircraft, railcars, and ships). Acquired property is valued at fair value less costs to sell at acquisition. Each quarter the fair value of the acquired property is reviewed and adjusted, if necessary. Any adjustments to fair value in the first 90 days are credited/charged to the allowance for loan losses and thereafter to other expense.

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.

Fair value measurement	Note 4	Page 141
Fair value option	Note 5	Page 156
Principal transactions activities	Note 6	Page 158
Other noninterest revenue	Note 7	Page 160
Pension and other postretirement employee benefit plans	Note 9	Page 161
Employee stock-based incentives	Note 10	Page 167
Noninterest expense	Note 11	Page 170
Securities	Note 12	Page 170
Securities financing activities	Note 13	Page 174
Loans	Note 14	Page 175
Allowance for credit losses	Note 15	Page 178
Loan securitizations	Note 16	Page 180
Variable interest entities	Note 17	Page 189
Goodwill and other intangible assets	Note 18	Page 198
Premises and equipment	Note 19	Page 201
Other borrowed funds	Note 21	Page 202
Accounts payable and other liabilities	Note 22	Page 202
Income taxes	Note 28	Page 209
Commitments and contingencies	Note 31	Page 213
Accounting for derivative instruments and hedging activities	Note 32	Page 214
Off-balance sheet lending-related financial instruments and guarantees	Note 33	Page 218

Note 2 – Business changes and developments

Decrease 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 for the dividend payable April 30, 2009, to shareholders of record on April 6, 2009.

Acquisition of the banking operations of Washington Mutual Bank

On September 25, 2008, JPMorgan Chase acquired the banking operations of Washington Mutual Bank ("Washington Mutual") from the Federal Deposit Insurance Corporation ("FDIC") for \$1.9 billion. The acquisition expands JPMorgan Chase's consumer branch network into several states, including California, Florida and Washington, among others. The acquisition also extends the reach of the Firm's business banking, commercial banking, credit card, consumer lending and wealth management businesses. The acquisition was accounted for under the purchase method of accounting in accordance with SFAS 141.

The \$1.9 billion purchase price was allocated to the Washington Mutual assets acquired and liabilities assumed using preliminary allocated values as of September 25, 2008, which resulted in negative goodwill. The initial allocation of the purchase price was presented on a preliminary basis at September 30, 2008, due to the short time period between the closing of the transaction (which occurred simultaneously with its announcement on September 25, 2008) and the end of the third quarter. In accordance with SFAS 141, noncurrent nonfinancial assets that are not held-for-sale, such as the premises and equipment and other intangibles, acquired in the Washington Mutual transaction were written down against the negative goodwill. The negative goodwill that remained after writing down the nonfinancial assets was recognized as an extraordinary gain. As a result of the refinement of the purchase price allocation during the fourth quarter of 2008, the initial extraordinary gain of \$581 million was increased \$1.3 billion to \$1.9 billion.

Notes to consolidated financial statements

The computation of the purchase price and the allocation of the purchase price to the net assets acquired in the Washington Mutual transaction – based upon their respective values as of September 25, 2008, and the resulting negative goodwill – are presented below. The allocation of the purchase price may be modified through September 25, 2009, as more information is obtained about the fair value of assets acquired and liabilities assumed.

(in millions)

Purchase price	
Purchase price	\$ 1,938
Direct acquisition costs	3
Total purchase price	<u>1,941</u>
Net assets acquired	
Washington Mutual's net assets before fair value adjustments	\$ 38,766
Washington Mutual's goodwill and other intangible assets	(7,566)
Subtotal	<u>31,200</u>
Adjustments to reflect assets acquired at fair value:	
Securities	(20)
Trading assets	(591)
Loans	(31,018)
Allowance for loan losses	8,216
Premises and equipment	680
Accrued interest and accounts receivable	(295)
Other assets	4,125
Adjustments to reflect liabilities assumed at fair value:	
Deposits	(683)
Other borrowed funds	68
Accounts payable and other liabilities	(900)
Long-term debt	1,127
Fair value of net assets acquired	<u>11,909</u>
Negative goodwill before allocation to nonfinancial assets	(9,968)
Negative goodwill allocated to nonfinancial assets ^(a)	<u>8,062</u>
Negative goodwill resulting from the acquisition^(b)	<u>\$ (1,906)</u>

- (a) The acquisition was accounted for as a purchase business combination in accordance with SFAS 141. SFAS 141 requires the assets (including identifiable intangible assets) and liabilities (including executory contracts and other commitments) of an acquired business as of the effective date of the acquisition to be recorded at their respective fair values and consolidated with those of JPMorgan Chase. The fair value of the net assets of Washington Mutual's banking operations exceeded the \$1.9 billion purchase price, resulting in negative goodwill. In accordance with SFAS 141, noncurrent, nonfinancial assets not held-for-sale, such as premises and equipment and other intangibles, were written down against the negative goodwill. The negative goodwill that remained after writing down transaction related core deposit intangibles of approximately \$4.9 billion and premises and equipment of approximately \$3.2 billion was recognized as an extraordinary gain of \$1.9 billion.
- (b) The extraordinary gain was recorded in Corporate/Private Equity.

The following condensed statement of net assets acquired reflects the value assigned to the Washington Mutual net assets as of September 25, 2008.

(in millions)

September 25, 2008

Assets	
Cash and due from banks	\$ 3,680
Deposits with banks	3,517
Federal funds sold and securities purchased under resale agreements	1,700
Trading assets	5,691
Securities	17,220
Loans (net of allowance for loan losses)	206,436
Accrued interest and accounts receivable	3,201
Mortgage servicing rights	5,874
All other assets	16,330
Total assets	<u>\$ 263,649</u>
Liabilities	
Deposits	\$ 159,869
Federal funds purchased and securities loaned or sold under repurchase agreements	4,549
Other borrowed funds	81,622
Trading liabilities	585
Accounts payable and other liabilities	6,523
Long-term debt	6,654
Total liabilities	<u>259,802</u>
Washington Mutual net assets acquired	<u>\$ 3,847</u>

Merger with The Bear Stearns Companies Inc.

Effective May 30, 2008, BSC Merger Corporation, a wholly owned subsidiary of JPMorgan Chase, merged with The Bear Stearns Companies Inc. ("Bear Stearns") pursuant to the Agreement and Plan of Merger, dated as of March 16, 2008, as amended March 24, 2008, and Bear Stearns became a wholly owned subsidiary of JPMorgan Chase. The merger provided the Firm with a leading global prime brokerage platform; strengthened the Firm's equities and asset management businesses; enhanced capabilities in mortgage origination, securitization and servicing; and expanded the platform of the Firm's energy business. The merger is being accounted for under the purchase method of accounting, which requires that the assets and liabilities of Bear Stearns be fair valued. The total purchase price to complete the merger was \$1.5 billion.

The merger with Bear Stearns was accomplished through a series of transactions that were reflected as step acquisitions in accordance with SFAS 141. On April 8, 2008, pursuant to the share exchange agreement, JPMorgan Chase acquired 95 million newly issued shares of Bear Stearns common stock (or 39.5% of Bear Stearns common stock after giving effect to the issuance) for 21 million shares of JPMorgan Chase common stock. Further, between March 24, 2008, and May 12, 2008, JPMorgan Chase acquired approximately 24 million shares of Bear Stearns common stock in the open market at an average purchase price of \$12.37 per share. The share exchange and cash purchase transactions resulted in JPMorgan Chase owning approximately 49.4% of Bear Stearns common stock immediately

prior to consummation of the merger. Finally, on May 30, 2008, JPMorgan Chase completed the merger. As a result of the merger, each outstanding share of Bear Stearns common stock (other than shares then held by JPMorgan Chase) was converted into the right to receive 0.21753 shares of common stock of JPMorgan Chase. Also, on May 30, 2008, the shares of common stock that JPMorgan Chase and Bear Stearns acquired from each other in the share exchange transaction were cancelled. From April 8, 2008, through May 30, 2008, JPMorgan Chase accounted for the investment in Bear Stearns under the equity method of accounting in accordance with APB 18. During this period, JPMorgan Chase recorded reductions to its investment in Bear Stearns representing its share of Bear Stearns net losses, which was recorded in other income and accumulated other comprehensive income.

In conjunction with the Bear Stearns merger, in June 2008, the Federal Reserve Bank of New York (the "FRBNY") took control, through a limited liability company ("LLC") formed for this purpose, of a portfolio of \$30 billion in assets acquired from Bear Stearns, 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 note is subordinated to the FRBNY loan 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 loan, the JPMorgan Chase note and the expense of the LLC will be for the account of the FRBNY.

Notes to consolidated financial statements

As a result of step acquisition accounting, the total \$1.5 billion purchase price was allocated to the Bear Stearns assets acquired and liabilities assumed using their fair values as of April 8, 2008, and May 30, 2008, respectively. The summary computation of the purchase price and the allocation of the purchase price to the net assets of Bear Stearns are presented below. The allocation of the purchase price may be modified through May 30, 2009, as more information is obtained about the fair value of assets acquired and liabilities assumed.

(in millions, except for shares (in thousands), per share amounts and where otherwise noted)

Purchase price		
Shares exchanged in the Share Exchange transaction (April 8, 2008)	95,000	
Other Bear Stearns shares outstanding	<u>145,759</u>	
Total Bear Stearns stock outstanding	240,759	
Cancellation of shares issued in the Share Exchange transaction	(95,000)	
Cancellation of shares acquired by JPMorgan Chase for cash in the open market	<u>(24,061)</u>	
Bear Stearns common stock exchanged as of May 30, 2008	121,698	
Exchange ratio	<u>0.21753</u>	
JPMorgan Chase common stock issued	26,473	
Average purchase price per JPMorgan Chase common share ^(a)	<u>\$ 45.26</u>	
Total fair value of JPMorgan Chase common stock issued		\$ 1,198
Bear Stearns common stock acquired for cash in the open market (24 million shares at an average share price of \$12.37 per share)		298
Fair value of employee stock awards (largely to be settled by shares held in the RSU Trust ^(b))		242
Direct acquisition costs		27
Less: Fair value of Bear Stearns common stock held in the RSU Trust and included in the exchange of common stock		<u>(269)^(b)</u>
Total purchase price		1,496
Net assets acquired		
Bear Stearns common stockholders' equity	\$ 6,052	
Adjustments to reflect assets acquired at fair value:		
Trading assets	(3,831)	
Premises and equipment	497	
Other assets	(235)	
Adjustments to reflect liabilities assumed at fair value:		
Long-term debt	504	
Other liabilities	<u>(2,252)</u>	
Fair value of net assets acquired excluding goodwill		<u>735</u>
Goodwill resulting from the merger^(c)		\$ 761

(a) The value of JPMorgan Chase common stock was determined by averaging the closing prices of JPMorgan Chase's common stock for the four trading days during the period March 19, 2008, through March 25, 2008.

(b) Represents shares of Bear Stearns common stock held in an irrevocable grantor trust (the "RSU Trust") to be used to settle stock awards granted to selected employees and certain key executives under certain heritage Bear Stearns employee stock plans. Shares in the RSU Trust were exchanged for 6 million shares of JPMorgan Chase common stock at the merger exchange ratio of 0.21753. For further discussion of the RSU trust, see Note 10 on pages 167–169 of this Annual Report.

(c) The goodwill was recorded in the Investment Bank.

Condensed statement of net assets acquired

The following reflects the value assigned to Bear Stearns net assets as of the merger date.

(in millions)	May 30, 2008	
Assets		
Cash and due from banks	\$	534
Federal funds sold and securities purchased under resale agreements		21,204
Securities borrowed		55,195
Trading assets		136,535
Loans		4,407
Accrued interest and accounts receivable		34,677
Goodwill		761
All other assets		35,418
Total assets	\$	288,731
Liabilities		
Federal funds purchased and securities loaned or sold under repurchase agreements	\$	54,643
Other borrowings		16,166
Trading liabilities		24,267
Beneficial interests issued by consolidated VIEs		47,042
Long-term debt		67,015
Accounts payable and other liabilities		78,532
Total liabilities		287,665
Bear Stearns net assets^(a)	\$	1,066

(a) Reflects the fair value assigned to 49.4% of the Bear Stearns net assets acquired on April 8, 2008 (net of related amortization), and the fair value assigned to the remaining 50.6% of the Bear Stearns net assets acquired on May 30, 2008. The difference between the Bear Stearns net assets acquired as presented above and the fair value of the net assets acquired (including goodwill) presented in the previous table represents JPMorgan Chase's net losses recorded under the equity method of accounting.

Unaudited pro forma condensed combined financial information reflecting Bear Stearns merger and Washington Mutual transaction

The following unaudited pro forma condensed combined financial information presents the results of operations of the Firm as they may have appeared if the Bear Stearns merger and the Washington Mutual transaction had been completed on January 1, 2008, and January 1, 2007.

Year ended December 31, (in millions, except per share data)	2008		2007
Total net revenue	\$	68,071	\$ 92,052
Income (loss) before extraordinary gain		(14,141)	17,733
Net income (loss)		(12,235)	17,733
Net income per common share data:			
Basic earnings per share			
Income (loss) before extraordinary gain	\$	(4.22)	\$ 5.16
Net income (loss)		(3.68)	5.16
Diluted earnings per share^(a)			
Income (loss) before extraordinary gain		(4.22)	5.01
Net income (loss)		(3.68)	5.01
Average common shares issued and outstanding			
Basic		3,511	3,430
Diluted ^(a)		3,511	3,534

(a) Common equivalent shares have been excluded from the pro forma computation of diluted loss per share for the year ended December 31, 2008, as the effect would be antidilutive.

The unaudited pro forma combined financial information is presented for illustrative purposes only and does not indicate the financial results of the combined company had the companies actually been combined as of January 1, 2008, or as of January 1, 2007, nor is it indicative of the results of operations in future periods. Included in the unaudited pro forma combined financial information for the years ended December 31, 2008 and 2007, were pro forma adjustments to reflect the results of operations of Bear Stearns, and Washington Mutual's banking operations, considering the purchase accounting, valuation and accounting conformity adjustments related to each transaction. For the Washington Mutual transaction, the amortization of purchase accounting adjustments to report interest-earning assets acquired and interest-bearing liabilities assumed at current interest rates is reflected in all periods presented. Valuation adjustments and the adjustment to conform allowance methodologies in the Washington Mutual transaction, and valuation and accounting conformity adjustments related to the Bear Stearns merger are reflected in the results for the years ended December 31, 2008 and 2007.

Internal reorganization related to the Bear Stearns merger

On June 30, 2008, JPMorgan Chase fully and unconditionally guaranteed each series of outstanding preferred stock of Bear Stearns, as well as all of Bear Stearns' outstanding Securities and Exchange Commission ("SEC") registered U.S. debt securities and obligations relating to trust preferred capital debt securities. Subsequently, on July 15, 2008, JPMorgan Chase completed an internal merger transaction, which resulted in each series of outstanding preferred stock of Bear Stearns being automatically exchanged into newly issued shares of JPMorgan Chase preferred stock having substantially identical terms. Depository shares, which formerly had represented a one-fourth interest in a share of Bear Stearns preferred stock, continue to trade on the New York Stock Exchange but following completion of this internal merger transaction, represent a one-fourth interest in a share of JPMorgan Chase preferred stock. In addition, on July 31, 2008, JPMorgan Chase assumed (1) all of Bear Stearns' then-outstanding SEC-registered U.S. debt securities; (2) Bear Stearns' obligations relating to trust preferred capital debt securities; (3) certain of Bear Stearns' then-outstanding foreign debt securities; and (4) certain of Bear Stearns' guarantees of then-outstanding foreign debt securities issued by subsidiaries of Bear Stearns, in each case, in accordance with the agreements and indentures governing these securities. JPMorgan Chase also guaranteed Bear Stearns' obligations under Bear Stearns' U.S. \$30.0 billion Euro Medium Term Note Programme and U.S. \$4.0 billion Euro Note Issuance Programme.

Other business events

Termination of Chase Paymentech Solutions joint venture

The dissolution of Chase Paymentech Solutions joint venture, a global payments and merchant acquiring joint venture between JPMorgan Chase and First Data Corporation, was completed on November 1, 2008. JPMorgan Chase retained approximately 51% of the business and will operate the business under the name Chase Paymentech Solutions. The dissolution of Chase Paymentech

Notes to consolidated financial statements

Solutions joint venture was accounted for as a step acquisition in accordance with SFAS 141, and the Firm recognized an after-tax gain of \$627 million in the fourth quarter of 2008 as a result of the dissolution. The gain represents the amount by which the fair value of the net assets acquired (predominantly intangible assets and goodwill) exceeded JPMorgan Chase's book basis in the net assets transferred to First Data Corporation. Upon dissolution, the Firm began to consolidate the retained Chase Paymentech Solutions business.

Proceeds from Visa Inc. shares

On March 19, 2008, Visa Inc. ("Visa") completed its initial public offering ("IPO"). Prior to the IPO, JPMorgan Chase held approximately a 13% equity interest in Visa. On March 28, 2008, Visa used a portion of the proceeds from the offering to redeem a portion of the Firm's equity interest, which resulted in the recognition of a pre-tax gain of \$1.5 billion (recorded in other income). In conjunction with the IPO, Visa placed \$3.0 billion in escrow to cover liabilities related to certain litigation matters. The escrow was increased by \$1.1 billion in the fourth quarter of 2008. JPMorgan Chase's interest in the escrow was recorded as a reduction of other expense and reported net to the extent of established litigation reserves.

Purchase of additional interest in Highbridge Capital Management

In January 2008, JPMorgan Chase purchased an additional equity interest in Highbridge Capital Management, LLC ("Highbridge"). As a result, the Firm currently owns 77.5% of Highbridge.

Acquisition of the consumer, business banking and middle-market banking businesses of The Bank of New York in exchange for selected corporate trust businesses, including trustee, paying agent, loan agency and document management services

On October 1, 2006, JPMorgan Chase completed the acquisition of The Bank of New York Company, Inc.'s ("The Bank of New York") consumer, business and middle-market banking businesses in exchange for selected corporate trust businesses plus a cash payment of \$150 million. The transaction also included a contingent payment payable to The Bank of New York; the amount due of \$25 million was paid in 2008. The acquisition added 339 branches and more than 400 ATMs, and it significantly strengthened Retail Financial Services' distribution network in the New York tri-state area. The Bank of New York businesses acquired were valued at a premium of \$2.3 billion; the Firm's corporate trust businesses that were transferred (i.e., trustee, paying agent, loan agency and document management services) were valued at a premium of \$2.2 billion. This transaction included the acquisition of approximately \$7.7 billion in loans net of allowance for loan losses and \$12.9 billion in deposits from the Bank of New York. The Firm also recognized core

deposit intangibles of \$485 million, which are being amortized using an accelerated method over a 10-year period. JPMorgan Chase recorded an after-tax gain of \$622 million on this transaction in the fourth quarter of 2006. For additional discussion related to the transaction, see Note 3 on pages 140–141 of this Annual Report.

JPMorgan Partners management

On August 1, 2006, the buyout and growth equity professionals of JPMorgan Partners ("JPMP") formed an independent firm, CCMP Capital, LLC ("CCMP"), and the venture professionals separately formed an independent firm, Panorama Capital, LLC ("Panorama"). The investment professionals of CCMP and Panorama continue to manage the former JPMP investments pursuant to a management agreement with the Firm.

Sale of insurance underwriting business

On July 1, 2006, JPMorgan Chase completed the sale of its life insurance and annuity underwriting businesses to Protective Life Corporation for cash proceeds of approximately \$1.2 billion, consisting of \$900 million of cash received from Protective Life Corporation and approximately \$300 million of preclosing dividends received from the entities sold. The after-tax impact of this transaction was negligible. The sale included both the heritage Chase insurance business and the insurance business that Bank One had bought from Zurich Insurance in 2003.

Acquisition of private-label credit card portfolio from Kohl's Corporation

On April 21, 2006, JPMorgan Chase completed the acquisition of \$1.6 billion of private-label credit card receivables and approximately 21 million accounts from Kohl's Corporation ("Kohl's"). JPMorgan Chase and Kohl's also entered into an agreement under which JPMorgan Chase is offering private-label credit cards to both new and existing Kohl's customers.

Collegiate Funding Services

On March 1, 2006, JPMorgan Chase acquired, for approximately \$663 million, Collegiate Funding Services, a leader in student loan servicing and consolidation. This acquisition included \$6 billion of student loans.

Note 3 – Discontinued operations

On October 1, 2006, JPMorgan Chase completed the acquisition of The Bank of New York's consumer, small-business and middle-market banking businesses in exchange for selected corporate trust businesses. Refer to Note 2 on pages 135–140 of this Annual Report for additional information.

In anticipation of the close of the transaction on October 1, 2006, effective with the second quarter of 2006, the results of operations of these corporate trust businesses were transferred from the Treasury & Securities Services ("TSS") segment to the Corporate/Private Equity segment, and reported as discontinued operations. Condensed financial information of the selected corporate trust businesses follows.

Selected income statements data^(a)

Year ended December 31, (in millions)	2006
Other noninterest revenue	\$ 407
Net interest income	264
Gain on sale of discontinued operations	1,081
Total net revenue	1,752
Noninterest expense	385
Income from discontinued operations before income taxes	1,367
Income tax expense	572
Income from discontinued operations	\$ 795

(a) There was no income from discontinued operations during 2008 or 2007.

The following is a summary of the assets and liabilities associated with the selected corporate trust businesses related to the Bank of New York transaction that closed on October 1, 2006.

Selected balance sheet data

(in millions)	October 1, 2006
Goodwill and other intangibles	\$ 838
Other assets	547
Total assets	\$ 1,385
Deposits	\$ 24,011
Other liabilities	547
Total liabilities	\$ 24,558

JPMorgan Chase provides certain transitional services to The Bank of New York for a defined period of time after the closing date. The Bank of New York compensates JPMorgan Chase for these transitional services.

Note 4 – Fair value measurement

In September 2006, the FASB issued SFAS 157 ("Fair Value Measurements"), which was effective for fiscal years beginning after November 15, 2007, with early adoption permitted. The Firm chose early adoption for SFAS 157 effective January 1, 2007. SFAS 157:

- Defines fair value 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, and establishes a framework for measuring fair value;
- Establishes a three-level hierarchy for fair value measurements based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date;
- Nullifies the guidance in EITF 02-3, which required the deferral of profit at inception of a transaction involving a derivative financial instrument in the absence of observable data supporting the valuation technique;

- Eliminates large position discounts for financial instruments quoted in active markets and requires consideration of the Firm's creditworthiness when valuing liabilities; and
- Expands disclosures about instruments measured at fair value.

The Firm also chose early adoption for SFAS 159 effective January 1, 2007. SFAS 159 provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments and written loan commitments not previously recorded at fair value. The Firm elected fair value accounting for certain assets and liabilities not previously carried at fair value. For more information, see Note 5 on pages 156–158 of this Annual Report.

The following is a description of the Firm's valuation methodologies for assets and liabilities measured at fair value.

The Firm has an established and well-documented process for determining fair values. Fair value is based upon quoted market prices, where available. If listed prices or quotes are not available, fair value is based upon internally developed models that primarily 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. In addition to market information, models also incorporate transaction details, such as maturity of the instrument. 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, the majority of derivative positions are valued using internally developed models that use as their basis observable market parameters. Market practice is to quote parameters equivalent to an "AA" credit rating whereby all counterparties are assumed to have the same credit quality. Therefore, 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 necessary to reflect the credit quality of the Firm in the valuation of liabilities measured at fair value. This adjustment was incorporated into the Firm's valuations commencing January 1, 2007, in accordance with SFAS 157. 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

Notes to consolidated financial statements

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). The Firm tries to ascertain the amount of uncertainty in the initial valuation based upon the degree of liquidity of 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 upon 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 upon 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. These positions are normally traded less actively. Examples include certain credit products where parameters such as correlation and recovery rates are unobservable. 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 valuations 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 market-based 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 upon established policies and are applied consistently over time. Any changes to the valuation methodology are reviewed by management to confirm 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. During 2008, no material changes were made to the Firm's valuation models.

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

SFAS 157 establishes a three-level valuation hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon 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 – inputs to the valuation methodology are unobservable and significant to the fair value measurement. For a level 3 analysis, see pages 150–151 of this Note.

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

Following is a description of the valuation methodologies used for instruments measured at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Assets

Securities purchased under resale agreements ("resale agreements")

To estimate the fair value of resale agreements, cash flows are evaluated taking into consideration any derivative features of the resale agreement and are then discounted using the appropriate market rates for the applicable maturity. As the inputs into the valuation are primarily based upon readily observable pricing information, such resale agreements are generally classified within level 2 of the valuation hierarchy.

Loans and unfunded lending-related commitments

The majority of the Firm's loans and lending-related commitments are not carried at fair value on a recurring basis on the Consolidated Balance Sheets, nor are they actively traded. The fair value of such loans and lending-related commitments is included in the disclosures required by SFAS 107 on pages 154–155 of this Note. Loans carried at fair value on a recurring and nonrecurring basis are included in the applicable tables that follow.

Wholesale

The fair value of loans and lending-related commitments is calculated using observable market information, including pricing from actual market transactions or broker quotations where available. Where pricing information is not available for the specific loan, the valuation is generally based upon quoted market prices of similar instruments, such as loans and bonds. These comparable instruments share characteristics that typically include industry, rating, capital structure, seniority, and consideration of counterparty credit risk. In addition, general market conditions, including prevailing market spreads for credit and liquidity risk, are also considered in the valuation process.

For certain loans that are expected to be securitized, such as commercial and residential mortgages, fair value is estimated based upon observable pricing of asset-backed securities ("ABS") with similar collateral and incorporates adjustments (i.e., reductions) to these prices to account for securitization uncertainties including portfolio composition, market conditions and liquidity to arrive at the whole loan price. When data from recent market transactions is available it is incorporated as appropriate. If particular loans are not expected to be securitized they are marked for individual sale taking into consideration potential liquidation proceeds and property repossession/liquidation information, as appropriate. For further discussion of the valuation of mortgage loans carried at fair value, see the "Mortgage-related exposures carried at fair value" section of this Note on pages 151–153.

The Firm's loans carried at fair value and reported in trading assets are largely classified within level 3 due to the lack of observable pricing. Loans carried at fair value and reported in loans including leveraged lending funded loans, high-yield bridge financing and purchased nonperforming loans held in the Investment Bank ("IB") are classified within level 2 or 3 of the valuation hierarchy depending on the level of liquidity and activity in the markets for a particular product.

Consumer

Fair values for consumer installment loans (including automobile financings and consumer real estate not expected to be securitized), for which market rates for comparable loans are readily available, are based upon discounted cash flows adjusted for prepayment assumptions. The discount rates used for consumer installment loans are based on current market rates for new originations of comparable loans. Fair value for credit card receivables is based upon discounted expected cash flows. The discount rates used for credit card receivables incorporate only the effects of interest rate changes, since the expected cash flows already reflect an adjustment for credit risk. Consumer installment loans and credit card receivables that are not carried on the balance sheet at fair value are not classified within the fair value hierarchy. For further discussion of the valuation of mortgage loans carried at fair value, see the "Mortgage-related exposures carried at fair value" section of this Note.

Securities

Where quoted prices for identical securities are available in an active market, securities are classified in level 1 of the valuation hierarchy. Level 1 securities include highly liquid government bonds, mortgage products for which there are quoted prices in active markets (such as U.S. government agency or U.S. government-sponsored enterprise pass-through mortgage-backed securities) and exchange-traded equities.

If quoted market prices are not available for the specific security, the Firm may estimate the value of such instruments using a combination of observed transaction prices, independent pricing services and relevant broker quotes. Consideration is given to the nature of the quotes (e.g., indicative or firm) and the relationship of recently evidenced market activity to the prices provided from independent pricing services. The Firm may also use pricing models or discounted cash flows. In cases where there is limited activity or less transparency around inputs to the valuation, securities are classified within level 3 of the valuation hierarchy.

For certain collateralized mortgage and debt obligations, asset-backed securities and high-yield debt securities the determination of fair value may require benchmarking to similar instruments or analyzing default and recovery rates. For "cash" collateralized debt obligations ("CDOs"), external price information is not available. Therefore, cash CDOs are valued using market-standard models, such as Intex, to model the specific collateral composition and cash flow structure of each deal; key inputs to the model are market spread data for each credit rating, collateral type and other relevant contractual features. Asset-backed securities are valued based on external prices or market spread data, using current market assumptions on prepayments and defaults. For those asset-backed securities where the external price data is not observable or the limited available data is opaque, the collateral performance is monitored and the value of the security is assessed. To benchmark its valuations, the Firm looks to transactions for similar instruments and utilizes independent pricing provided by third-party vendors, broker quotes and relevant market indices such as the ABX index, as applicable. While none of those sources are solely indicative of fair value, they serve as directional indicators for the appropriateness of the Firm's estimates. The majority of collateralized mortgage and debt obligations, high-yield debt securities and asset-backed securities are currently classified in level 3 of the valuation hierarchy. For further discussion of the valuation of mortgage securities carried at fair value see the "Mortgage-related exposures carried at fair value" section of this Note on pages 151–153.

Commodities

Commodities inventory is carried at the lower of cost or fair value. The fair value for commodities inventory is determined primarily using pricing and data derived from the markets on which the underlying commodities are traded. Market prices may be adjusted for liquidity. The Firm also has positions in commodity-based derivatives that can be traded on an exchange or over-the-counter. The pricing inputs to these derivatives include forward curves of underlying commodities, basis curves, volatilities, correlations, and occasionally other model parameters. The valuation of these derivatives is based upon calibrating to market transactions, as well as to independent pricing information from sources such as brokers and dealer consensus pricing services. Where inputs are unobservable, they are benchmarked to observable market data based upon historic and implied correlations, then adjusted for uncertainty where appropriate. The majority of commodities inventory and commodities-based derivatives are classified within level 2 of the valuation hierarchy.

Derivatives

Exchange-traded derivatives valued using quoted prices are classified within level 1 of the valuation hierarchy. However, few classes of derivative contracts are listed on an exchange; thus, the majority of the Firm's derivative positions are valued using internally developed models that use as their basis readily observable market parameters – that is, parameters that are actively quoted and can be validated to external sources, including industry pricing services. Depending on the types and contractual terms of derivatives, fair value can be modeled using a series of techniques, such as the Black-Scholes option pricing model, simulation models or a combination of various mod-

Notes to consolidated financial statements

els, which are consistently applied. Where derivative products have been established for some time, the Firm uses models that are widely accepted in the financial services industry. These models reflect the contractual terms of the derivatives, including the period to maturity, and market-based parameters such as interest rates, volatility, and the credit quality of the counterparty. Further, many of these models do not contain a high level of subjectivity, as the methodologies used in the models do not require significant judgment, and inputs to the model are readily observable from actively quoted markets, as is the case for “plain vanilla” interest rate swaps and option contracts and credit default swaps (“CDS”). Such instruments are generally classified within level 2 of the valuation hierarchy.

Derivatives that are valued based upon models with significant unobservable market parameters and that are normally traded less actively, have trade activity that is one way, and/or are traded in less-developed markets are classified within level 3 of the valuation hierarchy. Level 3 derivatives, for example, include credit default swaps referenced to mortgage-backed securities, certain types of CDO transactions, options on baskets of single-name stocks, and callable exotic interest rate options. Such derivatives are primarily used for risk management purposes.

For certain derivative products, such as credit default swaps referenced to mortgage-backed securities, the value is based on the underlying mortgage risk. As these instruments are not actively quoted, the estimate of fair value considers the valuation of the underlying collateral (mortgage loans). Inputs to the valuation will include available information on similar underlying loans or securities in the cash market. The prepayments and loss assumptions on the underlying loans or securities are estimated using a combination of historical data, prices on market transactions, and other prepayment and default scenarios and analysis. Relevant observable market indices such as the ABX or CMBX, are considered, as well as any relevant transaction activity.

Other complex products, such as those sensitive to correlation between two or more underlyings, also fall within level 3 of the hierarchy. Such instruments include complex credit derivative products which are illiquid and non-standard in nature, including CDOs and CDO-squared. A CDO is a debt security collateralized by a variety of debt obligations, including bonds and loans of different maturities and credit qualities. The repackaging of such securities and loans within a CDO results in the creation of tranches, which are instruments with differing risk profiles. In a CDO-squared, the instrument is a CDO where the underlying debt instruments are also CDOs. For CDO-squared transactions, while inputs such as CDS spreads and recovery rates may be observable, the correlation between the underlying debt instruments is unobservable. The correlation levels are not only modeled on a portfolio basis but are also calibrated at a transaction level to liquid benchmark tranches. For all complex credit derivative products, actual transactions, where available, are used to regularly recalibrate all unobservable parameters.

Correlation sensitivity is also material to the overall valuation of options on baskets of single-name stocks; the valuation of these baskets is typically not observable due to their non-standardized struc-

turing. Correlation for products such as these are typically estimated based on an observable basket of stocks and then adjusted to reflect the differences between the underlying equities.

For callable exotic interest rate options, while most of the assumptions in the valuation can be observed in active markets (e.g. interest rates and volatility), the callable option transaction flow is essentially one-way, and as such, price observability is limited. As pricing information is limited, assumptions are based upon the dynamics of the underlying markets (e.g. the interest rate markets) including the range and possible outcomes of the applicable inputs. In addition, the models used are calibrated, as relevant, to liquid benchmarks and valuation is tested against monthly independent pricing services and actual transactions.

Mortgage servicing rights and certain retained interests in securitizations

Mortgage servicing rights (“MSRs”) and certain retained interests from securitization activities do not trade in an active, open market with readily observable prices. While sales of MSRs do occur, the precise terms and conditions typically are not readily available. Accordingly, the Firm estimates the fair value of MSRs and certain other retained interests in securitizations using discounted cash flow (“DCF”) models.

- For MSRs, the Firm uses an option-adjusted spread (“OAS”) valuation model in conjunction with the Firm’s proprietary prepayment model to project MSR cash flows over multiple interest rate scenarios, which are then discounted at risk-adjusted rates to estimate an expected fair value of the MSRs. The OAS model considers portfolio characteristics, contractually specified servicing fees, prepayment assumptions, delinquency rates, late charges, other ancillary revenue, costs to service and other economic factors. The Firm reassesses and periodically adjusts the underlying inputs and assumptions used in the OAS model to reflect market conditions and assumptions that a market participant would consider in valuing the MSR asset. Due to the nature of the valuation inputs, MSRs are classified within level 3 of the valuation hierarchy.
- For certain retained interests in securitizations (such as interest-only strips), a single interest rate path discounted cash flow model is used and generally includes assumptions based upon projected finance charges related to the securitized assets, estimated net credit losses, prepayment assumptions and contractual interest paid to third-party investors. Changes in the assumptions used may have a significant impact on the Firm’s valuation of retained interests, and such interests are therefore typically classified within level 3 of the valuation hierarchy.

For both MSRs and certain other retained interests in securitizations, the Firm compares its fair value estimates and assumptions to observable market data where available and to recent market activity and actual portfolio experience. For further discussion of the most significant assumptions used to value retained interests in securitizations and MSRs, as well as the applicable stress tests for those assumptions, see Note 16 and Note 18 on pages 180–188 and 198–201, respectively, of this Annual Report.

Private equity investments

The valuation of nonpublic private equity investments, held primarily by the Private Equity business within Corporate, requires significant management judgment due to the absence of quoted market prices, the inherent lack of liquidity and the long-term nature of such assets. As such, private equity investments are valued initially based upon cost. Each quarter, valuations are reviewed utilizing available and relevant market data to determine if the carrying value of these investments should be adjusted. Such market data primarily includes observations of the trading multiples of public companies considered comparable to the private companies being valued and the operating performance of the underlying portfolio company, including its historical and projected net income and earnings before interest, taxes, depreciation and amortization ("EBITDA"). Valuations are adjusted to account for company-specific issues, the lack of liquidity inherent in a nonpublic investment and the fact that comparable public companies are not identical to the companies being valued. In addition, a variety of additional factors are reviewed by management, including, but not limited to, financing and sales transactions with third parties, future expectations of the particular investment, changes in market outlook and the third-party financing environment. The Firm applies its valuation methodology consistently from period to period and believes that the methodology and associated valuation adjustments are appropriate. Nonpublic private equity investments are included in level 3 of the valuation hierarchy.

Private equity investments also include publicly held equity investments, generally obtained through the initial public offering of privately held equity investments. Publicly held investments in liquid markets are marked to market at the quoted public value less adjustments for regulatory or contractual sales restrictions. Discounts for restrictions are quantified by analyzing the length of the restriction period and the volatility of the equity security. Publicly held investments are largely classified in level 2 of the valuation hierarchy.

Other assets

The fair value of asset-backed commercial paper ("ABCP") investments purchased under the Federal Reserve's Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility ("AML Facility") for U.S. money market mutual funds is determined based on observable market information and is classified in level 2 of the valuation hierarchy.

Liabilities

Securities sold under repurchase agreements ("repurchase agreements")

To estimate the fair value of repurchase agreements, cash flows are evaluated taking into consideration any derivative features and are then discounted using the appropriate market rates for the applicable maturity. 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, to reflect the credit quality of the Firm (i.e., DVA) related to these agreements. As the inputs into the valuation are primarily based upon observable pricing information, repurchase agreements are classified within level 2 of the valuation hierarchy.

Beneficial interests issued by consolidated VIEs

The fair value of beneficial interests issued by consolidated VIEs ("beneficial interests") is estimated based upon the fair value of the underlying assets held by the VIEs. The valuation of beneficial interests does not include an adjustment to reflect the credit quality of the Firm, as the holders of these beneficial interests do not have recourse to the general credit of JPMorgan Chase. As the inputs into the valuation are generally based upon readily observable market pricing information, the majority of beneficial interests issued by consolidated VIEs are classified within level 2 of the valuation hierarchy.

Deposits, other borrowed funds and long-term debt

Included within deposits, other borrowed funds and long-term debt are structured notes issued by the Firm that are financial instruments containing embedded derivatives. To estimate the fair value of structured notes, cash flows are evaluated taking into consideration any derivative features and are then discounted using the appropriate market rates for the applicable maturities. In addition, the valuation of structured notes includes an adjustment to reflect the credit quality of the Firm (i.e., the DVA). Where the inputs into the valuation are primarily based upon readily observable market pricing information, the structured notes are classified within level 2 of the valuation hierarchy. Where significant inputs are unobservable, structured notes are classified within level 3 of the valuation hierarchy.

Notes to consolidated financial statements

The following table presents the financial instruments carried at fair value as of December 31, 2008 and 2007, by caption on the Consolidated Balance Sheets and by SFAS 157 valuation hierarchy (as described above).

Assets and liabilities measured at fair value on a recurring basis

December 31, 2008 (in millions)	Quoted market prices in active markets (Level 1)	Internal models with significant observable market parameters (Level 2)	Internal models with significant unobservable market parameters (Level 3)	FIN 39 netting ^(d)	Total carrying value in the Consolidated Balance Sheets
Federal funds sold and securities purchased under resale agreements	\$ —	\$ 20,843	\$ —	\$ —	\$ 20,843
Securities borrowed	—	3,381	—	—	3,381
Trading assets:					
Debt and equity instruments:					
U.S. government, agency, sponsored enterprise and non-U.S. governments	98,393	29,597	870	—	128,860
State and municipal securities	—	10,361	2,641	—	13,002
Certificates of deposit, bankers' acceptances and commercial paper	1,180	6,312	—	—	7,492
Corporate debt and other	5	61,230	6,506	—	67,741
Equity securities	73,174	3,992	1,380	—	78,546
Loans	—	14,711	17,091	—	31,802
Mortgage- and asset-backed securities	—	3,401	12,932	—	16,333
Physical commodities ^(a)	—	3,581	—	—	3,581
Total debt and equity instruments:	172,752	133,185	41,420	—	347,357
Derivative receivables	3,630	2,685,101	52,991	(2,579,096)	162,626
Total trading assets	176,382	2,818,286	94,411	(2,579,096)	509,983
Available-for-sale securities	118,823	74,695	12,391	—	205,909
Loans	—	5,029	2,667	—	7,696
Mortgage servicing rights	—	—	9,403	—	9,403
Other assets:					
Private equity investments	151	332	6,369	—	6,852
All other	5,977	11,355	5,015	—	22,347
Total other assets	6,128	11,687	11,384	—	29,199
Total assets at fair value	\$ 301,333	\$ 2,933,921	\$ 130,256	\$ (2,579,096)	\$ 786,414
Less: Level 3 assets for which the Firm does not bear economic exposure ^(b)			21,169		
Total level 3 assets for which the Firm bears economic exposure			\$ 109,087		
Deposits	\$ —	\$ 4,370	\$ 1,235	\$ —	\$ 5,605
Federal funds purchased and securities loaned or sold under repurchase agreements	—	2,993	—	—	2,993
Other borrowed funds	—	14,612	101	—	14,713
Trading liabilities:					
Debt and equity instruments	34,568	10,418	288	—	45,274
Derivative payables	3,630	2,622,371	43,484	(2,547,881)	121,604
Total trading liabilities	38,198	2,632,789	43,772	(2,547,881)	166,878
Accounts payable and other liabilities	—	—	—	—	—
Beneficial interests issued by consolidated VIEs	—	1,735	—	—	1,735
Long-term debt	—	41,666	16,548	—	58,214
Total liabilities at fair value	\$ 38,198	\$ 2,698,165	\$ 61,656	\$ (2,547,881)	\$ 250,138

Assets and liabilities measured at fair value on a recurring basis

December 31, 2007 (in millions)	Quoted market prices in active markets (Level 1)	Internal models with significant observable market parameters (Level 2)	Internal models with significant unobservable market parameters (Level 3)	FIN 39 netting ^(d)	Total carrying value in the Consolidated Balance Sheets
Federal funds sold and securities purchased under resale agreements	\$ —	\$ 19,131	\$ —	\$ —	\$ 19,131
Trading assets:					
Debt and equity instruments:					
U.S. government, agency, sponsored enterprise and non-U.S. governments	106,572	40,362	258	—	147,192
State and municipal securities	7,230	5,860	—	—	13,090
Certificates of deposit, bankers' acceptances and commercial paper	3,019	5,233	—	—	8,252
Corporate debt and other	6	52,137	7,972	—	60,115
Equity securities	82,499	9,552	1,197	—	93,248
Loans	—	46,038	11,776	—	57,814
Mortgage- and asset-backed securities	—	27,209	2,863	—	30,072
Physical commodities ^(a)	—	4,490	—	—	4,490
Total debt and equity instruments:	199,326	190,881	24,066	—	414,273
Derivative receivables	18,574	871,105	20,188	(832,731)	77,136
Total trading assets	217,900	1,061,986	44,254	(832,731)	491,409
Available-for-sale securities	71,941	13,364	101	—	85,406
Loans	—	359	8,380	—	8,739
Mortgage servicing rights	—	—	8,632	—	8,632
Other assets:					
Private equity investments	68	322	6,763	—	7,153
All other	10,784	1,054	3,160	—	14,998
Total other assets	10,852	1,376	9,923	—	22,151
Total assets at fair value	\$300,693	\$1,096,216	\$71,290	\$(832,731)	\$635,468
Deposits	\$ —	\$ 5,228	\$ 1,161	\$ —	\$ 6,389
Federal funds purchased and securities loaned or sold under repurchase agreements					
	—	5,768	—	—	5,768
Other borrowed funds	—	10,672	105	—	10,777
Trading liabilities:					
Debt and equity instruments	73,023	15,659	480	—	89,162
Derivative payables	19,553	852,055	19,555	(822,458)	68,705
Total trading liabilities	92,576	867,714	20,035	(822,458)	157,867
Accounts payable and other liabilities ^(c)	—	—	25	—	25
Beneficial interests issued by consolidated VIEs	—	2,922	82	—	3,004
Long-term debt	—	48,518	21,938	—	70,456
Total liabilities at fair value	\$92,576	\$940,822	\$43,346	\$(822,458)	\$254,286

(a) Physical commodities inventories are accounted for at the lower of cost or fair value.

(b) Includes assets for which the Firm serves as an intermediary between two parties and does not bear market risk. The assets are predominantly reflected within derivative receivables.

(c) Includes the fair value adjustment for unfunded lending-related commitments accounted for at fair value.

(d) As permitted under FIN 39, 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. The increase in FIN 39 netting from December 31, 2007, primarily relates to the decline in interest rates, widening credit spreads and volatile foreign exchange rates reflected in interest rate, credit and foreign exchange derivatives, respectively.

Balances for which the Firm did not bear economic exposure at December 31, 2007, were not significant.

Notes to consolidated financial statements

Changes in level 3 recurring fair value measurements

The tables below include a rollforward of the balance sheet amounts for the years ended December 31, 2008 and 2007 (including the change in fair value), for financial instruments classified by the Firm within level 3 of the valuation hierarchy. When a determination is made to classify a financial instrument within level 3, the determination is based upon 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 valuation hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains or losses in the tables do not reflect the effect of the Firm's risk management activities related to such level 3 instruments.

For the year ended December 31, 2008 (in millions)	Fair value measurements using significant unobservable inputs				Fair value, December 31, 2008	Change in unrealized gains and (losses) related to financial instruments held at December 31, 2008
	Fair value, January 1, 2008	Total realized/unrealized gains/(losses) ^(c)	Purchases, issuances settlements, net	Transfers into and/or out of level 3 ^(c)		
Assets:						
Trading assets:						
Debt and equity instruments	\$ 24,066	\$ (12,805) ^{(d)(e)}	\$ 6,201	\$ 23,958	\$ 41,420	\$ (9,860) ^{(d)(e)}
Net derivative receivables	633	4,556 ^(d)	2,290	2,028	9,507	1,814 ^(d)
Available-for-sale securities	101	(1,232) ^(f)	3,772	9,750	12,391	(422) ^(f)
Loans	8,380	(1,547) ^(d)	12	(4,178)	2,667	(1,324) ^(d)
Mortgage servicing rights	8,632	(6,933) ^(e)	7,704	—	9,403	(6,933) ^(e)
Other assets:						
Private equity investments ^(a)	6,763	(638) ^(d)	320	(76)	6,369	(1,089) ^(d)
All other	3,160	(930) ^(g)	2,802	(17)	5,015	(742) ^(g)
Liabilities^(b):						
Deposits	\$ (1,161)	\$ 57 ^(d)	\$ (79)	\$ (52)	\$ (1,235)	\$ 69 ^(d)
Other borrowed funds	(105)	7 ^(d)	(53)	50	(101)	24 ^(d)
Trading liabilities:						
Debt and equity instruments	(480)	73 ^(d)	33	86	(288)	125 ^(d)
Accounts payable and other liabilities	(25)	25 ^(d)	—	—	—	— ^(d)
Beneficial interests issued by consolidated VIEs	(82)	24 ^(d)	603	(545)	—	— ^(d)
Long-term debt	(21,938)	4,502 ^(d)	1,717	(829)	(16,548)	3,682 ^(d)

Fair value measurements using significant unobservable inputs

For the year ended December 31, 2007 (in millions)	Fair value, January 1, 2007	Total realized/unrealized gains/(losses) ^(c)	Purchases, issuances settlements, net	Transfers into and/or out of level 3 ^(c)	Fair value, December 31, 2007	Change in unrealized gains and (losses) related to financial instruments held at December 31, 2007
Assets:						
Trading assets:						
Debt and equity instruments	\$ 9,320	\$ (916) ^{(d)(e)}	\$ 5,902	\$ 9,760	\$ 24,066	\$ (912) ^{(d)(e)}
Net derivative receivables	(2,800)	1,674 ^(d)	257	1,502	633	1,979 ^(d)
Available-for-sale securities	177	38 ^(f)	(21)	(93)	101	(5) ^(f)
Loans	643	(346) ^(d)	8,013	70	8,380	(36) ^(d)
Mortgage servicing rights	7,546	(516) ^(e)	1,602	—	8,632	(516) ^(e)
Other assets:						
Private equity investments ^(a)	5,493	4,051 ^(d)	(2,764)	(17)	6,763	1,711 ^(d)
All other	1,591	37 ^(g)	1,059	473	3,160	(19) ^(g)
Liabilities^(b):						
Deposits	\$ (385)	\$ (42) ^(d)	\$ (667)	\$ (67)	\$ (1,161)	\$ (38) ^(d)
Other borrowed funds	—	(67) ^(d)	(34)	(4)	(105)	(135) ^(d)
Trading liabilities:						
Debt and equity instruments	(32)	383 ^(d)	(125)	(706)	(480)	(734) ^(d)
Accounts payable and other liabilities	—	(460) ^(d)	435	—	(25)	(25) ^(d)
Beneficial interests issued by consolidated VIEs	(8)	6 ^(d)	1	(81)	(82)	—
Long-term debt	(11,386)	(1,142) ^(d)	(6,633)	(2,777)	(21,938)	(468) ^(d)

(a) Private equity instruments represent investments within the Corporate/Private Equity line of business.

(b) Level 3 liabilities as a percentage of total Firm liabilities accounted for at fair value (including liabilities carried at fair value on a nonrecurring basis) were 25% and 17% at December 31, 2008 and 2007, respectively. The Firm does not allocate the FIN 39 netting adjustment across the levels of the fair value hierarchy. As such, the level 3 derivative payables balance included in the level 3 total balance is gross of any netting adjustments.

(c) Beginning January 1, 2008, all transfers in and out of level 3 are assumed to occur at the beginning of the reporting period.

(d) Reported in principal transactions revenue.

(e) Changes in fair value for Retail Financial Services mortgage loans originated with the intent to sell and MSRs are measured at fair value and reported in mortgage fees and related income.

(f) Realized gains (losses) are reported in securities gains (losses). Unrealized gains (losses) are reported in accumulated other comprehensive income (loss).

(g) Reported in other income.

Notes to consolidated financial statements

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, the instruments 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). The following tables present the financial instruments carried on the Consolidated Balance Sheets by caption and level within the SFAS 157 valuation hierarchy (as described above) as of December 31, 2008 and 2007, for which a nonrecurring change in fair value has been recorded during the reporting period.

December 31, 2008 (in millions)	Quoted market prices in active markets (Level 1)	Internal models with significant observable market parameters (Level 2)	Internal models with significant unobservable market parameters (Level 3)	Total carrying value in the Consolidated Balance Sheets
Loans ^(a)	\$ —	\$ 4,991	\$ 3,999	\$ 8,990
Other assets	—	1,763	291	2,054
Total assets at fair value on a nonrecurring basis	\$ —	\$ 6,754	\$ 4,290	\$ 11,044
Accounts payable and other liabilities ^(b)	\$ —	\$ 212	\$ 98	\$ 310
Total liabilities at fair value on a nonrecurring basis	\$ —	\$ 212	\$ 98	\$ 310

December 31, 2007 (in millions)	Quoted market prices in active markets (Level 1)	Internal models with significant observable market parameters (Level 2)	Internal models with significant unobservable market parameters (Level 3)	Total carrying value in the Consolidated Balance Sheets
Loans ^{(a)(c)}	\$ —	\$ 2,818	\$ 16,196	\$ 19,014
Other assets	—	267	126	393
Total assets at fair value on a nonrecurring basis	\$ —	\$ 3,085	\$ 16,322	\$ 19,407
Accounts payable and other liabilities ^(b)	\$ —	\$ —	\$ 103	\$ 103
Total liabilities at fair value on a nonrecurring basis	\$ —	\$ —	\$ 103	\$ 103

(a) Includes leveraged lending and other loan warehouses held-for-sale.

(b) Represents the fair value adjustment associated with \$1.5 billion and \$3.2 billion of unfunded held-for-sale lending-related commitments within the leveraged lending portfolio at December 31, 2008 and 2007, respectively.

(c) Includes \$4.5 billion of level 3 held-for-sale loans reclassified to held-for-investment during 2007.

Nonrecurring fair value changes

The following table presents the total change in value of financial instruments for which a fair value adjustment has been included in the Consolidated Statements of Income for the years ended December 31, 2008 and 2007, related to financial instruments held at December 31, 2008 and 2007.

Year ended December 31, (in millions)	2008	2007
Loans	\$ (3,887)	\$ (720)
Other assets	(685)	(161)
Accounts payable and other liabilities	(285)	2
Total nonrecurring fair value gains (losses)	\$ (4,857)	\$ (879)

In the above table, loans predominantly include the change in fair value for IB leveraged lending and warehouse loans carried on the balance sheet at the lower of cost or fair value; and accounts payable and other liabilities predominantly include the change in fair value for unfunded lending-related commitments within the leveraged lending portfolio.

Level 3 analysis

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were 6% of total Firm assets at December 31, 2008. The following describes significant changes to level 3 assets during the year.

Level 3 assets increased \$46.9 billion in 2008, largely due to the following:

- Acquisition of \$41.5 billion of level 3 assets as a result of the merger with Bear Stearns.
- Acquisition of \$5.9 billion of MSRs related to the Washington Mutual transaction.
- Purchase of approximately \$4.4 billion of reverse mortgages in the first quarter of 2008, for which there is limited pricing information and a lack of market liquidity.
- Transfers of \$14.0 billion of AAA-rated CLOs backed by corporate loans, based upon a significant reduction in new deal issuance and price transparency; \$10.5 billion of mortgage-related assets, including commercial mortgage-backed securities with a rating below "AAA", other noninvestment grade mortgage securities and certain prime mortgages; and \$2.8 billion of auction-rate securities, in each case due to a significant reduction in market liquidity.

The increases in level 3 assets described above were partially offset by:

- Approximately \$20.0 billion of sales and markdowns of residential mortgage-backed securities, prime residential mortgage loans and Alt-A residential mortgage loans.
- \$11.5 billion of sales and markdowns of leveraged loans, as well as transfers of similar loans to level 2 due to the increased price transparency for such assets.

- \$3.5 billion of transfers of bridge loans to level 2 due to increased price transparency for such assets.

Gains and Losses

Gains and losses in the tables above for 2008 include:

- Losses on trading debt and equity instruments of approximately \$12.8 billion, principally from mortgage-related transactions and auction-rate securities.
- A \$6.9 billion decline in the fair value of the MSR asset.
- Losses of approximately \$3.9 billion on leveraged loans. Leveraged loans are typically classified as held-for-sale and measured at the lower of cost or fair value and therefore included in the nonrecurring fair value assets.
- Gains of \$4.5 billion related to structured notes, principally due to significant volatility in the equity markets.
- Net gains of \$4.6 billion related to derivatives, principally due to changes in credit spreads and rate curves.

The Firm risk manages level 3 financial instruments using securities and derivative positions classified within level 1 or 2 of the valuation hierarchy; the effect of these risk management activities is not reflected in the level 3 gains and losses included in the tables above.

For further information on changes in the fair value of the MSRs, see Note 18 on pages 199–200 of this Annual Report.

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 in accordance with SFAS 157. Valuation adjustments include, but are not limited to, amounts to reflect counterparty credit quality and the Firm's own creditworthiness. 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, gross of hedges where risk is actively managed, as reflected within the Consolidated Balance Sheets of the Firm as of the dates indicated.

Year ended December 31, (in millions)	2008	2007
Derivatives receivables balance	\$ 162,626	\$ 77,136
Derivatives CVA ^(a)	(9,566)	(1,265)
Derivatives payable balance	121,604	68,705
Derivatives DVA	1,389	518
Structured notes balance	67,340	87,622
Structured notes DVA ^(b)	2,413	896

(a) Derivative CVA, gross of hedges, includes results managed by Credit Portfolio and other lines of business within IB.

(b) Structured notes are carried at fair value based upon the Firm's election under SFAS 159. For further information on these elections, see Note 5 on page 156 of this Annual Report.

The following table provides the impact of credit adjustments, gross of hedges where risk is actively managed, on earnings in the respective periods.

Year ended December 31, (in millions)	2008	2007
Credit adjustments:		
Derivatives CVA ^(a)	\$ (7,561)	\$ (803)
Derivatives DVA	789	514
Structured Notes DVA ^(b)	1,211	806

(a) Derivative CVA, gross of hedges, includes results managed by Credit Portfolio and other lines of business within IB.

(b) Structured notes are carried at fair value based upon the Firm's election under SFAS 159. For further information on these elections, see Note 5 on page 156 of this Annual Report.

The market's view of the Firm's credit quality is reflected in credit spreads observed in the credit default swap market. These credit spreads are affected by a number of factors, such as the performance of the assets the Firm holds. Consequently, significant deterioration in the value of sizable exposures held by the Firm are likely to result in wider credit default swap spreads. This will lead to an increase in the Firm's credit adjustment (i.e., DVA) for liabilities carried at fair value.

Mortgage-related exposures carried at fair value

As noted above, certain of the Firm's wholesale and consumer loans are carried at fair value including mortgage-related loans. Since the second half of 2007, liquidity in certain sectors of the mortgage markets has decreased, thereby limiting the price transparency of certain mortgage-related instruments. The table below summarizes the Firm's mortgage-related exposures that are carried at fair value through earnings or at the lower of cost or fair value; the table excludes securities held in the available-for-sale portfolio.

(in millions)	Exposure as of December 31, 2008		Net gains/(losses) ^(e) reported in income – year ended December 31, 2008
	Gross	Net of risk management activities ^(d)	
U.S. Residential Mortgage: ^{(a)(b)(c)}			
Prime	\$ 11,221	\$ 5,044	
Alt-A	3,934	3,917	
	15,155	8,961	\$ (1,468)
Subprime	941	(28)	(369)
Non-U.S. Residential	1,591	951	(292)
Commercial Mortgage:			
Securities	2,836	1,438	(792)
Loans	4,338	2,179	(752)

(a) Included exposures in IB and Retail Financial Services segments.

(b) Excluded from the table above are certain mortgage-related assets that are carried at fair value and recorded in trading assets, such as: (i) U.S. government agency and U.S. government-sponsored enterprise securities that are liquid and of high credit quality of \$58.9 billion at December 31, 2008; and (ii) reverse mortgages of \$4.3 billion at December 31, 2008, for which the principal risk is mortality risk. Also excluded are mortgage servicing rights, which are reported in Note 18 on pages 199–200 of this Annual Report.

(c) Also excluded from the table above are certain mortgage-related financing transactions, which are collateralized by mortgage-related assets, of \$5.7 billion at December 31, 2008. These financing transactions are excluded from the table as they are accounted for on an accrual basis of accounting. For financings deemed to be impaired, impairment is measured and recognized based upon the fair value of the collateral. Of these financing transactions, \$1.2 billion at December 31, 2008, was considered impaired.

(d) The amounts presented reflect the effects of derivatives utilized to risk manage the gross exposures arising from cash-based instruments and are presented on a bond or loan equivalent (notional) basis. Derivatives are excluded from the gross exposure as they are principally used for risk management purposes.

(e) Net gains and losses include all revenue related to the positions (i.e., interest income, changes in fair value of the assets, changes in fair value of the related risk management positions, and interest expense related to the liabilities funding the positions).

Notes to consolidated financial statements

Residential mortgages

Prime Mortgage – The Firm had exposure of \$11.2 billion to prime mortgages carried at fair value through earnings or at the lower of cost or fair value at December 31, 2008, which consisted of \$2.9 billion of securities (including \$1.2 billion of forward purchase commitments), largely rated “AAA”, and \$8.3 billion of first-lien mortgages.

Alt-A mortgage – The Firm had exposure of \$3.9 billion to Alt-A mortgages carried at fair value through earnings or at the lower of cost or fair value at December 31, 2008, which consisted of \$787 million of securities and \$3.1 billion of first-lien mortgages.

Subprime mortgage – The Firm had exposure of \$941 million to subprime mortgages carried at fair value through earnings or at the lower of cost or fair value at December 31, 2008, which included \$680 million of securities and \$261 million of first-lien mortgages.

Classification and Valuation

Residential mortgage loans and mortgage-backed securities are classified within level 2 or level 3 of the valuation hierarchy depending on the level of liquidity and activity in the markets for a particular product. Level 3 assets include residential whole loans, prime and Alt-A residential mortgage-backed securities rated below “AAA”, subprime residential mortgage-backed securities and single-name CDS on ABS. Products that continue to have reliable price transparency as evidenced by consistent market transactions, such as AAA-rated prime and Alt-A securities, as well as agency securities, continue to be classified in level 2.

For those products classified within level 2 of the valuation hierarchy, the Firm estimates the value of such instruments using a combination of observed transaction prices, independent pricing services and relevant broker quotes. Consideration is given to the nature of the quotes (e.g., indicative or firm) and the relationship of recently evidenced market activity to the prices provided from independent pricing services.

When relevant market activity is not occurring or is limited, the fair value is estimated as follows:

Residential mortgage loans – Fair value of residential mortgage loans is estimated by projecting the expected cash flows and discounting those cash flows at a rate reflective of current market liquidity. To estimate the projected cash flows (inclusive of assumptions of prepayment, default rates and loss severity), specific consideration is given to both borrower-specific and other market factors including, but not limited to: the borrower’s FICO score; the type of collateral supporting the loan; an estimate of the current value of the collateral supporting the loan; the level of documentation for the loan; and market-derived expectations for home price appreciation or depreciation in the respective geography of the borrower.

Residential mortgage-backed securities – Fair value of residential mortgage-backed securities is estimated considering the value of the collateral and the specific attributes of the securities held by the Firm. The value of the collateral pool supporting the securities is ana-

lyzed using the same techniques and factors described above for residential mortgage loans, albeit in a more aggregated manner across the pool. For example, average FICO scores, average delinquency rates, average loss severities and prepayment rates, among other metrics, may be evaluated. In addition, as each securitization vehicle distributes cash in a manner or order that is predetermined at the inception of the vehicle, the priority in which each particular mortgage-backed security is allocated cash flows, and the level of credit enhancement that is in place to support those cash flows, are key considerations in deriving the value of residential mortgage-backed securities. Finally, the risk premium that investors demand for securitized products in today’s market is factored into the valuation. To benchmark its valuations, the Firm looks to transactions for similar instruments and utilizes independent pricing provided by third-party vendors, broker quotes and relevant market indices such as the ABX index, as applicable. While none of those sources are solely indicative of fair value, they serve as directional indicators for the appropriateness of the Firm’s estimates.

Commercial mortgages

Commercial mortgages are loans to companies backed by commercial real estate. Commercial mortgage-backed securities are securities collateralized by a pool of commercial mortgages. Typically, commercial mortgages have lock-out periods, where the borrower is restricted from prepaying the loan for a specified timeframe, or periods where there are disincentives for the borrower to prepay the loan due to prepayment penalties. These features reduce prepayment risk for commercial mortgages relative to that of residential mortgages.

The Firm had exposure to \$7.2 billion of commercial mortgage-backed assets carried at fair value through earnings or at the lower of cost or fair value at December 31, 2008, which consisted of \$2.8 billion of securities, largely rated “AAA”, and \$4.4 billion of first-lien mortgages, largely in the U.S.

Classification and Valuation

While commercial mortgages and commercial mortgage-backed securities are classified within level 2 or level 3 of the valuation hierarchy, depending on the level of liquidity and activity in the markets, the majority of these mortgages, including both loans and lower-rated securities, are currently classified in level 3. Level 2 assets include AAA-rated fixed-rate commercial mortgage-backed securities.

Commercial mortgage loans – Fair value of commercial mortgage loans is estimated by projecting the expected cash flows and discounting those cash flows at a rate reflective of current market liquidity. To estimate the projected cash flows, consideration is given to both borrower-specific and other market factors including, but not limited to: the borrower’s debt-to-service coverage ratio; the type of commercial property (e.g., retail, office, lodging, multi-family, etc.); an estimate of the current loan-to-value ratio; and market-derived expectations for property price appreciation or depreciation in the respective geographic location.

Commercial mortgage-backed securities – When relevant market activity is not present or is limited, the value of commercial mortgage-backed securities is estimated considering the value of the collateral and the specific attributes of the securities held by the Firm. The value of the collateral pool supporting the securities is analyzed using the same techniques and factors described above for the valuation of commercial mortgage loans, albeit in a more aggregated manner across the pool. For example, average delinquencies, loan or geographic concentrations and average debt-service coverage ratios, among other metrics, may be evaluated. In addition, as each securitization vehicle distributes cash in a manner or order that is predetermined at the inception of the vehicle, the priority in which each par-

ticular mortgage-backed security is allocated cash flows, and the level of credit enhancement that is in place to support those cash flows, are key considerations in deriving the value of commercial mortgage-backed securities. Finally, the risk premium that investors demand for securitized products in today's market is factored into the valuation. To benchmark its valuations, the Firm utilizes independent pricing provided by third-party vendors, and broker quotes, as applicable. While none of those sources are solely indicative of fair value, they serve as directional indicators for the appropriateness of the Firm's estimates.

The following table presents mortgage-related activities within the available-for-sale securities portfolio.

(in millions)	Exposures as of December 31, 2008	Net gains/(losses) reported in income – year ended December 31, 2008 ^(a)	Unrealized gains/(losses) included in other comprehensive income (pretax) – year ended December 31, 2008
U.S. residential mortgage:			
Prime	\$ 6,027	\$ (32)	\$ (1,769)
Alt-A	868	—	(196)
Subprime	194	(89)	(32)
Non-U.S. residential	2,075	2	(156)
Commercial mortgage	3,939	—	(684)
U.S. government and federal agency obligations:			
Mortgage-backed securities	\$ 6,424	\$ 23	\$ 165
Collateralized mortgage obligations	558	(5)	(4)
U.S. government-sponsored enterprise obligations:			
Mortgage-backed securities	110,403	458	1,915
Direct obligations	9,657	11	(54)

(a) Excludes related net interest income.

Exposures in the table above include \$140.1 billion of mortgage-backed securities classified as available-for-sale in the Firm's Consolidated Balance Sheets at December 31, 2008. These investments are primarily used as part of the Firm's centralized risk management of structural interest rate risk (the sensitivity of the Firm's aggregate balance sheet to changes in interest rates). Changes in the Firm's structural interest rate position, as well as changes in the overall interest rate environment, are continually monitored, resulting in periodic repositioning of mortgage-backed securities classified as available-for-sale. Given that this portfolio is primarily used to manage interest rate risk, predominantly all of these securities are backed by either U.S. government agencies, government sponsored entities, or they are rated "AAA".

Investment securities in the available-for-sale portfolio include:

- \$6.9 billion of prime and Alt-A securities, principally rated "AAA". The fair value of these securities is determined based upon independent pricing services supported by relevant and observable market data for similar securities. The Firm classifies these securities in level 2 of the valuation hierarchy.

- \$3.9 billion of commercial mortgage-backed securities, principally rated "AAA". The fair value of these securities is determined using a third party pricing service that uses relevant and observable market data. The Firm classifies these securities in level 2 of the valuation hierarchy.
- \$127.0 billion of U.S. government agencies or U.S. government-sponsored enterprise mortgage-backed securities. Where these securities trade in active markets and there is market-observable pricing, they are classified in level 1 of the valuation hierarchy. Where the determination of fair value is based on broker quotes and independent pricing services, supported by relevant and observable market data, the Firm classifies such securities in level 2 of the valuation hierarchy.

Notes to consolidated financial statements

SFAS 157 Transition

In connection with the initial adoption of SFAS 157, the Firm recorded the following on January 1, 2007:

- a cumulative effect increase to retained earnings of \$287 million, primarily related to the release of profit previously deferred in accordance with EITF 02-3;
- an increase to pretax income of \$166 million (\$103 million after-tax) related to the incorporation of the Firm's creditworthiness in the valuation of liabilities recorded at fair value; and
- an increase to pretax income of \$464 million (\$288 million after-tax) related to valuations of nonpublic private equity investments.

Prior to the adoption of SFAS 157, the Firm applied the provisions of EITF 02-3 to its derivative portfolio. EITF 02-3 precluded the recognition of initial trading profit in the absence of: (a) quoted market prices, (b) observable prices of other current market transactions or (c) other observable data supporting a valuation technique. In accordance with EITF 02-3, the Firm recognized the deferred profit in principal transactions revenue on a systematic basis (typically straight-line amortization over the life of the instruments) and when observable market data became available.

Prior to the adoption of SFAS 157 the Firm did not incorporate an adjustment into the valuation of liabilities carried at fair value on the Consolidated Balance Sheets. Commencing January 1, 2007, in accordance with the requirements of SFAS 157, an adjustment was made to the valuation of liabilities measured at fair value to reflect the credit quality of the Firm.

Prior to the adoption of SFAS 157, privately held investments were initially valued based upon cost. The carrying values of privately held investments were adjusted from cost to reflect both positive and negative changes evidenced by financing events with third-party capital providers. The investments were also subject to ongoing impairment reviews by private equity senior investment professionals. The increase in pretax income related to nonpublic private equity investments in connection with the adoption of SFAS 157 was due to there being sufficient market evidence to support an

increase in fair values using the SFAS 157 methodology, although there had not been an actual third-party market transaction related to such investments.

Financial disclosures required by SFAS 107

Many but not all of the financial instruments held by the Firm are recorded at fair value on the Consolidated Balance Sheets. SFAS 107 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 SFAS 107 are included in the table below. Additionally, certain financial instruments and all nonfinancial instruments are excluded from the scope of SFAS 107. Accordingly, the fair value disclosures required by SFAS 107 provide only a partial estimate of the fair value of JPMorgan Chase. 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 fair value approximates carrying value

Certain financial instruments that are not carried at fair value on the Consolidated Balance Sheets are carried at amounts that approximate fair value due to their short-term nature and generally negligible credit risk. These instruments include cash and due from banks, deposits with banks, federal funds sold and securities purchased under resale agreements and securities borrowed with short-dated maturities, short-term receivables and accrued interest receivable, commercial paper, federal funds purchased and securities loaned or sold under repurchase agreements with short-dated maturities, other borrowed funds (excluding advances from Federal Home Loan Banks), accounts payable and accrued liabilities. In addition, SFAS 107 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. SFAS 107 does not allow for the recognition of the inherent funding value of these instruments.

The following table presents the carrying value and estimated fair value of financial assets and liabilities as required by SFAS 107 (a discussion of the valuation of the individual instruments can be found at the beginning of this Note or following the table below).

December 31, (in billions)	2008			2007		
	Carrying value	Estimated fair value	Appreciation/ (depreciation)	Carrying value	Estimated fair value	Appreciation/ (depreciation)
Financial assets						
Assets for which fair value approximates carrying value	\$ 226.0	\$ 226.0	\$ —	\$ 76.4	\$ 76.4	\$ —
Federal funds sold and securities purchased under resale agreements (included \$20.8 and \$19.1 at fair value at December 31, 2008 and 2007, respectively)	203.1	203.1	—	170.9	170.9	—
Securities borrowed (included \$3.4 and zero at fair value at December 31, 2008 and 2007, respectively)	124.0	124.0	—	84.2	84.2	—
Trading assets	510.0	510.0	—	491.4	491.4	—
Securities	205.9	205.9	—	85.4	85.4	—
Loans (included \$7.7 and \$8.7 at fair value at December 31, 2008 and 2007, respectively)	721.7	700.0	(21.7)	510.1	510.7	0.6
Mortgage servicing rights at fair value	9.4	9.4	—	8.6	8.6	—
Other (included \$29.2 and \$22.2 at fair value at December 31, 2008 and 2007, respectively)	104.6	104.7	0.1	66.6	67.1	0.5
Total financial assets	\$ 2,104.7	\$ 2,083.1	\$ (21.6)	\$ 1,493.6	\$ 1,494.7	\$ 1.1
Financial liabilities						
Deposits (included \$5.6 and \$6.4 at fair value at December 31, 2008 and 2007, respectively) ^(a)	\$ 1,009.3	\$ 1,010.2	\$ (0.9)	\$ 740.7	\$ 741.3	\$ (0.6)
Federal funds purchased and securities loaned or sold under repurchase agreements (included \$3.0 and \$5.8 at fair value at December 31, 2008 and 2007, respectively)	192.5	192.5	—	154.4	154.4	—
Commercial paper	37.8	37.8	—	49.6	49.6	—
Other borrowed funds (included \$14.7 and \$10.8 at fair value at December 31, 2008 and 2007, respectively)	132.4	134.1	(1.7)	28.8	28.8	—
Trading liabilities	166.9	166.9	—	157.9	157.9	—
Accounts payable and other liabilities	183.3	183.3	—	89.0	89.0	—
Beneficial interests issued by consolidated VIEs (included \$1.7 and \$3.0 at fair value at December 31, 2008 and 2007, respectively)	10.6	10.5	0.1	14.0	13.9	0.1
Long-term debt and junior subordinated deferrable interest debentures (included \$58.2 and \$70.5 at fair value at December 31, 2008 and 2007, respectively) ^(b)	270.7	262.1	8.6	199.0	198.7	0.3
Total financial liabilities	\$ 2,003.5	\$ 1,997.4	\$ 6.1	\$ 1,433.4	\$ 1,433.6	\$ (0.2)
Net (depreciation) appreciation			\$ (15.5)			\$ 0.9

(a) The fair value of interest-bearing deposits are estimated by discounting cash flows using the appropriate market rates for the applicable maturity.

(b) Fair value for long-term debt, including junior subordinated deferrable interest debentures held by trusts that issued guaranteed capital debt securities, is based upon current market rates and adjusted for JPMorgan Chase's credit quality.

The majority of the Firm's unfunded lending-related commitments are not carried at fair value on a recurring basis on the Consolidated Balance Sheets nor are they actively traded. Although there is no liquid secondary market for wholesale commitments, the Firm estimates the fair value of its wholesale lending-related commitments primarily using the cost of credit derivatives (which is adjusted to account for the difference in recovery rates between bonds, upon which the cost of credit derivatives is based, and loans) and loan equivalents (which represent the portion of an unused commitment expected, based

upon the Firm's average portfolio historical experience, to become outstanding in the event an obligor defaults). On this basis, the estimated fair value of the Firm's lending-related commitments at December 31, 2008 and 2007, was a liability of \$7.5 billion and \$1.9 billion, respectively. 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 prior notice, or, in some cases, without notice as permitted by law.

Notes to consolidated financial statements

Note 5 – Fair value option

In February 2007, the FASB issued SFAS 159, which was effective for fiscal years beginning after November 15, 2007, with early adoption permitted. The Firm chose early adoption for SFAS 159 effective January 1, 2007. SFAS 159 provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments, and written loan commitments not previously carried at fair value.

Elections

The following is a discussion of the primary financial instruments for which fair value elections were made and the basis for those elections:

Loans and unfunded lending-related commitments

On January 1, 2007, the Firm elected to record, at fair value, the following:

- Loans and unfunded lending-related commitments that are extended as part of IB's principal investing activities. The transition amount related to these loans included a reversal of the allowance for loan losses of \$56 million.
- Certain loans held-for-sale. These loans were reclassified to trading assets – debt and equity instruments. This election enabled the Firm to record loans purchased as part of the Investment Bank's commercial mortgage securitization activity and proprietary activities at fair value and discontinue SFAS 133 fair value hedge relationships for certain originated loans.

Beginning on January 1, 2007, the Firm chose to elect fair value as the measurement attribute for the following loans originated or purchased after that date:

- Loans purchased or originated as part of IB's securitization warehousing activities.
- Prime mortgage loans originated with the intent to sell within Retail Financial Services ("RFS").

The election to fair value the above loans did not include loans within these portfolios that existed on January 1, 2007, based upon the short holding period of the loans and/or the negligible impact of the elections.

Warehouse loans elected to be reported at fair value are classified as trading assets – debt and equity instruments. For additional information regarding warehouse loans, see Note 16 on pages 180–188 of this Annual Report.

Beginning in the third quarter of 2007, the Firm elected the fair value option for newly originated bridge financing activity in IB. These elections were made to align further the accounting basis of the bridge financing activities with their related risk management practices. For these activities, the loans continue to be classified within loans on the Consolidated Balance Sheets; the fair value of the unfunded commitments is recorded within accounts payable and other liabilities.

Securities Financing Arrangements

On January 1, 2007, the Firm elected to record at fair value resale and repurchase agreements with an embedded derivative or a maturity of greater than one year. The intent of this election was to mitigate volatility due to the differences in the measurement basis for the agreements (which were previously accounted for on an accrual basis) and the associated risk management arrangements (which are accounted for on a fair value basis). An election was not made for short-term agreements, as the carrying value for such agreements generally approximates fair value. For additional information regarding these agreements, see Note 13 on pages 174–175 of this Annual Report.

In the second quarter of 2008, the Firm began electing the fair value option for newly transacted securities borrowed and securities lending agreements with a maturity of greater than one year. An election was not made for any short-term agreements, as the carrying value for such agreements generally approximates fair value.

Structured Notes

IB issues structured notes as part of its client-driven activities. Structured notes are financial instruments that contain embedded derivatives and are included in long-term debt. On January 1, 2007, the Firm elected to record at fair value all structured notes not previously elected or eligible for election under SFAS 155. The election was made to mitigate the volatility due to the differences in the measurement basis for structured notes and the associated risk management arrangements as well as to eliminate the operational burdens of having different accounting models for the same type of financial instrument.

Other

In the third quarter of 2008, the Firm elected the fair value option for the ABCP investments purchased under the Federal Reserve's AML Facility for U.S. money market mutual funds, as well as the related nonrecourse advance from the Federal Reserve Bank of Boston ("FRBB"). At December 31, 2008, ABCP investments of \$11.2 billion were recorded in other assets; the corresponding nonrecourse liability to the FRBB in the same amount was recorded in other borrowed funds. For further discussion, see Note 21 on page 202 of this Annual Report.

In 2008, the Firm elected the fair value option for certain loans acquired as part of the Bear Stearns merger that were included in the trading portfolio and for prime mortgages previously designated as held-for-sale by Washington Mutual as part of the Washington Mutual transaction. In addition, the Firm elected the fair value option for certain tax credit and other equity investments acquired as part of the Washington Mutual transaction.

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, 2008 and 2007, for items for which the fair value election was made. 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.

December 31, (in millions)	2008			2007		
	Principal transactions ^(c)	Other income ^(c)	Total changes in fair value recorded	Principal transactions ^(c)	Other income ^(c)	Total changes in fair value recorded
Federal funds sold and securities purchased under resale agreements	\$ 1,139	\$ —	\$ 1,139	\$ 580	\$ —	\$ 580
Securities borrowed	29	—	29	—	—	—
Trading assets:						
Debt and equity instruments, excluding loans	(870)	(58) ^(d)	(928)	421	(1) ^(d)	420
Loans reported as trading assets:						
Changes in instrument-specific credit risk	(9,802)	(283) ^(d)	(10,085)	(517)	(157) ^(d)	(674)
Other changes in fair value	696	1,178 ^(d)	1,874	188	1,033 ^(d)	1,221
Loans:						
Changes in instrument-specific credit risk	(1,991)	—	(1,991)	102	—	102
Other changes in fair value	(42)	—	(42)	40	—	40
Other assets	—	(660) ^(e)	(660)	—	30 ^(e)	30
Deposits ^(a)	(132)	—	(132)	(906)	—	(906)
Federal funds purchased and securities loaned or sold under repurchase agreements	(127)	—	(127)	(78)	—	(78)
Other borrowed funds ^(a)	1,888	—	1,888	(412)	—	(412)
Trading liabilities	35	—	35	(17)	—	(17)
Accounts payable and other liabilities	—	—	—	(460)	—	(460)
Beneficial interests issued by consolidated VIEs	355	—	355	(228)	—	(228)
Long-term debt:						
Changes in instrument-specific credit risk ^(a)	1,174	—	1,174	771	—	771
Other changes in fair value ^(b)	16,202	—	16,202	(2,985)	—	(2,985)

(a) Total changes in instrument-specific credit risk related to structured notes were \$1.2 billion and \$806 million for the years ended December 31, 2008 and 2007, respectively, which includes 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 for derivative risk in funded form. The embedded derivative is the primary driver of risk. The 2008 gain included in "Other changes in fair value" results from a significant decline in the value of certain structured notes where the embedded derivative is principally linked to either equity indices or commodity prices, both of which declined sharply during the second half of 2008. Although the risk associated with the structured notes is actively managed, the balance reported in this table does not include the income statement impact of such risk management instruments.

(c) Included in the amounts are gains and losses related to certain financial instruments previously carried at fair value by the Firm, such as structured liabilities elected pursuant to SFAS 155 and loans purchased as part of the Investment Bank's trading activities.

(d) Reported in mortgage fees and related income.

(e) Reported in other income.

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

The following describes how the gains and losses included in earnings during 2008 and 2007, which were attributable to changes in instrument-specific credit risk, were determined.

- Loans and lending-related commitments: For floating-rate instruments, all changes in value are attributed to instrument-specific credit risk. For fixed-rate instruments, an allocation of the changes in value for the period is made between those changes in value that are interest rate-related and changes in value that are credit-related. Allocations are generally based upon 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. The gain for 2008 and 2007 was attributable to the widening of 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.

Notes to consolidated financial statements

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, 2008 and 2007, for loans and long-term debt for which the SFAS 159 fair value option has been elected. The loans were classified in trading assets – debt and equity instruments or in loans.

December 31, (in millions)	2008			2007		
	Remaining aggregate contractual principal amount outstanding	Fair value	Fair value over (under) remaining aggregate contractual principal amount outstanding	Remaining aggregate contractual principal amount outstanding	Fair value	Fair value over (under) remaining aggregate contractual principal amount outstanding
Loans						
Performing loans 90 days or more past due						
Loans reported as trading assets	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Loans	—	—	—	11	11	—
Nonaccrual loans						
Loans reported as trading assets	7,454	1,519	(5,935)	3,044	1,176	(1,868)
Loans	189	51	(138)	15	5	(10)
Subtotal	7,643	1,570	(6,073)	3,070	1,192	(1,878)
All other performing loans						
Loans reported as trading assets	34,038	30,283	(3,755)	56,164	56,638	474
Loans	10,206	7,441	(2,765)	9,011	8,580	(431)
Total loans	\$ 51,887	\$ 39,294	\$(12,593)	\$ 68,245	\$ 66,410	\$ (1,835)
Long-term debt						
Principal protected debt	\$ (27,043) ^(b)	\$ (26,241)	\$ (802)	\$ (24,262) ^(b)	\$ (24,033)	\$ (229)
Nonprincipal protected debt ^(a)	NA	(31,973)	NA	NA	(46,423)	NA
Total long-term debt	NA	\$ (58,214)	NA	NA	\$ (70,456)	NA
FIN 46R long-term beneficial interests						
Principal protected debt	\$ —	\$ —	\$ —	\$ (58)	\$ (58)	\$ —
Nonprincipal protected debt ^(a)	NA	(1,735)	NA	NA	(2,946)	NA
Total FIN 46R long-term beneficial interests	NA	\$ (1,735)	NA	NA	\$ (3,004)	NA

(a) Remaining contractual principal is not applicable to nonprincipal protected notes. Unlike principal protected notes for which the Firm is obligated to return a stated amount of principal at the maturity of the note, nonprincipal protected notes do not obligate the Firm to return a stated amount of principal at maturity but to return an amount based upon the performance of an underlying variable or derivative feature embedded in the note.

(b) 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.

The contractual amount of unfunded lending-related commitments for which the fair value option was elected was negligible at December 31, 2008. At December 31, 2007, the contractual amount of unfunded lending-related commitments for which the fair value option was elected was \$1.0 billion with a corresponding fair value of \$25 million. Such commitments are reflected as liabilities and included in accounts payable and other liabilities.

Note 6 – Principal transactions

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities (including physical commodities inventories that are accounted for at the lower of cost or fair value), changes in fair value associated with financial instruments held by the Investment Bank for which the SFAS 159 fair value option was elected, and loans held-for-sale within the wholesale lines of business. For loans measured at fair value under SFAS 159, origination costs are recognized in the associated expense category as incurred. Principal transactions revenue also includes private equity gains and losses.

The following table presents principal transactions revenue.

Year ended December 31, (in millions)	2008	2007	2006
Trading revenue	\$ (9,791)	\$ 4,736	\$ 9,418
Private equity gains (losses) ^(a)	(908)	4,279	1,360
Principal transactions	\$ (10,699)	\$ 9,015	\$ 10,778

(a) Includes revenue on private equity investments held in the Private Equity business within Corporate/Private Equity and those held in other business segments.

Trading assets and liabilities

Trading assets include debt and equity instruments held for trading purposes that JPMorgan Chase owns ("long" positions), certain loans for which the Firm manages on a fair value basis and has elected the SFAS 159 fair value option, and physical commodities inventories that are 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. For a discussion of the valuation of trading assets and trading liabilities, see Note 5 on pages 156–158 of this Annual Report.

The following table presents the fair value of trading assets and trading liabilities for the dates indicated.

December 31, (in millions)	2008	2007
Trading assets		
Debt and equity instruments: ^(a)		
U.S. government and federal agency obligations:		
U.S. treasuries	\$ 22,121	\$ 32,378
Mortgage-backed securities	6,037	791
Agency obligations	35	2,264
U.S. government-sponsored enterprise obligations:		
Mortgage-backed securities	52,871	33,910
Direct obligations	9,149	9,928
Obligations of state and political subdivisions	13,002	13,090
Certificates of deposit, bankers' acceptances and commercial paper	7,492	8,252
Debt securities issued by non-U.S. governments	38,647	67,921
Corporate debt securities	60,323	53,941
Equity securities	78,546	93,248
Loans	31,802	57,814
Mortgage-backed securities:		
Prime	1,725	6,136
Alt-A	787	3,572
Subprime	680	1,459
Non-U.S. residential	805	974
Commercial	2,816	8,256
Asset-backed securities:		
Credit card receivables	1,296	321
Automobile loans	722	605
Other consumer loans	1,343	2,675
Commercial and industrial loans	1,604	169
Collateralized debt obligations	3,868	4,879
Other	687	1,026
Physical commodities	3,581	4,490
Other	7,418	6,174
Total debt and equity instruments	347,357	414,273
Derivative receivables:		
Interest rate	64,101	36,020
Credit	44,695	22,083
Commodity	14,830	9,419
Foreign exchange	24,715	5,616
Equity	14,285	3,998
Total derivative receivables	162,626	77,136
Total trading assets	\$ 509,983	\$ 491,409
December 31, (in millions)		
Trading liabilities		
Debt and equity instruments: ^(b)		
Derivative payables:		
Interest rate	48,449	25,542
Credit	23,566	11,613
Commodity	11,921	6,942
Foreign exchange	20,352	7,552
Equity	17,316	17,056
Total derivative payables	121,604	68,705
Total trading liabilities	\$166,878	\$157,867

(a) Prior periods have been revised to reflect the current presentation.

(b) Primarily represents securities sold, not yet purchased.

Included in trading assets and trading liabilities are the reported receivables (unrealized gains) and payables (unrealized losses) related to derivatives. As permitted under FIN 39, 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. The netted amount of cash collateral received and paid was \$103.6 billion and \$72.4 billion, respectively, at December 31, 2008, and \$34.9 billion and \$24.6 billion, respectively, at December 31, 2007. The Firm received and paid excess collateral of \$22.2 billion and \$3.7 billion, respectively, at December 31, 2008, and \$17.4 billion and \$2.4 billion, respectively, at December 31, 2007. This additional collateral received and paid secures potential exposure that could arise in the derivatives portfolio should the mark-to-market of the transactions move in the Firm's favor or the client's favor, respectively, and is not nettable against the derivative receivables or payables in the table above. The above amounts also exclude liquid securities held and posted as collateral by the Firm to secure derivative receivables and derivative payables. Collateral amounts held and posted in securities form are not recorded on the Firm's balance sheet, and are therefore not nettable against derivative receivables. The Firm held securities collateral of \$19.8 billion and \$9.8 billion at December 31, 2008 and 2007, respectively, related to derivative receivables. The Firm posted \$11.8 billion and \$5.9 billion of securities collateral at December 31, 2008 and 2007, respectively, related to derivative payables.

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

Year ended December 31, (in millions)	2008	2007	2006
Trading assets – debt and equity instruments	\$ 384,102	\$ 381,415	\$ 280,079
Trading assets – derivative receivables	121,417	65,439	57,368
Trading liabilities – debt and equity instruments ^(a)	\$ 78,841	\$ 94,737	\$ 102,794
Trading liabilities – derivative payables	93,200	65,198	57,938

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

Private equity investments

Private equity investments are recorded in other assets on the Consolidated Balance Sheets. The following table presents the carrying value and cost of the private equity investment portfolio held by the Private Equity business within Corporate/Private Equity for the dates indicated.

December 31, (in millions)	2008		2007	
	Carrying value	Cost	Carrying value	Cost
Total private equity investments	\$6,852	\$8,257	\$7,153	\$6,231

The above private equity investments include investments in buyouts, growth equity and venture opportunities. These investments are accounted for under investment company guidelines. Accordingly, these investments, irrespective of the percentage of equity ownership interest held, are carried on the Consolidated Balance Sheets at fair value. Realized and unrealized gains and losses arising from changes in fair

Notes to consolidated financial statements

value are reported in principal transactions revenue in the Consolidated Statements of Income in the period that the gains or losses are recognized. For a discussion of the valuation of private equity investments, see Note 5 on pages 156–158 of this Annual Report.

Note 7 – Other noninterest revenue

Investment banking fees

This revenue category includes advisory and equity and debt underwriting fees. Advisory fees are recognized as revenue when the related services have been performed. 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 (e.g., the fee is not contingent upon the customer obtaining financing). 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.

The following table presents the components of Investment banking fees.

Year ended December 31, (in millions)	2008	2007	2006
Underwriting:			
Equity	\$ 1,477	\$ 1,713	\$ 1,179
Debt	2,094	2,650	2,703
Total underwriting	3,571	4,363	3,882
Advisory	1,955	2,272	1,638
Total investment banking fees	\$ 5,526	\$ 6,635	\$ 5,520

Lending & deposit-related fees

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

Asset management, administration and commissions

This revenue category includes fees from investment management and related services, custody, brokerage services, insurance premiums and commissions, and other products. These fees are recognized over the period in which the related service is provided. Performance-based fees, which are earned based upon 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)	2008	2007	2006
Asset management:			
Investment management fees	\$ 5,562	\$ 6,364	\$ 4,429
All other asset management fees	432	639	567
Total asset management fees	5,994	7,003	4,996
Total administration fees^(a)	2,452	2,401	2,430
Commission and other fees:			
Brokerage commissions	3,141	2,702	2,184
All other commissions and fees	2,356	2,250	2,245
Total commissions and fees	5,497	4,952	4,429
Total asset management, administration and commissions	\$13,943	\$14,356	\$11,855

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

Mortgage fees and related income

This revenue category primarily reflects Retail Financial Services' mortgage banking revenue, including: fees and income derived from mortgages originated with the intent to sell; mortgage sales and servicing; the impact of risk management activities associated with the mortgage pipeline, warehouse loans and MSR; 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 SFAS 159. For loans measured at fair value under SFAS 159, origination costs are recognized in the associated expense category as incurred. Costs to originate loans held-for-sale and accounted for at the lower of cost or fair value are deferred and recognized as a component of the gain or loss on sale. Net interest income from mortgage loans and securities gains and losses on available-for-sale ("AFS") securities used in mortgage-related risk management activities are recorded in interest income and securities gains (losses), respectively. For a further discussion of MSR, see Note 18 on pages 199–200 of this Annual Report.

Credit card income

This revenue category includes interchange income from credit and debit cards and servicing fees earned in connection with securitization activities. Volume-related payments to partners and expense for rewards programs are netted against interchange income; expense related to rewards programs are recorded when the rewards are earned by the customer, as more fully described below. Other fee revenue is recognized as earned, except for annual fees, which are deferred and recognized on a straight-line basis over the 12-month period to which they pertain. Direct loan origination costs are also deferred and recognized over a 12-month period. In addition, due to the consolidation of Chase Paymentech Solutions in the fourth quarter of 2008, this category now includes net fees earned for processing card transactions for merchants.

Credit card revenue sharing agreements

The Firm has contractual agreements with numerous affinity organizations and co-brand partners, which grant the Firm exclusive rights to market to the members or customers of such organizations and partners. These organizations and 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 ten years. The economic incentives the Firm pays to the endorsing organizations and partners typically include payments based upon new account originations, charge volumes, and the cost of the endorsing organizations' or partners' marketing activities and awards.

The Firm recognizes the payments made to the affinity organizations and co-brand partners based upon new account originations as direct loan origination costs. Payments based upon charge volumes are considered by the Firm as revenue sharing with the affinity organizations and co-brand partners, which are deducted from interchange income as the related revenue is earned. Payments based upon marketing efforts undertaken by the endorsing organization or partner are expensed by the Firm as incurred. These costs are recorded within noninterest expense.

Note 8 – Interest income and Interest expense

Details of interest income and interest expense were as follows.

Year ended December 31, (in millions)	2008	2007	2006
Interest income^(a)			
Loans ^(b)	\$38,347	\$ 36,660	\$ 33,121
Securities ^(b)	6,344	5,232	4,147
Trading assets	17,236	17,041	10,942
Federal funds sold and securities purchased under resale agreements	5,983	6,497	5,578
Securities borrowed	2,297	4,539	3,402
Deposits with banks	1,916	1,418	1,265
Interests in purchased receivables ^(b)	—	—	652
Other assets ^(c)	895	—	—
Total interest income	73,018	71,387	59,107
Interest expense^(a)			
Interest-bearing deposits	14,546	21,653	17,042
Short-term and other liabilities ^(d)	10,933	16,142	14,086
Long-term debt	8,355	6,606	5,503
Beneficial interests issued by consolidated VIEs	405	580	1,234
Total interest expense	34,239	44,981	37,865
Net interest income	38,779	26,406	21,242
Provision for credit losses	19,445	6,864	3,270
Provision for credit losses – accounting conformity ^(e)	1,534	—	—
Total provision for credit losses	\$20,979	\$ 6,864	\$ 3,270
Net interest income after provision for credit losses	\$17,800	\$ 19,542	\$ 17,972

(a) Interest income and interest expense include 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 SFAS 133 absent the SFAS 159 fair value election; for those instruments, all changes in fair value, including any interest elements, are reported in principal transactions revenue.

- (b) As a result of restructuring certain multi-seller conduits the Firm administers, JPMorgan Chase deconsolidated \$29 billion of interests in purchased receivables, \$3 billion of loans and \$1 billion of securities and recorded \$33 billion of lending-related commitments during 2006.
- (c) Predominantly margin loans.
- (d) Includes brokerage customer payables.
- (e) Includes accounting conformity loan loss reserve provision related to the acquisition of Washington Mutual's banking operations.

Note 9 – Pension and other postretirement employee benefit plans

The Firm's defined benefit pension plans are accounted for in accordance with SFAS 87 and SFAS 88, and its other postretirement employee benefit ("OPEB") plans are accounted for in accordance with SFAS 106. In September 2006, the FASB issued SFAS 158, which requires companies to recognize on their Consolidated Balance Sheets the overfunded or underfunded status of their defined benefit postretirement plans, measured as the difference between the fair value of plan assets and the benefit obligation. SFAS 158 requires unrecognized amounts (e.g., net loss and prior service costs) to be recognized in accumulated other comprehensive income (loss) ("AOCI") and that these amounts be adjusted as they are subsequently recognized as components of net periodic benefit cost based upon the current amortization and recognition requirements of SFAS 87 and SFAS 106. The Firm prospectively adopted SFAS 158 on December 31, 2006, and recorded an after-tax charge to AOCI of \$1.1 billion at that date.

SFAS 158 also eliminates the provisions of SFAS 87 and SFAS 106 that allow plan assets and obligations to be measured as of a date not more than three months prior to the reporting entity's balance sheet date. The Firm uses a measurement date of December 31 for its defined benefit pension and OPEB plans; therefore, this provision of SFAS 158 had no effect on the Firm's financial statements.

For the Firm's defined benefit pension plans, fair value is used to determine the expected return on plan assets. 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. 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 percent of the greater of the projected benefit obligation or the fair value of the plan assets. Any excess, as well as prior service costs, are 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 (the decrease of one year from the prior year in the assumptions is related to pension plan demographic assumption revisions at December 31, 2007, to reflect recent experience relating to the form and timing of benefit distributions and rates of turnover). For OPEB plans, any excess net gains and losses also are amortized over the average future service period, which is currently six years; however, prior service costs are amortized over the average years of service remaining to full eligibility age, which is currently four years. The amortization periods for net gains and losses and prior service costs for OPEB are unchanged from the prior year.

Notes to consolidated financial statements

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 upon eligible compensation and years of service. Employees begin to accrue plan benefits after completing one year of service, and beginning January 1, 2008, benefits generally vest after three years of service. The Firm also offers benefits through defined benefit pension plans to qualifying employees in certain non-U.S. locations based upon 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 employee benefit and local tax laws. On January 15, 2009, the Firm made a discretionary cash contribution to its U.S. defined benefit pension plan of \$1.3 billion, funding the plan to the maximum allowable amount under applicable tax law. The expected amount of 2009 contributions to its non-U.S. defined benefit pension plans is \$44 million, of which \$20 million is contractually required. The amount of potential 2009 contributions to the United Kingdom ("U.K.") defined benefit plans is not reasonably estimable at this time.

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 Excess Retirement Plan had an unfunded projected benefit obligation in the amount of \$273 million and \$262 million, at December 31, 2008 and 2007, respectively.

Defined contribution plans

JPMorgan Chase offers several defined contribution plans in the U.S. and 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 pre-tax and Roth 401(k) contributions to tax-deferred investment portfolios. The JPMorgan Chase Common Stock Fund, which is an investment option under the 401(k) Savings Plan, is a nonleveraged employee stock ownership plan. The Firm matches eligible employee contributions up to a certain percentage of benefits-eligible compensation per pay period, subject to plan and legal limits. Employees begin to receive matching contributions after completing a one-year-of-service requirement and are immediately vested in the Firm's contributions when made. Employees with total annual cash compensation of \$250,000 or more are not eligible for matching contributions. The 401(k) Savings Plan also permits discretionary profit-sharing contributions by participating companies for certain employees, subject to a specified vesting schedule.

OPEB plans

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

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

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

As of or for the year ended December 31, (in millions)	Defined benefit pension plans					
	U.S.		Non-U.S.		OPEB plans ^(d)	
	2008	2007	2008	2007	2008	2007
Change in benefit obligation						
Benefit obligation, beginning of year	\$ (7,556)	\$ (8,098)	\$ (2,743)	\$ (2,917)	\$ (1,204)	\$ (1,443)
Benefits earned during the year	(278)	(270)	(29)	(36)	(5)	(7)
Interest cost on benefit obligations	(488)	(468)	(142)	(144)	(74)	(74)
Plan amendments	—	—	—	2	—	—
Business combinations	—	—	—	—	(1) ^(e)	—
Liabilities of newly material plans	—	—	—	(5)	—	—
Employee contributions	NA	NA	(3)	(3)	(61)	(57)
Net gain (loss)	(147)	494	214	327	99	231
Benefits paid	673	789	105	90	154	165
Expected Medicare Part D subsidy receipts	NA	NA	NA	NA	(10)	(11)
Curtailments	—	—	—	4	(6)	(6)
Settlements	—	—	—	24	—	—
Special termination benefits	—	—	(3)	(1)	—	(1)
Foreign exchange impact and other	—	(3)	594	(84)	13	(1)
Benefit obligation, end of year	\$ (7,796)	\$ (7,556)	\$ (2,007)	\$ (2,743)	\$ (1,095)	\$ (1,204)
Change in plan assets						
Fair value of plan assets, beginning of year	\$ 9,960	\$ 9,955	\$ 2,933	\$ 2,813	\$ 1,406	\$ 1,351
Actual return on plan assets	(2,377)	753	(298)	57	(246)	87
Firm contributions	38	37	88	92	3	3
Employee contributions	—	—	3	3	—	—
Assets of newly material plans	—	—	—	3	—	—
Benefits paid	(673)	(789)	(105)	(90)	(37)	(35)
Settlements	—	—	—	(24)	—	—
Foreign exchange impact and other	—	4	(613)	79	—	—
Fair value of plan assets, end of year	\$ 6,948^(c)	\$ 9,960^(c)	\$ 2,008	\$ 2,933	\$ 1,126	\$ 1,406
Funded (unfunded) status^{(a)(b)}	\$ (848)	\$ 2,404	\$ 1	\$ 190	\$ 31	\$ 202
Accumulated benefit obligation, end of year	\$ (7,413)	\$ (7,184)	\$ (1,977)	\$ (2,708)	NA	NA

(a) Represents overfunded plans with an aggregate balance of \$122 million and \$3.3 billion at December 31, 2008 and 2007, respectively, and underfunded plans with an aggregate balance of \$938 million and \$491 million at December 31, 2008 and 2007, respectively.

(b) The table above does not include any amounts attributable to the Washington Mutual Pension and OPEB plans. The disposition of those plans has not been determined.

(c) At December 31, 2008 and 2007, approximately \$313 million and \$299 million, respectively, of U.S. plan assets included participation rights under participating annuity contracts.

(d) Includes an unfunded accumulated postretirement benefit obligation of \$32 million and \$49 million at December 31, 2008 and 2007, respectively, for the U.K. plan.

(e) Represents change resulting from the Bear Stearns merger.

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

As of the year ended December 31, (in millions)	Defined benefit pension plans					
	U.S.		Non-U.S.		OPEB plans	
	2008	2007	2008	2007	2008	2007
Net loss	\$ (3,493)	\$ (250)	\$ (492)	\$ (434)	\$ (349)	\$ (98)
Prior service cost (credit)	(26)	(31)	2	2	40	58
Accumulated other comprehensive income (loss), pretax, end of year	\$ (3,519)	\$ (281)	\$ (490)	\$ (432)	\$ (309)	\$ (40)

Notes to consolidated financial statements

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 and OPEB plans.

Year ended December 31, (in millions)	Defined benefit pension plans						OPEB plans		
	U.S.			Non-U.S.					
	2008	2007	2006	2008	2007	2006	2008	2007	2006
Components of net periodic benefit cost									
Benefits earned during the year	\$ 278	\$ 270	\$ 281	\$ 29	\$ 36	\$ 37	\$ 5	\$ 7	\$ 9
Interest cost on benefit obligations	488	468	452	142	144	120	74	74	78
Expected return on plan assets	(719)	(714)	(692)	(152)	(153)	(122)	(98)	(93)	(93)
Amortization:									
Net loss	—	—	12	25	55	45	—	14	29
Prior service cost (credit)	4	5	5	—	—	—	(16)	(16)	(19)
Curtailment (gain) loss	1	—	2	—	—	1	4	2	2
Settlement (gain) loss	—	—	—	—	(1)	4	—	—	—
Special termination benefits	—	—	—	3	1	1	—	1	2
Net periodic benefit cost	52	29	60	47	82	86	(31)	(11)	8
Other defined benefit pension plans ^(a)	11	4	2	14	27	36	NA	NA	NA
Total defined benefit plans	63	33	62	61	109	122	(31)	(11)	8
Total defined contribution plans	263	268	254	286	219	199	NA	NA	NA
Total pension and OPEB cost included in compensation expense	\$ 326	\$ 301	\$ 316	\$ 347	\$ 328	\$ 321	\$ (31)	\$ (11)	\$ 8
Changes in plan assets and benefit obligations recognized in other comprehensive income									
Net (gain) loss arising during the year	\$ 3,243	\$ (533)	NA	\$ 235	\$(176)	NA	\$ 248	\$(223)	NA
Prior service credit arising during the year	—	—	NA	—	(2)	NA	—	—	NA
Amortization of net loss	—	—	NA	(27)	(55)	NA	—	(14)	NA
Amortization of prior service (cost) credit	(5)	(5)	NA	—	—	NA	15	16	NA
Curtailment (gain) loss	—	—	NA	—	(5)	NA	3	3	NA
Settlement loss	—	—	NA	—	1	NA	—	—	NA
Foreign exchange impact and other	—	—	NA	(150)	—	NA	3	—	NA
Total recognized in other comprehensive income	3,238	(538)	NA	58	(237)	NA	269	(218)	NA
Total recognized in net periodic benefit cost and other comprehensive income	\$ 3,290	\$ (509)	NA	\$ 105	\$(155)	NA	\$ 238	\$(229)	NA

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

The estimated pretax amounts that will be amortized from AOCI into net periodic benefit cost in 2009 are as follows.

Year ended December 31, 2009 (in millions)	Defined benefit pension plans		OPEB plans	
	U.S.	Non-U.S.	U.S.	Non-U.S.
Net loss	\$ 301	\$ 42	\$ —	\$ —
Prior service cost (credit)	4	—	(14)	—
Total	\$ 305	\$ 42	\$ (14)	\$ —

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 building-block approach and are not strictly based upon 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 was also given to current market conditions and the short-term portfolio mix of each Plan; as a result, the Firm has generally maintained the same expected return on assets from 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 defined benefit pension 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 return on "AA"-rated long-term corporate bonds has been taken as the average yield on such bonds, adjusted for the expected downgrades and the expected narrowing of credit spreads over the long term.

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 year-end iBoxx £ corporate "AA" 15-year-plus bond index (adjusted for expected downgrades in the underlying bonds comprising the index) with a duration corresponding to that of the underlying benefit obligations.

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 U.S. and non-U.S. defined benefit pension and OPEB plans, as of and for the periods indicated.

Weighted-average assumptions used to determine benefit obligations

December 31,	U.S.		Non-U.S.	
	2008	2007	2008	2007
Discount rate:				
Defined benefit pension plans	6.65%	6.60%	2.00-6.20%	2.25-5.80%
OPEB plans	6.70	6.60	6.20	5.80
Rate of compensation increase	4.00	4.00	3.00-4.00	3.00-4.25
Health care cost trend rate:				
Assumed for next year	8.50	9.25	7.00	5.75
Ultimate	5.00	5.00	5.50	4.00
Year when rate will reach ultimate	2014	2014	2012	2010

Weighted-average assumptions used to determine net periodic benefit costs

Year ended December 31,	U.S.			Non-U.S.		
	2008	2007	2006	2008	2007	2006
Discount rate:						
Defined benefit pension plans	6.60%	5.95%	5.70%	2.25-5.80%	2.25-5.10%	2.00-4.70%
OPEB plans	6.60	5.90	5.65	5.80	5.10	4.70
Expected long-term rate of return on plan assets:						
Defined benefit pension plans	7.50	7.50	7.50	3.25-5.75	3.25-5.60	3.25-5.50
OPEB plans	7.00	7.00	6.84	NA	NA	NA
Rate of compensation increase	4.00	4.00	4.00	3.00-4.25	3.00-4.00	3.00-3.75
Health care cost trend rate:						
Assumed for next year	9.25	10.00	10.00	5.75	6.63	7.50
Ultimate	5.00	5.00	5.00	4.00	4.00	4.00
Year when rate will reach ultimate	2014	2014	2013	2010	2010	2010

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

Year ended December 31, 2008 (in millions)	1-Percentage- point increase	1-Percentage- point decrease
Effect on total service and interest cost	\$ 3	\$ (3)
Effect on accumulated postretirement benefit obligation	45	(40)

Notes to consolidated financial statements

At December 31, 2008, the Firm increased the discount rates used to determine its benefit obligations for the U.S. defined benefit pension and OPEB plans based upon current market interest rates, which will result in a decrease in expense of approximately \$1.6 million for 2009. The 2009 expected long-term rate of return on U.S. pension plan assets and U.S. OPEB plan assets remained at 7.5% and 7.0%, respectively. The health care benefit obligation trend assumption declined from 9.25% in 2008 to 8.5% in 2009, declining to a rate of 5% in 2014. As of December 31, 2008, the interest crediting rate assumption and the assumed rate of compensation increase remained at 5.25% and 4.0%, respectively.

JPMorgan Chase's U.S. defined benefit pension and OPEB plan expense is sensitive to the expected long-term rate of return on plan assets and the discount rate. With all other assumptions held constant, a 25-basis point decline in the expected long-term rate of return on U.S. plan assets would result in an increase of approximately \$23 million in 2009 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 2009 U.S. defined benefit pension and OPEB plan expense of approximately \$9 million and an increase in the related projected benefit obligations of approximately \$159 million. A 25-basis point decline in the discount rates for the non-U.S. plans would result in an increase in the 2009 non-U.S. defined benefit pension and OPEB plan expense of approximately \$10 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 2009 U.S. defined benefit pension expense of approximately \$16 million and an increase in the related projected benefit obligations of approximately \$66 million.

Investment strategy and asset allocation

The investment policy for the Firm's postretirement employee benefit plan assets is to optimize the risk-return relationship as appropriate to the respective plan's needs and goals, using a global portfolio of various asset classes diversified by market segment, economic sector and issuer. Specifically, the goal is to optimize the asset mix for future benefit obligations, while managing various risk factors and each plan's investment return objectives. For example, long-duration fixed income securities are included in the U.S. qualified pension plan's asset allocation, in recognition of its long-duration obligations. Plan assets are managed by a combination of internal and external investment managers and are rebalanced within approved ranges on a continued basis. The Firm reviews the allocation daily and all factors that impact portfolio changes to ensure the Plan stays within these ranges, rebalancing when deemed necessary.

The Firm's U.S. defined benefit pension plan assets are held in trust and invested in a well-diversified portfolio of equities (including U.S. large and small capitalization and international equities), fixed income (including corporate and government bonds, Treasury inflation-indexed and high-yield securities), real estate, cash equivalents and alternative investments. Non-U.S. defined benefit pension plan assets are held in various trusts and similarly invested in well-diversified portfolios of equity, fixed income and other securities. Assets of the Firm's COLI policies, which are used to fund partially the U.S. OPEB plan, are held in separate accounts with an insurance company and are invested in equity and fixed income index funds. As of December 31, 2008, 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 following table presents the weighted-average asset allocation of the fair values of total plan assets at December 31 for the years indicated, as well as the respective approved range/target allocation by asset category, for the Firm's U.S. and non-U.S. defined benefit pension and OPEB plans.

December 31,	Defined benefit pension plans								
	U.S.			Non-U.S.			OPEB plans ^(a)		
	Target Allocation	% of plan assets 2008	2007	Target Allocation	% of plan assets 2008	2007	Target Allocation	% of plan assets 2008	2007
Asset category									
Debt securities	10-30%	25%	28%	68%	73%	70%	50%	50%	50%
Equity securities	25-60	36	45	27	21	25	50	50	50
Real estate	5-20	7	9	1	1	1	—	—	—
Alternatives	15-50	32	18	4	5	4	—	—	—
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

(a) Represents the U.S. OPEB plan only, as the U.K. OPEB plan is unfunded.

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.

December 31,	U.S.			Non-U.S.		
	2008	2007	2006	2008	2007	2006
Actual rate of return:						
Defined benefit pension plans	(25.17)%	7.96%	13.40%	(21.58)-5.06%	0.06-7.51%	2.80-7.30%
OPEB plans	(17.89)	6.51	9.30	NA	NA	NA

Estimated future benefit payments

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

Year ended December 31, (in millions)	U.S. defined benefit pension plans	Non-U.S. defined benefit pension plans	OPEB before Medicare Part D subsidy	Medicare Part D subsidy
2009	\$ 917	\$ 88	\$ 109	\$ 11
2010	928	94	111	12
2011	597	99	112	13
2012	616	102	110	14
2013	629	107	109	15
Years 2014–2018	3,333	571	513	87

Note 10 – Employee stock-based incentives

Effective January 1, 2006, the Firm adopted SFAS 123R and all related interpretations using the modified prospective transition method. SFAS 123R requires all share-based payments to employees, including employee stock options and stock appreciation rights ("SARs"), to be measured at their grant date fair values. The Firm also adopted the transition election provided by FSP FAS 123(R)-3.

Upon adopting SFAS 123R, the Firm began to recognize in the Consolidated Statements of Income compensation expense for unvested stock options previously accounted for under APB 25. Additionally, JPMorgan Chase recognized as compensation expense an immaterial cumulative effect adjustment resulting from the SFAS 123R requirement to estimate forfeitures at the grant date instead of recognizing them as incurred. Finally, the Firm revised its accounting policies for share-based payments granted to employees eligible for continued vesting under specific age and service or service-related provisions ("full-career eligible employees") under SFAS 123R. Prior to adopting SFAS 123R, the Firm's accounting policy for share-based payment awards granted to full-career eligible employees was to recognize compensation cost over the award's stated service period. Beginning with awards granted to full-career eligible employees in 2006, JPMorgan Chase recognized compensation expense on the grant date without giving consideration to the impact of post-employment restrictions. In the first quarter of 2006, the Firm also began to accrue the estimated cost of stock awards granted to full-career eligible employees in the following year.

In June 2007, the FASB ratified EITF 06-11, which requires that realized tax benefits from dividends or dividend equivalents paid on equity-classified share-based payment awards that are charged to retained earnings be 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. Prior to the issuance of EITF 06-11, the Firm did not include these tax benefits as part of this pool of excess tax benefits. The Firm adopted EITF 06-11 on January 1, 2008. The adoption of this consensus did not have an impact on the Firm's Consolidated Balance Sheets or results of operations.

In connection with the Bear Stearns merger, 46 million Bear Stearns employee stock awards, principally restricted stock units ("RSUs"), capital appreciation plan units and stock options, were exchanged for equivalent JPMorgan Chase awards using the merger exchange ratio of 0.21753. The fair value of these employee stock awards was included in the purchase price since substantially all of the awards were fully vested immediately after the merger date under provisions that provided for accelerated vesting upon a change of control of Bear Stearns. However, Bear Stearns vested employee stock options had no impact on the purchase price; since the employee stock options were significantly out of the money at the merger date, the fair value of these awards was equal to zero upon their conversion into JPMorgan Chase options.

The Firm also exchanged 6 million shares of its common stock for 27 million shares of Bear Stearns common stock held in an irrevocable grantor trust (the "RSU Trust") using the merger exchange ratio of 0.21753. The RSU Trust was established to hold common stock underlying awards granted to selected employees and key executives under certain Bear Stearns employee stock plans. The RSU Trust was consolidated on JPMorgan Chase's Consolidated Balance Sheets as of June 30, 2008, and the shares held in the RSU Trust were recorded in "Shares held in RSU Trust," which reduced stockholders' equity, similar to the treatment for treasury stock. A related obligation to issue stock under these employee stock plans is reported in capital surplus. The issuance of shares held in the RSU Trust to employees will not have any effect on the Firm's total stockholders' equity, net

Notes to consolidated financial statements

income or earnings per share. Shares in the RSU Trust were distributed in 2008 with approximately half of the shares in the RSU Trust distributed in January 2009. The remaining shares are expected to be distributed over the next four years.

Employee stock-based awards

In 2008, 2007 and 2006, JPMorgan Chase granted long-term stock-based awards to certain key employees under the 2005 Long-Term Incentive Plan (the "2005 Plan"). The 2005 Plan, plus prior Firm plans and plans assumed as the result of acquisitions, constitute the Firm's stock-based incentive plans ("LTI Plan"). The 2005 Plan became effective on May 17, 2005, after approval by shareholders at the 2005 annual meeting. In May 2008, the 2005 Plan was amended and under the terms of the amended plan as of December 31, 2008, 348 million shares of common stock are available for issuance through May 2013. The amended 2005 Plan is the only active plan under which the Firm is currently granting stock-based incentive awards.

RSUs are awarded at no cost to the recipient upon their grant. RSUs are generally granted annually and generally vest 50 percent after two years and 50 percent after three years and convert to 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. All of these awards are subject to forfeiture until the vesting date. An RSU entitles the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSU is outstanding.

Under the LTI Plan, stock options and SARs have 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, and it also periodically grants discretionary stock-based incentive awards to individual employees, primarily in the form of both employee stock options and SARs. The 2008 and 2007 grants of SARs to key employees vest ratably over five years (i.e., 20% per year) and the 2006 awards vest one-third after each of years three, four, and five. These awards do not include any full-career eligibility provisions and all awards generally expire ten years after the grant date.

The Firm separately recognizes compensation expense for each tranche of each award as if it were a separate award with its own vesting date. For each tranche granted (other than grants to employees who are full-career eligible at the grant date), compensation expense is recognized on a straight-line basis from the grant date until the vesting date of the respective tranche, provided that the employees will not become full-career eligible during the vesting period. For each tranche granted to employees who will become full-career eligible during the vesting period, compensation expense is recognized on a straight-line basis from the grant date until the earlier of the employee's full-career eligibility date or the vesting date of the respective tranche.

The Firm's policy for issuing shares upon settlement of employee stock-based incentive awards is to issue either new shares of common stock or treasury shares. During 2008 and 2007, the Firm settled all of its employee stock-based awards by issuing treasury shares. During 2006, the Firm settled all of its employee stock-based awards by issuing new shares of common stock from January 1 through May 31, 2006, and by issuing treasury shares thereafter.

In January 2008, the Firm awarded to its Chairman and Chief Executive Officer up to two 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 ten-year term, will become exercisable no earlier than January 22, 2013, and have an exercise price of \$39.83, the price of JPMorgan Chase common stock on the date of the award. The number of SARs that will become exercisable (ranging from none to the full two million) and their exercise date or dates may be determined by the Board of Directors based on an assessment of the performance of both the CEO and JPMorgan Chase. That assessment will be made by the Board in the year prior to the fifth anniversary of the date of the award, relying on such factors that in its sole discretion the Board deems appropriate. Due to the substantial uncertainty surrounding the number of SARs that will ultimately be granted and their exercise dates, a grant date has not been established for accounting purposes. However, since the service inception date precedes the grant date, the Firm will recognize this award ratably over an assumed five-year service period, subject to a requirement to recognize changes in the fair value of the award through the grant date. The Firm recognized \$1 million in compensation expense in 2008 for this award.

RSU activity

Compensation expense for RSUs is measured based upon the number of shares granted multiplied by the stock price at the grant date and is recognized in net income as previously described. The following table summarizes JPMorgan Chase's RSU activity for 2008.

Year ended December 31, 2008 (in thousands, except weighted average data)	Number of Shares	Weighted- average grant date fair value
Outstanding, January 1	99,017	\$ 43.11
Granted	85,890	40.37
Bear Stearns conversion	5,975	42.24
Vested	(36,606)	38.95
Forfeited	(6,232)	42.90
Outstanding, December 31	148,044	\$ 42.53

The total fair value of shares that vested during the years ended December 31, 2008, 2007 and 2006, was \$1.6 billion, \$1.5 billion and \$1.3 billion, respectively.

Employee stock option and SARs activity

Compensation expense, which is measured at the grant date as the fair value of employee stock options and SARs, is recognized in net income as described above.

The following table summarizes JPMorgan Chase's employee stock option and SARs activity for the year ended December 31, 2008, including awards granted to key employees and awards granted in prior years under broad-based plans.

Year ended December 31, 2008

(in thousands, except weighted-average data)	Number of options/SARs	Weighted-average exercise price	Weighted-average remaining contractual life (in years)	Aggregate intrinsic value
Outstanding, January 1	325,931	\$ 41.70		
Granted	9,341	41.37		
Bear Stearns conversion	3,906	399.91		
Exercised	(34,761)	33.73		
Forfeited	(3,382)	44.13		
Canceled	(17,666)	47.61		
Outstanding, December 31	283,369	\$ 47.21	3.5	\$ 224,632
Exercisable, December 31	242,653	47.85	2.7	224,632

The weighted-average grant date per share fair value of stock options and SARs granted during the years ended December 31, 2008, 2007 and 2006, was \$10.36, \$13.38 and \$10.99, respectively. The total intrinsic value of options exercised during the years ended December 31, 2008, 2007 and 2006 was \$391 million, \$937 million and \$994 million, respectively.

Impact of adoption of SFAS 123R

During 2006, the incremental expense related to the Firm's adoption of SFAS 123R was \$712 million. This amount represents an accelerated noncash recognition of costs that would otherwise have been incurred in future periods. Also, as a result of adopting SFAS 123R, the Firm's income from continuing operations (pretax) for the year ended December 31, 2006, was lower by \$712 million, and each of income from continuing operations (after-tax) and net income for the year ended December 31, 2006, was lower by \$442 million, than if the Firm had continued to account for stock-based incentives under APB 25 and SFAS 123. Basic and diluted earnings per share from continuing operations, as well as basic and diluted net income per share, for the year ended December 31, 2006 were \$.13 and \$.12 lower, respectively, than if the Firm had not adopted SFAS 123R.

Compensation expense

The Firm recognized noncash compensation expense related to its various employee stock-based incentive awards of \$2.6 billion, \$2.0 billion and \$2.4 billion (including the \$712 million incremental impact of adopting SFAS 123R) for the years ended December 31, 2008, 2007, and 2006, respectively, in its Consolidated Statements of Income. These amounts included an accrual for the estimated cost of stock awards to be granted to full-career eligible employees of \$409 million, \$500 million and \$498 million for the years ended December 31, 2008, 2007 and 2006, respectively. At December 31, 2008, approximately \$1.9 billion (pretax) of compensation cost related to unvested awards has not yet been charged to net income. That cost is expected to be amortized into compensation expense over a weighted-average period of 1.3 years. The Firm does not capitalize any compensation cost related to share-based compensation awards to employees.

Cash flows and tax benefits

The total income tax benefit related to stock-based incentive arrangements recognized in the Firm's Consolidated Statements of Income for the years ended December 31, 2008, 2007 and 2006, was \$1.1 billion, \$810 million and \$947 million, respectively.

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

Year ended December 31, (in millions)	2008	2007	2006
Cash received for options exercised	\$ 1,026	\$ 2,023	\$ 1,924
Tax benefit realized	72	238	211

Valuation assumptions

The following table presents the assumptions used to value employee stock options and SARs granted during the period under the Black-Scholes valuation model.

Year ended December 31,	2008	2007	2006
Weighted-average annualized valuation assumptions			
Risk-free interest rate	3.90%	4.78%	5.11%
Expected dividend yield	3.57	3.18	2.89
Expected common stock price volatility	34	33	23
Expected life (in years)	6.8	6.8	6.8

Prior to the adoption of SFAS 123R, the Firm used the historical volatility of its common stock price as the expected volatility assumption in valuing options. The Firm completed a review of its expected volatility assumption in 2006. Effective October 1, 2006, JPMorgan Chase began to value its employee stock options granted or modified after that date using an expected volatility assumption derived from the implied volatility of its publicly traded 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. The expected life assumption was developed using historic experience.

Notes to consolidated financial statements

Note 11 – Noninterest expense

Merger costs

Costs associated with the Bear Stearns merger and the Washington Mutual transaction in 2008, the 2004 merger with Bank One Corporation, and The Bank of New York, Inc. ("The Bank of New York") transaction in 2006 are reflected in the merger costs caption of the Consolidated Statements of Income. For a further discussion of the Bear Stearns merger and the Washington Mutual transaction, see Note 2 on pages 135–140 of this Annual Report. A summary of merger-related costs is shown in the following table.

Year ended December 31, (in millions)	2008			2007 ^(b)	2006 ^(b)
	Bear Stearns	Washington Mutual	Total		
Expense category					
Compensation	\$ 181	\$ 113	\$ 294	\$ (19)	\$ 26
Occupancy	42	—	42	17	25
Technology and communications and other	85	11	96	188	239
The Bank of New York transaction	—	—	—	23	15
Total^(a)	\$ 308	\$ 124	\$ 432	\$ 209	\$ 305

(a) With the exception of occupancy and technology-related write-offs, all of the costs in the table required the expenditure of cash.

(b) The 2007 and 2006 activity reflect the 2004 merger with Bank One Corporation and the Bank of New York transaction.

The table below shows the change in the merger reserve balance related to the costs associated with the transactions.

Year ended December 31, (in millions)	2008			2007 ^(a)	2006 ^(a)
	Bear Stearns	Washington Mutual	Total		
Merger reserve balance, beginning of period	\$ —	\$ —	\$ —	\$ 155	\$ 311
Recorded as merger costs	308	124	432	186	290
Included in net assets acquired	1,112	435	1,547	(60)	—
Utilization of merger reserve	(1,093)	(118)	(1,211)	(281)	(446)
Merger reserve balance, end of period	\$ 327	\$ 441	\$ 768	\$ —^(b)	\$ 155^(b)

(a) The 2007 and 2006 activity reflect the 2004 merger with Bank One Corporation.

(b) Excludes \$10 million and \$21 million at December 31, 2007 and 2006, respectively, related to the Bank of New York transaction.

Note 12 – Securities

Securities are classified as AFS, held-to-maturity ("HTM") or trading. Trading securities are discussed in Note 6 on pages 158–160 of this Annual Report. Securities are classified primarily as AFS when used to manage the Firm's exposure to interest rate movements, as well as to make strategic longer-term investments. AFS securities are carried at fair value on the Consolidated Balance Sheets. Unrealized gains and losses, after any applicable SFAS 133 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. Securities that the Firm has the positive intent and ability to hold to maturity are classified as HTM

and are carried at amortized cost on the Consolidated Balance Sheets. The Firm has not classified new purchases of securities as HTM for the past several years.

The following table presents realized gains and losses from AFS securities.

Year ended December 31, (in millions)	2008	2007	2006
Realized gains	\$ 1,890	\$ 667	\$ 399
Realized losses	(330) ^(b)	(503)	(942)
Net realized securities gains (losses)^(a)	\$ 1,560	\$ 164	\$ (543)

(a) Proceeds from securities sold were within approximately 2% of amortized cost.

(b) 2008 includes \$76 million of losses due to the other-than-temporary impairment of subprime mortgage-backed securities.

The amortized cost and estimated fair value of AFS and HTM securities were as follows for the dates indicated.

December 31, (in millions)	2008				2007			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale securities								
U.S. government and federal agency obligations:								
U.S. treasuries	\$ 616	\$ 2	\$ 7	\$ 611	\$ 2,470	\$ 14	\$ 2	\$ 2,482
Mortgage-backed securities	6,281	148	5	6,424	8	1	—	9
Agency obligations	69	13	—	82	73	9	—	82
Collateralized mortgage obligations	557	9	8	558	—	—	—	—
U.S. government-sponsored enterprise obligations:								
Mortgage-backed securities	108,360	2,257	214	110,403	62,505	641	55	63,091
Direct obligations ^(a)	9,717	37	90	9,664	6	2	—	8
Obligations of state and political subdivisions	3,479	94	238	3,335	92	1	2	91
Certificates of deposit	17,226	64	8	17,282	2,040	—	—	2,040
Debt securities issued by non-U.S. governments	8,173	173	2	8,344	6,804	18	28	6,794
Corporate debt securities	9,358	257	61	9,554	1,927	1	4	1,924
Equity securities	3,073	2	7	3,068	4,124	55	1	4,178
Mortgage-backed securities:								
Prime	7,762	4	1,739	6,027	3,551	7	5	3,553
Subprime	213	—	19	194	384	41	28	397
Alt-A	1,064	—	196	868	—	—	—	—
Non-U.S. residential	2,233	24	182	2,075	—	—	—	—
Commercial	4,623	—	684	3,939	—	—	—	—
Asset-backed securities:								
Credit card receivables	13,651	8	2,268	11,391	775	—	47	728
Other consumer loans	1,008	4	134	878	—	—	—	—
Commercial and industrial loans	11,847	168	820	11,195	—	—	—	—
Other	18	—	1	17	29	—	—	29
Total available-for-sale securities	\$ 209,328	\$ 3,264	\$ 6,683	\$ 205,909	\$ 84,788	\$ 790	\$ 172	\$ 85,406
Held-to-maturity securities^(b)	\$ 34	\$ 1	\$ —	\$ 35	\$ 44	\$ 1	\$ —	\$ 45

(a) Consists primarily of mortgage-related obligations.

(b) Consists primarily of mortgage-backed securities issued by U.S. government-sponsored entities.

Notes to consolidated financial statements

The following table presents the fair value and gross unrealized losses for AFS securities by aging category at December 31.

	Securities with gross unrealized losses					
	Less than 12 months		12 months or more		Total Fair value	Total Gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
December 31, 2008 (in millions)						
Available-for-sale securities						
U.S. government and federal agency obligations:						
U.S. treasuries	\$ 249	\$ 7	\$ —	\$ —	\$ 249	\$ 7
Mortgage-backed securities	2,042	5	1	—	2,043	5
Agency obligations	—	—	—	—	—	—
Collateralized mortgage obligations	427	8	—	—	427	8
U.S. government-sponsored enterprise obligations:						
Mortgage-backed securities	3,547	211	468	3	4,015	214
Direct obligations	7,410	90	—	—	7,410	90
Obligations of state and political subdivisions	1,129	232	16	6	1,145	238
Certificates of deposit	382	8	—	—	382	8
Debt securities issued by non-U.S. governments	308	1	74	1	382	2
Corporate debt securities	558	54	30	7	588	61
Equity securities	19	7	—	—	19	7
Mortgage-backed securities:						
Prime	5,386	1,642	333	97	5,719	1,739
Subprime	—	—	151	19	151	19
Alt-A	868	196	—	—	868	196
Non-U.S. residential	1,908	182	—	—	1,908	182
Commercial	3,939	684	—	—	3,939	684
Asset-backed securities:						
Credit card receivables	10,267	1,964	472	304	10,739	2,268
Other consumer loans	813	134	—	—	813	134
Commercial and industrial loans	9,059	820	—	—	9,059	820
Other	—	—	17	1	17	1
Total securities with gross unrealized losses	\$48,311	\$ 6,245	\$ 1,562	\$ 438	\$ 49,873	\$ 6,683

December 31, 2007 (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 unrealized losses	Fair value	Gross unrealized losses		
Available-for-sale securities						
U.S. government and federal agency obligations:						
U.S. treasuries	\$ 175	\$ 2	\$ —	\$ —	\$ 175	\$ 2
Mortgage-backed securities	—	—	—	—	—	—
Agency obligations	—	—	—	—	—	—
Collateralized mortgage obligations	—	—	—	—	—	—
U.S. government-sponsored enterprise obligations:						
Mortgage-backed securities	—	—	1,345	55	1,345	55
Direct obligations	—	—	—	—	—	—
Obligations of state and political subdivisions	21	2	—	—	21	2
Certificates of deposit	1,102	—	—	—	1,102	—
Debt securities issued by non-U.S. governments	335	3	1,928	25	2,263	28
Corporate debt securities	1,126	3	183	1	1,309	4
Equity securities	—	—	4	1	4	1
Mortgage-backed securities:						
Prime	1,313	5	—	—	1,313	5
Subprime	306	28	—	—	306	28
Alt-A	—	—	—	—	—	—
Non-U.S. residential	—	—	—	—	—	—
Commercial	—	—	—	—	—	—
Asset-backed securities:						
Credit card receivables	443	31	285	16	728	47
Other consumer loans	—	—	—	—	—	—
Commercial and industrial loans	—	—	—	—	—	—
Other	29	—	—	—	29	—
Total securities with gross unrealized losses	\$ 4,850	\$ 74	\$ 3,745	\$ 98	\$ 8,595	\$ 172

AFS securities in unrealized loss positions are analyzed in depth as part of the Firm's ongoing assessment of other-than-temporary impairment. Potential other-than-temporary impairment of AFS securities is considered using a variety of factors, including the length of time and extent to which the market value has been less than cost; the financial condition and near-term prospects of the issuer or underlying collateral of a security; and the Firm's intent and ability to retain the security in order to allow for an anticipated recovery in fair value. Where applicable under EITF Issue 99-20, the Firm estimates the cash flows over the life of the security to determine if any adverse changes have occurred that require an other-than-temporary impairment charge. The Firm applies EITF Issue 99-20 to beneficial interests in securitizations that are rated below "AA" at 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 a decline in fair value to be other-than-temporary if it is probable that the Firm will not recover its recorded investment, including as applicable under EITF Issue 99-20, when an adverse change in cash flows has occurred.

The Firm's analysis of the financial condition and near term prospects of the issuer or underlying collateral of a security noted above includes analysis of performance indicators relevant to the specific investment. For asset-backed investments, such relevant performance indicators may include ratings, valuation of subordinated positions in current and/or stress scenarios, excess spread or overcollateralization

levels, and whether certain protective triggers have been reached. For mortgage-backed investments, such relevant performance indicators may include ratings, prepayment speeds, delinquencies, default rates, loss severities, geographic concentration, and forecasted performance under various home price decline stress scenarios.

As of December 31, 2008, approximately \$438 million of the unrealized losses relate to securities that have been in an unrealized loss position for longer than 12 months, and primarily relate to prime mortgage-backed securities and credit card-related asset-backed securities. The prime mortgage-backed securities are primarily rated "AAA", while the credit card-related asset-backed securities are rated "BBB". Based upon the analyses described above, which have been applied to these securities, the Firm believes that the unrealized losses result from liquidity conditions in the current market environment and not from concerns regarding the credit of the issuers or underlying collateral. The Firm does not believe it is probable that it will not recover its investments, given the current levels of collateral and credit enhancements that exist to protect the investments. For securities analyzed for impairment under EITF 99-20, the collateral and credit enhancement features are at levels sufficient to ensure that an adverse change in expected future cash flows has not occurred.

As of December 31, 2008, approximately \$6.2 billion of the unrealized losses relate to securities that have been in an unrealized loss position for less than 12 months; these losses largely relate to credit

Notes to consolidated financial statements

card-related asset-backed securities, mortgage-backed securities issued by private issuers and commercial and industrial asset-backed securities. Of the \$2.0 billion of unrealized losses related to credit card-related asset-backed securities, \$1.7 billion relates to purchased credit card-related asset-backed securities, and \$304 million relates to retained interests in the Firm's own credit card receivable securitizations. The credit card-related asset-backed securities include "AAA", "A" and "BBB" ratings. Based on the levels of excess spread available to absorb credit losses, and based on the value of interests subordinate to the Firm's interests where applicable, the Firm does not believe it is probable that it will not recover its investments. Where applicable under EITF 99-20, the collateral and credit enhancement features are at levels sufficient to ensure that an adverse change in expected future cash flows has not occurred. Of the remaining unrealized losses as of December 31, 2008, related to securities that have been in an unrealized loss position for less than

12 months, \$2.7 billion relates to mortgage-backed securities issued by private issuers and \$820 million relates to commercial and industrial asset-backed securities. The mortgage-backed securities and commercial and industrial asset-backed securities are predominantly rated "AAA". Based on an analysis of the performance indicators noted above for mortgage-backed securities and asset-backed securities, which have been applied to the loans underlying these securities, the Firm does not believe it is probable that it will not recover its investments in these securities.

The Firm intends to hold the securities in an unrealized loss position for a period of time sufficient to allow for an anticipated recovery in fair value or maturity. The Firm has sufficient capital and liquidity to hold these securities until recovery in fair value or maturity. Based on the Firm's evaluation of the factors and other objective evidence described above, the Firm believes that the securities are not other-than-temporarily impaired as of December 31, 2008.

The following table presents the amortized cost, estimated fair value and average yield at December 31, 2008, of JPMorgan Chase's AFS and HTM securities by contractual maturity.

By remaining maturity at December 31, 2008 (in millions, except ratios)	Available-for-sale securities			Held-to-maturity securities		
	Amortized cost	Fair value	Average yield ^(b)	Amortized cost	Fair value	Average yield ^(b)
Due in one year or less	\$ 24,163	\$ 24,056	2.80%	\$ —	\$ —	—%
Due after one year through five years	26,115	25,075	2.46	—	—	—
Due after five years through ten years	13,105	12,436	3.78	31	32	6.89
Due after ten years ^(a)	145,945	144,342	5.19	3	3	5.69
Total securities	\$ 209,328	\$ 205,909	4.49%	\$ 34	\$ 35	6.78%

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

(b) The average yield is based upon amortized cost balances at year-end. Yields are derived by dividing interest income by total amortized cost. Taxable-equivalent yields are used where applicable.

Note 13 – Securities financing activities

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

Resale agreements and repurchase agreements are generally treated as collateralized financing transactions carried on the Consolidated Balance Sheets at the amounts the securities will be subsequently sold or repurchased, plus accrued interest. On January 1, 2007, pursuant to the adoption of SFAS 159, the Firm elected fair value measurement for certain resale and repurchase agreements. In 2008, the Firm elected fair value measurement for certain newly transacted securities borrowed and securities lending agreements. For a further discussion of SFAS 159, see Note 5 on pages 156–158 of this Annual Report. The securities financing agreements for which the fair value option was elected continue to be reported within securities purchased under resale agreements; securities loaned or sold under repurchase agreements; securities borrowed; and other borrowed funds 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 SFAS 133, all changes in fair value, including any interest elements, are reported in principal transactions revenue. Where appropriate, resale and repurchase agreements with the same counterparty are reported on a net basis in accordance with FIN 41. JPMorgan Chase takes possession of securities purchased under resale agreements. On a daily basis, JPMorgan Chase monitors the market value of the underlying collateral, primarily U.S. and non-U.S. government and agency securities, that it has received from its counterparties, and requests additional collateral when necessary.

Transactions similar to financing activities that do not meet the SFAS 140 definition of a repurchase agreement are accounted for as "buys" and "sells" rather than financing transactions. These transactions are accounted for as a purchase (sale) of the underlying securities with a forward obligation to sell (purchase) the securities. The forward purchase (sale) obligation, a derivative, is recorded on the Consolidated Balance Sheets at its fair value, with changes in fair value recorded in principal transactions revenue.

Securities borrowed and securities lent are recorded at the amount of cash collateral advanced or received. Securities borrowed consist primarily of government and equity securities. JPMorgan Chase monitors the market value of the securities borrowed and lent on a daily basis and calls for additional collateral when appropriate. Fees received or paid in connection with securities borrowed and lent are recorded in interest income or interest expense.

The following table details the components of collateralized financings.

December 31, (in millions)	2008	2007
Securities purchased under resale agreements ^(a)	\$ 200,265	\$ 169,305
Securities borrowed ^(b)	124,000	84,184
Securities sold under repurchase agreements ^(c)	\$ 174,456	\$ 126,098
Securities loaned	6,077	10,922

(a) Includes resale agreements of \$20.8 billion and \$19.1 billion accounted for at fair value at December 31, 2008 and 2007, respectively.

(b) Includes securities borrowed of \$3.4 billion accounted for at fair value at December 31, 2008.

(c) Includes repurchase agreements of \$3.0 billion and \$5.8 billion accounted for at fair value at December 31, 2008 and 2007, respectively.

JPMorgan Chase pledges certain financial instruments it owns to collateralize repurchase agreements and other securities financings. Pledged securities that can be sold or repledged by the secured party are identified as financial instruments owned (pledged to various parties) on the Consolidated Balance Sheets.

At December 31, 2008, the Firm received securities as collateral that could be repledged, delivered or otherwise used with a fair value of approximately \$511.9 billion. This collateral was generally obtained under resale or securities borrowing agreements. Of these securities, approximately \$456.6 billion were repledged, delivered or otherwise used, generally as collateral under repurchase agreements, securities lending agreements or to cover short sales.

Note 14 – Loans

The accounting for a loan may differ based upon whether it is originated or purchased and as to whether the loan is used in an investing or trading strategy. For purchased loans held-for-investment, the accounting also differs depending on whether a loan is credit-impaired at the date of acquisition. Purchased loans with evidence of credit deterioration since the origination date and for which it is probable, at acquisition, that all contractually required payments receivable will not be collected are considered to be credit-impaired. The measurement framework for loans in the Consolidated Financial Statements is one of the following:

- At the principal amount outstanding, net of the allowance for loan losses, unearned income and any net deferred loan fees or costs, for loans held for investment (other than purchased credit-impaired loans);
- At the lower of cost or fair value, with valuation changes recorded in noninterest revenue, for loans that are classified as held-for-sale; or
- At fair value, with changes in fair value recorded in noninterest revenue, for loans classified as trading assets or risk managed on a fair value basis;

- Purchased credit-impaired loans held for investment are accounted for under SOP 03-3 and initially measured at fair value, which includes estimated future credit losses. Accordingly, an allowance for loan losses related to these loans is not recorded at the acquisition date.

See Note 5 on pages 156–158 of this Annual Report for further information on the Firm's elections of fair value accounting under SFAS 159. See Note 6 on pages 158–160 of this Annual Report for further information on loans carried at fair value and classified as trading assets.

For loans held for investment, other than purchased credit-impaired loans, interest income is recognized using the interest method or on a basis approximating a level rate of return over the term of the loan.

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

Loans within the held-for-sale portfolio that management decides to retain are transferred to the held-for-investment portfolio at the lower of cost or fair value. 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 178–180 of this Annual Report.

Nonaccrual loans are those on which the accrual of interest is discontinued. Loans (other than certain consumer and purchased credit-impaired loans discussed below) are placed on nonaccrual status immediately if, in the opinion of management, full payment of principal or interest is in doubt, or when principal or interest is 90 days or more past due and collateral, if any, is insufficient to cover principal and interest. Loans are charged off to the allowance for loan losses when it is highly certain that a loss has been realized. Interest accrued but not collected at the date a loan is placed on nonaccrual status is reversed against interest income. In addition, the amortization of net deferred loan fees is suspended. Interest income on nonaccrual loans is recognized only to the extent it is received in cash. However, where there is doubt regarding the ultimate collectibility of loan principal, all cash thereafter received is applied to reduce the carrying value of such loans (i.e., the cost recovery method). Loans are restored to accrual status only when future payments of interest and principal are reasonably assured.

Consumer loans, other than purchased credit-impaired loans, are generally charged to the allowance for loan losses upon reaching specified stages of delinquency, in accordance with the Federal Financial Institutions Examination Council policy. For example, 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 of the filing of bankruptcy, whichever is earlier. Residential mortgage products are generally charged off to net realizable value at no later than 180 days past due. Other consumer

Notes to consolidated financial statements

products, if collateralized, are generally charged off to net realizable value at 120 days past due. Accrued interest on residential mortgage products, automobile financings, student loans and certain other consumer loans are accounted for in accordance with the nonaccrual loan policy discussed in the preceding paragraph. Interest and fees related to credit card loans continue to accrue until the loan is charged off or paid in full. Accrued interest on all other consumer loans is generally reversed against interest income when the loan is charged off. A collateralized loan is reclassified to assets acquired in loan satisfactions, within other assets, only when JPMorgan Chase has taken physical possession of the collateral, regardless of whether formal foreclosure proceedings have taken place.

For purchased credit-impaired loans, the excess of the loan's cash flows expected to be collected over the initial fair value (i.e., the accretible yield) is accreted into interest income at a level rate of return over the term of the loan, provided that the timing and amount of future cash flows is reasonably estimable. On a periodic basis, the Firm updates the amount of cash flows expected to be collected for these loans, incorporating assumptions regarding default rates, loss severities, the amounts and timing of prepayments and other factors that are reflective of current market conditions. Probable and significant increases in cash flows previously expected to be collected would first be used to reverse any related valuation allowance; any remaining increases are recognized prospectively as interest income. Probable decreases in expected cash flows after the acquisition date, excluding decreases related to repricings of variable rate loans, are recognized through the allowance for loan losses. Disposals of loans, which may include sales of loans, receipt of payments in full by the borrower, or foreclosure, result in removal of the loan from the SOP 03-3 portfolio.

With respect to purchased credit-impaired loans, when the timing and/or amounts of expected cash flows on such loans are not reasonably estimable, no interest is accreted and the loan is reported as a nonperforming loan; otherwise, if the timing and amounts of expected cash flows for purchased credit-impaired loans are reasonably estimable, then interest is accreted and the loans are reported as performing loans.

The composition of the Firm's aggregate loan portfolio at each of the dates indicated was as follows.

December 31, (in millions)	2008	2007
U.S. wholesale loans:		
Commercial and industrial	\$ 68,709	\$ 55,655
Real estate	64,214	16,748
Financial institutions	20,615	14,757
Government agencies	5,918	5,770
Other	22,330	25,883
Loans held-for-sale and at fair value	4,990	14,440
Total U.S. wholesale loans	186,776	133,253
Non-U.S. wholesale loans:		
Commercial and industrial	27,941	27,659
Real estate	2,667	3,527
Financial institutions	16,381	16,740
Government agencies	603	720
Other	18,711	21,968
Loans held-for-sale and at fair value	8,965	9,209
Total non-U.S. wholesale loans	75,268	79,823
Total wholesale loans:^{(a)(b)}		
Commercial and industrial	96,650	83,314
Real estate ^(c)	66,881	20,275
Financial institutions	36,996	31,497
Government agencies	6,521	6,490
Other	41,041	47,851
Loans held-for-sale and at fair value ^(d)	13,955	23,649
Total wholesale loans	262,044	213,076
Total consumer loans:^(e)		
Home equity	114,335	94,832
Prime mortgage	72,266	39,988
Subprime mortgage	15,330	15,473
Option ARMs	9,018	—
Auto loans	42,603	42,350
Credit card ^(f)	104,746	84,352
Other	33,715	25,314
Loans held-for-sale ^(g)	2,028	3,989
Total consumer loans – excluding purchased credit-impaired	394,041	306,298
Consumer loans – purchased credit-impaired	88,813	NA
Total consumer loans	482,854	306,298
Total loans^{(b)(h)}	\$ 744,898	\$ 519,374

(a) Includes Investment Bank, Commercial Banking, Treasury & Securities Services and Asset Management.

(b) Includes purchased credit-impaired loans of \$224 million at December 31, 2008, acquired in the Washington Mutual transaction.

(c) Represents credits extended for real estate-related purposes to borrowers who are primarily in the real estate development or investment businesses and which the repayment is predominantly from the sale, lease, management, operations or refinancing of the property.

(d) Includes loans for commercial & industrial, real estate, financial institutions and other of \$11.0 billion, \$428 million, \$1.5 billion and \$995 million at December 31, 2008, respectively, and \$19.6 billion, \$548 million, \$862 million and \$2.7 billion at December 31, 2007 respectively.

(e) Includes Retail Financial Services, Card Services and the Corporate/Private Equity segment.

(f) Includes billed finance charges and fees net of an allowance for uncollectible amounts.

(g) Includes loans for prime mortgage and other (largely student loans) of \$206 million and \$1.8 billion at December 31, 2008, respectively, and \$570 million and \$3.4 billion at December 31, 2007, respectively.

(h) Loans (other than purchased loans and those for which the SFAS 159 fair value option has been elected) are presented net of unearned income and net deferred loan fees of \$694 million and \$1.0 billion at December 31, 2008 and 2007, respectively.

The following table reflects information about the Firm's loan sales.

Year ended December 31, (in millions)	2008	2007	2006
Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments) ^(a)	\$ (2,508)	\$ 99	\$ 672

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

Purchased credit-impaired loans

In connection with the Washington Mutual transaction, JPMorgan Chase acquired certain loans that it deemed to be credit-impaired under SOP 03-3. Wholesale loans with a carrying amount of \$224 million at December 31, 2008, were determined to be credit-impaired at the date of acquisition in accordance with SFAS 114. These wholesale loans are being accounted for individually (not on a pooled basis) and are reported as nonperforming loans since cash flows for each individual loan are not reasonably estimable. Such loans are excluded from the remainder of the following discussion, which relates solely to purchased credit-impaired consumer loans.

Purchased credit-impaired consumer loans were determined to be credit-impaired based upon specific risk characteristics of the loan, including product type, loan-to-value ratios, FICO scores, and past due status. SOP 03-3 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. 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.

The table below sets forth information about these purchased credit-impaired consumer loans at the acquisition date.

(in millions)	September 25, 2008 ^{(a)(b)}
Contractually required payments receivable (including interest)	\$ 168,460
Less: Nonaccretable difference	(45,690)
Cash flows expected to be collected ^(c)	122,770
Less: Accretable yield ^(d)	(32,662)
Fair value of loans acquired	\$ 90,108

(a) Date of the Washington Mutual transaction.

(b) The amounts in the table above were revised in the fourth quarter of 2008 due to the Firm's refinement of both estimates and its application of certain provisions of SOP 03-3.

(c) Represents undiscounted principal and interest cash flows expected at acquisition.

(d) This amount is recognized into interest income over the estimated life of the underlying loans.

The Firm determined the fair value of the purchased credit-impaired consumer loans by discounting the cash flows expected to be collected at a market observable discount rate, when available, adjusted for factors that a market participant would consider in determining fair value. In determining the cash flows expected to be collected, management incorporated assumptions regarding default rates, loss severities and the amounts and timing of prepayments. Contractually required payments were determined following the same process used to estimate cash flows expected to be collected, but without incorporating assumptions related to default rates and loss severities.

Purchased credit-impaired loans acquired in the Washington Mutual transaction are reported in loans on the Firm's Consolidated Balance Sheets. Following the initial acquisition date of these loans, the allowance for loan losses, if any is required, would be reported as a reduction of the carrying amount of the loans. No allowance has been recorded for these loans as of December 31, 2008. The outstanding balance and the carrying value of the purchased credit-impaired consumer loans were as follows.

December 31, 2008 (in millions)

Outstanding balance ^(a)	\$ 118,180
Carrying amount	88,813

(a) Represents the sum of principal and earned interest at the reporting date.

Interest income is being accreted on the purchased credit-impaired consumer loans based on the Firm's belief that both the timing and amount of cash flows expected to be collected is reasonably estimable. For variable rate loans, expected future cash flows are based on the current contractual rate of the underlying loans.

The table below sets forth the accretable yield activity for these loans for the year ended December 31, 2008.

Accretable Yield Activity

(in millions)

Balance, September 30, 2008	\$ 32,662
Accretion into interest income	(1,292)
Changes in interest rates on variable rate loans	(4,877)
Balance, December 31, 2008	\$ 26,493

Impaired loans

A loan is considered impaired when, based upon current information and events, it is probable that the Firm will be unable to collect all amounts due (including principal and interest) according to the contractual terms of the loan agreement. Impaired loans include certain nonaccrual wholesale loans and loans for which a charge-off has been recorded based upon the fair value of the underlying collateral. Impaired loans also include loans that have been modified in troubled debt restructurings as a concession to borrowers experiencing financial difficulties. Troubled debt restructurings typically result from the Firm's loss mitigation activities and could include rate reductions, principal forgiveness, forbearance and other actions intended to minimize the economic loss and to avoid foreclosure or repossession of collateral. When the Firm modifies home equity lines of credit in troubled debt restructurings, future lending commitments related to the modified loans are canceled as part of the terms of the modification. Accordingly, the Firm does not have future commitments to lend additional funds related to these modified loans. Purchased credit-impaired loans are not required to be reported as impaired loans as long as it is probable that the Firm expects to collect all cash flows expected at acquisition, plus additional cash flows expected to be collected arising from changes in estimates after acquisition. Accordingly, none of the credit-impaired loans acquired in the Washington Mutual transaction are reported in the following tables.

Interest income on impaired loans is recognized based on the Firm's policy for recognizing interest on accrual and nonaccrual loans. Certain loans that have been modified through troubled debt restructurings accrue interest under this policy.

Notes to consolidated financial statements

The tables below set forth information about JPMorgan Chase's impaired loans, excluding credit card loans which are discussed below. The Firm primarily uses the discounted cash flow method for valuing impaired loans.

December 31, (in millions)	2008	2007
Impaired loans with an allowance:		
Wholesale	\$ 2,026	\$ 429
Consumer ^(a)	2,252	322
Total impaired loans with an allowance^(b)	4,278	751
Impaired loans without an allowance: ^(c)		
Wholesale	62	28
Consumer ^(a)	—	—
Total impaired loans without an allowance	62	28
Total impaired loans^(b)	\$ 4,340	\$ 779
Allowance for impaired loans under SFAS 114:		
Wholesale	\$ 712	\$ 108
Consumer ^(a)	379	116
Total allowance for impaired loans under SFAS 114^(d)	\$ 1,091	\$ 224

Year ended December 31, (in millions)	2008	2007	2006
Average balance of impaired loans during the period:			
Wholesale	\$ 896	\$ 316	\$ 697
Consumer ^(a)	1,211	317	300
Total impaired loans^(b)	\$ 2,107	\$ 633	\$ 997
Interest income recognized on impaired loans during the period:			
Wholesale	\$ —	\$ —	\$ 2
Consumer ^(a)	57	—	—
Total interest income recognized on impaired loans during the period	\$ 57	\$ —	\$ 2

(a) Excludes credit card loans.

(b) In 2008, methodologies for calculating impaired loans have changed. Prior periods have been revised to conform to current presentation.

(c) When the discounted cash flows, collateral value or market price equals or exceeds the carrying value of the loan, then the loan does not require an allowance under SFAS 114.

(d) The allowance for impaired loans under SFAS 114 is included in JPMorgan Chase's allowance for loan losses. The allowance for certain consumer impaired loans has been categorized in the allowance for loan losses as formula-based.

During 2008, loss mitigation efforts related to delinquent mortgage and home equity loans increased substantially, resulting in a significant increase in consumer troubled debt restructurings. In the fourth quarter of 2008, the Firm announced plans to further expand loss mitigation efforts related to these portfolios, including plans to open regional counseling centers, hire additional loan counselors, introduce new financing alternatives, proactively reach out to borrowers to offer pre-qualified modifications, and commence a new process to independently review each loan before moving it into the foreclosure process. These loss mitigation efforts, which generally represent various forms of term extensions, rate reductions and forbearances, are expected to result in additional increases in the balance of modified loans carried on the Firm's balance sheet, including loans accounted for as troubled debt restructurings, while minimizing the economic loss to the Firm and providing alternatives to foreclosure.

JPMorgan Chase may modify the terms of its credit card loan agreements with borrowers who have experienced financial difficulty. Such modifications may include canceling the customer's available line of credit on the credit card, reducing the interest rate on the card, and placing the customer on a fixed payment plan not exceeding 60 months. If the cardholder does not comply with the modified terms, then the credit card loan agreement will revert back to its original terms, with the amount of any loan outstanding reflected in the appropriate delinquency "bucket" and the loan amounts then charged-off in accordance with the Firm's standard charge-off policy. Under these procedures, \$2.4 billion and \$1.4 billion of on-balance sheet credit card loan outstandings have been modified at December 31, 2008 and 2007, respectively. In accordance with the Firm's methodology for determining its consumer allowance for loan losses, the Firm had already provisioned for these credit card loans; the modifications to these credit card loans had no incremental impact on the Firm's allowance for loan losses.

Note 15 – Allowance for credit losses

During 2008, in connection with the Washington Mutual transaction, the Firm recorded adjustments to its provision for credit losses in the aggregate amount of \$1.5 billion to conform the Washington Mutual loan loss reserve methodologies to the appropriate JPMorgan Chase methodology, based upon the nature and characteristics of the underlying loans. This amount included an adjustment of \$646 million to the wholesale provision for credit losses and an adjustment of \$888 million to the consumer provision for credit losses. The Firm's methodologies for determining its allowance for credit losses, which have been applied to the Washington Mutual loans, are described more fully below.

JPMorgan Chase's allowance for loan losses covers the wholesale (risk-rated) and consumer (scored) loan portfolios and represents management's estimate of probable credit losses inherent in the Firm's loan portfolio. Management also computes an allowance for wholesale lending-related commitments using a methodology similar to that used for the wholesale loans.

The allowance for loan losses includes an asset-specific component and a formula-based component. The asset-specific component relates to provisions for losses on loans considered impaired and measured pursuant to SFAS 114. An allowance is established when the discounted cash flows (or collateral value or observable market price) of the loan is lower than the carrying value of that loan. To compute the asset-specific component of the allowance, larger impaired loans are evaluated individually, and smaller impaired loans are evaluated as a pool using historical loss experience for the respective class of assets. An allowance for loan losses will also be recorded for purchased credit-impaired loans accounted for in accordance with SOP 03-3 if there are probable decreases in expected future cash flows other than decreases related to repricing of variable rate loans. Any required allowance would be measured based on the present value of expected cash flows discounted at the loan's (or pool's) effective interest rate. For additional information on purchased credit-impaired loans, see Note 14 on pages 175–178 of this Annual Report.

The formula-based component covers performing wholesale and consumer loans. For risk-rated loans (generally loans originated by the wholesale lines of business), it is based on a statistical calculation, which is adjusted to take into consideration model imprecision, external factors and current economic events that have occurred but are not yet reflected in the factors used to derive the statistical calculation. The statistical calculation is the product of probability of default ("PD") and loss given default ("LGD"). These factors are differentiated by risk rating and expected maturity. PD estimates are based on observable external data, primarily credit-rating agency default statistics. LGD estimates are based on a study of actual credit losses over more than one credit cycle. For scored loans (generally loans originated by the consumer lines of business), loss is primarily determined by applying statistical loss factors, including loss frequency and severity factors, to pools of loans by asset type. In developing loss frequency and severity assumptions, known and anticipated changes in the economic environment, including changes in housing prices, unemployment rates and other risk indicators, are considered. Multiple forecasting methods are used to estimate statistical losses, including credit loss forecasting models and vintage-based loss forecasting.

Management applies its judgment within specified ranges to adjust the statistical calculation. Where adjustments are made to the statistical calculation for the risk-rated portfolios, the determination of the appropriate point within the range are based upon management's quantitative and qualitative assessment of the quality of underwriting standards; relevant internal factors affecting the credit quality of the current portfolio; and external factors such as current macroeconomic and political conditions that have occurred but are not yet reflected in the loss factors. Factors related to concentrated and deteriorating industries are also incorporated into the calculation, where relevant. Adjustments to the statistical calculation for the scored loan portfolios are accomplished in part by analyzing the historical loss experience for each major product segment. The specific ranges and the determination of the appropriate point within the range are based upon management's view of uncertainties 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.

The allowance for lending-related commitments represents management's estimate of probable credit losses inherent in the Firm's process of extending credit. Management establishes an asset-specific allowance for lending-related commitments that are considered impaired and computes a formula-based allowance for performing wholesale lending-related commitments. These are computed using a methodology similar to that used for the wholesale loan portfolio, modified for expected maturities and probabilities of drawdown.

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

At least quarterly, the allowance for credit losses is reviewed by the Chief Risk Officer, the Chief Financial Officer and the Controller of the Firm and discussed with the Risk Policy and Audit Committees of the Board of Directors of the Firm. As of December 31, 2008, JPMorgan Chase deemed the allowance for credit losses to be appropriate (i.e., sufficient to absorb losses that are inherent in the portfolio, including those not yet identifiable).

The table below summarizes the changes in the allowance for loan losses.

Year ended December 31, (in millions)	2008	2007	2006
Allowance for loan losses at January 1	\$ 9,234	\$ 7,279	\$ 7,090
Cumulative effect of change in accounting principles(a)	—	(56)	—
Allowance for loan losses at January 1, adjusted	9,234	7,223	7,090
Gross charge-offs	10,764	5,367	3,884
Gross (recoveries)	(929)	(829)	(842)
Net charge-offs	9,835	4,538	3,042
Provision for loan losses			
Provision excluding accounting conformity	19,660	6,538	3,153
Provision for loan losses – accounting conformity ^(b)	1,577	—	—
Total provision for loan losses	21,237	6,538	3,153
Addition resulting from			
Washington Mutual transaction	2,535	—	—
Other ^(c)	(7)	11	78
Allowance for loan losses at December 31	\$ 23,164	\$ 9,234	\$ 7,279
Components:			
Asset-specific	\$ 786	\$ 188	\$ 118
Formula-based	22,378	9,046	7,161
Total Allowance for loan losses	\$ 23,164	\$ 9,234	\$ 7,279

(a) Reflects the effect of the adoption of SFAS 159 at January 1, 2007. For a further discussion of SFAS 159, see Note 5 on pages 156–158 of this Annual Report.

(b) Relates to the Washington Mutual transaction in 2008.

(c) The 2008 amount represents foreign-exchange translation. The 2007 amount represents assets acquired of \$5 million and \$5 million of foreign-exchange translation. The 2006 amount represents the Bank of New York transaction.

Notes to consolidated financial statements

The table below summarizes the changes in the allowance for lending-related commitments.

Year ended December 31, (in millions)	2008	2007	2006
Allowance for lending-related commitments at January 1	\$ 850	\$ 524	\$ 400
Provision for lending-related commitments			
Provision excluding accounting conformity	(215)	326	117
Provision for lending-related commitments – accounting conformity ^(a)	(43)	—	—
Total provision for lending-related commitments	(258)	326	117
Addition resulting from Washington Mutual Other ^(b)	66	—	—
	1	—	7
Allowance for lending-related commitments at December 31	\$ 659	\$ 850	\$ 524
Components:			
Asset-specific	\$ 29	\$ 28	\$ 33
Formula-based	630	822	491
Total allowance for lending-related commitments	\$ 659	\$ 850	\$ 524

(a) Related to the Washington Mutual transaction.

(b) The 2006 amount represents the Bank of New York transaction.

Note 16 – Loan securitizations

JPMorgan Chase securitizes and sells a variety of loans, including residential mortgage, credit card, automobile, student, and commercial loans (primarily related to real estate). JPMorgan Chase-sponsored securitizations utilize SPEs as part of the securitization process. These SPEs are structured to meet the definition of a QSPE (as discussed in Note 1 on page 134 of this Annual Report); accordingly, the assets and liabilities of securitization-related QSPEs are not reflected on the Firm's Consolidated Balance Sheets (except for retained interests, as described below). The primary purpose of these securitization vehicles is to meet investor needs and to generate liquidity for the Firm through the sale of loans to the QSPEs. These QSPEs are financed through the issuance of fixed, or floating-rate asset-backed securities.

The Firm records a loan securitization as a sale when the accounting criteria for a sale are met. Those criteria are: (1) the transferred assets are legally isolated from the Firm's creditors; (2) the entity can pledge or exchange the financial assets, or if the entity is a QSPE, its investors can pledge or exchange their interests; and (3) the Firm does not maintain effective control to repurchase the transferred assets before their maturity or have the ability to unilaterally cause the holder to return the transferred assets.

For loan securitizations that meet the accounting sales criteria, the gains or losses recorded depend, in part, on the carrying amount of the loans sold except for servicing assets which are initially recorded at fair value. At the time of sale, any retained servicing asset is initially recognized at fair value. The remaining carrying amount of the loans sold is allocated between the loans sold and the other interests retained, based upon their relative fair values on the date of sale. Gains on securitizations are reported in noninterest revenue.

When quoted market prices are not available, the Firm estimates the fair value for these retained interests by calculating the present value of future expected cash flows using modeling techniques. Such models incorporate management's best estimates of key variables, such as expected credit losses, prepayment speeds and the discount rates appropriate for the risks involved. See Note 4 on page 144 of this Annual Report for further information on the valuation of retained interests.

The Firm may retain interests in the securitized loans in the form of undivided seller's interest, senior or subordinated interest-only strips, debt and equity tranches, escrow accounts and servicing rights. The classification of retained interests is dependent upon several factors, including the type of interest, whether or not the retained interest is represented by a security certificate and when it was retained. Interests retained by IB are classified as trading assets. See credit card securitizations and mortgage securitizations sections of the note for further information on the classification of their related retained interests. Retained interests classified as AFS that are rated below "AA" by an external rating agency are subject to the impairment provisions of EITF 99-20, as discussed in Note 12 on page 174 of this Annual Report.

The following table presents the total unpaid principal amount of assets held in JPMorgan Chase-sponsored securitization entities, for which sale accounting was achieved and to which the Firm has continuing involvement, at December 31, 2008 and 2007. Continuing involvement includes servicing the loans, holding senior or subordinated interests, recourse or guarantee arrangements and derivative transactions. In certain instances, the Firm's only continuing involvement is servicing the loans. Certain of the Firm's retained interests (trading assets, AFS securities and other assets) are reflected at their fair value.

	Principal amount outstanding		JPMorgan Chase interest in securitized assets ^{(f)(g)(h)(i)}				
	Total assets held by Firm-sponsored QSPEs	Assets held in QSPEs with continuing involvement	Trading assets	AFS securities	Loans	Other assets	Total interests held by JPMorgan Chase
December 31, 2008 (in billions)							
Securitized related:							
Credit card	\$ 121.6	\$ 121.6 ^(e)	\$ 0.5	\$ 5.6	\$ 33.3	\$ 5.6	\$ 45.0
Residential mortgage:							
Prime ^(a)	233.9	212.3	1.7	0.7	—	—	2.4
Subprime	61.0	58.6	—	0.1	—	—	0.1
Option ARMs	48.3	48.3	0.1	0.3	—	—	0.4
Commercial and other ^(b)	174.1	45.7	2.0	0.5	—	—	2.5
Student loans	1.1	1.1	—	—	—	0.1	0.1
Auto	0.8	0.8	—	—	—	—	—
Total^{(c)(d)}	\$ 640.8	\$ 488.4	\$ 4.3	\$ 7.2	\$ 33.3	\$ 5.7	\$ 50.5
	Principal amount outstanding		JPMorgan Chase interest in securitized assets ^{(f)(i)(j)}				
	Total assets held by Firm-sponsored QSPEs	Assets held in QSPEs with continuing involvement	Trading assets	AFS securities	Loans	Other assets	Total interests held by JPMorgan Chase
December 31, 2007 (in billions)							
Securitized related:							
Credit card	\$ 92.7	\$ 92.7 ^(e)	\$ —	\$ 0.3	\$ 18.6	\$ 4.6	\$ 23.5
Residential mortgage:							
Prime ^(a)	78.3	77.7	0.4	—	—	—	0.4
Subprime	23.7	22.7	0.3	0.1	—	—	0.4
Option ARMs	—	—	—	—	—	—	—
Commercial and other ^(b)	109.6	3.4	—	—	—	—	—
Student loans	1.1	1.1	—	—	—	0.1	0.1
Auto	2.3	2.3	—	—	—	0.1	0.1
Total^(c)	\$ 307.7	\$ 199.9	\$ 0.7	\$ 0.4	\$ 18.6	\$ 4.8	\$ 24.5

(a) Includes Alt-A loans.

(b) Includes co-sponsored commercial securitizations and, therefore, includes non-JPMorgan Chase originated commercial mortgage loans. Commercial and other 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 the Firm's sponsored commercial mortgage securitization transactions.

(c) Includes securitized loans where the Firm owns less than a majority of the subordinated or residual interests in the securitizations.

(d) Includes securitization-related QSPEs sponsored by heritage Bear Stearns and heritage Washington Mutual at December 31, 2008.

(e) Includes credit card loans, accrued interest and fees, and cash amounts on deposit.

(f) Excludes retained servicing (for a discussion of MSRs, see Note 18 on pages 199–200 of this Annual Report).

(g) Excludes senior and subordinated securities of \$974 million at December 31, 2008, that the Firm purchased in connection with IB's secondary market-making activities.

(h) Includes investments acquired in the secondary market, but predominantly held-for-investment purposes of \$1.8 billion as of December 31, 2008. This is comprised of \$1.4 billion of investments classified as available-for-sale, including \$172 million in credit cards, \$693 million of residential mortgages and \$495 million of commercial and other; and \$452 million of investments classified as trading, including \$112 million of credit cards, \$303 million of residential mortgages, and \$37 million of commercial and other.

(i) Excludes interest rate and foreign exchange derivatives that are primarily used to manage the interest rate and foreign exchange risks of the securitization entities. See Note 6 and Note 32 on pages 158–159 and 214–217, respectively, of this Annual Report for further information on derivatives.

(j) Excludes senior and subordinated securities of \$9.8 billion at December 31, 2007, that were retained at the time of securitization in connection with IB's underwriting activity or that are purchased in connection with IB's secondary market-making activities.

Notes to consolidated financial statements

Securitization activity by major product type

The following discussion describes the nature of the Firm's securitization activities by major product type.

Credit Card Securitizations

The Card Services ("CS") business securitizes originated and purchased credit card loans. The Firm's primary continuing involvement includes servicing the receivables, retaining an undivided seller's interest in the receivables, retaining certain senior and subordinated securities and the maintenance of escrow accounts.

CS maintains servicing responsibilities for all credit card securitizations that it sponsors. As servicer and transferor, the Firm receives contractual servicing fees based upon the securitized loan balance plus excess servicing fees, which are recorded in credit card income as discussed in Note 7 on pages 160–161 of this Annual Report.

The agreements with the credit card securitization trusts require the Firm to maintain a minimum undivided interest in the trusts (which generally ranges from 4% to 12%). At December 31, 2008 and 2007, the Firm had \$33.3 billion and \$18.6 billion, respectively, related to its undivided interests in the trusts. The Firm maintained an average undivided interest in principal receivables in the trusts of approximately 22% and 19% for the years ended December 31, 2008 and 2007, respectively. These undivided interests in the trusts represent the Firm's undivided interests in the receivables transferred to the trust that have not been securitized; these undivided interests are not represented by security certificates, are carried at historical cost, and are classified within loans.

Additionally, the Firm retained subordinated interest in accrued interest and fees on the securitized receivables totaling \$3.0 billion and \$2.7 billion (net of an allowance for uncollectible amounts) as of December 31, 2008 and 2007, respectively, which are classified in other assets.

The Firm retained subordinated securities in credit card securitization trusts totaling \$2.3 billion and \$284 million at December 31, 2008 and 2007, respectively, and senior securities totaling \$3.5 billion at December 31, 2008. Of the securities retained, \$5.4 billion and \$284 million were classified as AFS securities at December 31, 2008 and 2007, respectively. Securities of \$389 million that were acquired in the Washington Mutual Bank transaction were classified as trading assets at December 31, 2008. The senior AFS securities were used by the Firm as collateral for a secured financing transaction.

The Firm also maintains escrow accounts up to predetermined limits for some credit card securitizations to cover deficiencies in cash flows owed to investors. The amounts available in such escrow accounts related to credit cards are recorded in other assets and amounted to \$74 million and \$97 million as of December 31, 2008 and 2007, respectively.

Mortgage Securitizations

The Firm securitizes originated and purchased residential mortgages and originated commercial mortgages.

RFS securitizes residential mortgage loans that it originates and purchases and it typically retains servicing for all of its originated and purchased residential mortgage loans. Additionally, RFS may retain servicing for certain mortgage loans purchased by IB. As servicer, the Firm receives servicing fees based upon the securitized loan balance plus ancillary fees. The Firm also retains the right to service the residential mortgage loans it sells to the Government National Mortgage Association ("GNMA"), Federal National Mortgage Association ("Fannie Mae") and Federal Home Loan Mortgage Corporation ("Freddie Mac") in accordance with their servicing guidelines and standards. For a discussion of MSRs, see Note 18 on pages 199–200 of this Annual Report. In a limited number of securitizations, RFS may retain an interest in addition to servicing rights. The amount of interest retained related to these securitizations totaled \$939 million and \$221 million at December 31, 2008 and 2007, respectively. These retained interests are accounted for as trading or AFS securities; the classification depends on whether the retained interest is represented by a security certificate, has an embedded derivative, and when it was retained (i.e., prior to the adoption of SFAS 155).

IB securitizes residential mortgage loans (including those that it purchased and certain mortgage loans originated by RFS) and commercial mortgage loans that it originated. Upon securitization, IB may engage in underwriting and trading activities of the securities issued by the securitization trust. IB may retain unsold senior and/or subordinated interests (including residual interests) in both residential and commercial mortgage securitizations at the time of securitization. These retained interests are accounted for at fair value and classified as trading assets. The amount of residual interests retained was \$155 million and \$547 million at December 31, 2008 and 2007, respectively. Additionally, IB retained \$2.8 billion of senior and subordinated interests as of December 31, 2008; these securities were retained at securitization in connection with the Firm's underwriting activity.

In addition to the amounts reported in the securitization activity tables below, the Firm sold residential mortgage loans totaling \$122.0 billion, \$81.8 billion and \$53.7 billion during the years ended December 31, 2008, 2007 and 2006, respectively. The majority of these loan sales were for securitization by the GNMA, Fannie Mae and Freddie Mac. These sales resulted in pretax gains of \$32 million, \$47 million and \$251 million, respectively.

The Firm's mortgage loan sales are primarily nonrecourse, thereby effectively transferring the risk of future credit losses to the purchaser of the loans. However, for a limited number of loan sales, the Firm is obligated to share up to 100% of the credit risk associated with the sold loans with the purchaser. See Note 33 on page 221 of this Annual Report for additional information on loans sold with recourse.

Other Securitizations

The Firm also securitizes automobile and student loans originated by RFS and purchased consumer loans (including automobile and student loans). The Firm retains servicing responsibilities for all originated and certain purchased student and automobile loans. It may also hold a retained interest in these securitizations; such residual interests are classified as other assets. At December 31, 2008 and 2007, the Firm held \$37 million and \$85 million, respectively, of retained interests in securitized automobile loans and \$52 million and \$55 million, respectively, of retained interests in securitized student loans.

The Firm also maintains escrow accounts up to predetermined limits for some automobile and student loan securitizations to cover deficiencies in cash flows owed to investors. These escrow accounts are classified within other assets and carried at fair value. The amounts available in such escrow accounts as of December 31, 2008, were \$3 million for both automobile and student loan securitizations; as of December 31, 2007, these amounts were \$21 million and \$3 million for automobile and student loan securitizations, respectively.

Securitization activity

The following tables provide information related to the Firm's securitization activities for the years ended December 31, 2008, 2007 and 2006. For the periods presented there were no cash flows from the Firm to the QSPEs related to recourse or guarantee arrangements.

Year ended December 31, 2008 (in millions, except for ratios and where otherwise noted)	Residential mortgage ^(g)						
	Credit card	Prime ^(h)	Subprime	Option ARMs	Commercial and other	Student loans	Auto
Principal securitized	\$ 21,390	\$ —	\$ —	\$ —	\$1,023	\$ —	\$ —
Pretax gains	151	—	—	—	—	—	—
All cash flows during the period:							
Proceeds from new securitizations	\$ 21,389 ^(f)	\$ —	\$ —	\$ —	\$ 989	\$ —	\$ —
Servicing fees collected	1,162	279	146	129	11	4	15
Other cash flows received ^(a)	4,985	23	16	—	—	—	—
Proceeds from collections reinvested in revolving securitizations	152,399	—	—	—	—	—	—
Purchases of previously transferred financial assets (or the underlying collateral) ^{(b)(c)}	—	217	13	6	—	—	359
Cash flows received on the interests that continue to be held by the Firm ^(d)	117	267	23	53	455	—	43
Key assumptions used to measure retained interests originated during the year (rates per annum):							
Prepayment rate ^(e)	17.9-20.0% PPR				1.5% CPR		
Weighted-average life (in years)	0.4-0.5				2.1		
Expected credit losses	4.2-4.8%				1.5%		
Discount rate	12.0-13.0%				25.0%		

Notes to consolidated financial statements

Year ended December 31, 2007 (in millions, except for ratios and where otherwise noted)	Residential mortgage						
	Credit card	Prime ^(h)	Subprime	Option ARMs	Commercial and other	Student loans	Auto
Principal securitized	\$ 21,160	\$ 32,084	\$ 6,763	\$ —	\$ 12,797	\$ 1,168	\$ —
Pretax gains	177	28 ⁽ⁱ⁾	43	—	—	51	—
All cash flows during the period:							
Proceeds from new securitizations	\$ 21,160	\$ 31,791	\$ 6,844	\$ —	\$ 13,038	\$ 1,168	\$ —
Servicing fees collected	1,005	124	246	—	7	2	36
Other cash flows received ^(a)	4,963	—	—	—	—	—	—
Proceeds from collections reinvested in revolving securitizations	148,946	—	—	—	—	—	—
Purchases of previously transferred financial assets (or the underlying collateral) ^(b)	—	58	598	—	—	—	431
Cash flows received on the interests that continue to be held by the Firm ^(d)	18	140	278	—	256	—	89

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

Prepayment rate ^(e)	20.4% PPR	13.7-37.2% CPR	30.0-48.0% CPR		0.0-8.0% CPR	1.0-8.0% CPR	
Weighted-average life (in years)	0.4	1.3-5.4	2.3-2.8		1.3-10.2	9.3	
Expected credit losses	3.5-3.9%	0.0-1.6% ^(j)	1.2-2.2%		0.0-1.0% ^(j)	—% ^(j)	
Discount rate	12.0%	5.8-20.0%	12.1-26.7%		10.0-14.0%	9.0%	

Year ended December 31, 2006 (in millions, except for ratios and where otherwise noted)	Residential mortgage						
	Credit card	Prime ^(h)	Subprime	Option ARMs	Commercial and other	Student loans	Auto
Principal securitized	\$ 9,735	\$ 30,254	\$ 17,359	\$ —	\$ 13,858	\$ —	\$ 2,405
Pretax gains	67	53	193	—	129	—	—
All cash flows during the period:							
Proceeds from new securitizations	\$ 9,735	\$ 30,167	\$ 17,635	\$ —	\$ 14,248	\$ —	\$ 1,745
Servicing fees collected	973	76	29	—	1	—	52
Other cash flows received ^(a)	5,281	35	—	—	95	—	—
Proceeds from collections reinvested in revolving securitizations	151,186	—	—	—	—	—	—
Purchases of previously transferred financial assets (or the underlying collateral) ^(b)	—	31	31	—	—	—	138
Cash flows received on the interests that continue to be held by the Firm ^(d)	76	48	258	—	73	—	96

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

Prepayment rate ^(e)	20.0-22.2% PPR	10.0-41.3% CPR	36.0-45.0% CPR		0.0-36.2% CPR		1.4-1.5% ABS
Weighted-average life (in years)	0.4	1.7-4.0	1.5-2.4		1.5-6.1		1.4-1.9
Expected credit losses	3.3-4.2%	0.1-3.3% ^(j)	1.1-2.1%		0.0-0.9% ^(j)		0.3-0.7%
Discount rate	12.0%	8.4-26.2%	15.1-22.0%		3.8-14.0%		7.6-7.8%

(a) Other cash flows received include excess servicing fees and other ancillary fees received.

(b) Includes cash paid by the Firm to reacquire assets from the QSPEs, for example, servicer clean-up calls.

(c) Excludes a random removal of \$6.2 billion of credit card loans from a securitization trust previously established by Washington Mutual and an account addition of \$5.8 billion of higher quality credit card loans from the legacy Chase portfolio to the legacy Washington Mutual trust in November 2008. These are noncash transactions that are permitted by the trust documents in order to maintain the appropriate level of undivided seller's interest.

(d) Includes cash flows received on retained interests including, for example, principal repayments, and interest payments.

(e) PPR: principal payment rate; CPR: constant prepayment rate; ABS: absolute prepayment speed.

(f) Includes \$5.5 billion of securities retained by the Firm.

(g) Includes securitizations sponsored by Bear Stearns and Washington Mutual as of their respective acquisition dates.

(h) Includes Alt-A loans.

(i) As of January 1, 2007, the Firm adopted the fair value election for IB warehouse and the RFS prime mortgage warehouse. The carrying value of these loans accounted for at fair value approximates the proceeds received from securitization.

(j) Expected credit losses for consumer prime residential mortgage, and student and certain other securitizations are minimal and are incorporated into other assumptions.

Retained securitization interests

The following table summarizes the Firm's retained securitization interests, which are carried at fair value on the Firm's Consolidated Balance Sheets at December 31, 2008. As of December 31, 2008, 55% of the Firm's retained securitization interests, which are carried at fair value, were risk rated "A" or better.

December 31, (in billions)	Ratings profile of retained interests ^{(c)(d)}		
	Investment Grade	Noninvestment grade	Retained interest
Asset types:			
Credit card ^(a)	\$ 5.5	\$ 3.8	\$ 9.3
Residential mortgage:			
Prime ^(b)	1.1	0.3	1.4
Subprime	—	0.1	0.1
Option ARMs	0.4	—	0.4
Commercial and other	1.7	0.3	2.0
Student loans	—	0.1	0.1
Auto	—	—	—
Total	\$ 8.7	\$ 4.6	\$ 13.3

(a) Includes retained subordinated interests carried at fair value, including CS' accrued interests and fees, escrow accounts, and other residual interests. Excludes undivided seller interest in the trusts of \$33.3 billion at December 31, 2008, which is carried at historical cost, and unencumbered cash amounts on deposit of \$2.1 billion at December 31, 2008.

(b) Includes Alt-A loans.

(c) The ratings scale is presented on an S&P-equivalent basis.

(d) Excludes \$1.8 billion of investments acquired in the secondary market, but predominantly held for investment purposes. Of this amount \$1.7 billion is classified as investment grade.

The table below outlines the key economic assumptions used at December 31, 2008 and 2007, to determine the fair value as of December 31, 2008 and 2007, respectively, of the Firm's retained interests, other than MSR, that are valued using modeling techniques; it excludes securities that are valued using quoted market prices. The table below 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 residential MSR, see Note 18 on pages 199–200 of this Annual Report.

December 31, 2008 (in millions, except rates and where otherwise noted)	Residential mortgage						
	Credit card	Prime ^(c)	Subprime	Option ARMs	Commercial and other	Student loans	Auto
Retained interests	\$ 3,463 ^(b)	\$ 1,420	\$ 68	\$ 436	\$ 1,966	\$ 55	\$ 40
Weighted-average life (in years)	0.5	5.3	1.5	7.3	3.5	8.2	0.7
Prepayment rates ^(a)	15.4-16.7%	0.0-50.6% ^(d)	1.0-53.1%	5.0-15.0%	0.0-100.0% ^(g)	5.0%	1.2-1.4%
Weighted-average prepayment rate	16.6	17.7	25.1	7.6	0.7	5.0	1.3
	PPR	CPR	CPR	CPR	CPR	CPR	ABS
Impact of 10% adverse change	\$ (42)	\$ (31)	\$ (5)	\$ (4)	\$ (1)	\$ (1)	\$ —
Impact of 20% adverse change	(85)	(57)	(6)	(11)	(1)	(2)	(1)
Loss assumptions	4.7-7.6%	0.0-78.1% ^(d)	0.0-78.1% ^(f)	0.0-26.3%	0.0-5.0%	—% ^(e)	0.4-0.7%
Weighted-average loss assumption	7.0	4.4	3.4	0.3	0.3	—	0.5
Impact of 10% adverse change	\$ (235)	\$ (25)	\$ (7)	\$ —	\$ (12)	\$ —	\$ —
Impact of 20% adverse change	(426)	(49)	(13)	(1)	(24)	—	(1)
Discount rates	18.0%	9.9-67.7% ^(d)	10.6-30.0%	3.6-71.7%	3.3-47.8% ^(g)	9.0%	4.1-4.2%
Weighted-average discount rate	18.0	14.5	21.5	17.3	12.4	9.0	4.1
Impact of 10% adverse change	\$ (10)	\$ (52)	\$ (3)	\$ (16)	\$ (26)	\$ (2)	\$ —
Impact of 20% adverse change	(20)	(102)	(5)	(28)	(49)	(4)	—

Notes to consolidated financial statements

December 31, 2007

(in millions, except rates and where otherwise noted)	Residential mortgage						
	Credit card	Prime ^(c)	Subprime	Option ARMs	Commercial and other	Student loans	Auto
Retained interests	\$ 3,324	\$ 381	\$ 387	\$ —	\$ 42	\$ 58	\$ 106
Weighted-average life (in years)	0.4-0.5	2.9-4.9	2.9	—	0.3-11.0	8.8	0.9
Prepayment rates ^(a)	15.6-18.9%	19.0-25.3%	25.7%	—%	0.0-50.0%	1.0-8.0%	1.4%
	PPR	CPR	CPR		CPR	CPR	ABS
Impact of 10% adverse change	\$ (59)	\$ (14)	\$ (30)	\$ —	\$ (1)	\$ (1)	\$ (1)
Impact of 20% adverse change	(118)	(25)	(54)	—	(2)	(2)	(1)
Loss assumptions	3.3-4.6%	0.0-3.0% ^(e)	3.3%	—%	0.0-0.9%	—% ^(e)	0.6%
Impact of 10% adverse change	\$ (117)	\$ (13)	\$ (68)	\$ —	\$ (1)	\$ —	\$ (2)
Impact of 20% adverse change	(234)	(25)	(120)	—	(1)	—	(3)
Discount rates	12.0%	11.0-23.9%	15.0-30.0%	—%	1.0-18.0%	9.0%	6.8%
Impact of 10% adverse change	\$ (2)	\$ (18)	\$ (16)	\$ —	\$ —	\$ (3)	\$ —
Impact of 20% adverse change	(4)	(36)	(31)	—	(1)	(5)	(1)

(a) PPR: principal payment rate; ABS: absolute prepayment speed; CPR: constant prepayment rate.

(b) Excludes certain interests that are not valued using modeling techniques.

(c) Includes Alt-A loans.

(d) Including the valuation assumptions used to determine the fair value for a limited amount of retained interests resulted in a wider range than those used for the majority of the portfolio. Excluding these retained interests, the range of assumptions used to value the prime/Alt A mortgage retained interests would have been 0.0-29.4% for prepayment rates; 0.0-25.0% for loss assumptions; and 9.9-21.4% for discount rates.

(e) Expected losses for prime residential mortgage, student loans and certain wholesale securitizations are minimal and are incorporated into other assumptions.

(f) Including the loss assumptions used to determine the fair value for a limited amount of retained interests resulted in a wider range than those used for the majority of the portfolio. Excluding these retained interests, the range of loss assumption used to value the subprime mortgage retained interests would have been 0.2-43.5%.

(g) The valuation assumptions used to determine the fair value for a limited amount of retained interests were higher than the majority of the portfolio. Excluding these retained interests, the range of assumptions used to value the commercial and other retained interests would have been 0.0-22.0% for prepayment rates and 3.3-30.4% for the discount rates.

The sensitivity analysis in the preceding table is hypothetical. Changes in fair value based upon 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 the Firm's risk management practices that may be undertaken to mitigate such risks.

The table below includes information about delinquencies, net charge-offs and components of reported and securitized financial assets at December 31, 2008 and 2007.

December 31, (in millions)	Total Loans		90 days past due and still accruing		Nonaccrual assets ^{(g)(h)}		Net loan charge-offs Year ended	
	2008	2007	2008	2007	2008	2007	2008	2007
Home Equity	\$ 114,335	\$ 94,832	\$ —	\$ —	\$ 1,394	\$ 786	\$ 2,391	\$ 564
Prime mortgage ^(a)	72,266	39,988	—	—	1,895	501	526	33
Subprime mortgage	15,330	15,473	—	—	2,690	1,017	933	157
Option ARMs	9,018	—	—	—	10	—	—	—
Auto loans	42,603	42,350	—	—	148	116	568	354
Credit card	104,746	84,352	2,649	1,547	4	7	4,556	3,116
All other loans	33,715	25,314	463	421	430	341	459	242
Loans held-for-sale ^(b)	2,028	3,989	—	—	—	—	NA	NA
Total consumer loans – excluding purchased credit-impaired	394,041	306,298	3,112	1,968	6,571	2,768	9,433	4,466
Consumer loans – purchased credit-impaired ^(c)	88,813	—	—	—	—	—	—	—
Total consumer loans	482,854	306,298	3,112	1,968	6,571	2,768	9,433	4,466
Total wholesale loans	262,044	213,076	163	75	2,382⁽ⁱ⁾	514⁽ⁱ⁾	402	72
Total loans reported	744,898	519,374	3,275	2,043	8,953	3,282	9,835	4,538
Securitized loans:								
Residential mortgage:								
Prime mortgage ^(a)	212,274	77,582	—	—	21,130	1,215	5,645	7
Subprime mortgage	58,607	22,692	—	—	13,301	3,238	4,797	413
Option ARMs	48,328	—	—	—	6,440	—	270	—
Automobile	791	2,276	—	—	2	6	15	13
Credit card	85,571	72,701	1,802	1,050	—	—	3,612	2,380
Student	1,074	1,141	66	—	—	—	1	—
Commercial and other	45,677	3,419	28	—	166	—	8	11
Total loans securitized^(d)	\$ 452,322	\$ 179,811	\$ 1,896	\$ 1,050	\$41,039	\$ 4,459	\$14,348	\$ 2,824
Total loans reported and securitized^(e)	\$ 1,197,220^(f)	\$ 699,185^(f)	\$ 5,171	\$ 3,093	\$49,992	\$ 7,741	\$24,183	\$ 7,362

(a) Includes Alt-A loans.

(b) Includes loans for prime mortgage and other (largely student loans) of \$206 million and \$1.8 billion at December 31, 2008, respectively, and \$570 million and \$3.4 billion at December 31, 2007, respectively.

(c) Purchased credit-impaired loans represent loans acquired in the Washington Mutual acquisition that were considered credit-impaired under SOP 03-3, and include \$6.4 billion of loans that were nonperforming immediately prior to the acquisition. Under SOP 03-3, these loans are considered to be performing loans as of the acquisition date; they accrete interest income over the estimated life of the loan when cash flows are reasonably estimable, even if the underlying loans are contractually past due. For additional information, see Note 14 on pages 175–178 of this Annual Report.

(d) Total assets held in securitization-related SPEs were \$640.8 billion and \$307.7 billion at December 31, 2008 and 2007, respectively. The \$452.3 billion and \$179.8 billion of loans securitized at December 31, 2008 and 2007, respectively, excludes \$152.4 billion and \$107.8 billion of securitized loans, respectively, in which the Firm has no continuing involvement; \$33.3 billion and \$18.6 billion of seller's interests in credit card master trusts, respectively; and \$2.8 billion and \$1.5 billion of cash amounts on deposit and escrow accounts.

(e) Represents both loans on the Consolidated Balance Sheets and loans that have been securitized.

(f) Includes securitized loans that were previously recorded at fair value and classified as trading assets.

(g) During the second quarter of 2008, the policy for classifying subprime mortgage and home equity loans as nonperforming was changed to conform to all other home lending products. Amounts for 2007 have been revised to reflect this change.

(h) Excludes nonperforming assets related to (i) loans eligible for repurchase, as well as loans repurchased from GNMA pools that are insured by U.S. government agencies, of \$3.3 billion and \$1.5 billion at December 31, 2008 and 2007, respectively, and (ii) student loans that are 90 days past due and still accruing, which are insured by U.S. government agencies under the Federal Family Education Loan Program, of \$437 million and \$417 million at December 31, 2008 and 2007, respectively. These amounts for GNMA and student loans are excluded, as reimbursement is proceeding normally.

(i) Includes nonperforming loans held-for-sale and loans at fair value of \$32 million and \$50 million at December 31, 2008 and 2007, respectively.

Notes to consolidated financial statements

Subprime adjustable-rate mortgage loan modifications

See the Glossary of Terms on page 232 of this Annual Report for the Firm's definition of subprime loans. Within the confines of the limited decision-making abilities of a QSPE under SFAS 140, the operating documents that govern existing subprime securitizations generally authorize the servicer to modify loans for which default is reasonably foreseeable, provided that the modification is in the best interests of the QSPE's beneficial interest holders and would not result in a REMIC violation.

In December 2007, the American Securitization Forum ("ASF") issued the "Streamlined Foreclosure and Loss Avoidance Framework for Securitized Subprime Adjustable Rate Mortgage Loans" (the "Framework"). The Framework provides guidance for servicers to streamline evaluation procedures for borrowers with certain subprime adjustable rate mortgage ("ARM") loans to more efficiently provide modifications of such loans with terms that are more appropriate for the individual needs of such borrowers. The Framework applies to all first-lien subprime ARM loans that have a fixed rate of interest for an initial period of 36 months or less, are included in securitized pools, were originated between January 1, 2005, and July 31, 2007, and have an initial interest rate reset date between January 1, 2008, and July 31, 2010 ("ASF Framework Loans").

The Framework categorizes the population of ASF Framework Loans into three segments: Segment 1 includes loans where the borrower is current and is likely to be able to refinance into any readily available mortgage product; Segment 2 includes loans where the borrower is current, is unlikely to be able to refinance into any readily available mortgage industry product and meets certain defined criteria; and Segment 3 includes loans where the borrower is not current, as defined, and does not meet the criteria for Segments 1 or 2.

ASF Framework Loans in Segment 2 of the Framework are eligible for fast-track modification under which the interest rate will be kept at the existing initial rate, generally for five years following the interest rate reset date. The Framework indicates that for Segment 2 loans, JPMorgan Chase, as servicer, may presume that the borrower will be unable to make payments pursuant to the original terms of the borrower's loan after the initial interest rate reset date. Thus, the Firm may presume that a default on that loan by the borrower is reasonably foreseeable unless the terms of the loan are modified. JPMorgan Chase has adopted the loss mitigation approaches under the Framework for securitized subprime ARM loans that meet the specific Segment 2 criteria and began modifying Segment 2 loans during the first quarter of 2008. The adoption of the Framework did not affect the off-balance sheet accounting treatment of JPMorgan Chase-sponsored QSPEs that hold Segment 2 subprime loans.

The total dollar amount of assets owned by Firm-sponsored QSPEs that hold subprime adjustable rate mortgage loans as of December 31, 2008 and 2007, was \$30.8 billion and \$20.0 billion, respectively. Of these amounts, \$12.7 billion and \$9.7 billion, respectively, are related to ASF Framework Loans serviced by the Firm. Included within the assets owned by Firm-sponsored QSPEs was foreclosure-related

real estate owned, for which JPMorgan Chase is the servicer, in the amount of \$3.5 billion and \$637 million at December 31, 2008 and 2007, respectively. The growth in real estate owned in 2008 is attributable to the Washington Mutual transaction and increased foreclosures resulting from current housing market conditions. The following table presents the principal amounts of ASF Framework Loans, serviced by the Firm, that are owned by Firm-sponsored QSPEs that fell within Segments 1, 2 and 3 as of December 31, 2008 and 2007, respectively.

December 31, (in millions, except ratios)	2008		2007	
	Amount	%	Amount	%
Segment 1	\$ 1,940	15%	\$ 1,940	20%
Segment 2	2,930	23	970	10
Segment 3	7,806	62	6,790	70
Total	\$ 12,676	100%	\$ 9,700	100%

The estimates of segment classification could change substantially in the future as a result of future changes in housing values, economic conditions, borrower/investor behavior and other factors.

The total principal amount of beneficial interests issued by the Firm-sponsored securitizations that hold ASF Framework Loans as of December 31, 2008 and 2007, was as follows.

December 31, (in millions)	2008	2007
Third-party	\$ 44,401	\$ 19,636
Retained interest	99	412
Total	\$ 44,500	\$ 20,048

For those ASF Framework Loans serviced by the Firm and owned by Firm-sponsored QSPEs, the Firm modified principal amounts of \$1.7 billion of Segment 2 subprime mortgages during the year ended December 31, 2008. There were no Segment 2 subprime mortgages modified during the year ended December 31, 2007. For Segment 3 loans, the Firm has adopted a loss mitigation approach, without employing the fast-track modifications prescribed for Segment 2 subprime mortgages, that is intended to maximize the recoveries of the securitization trust. The loss mitigation approach chosen by JPMorgan Chase is consistent with the applicable servicing agreements and could include rate reductions, principal forgiveness, forbearance and other actions intended to minimize economic loss and avoid foreclosure. The table below presents selected information relating to the principal amount of Segment 3 loans for the year ended December 31, 2008, including those that have been modified, subjected to other loss mitigation activities or have been prepaid by the borrower.

Year ended December 31, 2008 (in millions)

Loan modifications	\$ 2,384
Other loss mitigation activities	865
Prepayments	219

The impact of loss mitigation efforts on the fair value of the Firm's retained interests in ASF Framework loans was not material at December 31, 2008.

Note 17 – Variable interest entities

Refer to Note 1 on page 134 of this Annual Report for a further description of JPMorgan Chase's policies regarding consolidation of variable interest entities.

JPMorgan Chase's principal involvement with VIEs occurs in the following business segments:

- **Investment Bank:** Utilizes VIEs to assist clients in accessing the financial markets in a cost-efficient manner. IB is involved with VIEs through multi-seller conduits and for investor intermediation purposes, as discussed below. IB also securitizes loans through QSPEs, to create asset-backed securities, as further discussed in Note 16 on pages 180–188 of this Annual Report.
- **Asset Management ("AM"):** Provides investment management services to a limited number of the Firm's funds deemed VIEs. AM earns a fixed fee based upon assets managed; the fee varies with each fund's investment objective and is competitively priced. For the limited number of funds that qualify as VIEs, AM's relationships with such funds are not considered significant variable interests under FIN 46(R).
- **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. The relationships resulting from TSS' services are not considered to be significant variable interests under FIN 46(R).
- **Commercial Banking ("CB"):** Utilizes VIEs to assist clients in accessing the financial markets in a cost-efficient manner. This is often accomplished through the use of products similar to those offered in IB. CB may assist in the structuring and/or ongoing administration of these VIEs and may provide liquidity, letters of credit and/or derivative instruments in support of the VIE. The relationships resulting from CB's services are not considered to be significant variable interests under FIN 46(R).
- **Corporate/Private Equity:** Corporate utilizes VIEs to issue guaranteed capital debt securities. See Note 23 on page 203 for further information. The Private Equity business, also included in Corporate, may be involved with entities that could be deemed VIEs. Private equity activities are accounted for in accordance with the AICPA Audit and Accounting Guide *Investment Companies* (the "Guide"). In June 2007, the AICPA issued SOP 07-1, which provides guidance for determining whether an entity is within the scope of the Guide, and therefore qualifies to use the Guide's specialized accounting principles (referred to as "investment company accounting"). In May 2007, the FASB issued FSP FIN 46(R)-7, which amends FIN 46(R) to permanently exempt entities within the scope of the Guide from applying the provisions of FIN 46(R) to their investments. In February 2008, the FASB agreed to an indefinite delay of the effective date of SOP 07-1 in order to address implementation issues, which effectively delays FSP FIN 46(R)-7 as well for those companies, such as the Firm, that have not adopted SOP 07-1. Had FIN 46(R) been applied to VIEs subject to this deferral, the impact would have been immaterial to the Firm's consolidated financial statements as of December 31, 2008.

As noted above, IB is predominantly involved with multi-seller conduits and VIEs associated with investor intermediation activities. These nonconsolidated VIEs that are sponsored by JPMorgan Chase are discussed below. 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 associated with the JPMorgan Chase brand name; or (4) the entity is a JPMorgan Chase administered ABCP conduit.

Multi-seller conduits

Funding and liquidity

The Firm is an active participant in the asset-backed securities business, and it helps customers meet their financing needs by providing access to the commercial paper markets through VIEs known as 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 to third-party investors. The primary source of repayment of the commercial paper is the cash flow from the pools of assets. In most instances, the assets are structured with deal-specific credit enhancements provided by the customers (i.e., sellers) to the conduits 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, but also may include any combination of the following: recourse to the seller or originator, cash collateral accounts, letters of credit, excess spread, retention of subordinated interests or third-party guarantees. The deal-specific credit enhancements mitigate the Firm's potential losses on its agreements with the conduits.

JPMorgan Chase receives fees related to the structuring of multi-seller conduit transactions and compensation from the multi-seller conduits for its role as administrative agent, liquidity provider, and provider of program-wide credit enhancement.

As a means of ensuring timely repayment of the commercial paper, each asset pool financed by the conduits has a minimum 100% deal-specific liquidity facility associated with it. Deal-specific liquidity facilities are the primary source of liquidity support for the conduits. The deal-specific liquidity facilities are typically in the form of asset purchase agreements and generally structured so the liquidity that will be provided by the Firm as liquidity provider will be effected by the Firm purchasing, or lending against, a pool of nondefaulted, performing assets.

The conduit's administrative agent can require the liquidity provider to perform under its asset purchase agreement with the conduit at any time. These agreements may cause the liquidity provider, including the Firm, to purchase an asset from the conduit at an amount above the asset's then current fair value – in effect providing a guarantee of the initial value of the reference asset as of the date of the agreement. In limited circumstances, the Firm may provide unconditional liquidity.

Notes to consolidated financial statements

The Firm also provides the multi-seller conduit vehicles with program-wide liquidity facilities in the form of uncommitted short-term revolving facilities that can be accessed by the conduits to handle funding increments too small to be funded by commercial paper and in the form of uncommitted liquidity facilities that can be accessed by the conduits only in the event of short-term disruptions in the commercial paper market.

Because the majority of the deal-specific liquidity facilities will only fund nondefaulted assets, program-wide credit enhancement is required to absorb losses on defaulted receivables in excess of losses absorbed by any deal-specific credit enhancement. Program-wide credit enhancement may be provided by JPMorgan Chase in the form of standby letters of credit or by third-party surety bond providers. The amount of program-wide credit enhancement required varies by conduit and ranges between 5% and 10% of applicable commercial paper outstanding.

The following table summarizes the Firm's involvement with nonconsolidated Firm-administered multi-seller conduits. There were no consolidated Firm-administered multi-seller conduits as of December 31, 2008 or 2007.

December 31, (in billions)	2008	2007
Total assets held by conduits	\$ 42.9	\$ 61.2
Total commercial paper issued by conduits	43.1	62.6
Liquidity and credit enhancements^(a)		
Deal-specific liquidity facilities (primary asset purchase agreements)	55.4	87.3
Program-wide liquidity facilities	17.0	13.2
Program-wide credit enhancements	3.0	2.5
Maximum exposure to loss^(b)	56.9	88.9

(a) The accounting for these agreements is further discussed in Note 33 on pages 218–222. The carrying value related to asset purchase agreements was \$147 million at December 31, 2008, of which \$138 million represented the remaining fair value of the guarantee under FIN 45. The Firm has recognized this guarantee in other liabilities with an offsetting entry recognized in other assets for the net present value of the future premium receivable under the contracts.

(b) The Firm's maximum exposure to loss is limited to the amount of drawn commitments (i.e., sellers' assets held by the multi-seller conduits for which the Firm provides liquidity support) of \$42.9 billion and \$61.2 billion at December 31, 2008 and 2007, respectively, plus contractual but undrawn commitments of \$14.0 billion and \$27.7 billion at December 31, 2008 and 2007, respectively. Since the Firm provides credit enhancement and liquidity to Firm-administered, multi-seller conduits, the maximum exposure is not adjusted to exclude exposure that would be absorbed by third-party liquidity providers.

Assets funded by the multi-seller conduits

JPMorgan Chase's administered multi-seller conduits fund a variety of asset types for the Firm's clients. Asset types primarily include credit card receivables, auto loans, trade receivables, student loans, commercial loans, residential mortgages, capital commitments (e.g., loans to private equity, mezzanine and real estate opportunity funds

secured by capital commitments of highly rated institutional investors), and various other asset types. It is the Firm's intention that the assets funded by its administered multi-seller conduits be sourced only from the Firm's clients and not originated by, or transferred from, JPMorgan Chase.

The following table presents information on the commitments and assets held by JPMorgan Chase's administered multi-seller conduits as of December 31, 2008 and 2007.

Summary of exposure to Firm-administered nonconsolidated multi-seller conduits

December 31, (in billions)	2008				2007			
	Unfunded commitments to Firm's clients	Commercial paper funded assets	Liquidity provided by third parties	Liquidity provided by Firm	Unfunded commitments to Firm's clients	Commercial paper funded assets	Liquidity provided by third parties	Liquidity provided by Firm
Asset types:								
Credit card	\$ 3.0	\$ 8.9	\$ 0.1	\$ 11.8	\$ 3.3	\$ 14.2	\$ —	\$ 17.5
Vehicle loans and leases	1.4	10.0	—	11.4	4.5	10.2	—	14.7
Trade receivables	3.8	5.5	—	9.3	6.0	6.6	—	12.6
Student loans	0.7	4.6	—	5.3	0.8	9.2	—	10.0
Commercial	1.5	4.0	0.4	5.1	2.1	4.8	0.4	6.5
Residential mortgage	—	0.7	—	0.7	4.6	3.1	—	7.7
Capital commitments	1.3	3.9	0.6	4.6	2.0	5.1	0.6	6.5
Rental car finance	0.2	0.4	—	0.6	0.6	0.7	—	1.3
Equipment loans and leases	0.7	1.6	—	2.3	1.1	2.5	—	3.6
Floorplan – vehicle	0.7	1.8	—	2.5	1.3	1.3	—	2.6
Floorplan – other	—	—	—	—	—	0.5	—	0.5
Consumer	0.1	0.7	0.1	0.7	0.7	1.7	0.2	2.2
Other	0.6	0.8	0.3	1.1	0.7	1.3	0.4	1.6
Total	\$ 14.0	\$ 42.9	\$ 1.5	\$ 55.4	\$ 27.7	\$ 61.2	\$ 1.6	\$ 87.3

December 31, 2008 (in billions)	Ratings profile of VIE assets of the multi-seller conduits ^(a)					Commercial paper funded assets	Wt. avg. expected life (years) ^(b)
	Investment-grade				Noninvestment-grade BB+ and below		
	AAA to AAA-	AA+ to AA-	A+ to A-	BBB to BBB-			
Asset types:							
Credit card	\$ 4.8	\$ 3.9	\$ 0.1	\$ 0.1	\$ —	\$ 8.9	1.5
Vehicle loans and leases	4.1	4.1	1.8	—	—	10.0	2.5
Trade receivables	—	4.0	1.5	—	—	5.5	1.0
Student loans	3.6	0.9	—	0.1	—	4.6	1.8
Commercial	1.1	2.0	0.6	0.3	—	4.0	2.7
Residential mortgage	—	0.6	—	0.1	—	0.7	4.0
Capital commitments	—	3.6	0.3	—	—	3.9	2.4
Rental car finance	—	—	0.4	—	—	0.4	1.5
Equipment loans and leases	0.4	1.2	—	—	—	1.6	2.2
Floorplan – vehicle	0.1	1.0	0.7	—	—	1.8	1.1
Floorplan – other	—	—	—	—	—	—	—
Consumer	0.1	0.4	0.2	—	—	0.7	1.6
Other	0.5	0.3	—	—	—	0.8	3.7
Total	\$ 14.7	\$ 22.0	\$ 5.6	\$ 0.6	\$ —	\$ 42.9	2.0

December 31, 2007 (in billions)	Ratings profile of VIE assets of the multi-seller conduits ^(a)					Commercial paper funded assets	Wt. avg. expected life (years) ^(b)
	Investment-grade				Noninvestment-grade BB+ and below		
	AAA to AAA-	AA+ to AA-	A+ to A-	BBB to BBB-			
Asset types:							
Credit card	\$ 4.2	\$ 9.4	\$ 0.6	\$ —	\$ —	\$ 14.2	1.5
Vehicle loans and leases	1.8	6.9	1.4	—	0.1	10.2	2.3
Trade receivables	—	4.7	1.7	0.2	—	6.6	1.3
Student loans	1.0	8.1	0.1	—	—	9.2	0.5
Commercial	0.5	3.5	0.7	0.1	—	4.8	2.8
Residential mortgage	1.5	0.8	0.8	—	—	3.1	1.5
Capital commitments	—	5.1	—	—	—	5.1	3.4
Rental car finance	—	0.7	—	—	—	0.7	1.1
Equipment loans and leases	0.4	1.9	—	0.2	—	2.5	2.2
Floorplan – vehicle	0.4	0.7	0.2	—	—	1.3	0.8
Floorplan – other	—	0.5	—	—	—	0.5	0.7
Consumer	—	1.4	0.2	—	0.1	1.7	1.8
Other	1.2	0.1	—	—	—	1.3	3.7
Total	\$ 11.0	\$ 43.8	\$ 5.7	\$ 0.5	\$ 0.2	\$ 61.2	1.8

(a) The ratings scale is presented on an S&P equivalent basis.

(b) Weighted average expected life for each asset type is based upon the remaining term of each conduit transaction's committed liquidity plus either the expected weighted average life of the assets should the committed liquidity expire without renewal or the expected time to sell the underlying assets in the securitization market.

The assets held by the multi-seller conduits are structured so that if they were rated, the Firm believes the majority of them would receive an "A" rating or better by external rating agencies. However, it is unusual for the assets held by the conduits to be explicitly rated by an external rating agency. Instead, the Firm's Credit Risk group assigns each asset purchase liquidity facility an internal risk-rating based upon its assessment of the probability of default for the transaction. The ratings provided in the above table reflect the S&P-equivalent ratings of the internal rating grades assigned by the Firm.

The risk ratings are periodically reassessed as information becomes available. As of December 31, 2008 and 2007, 90% and 93%, respectively, of the assets in the conduits were risk-rated "A" or better.

Commercial paper issued by the multi-seller conduits

The weighted average life of commercial paper issued by the multi-seller conduits at December 31, 2008 and 2007, was 27 days and 26 days, respectively, and the average yield on the commercial paper at December 31, 2008 and 2007, was 0.6% and 5.7%, respectively.

In the normal course of business, JPMorgan Chase trades and invests in commercial paper, including paper issued by the Firm-administered conduits. The percentage of commercial paper purchased by the Firm across all Firm-administered conduits during the year ended December 31, 2008, ranged from less than 1% to approximately 20% on any given day. The largest daily amount of commercial paper outstanding held by the Firm in any one multi-seller conduit during the years ended December 31, 2008 and 2007, was approximately \$2.7 billion, or 23%, for 2008, and \$2.7 billion, or 16%, for 2007, of the conduit's commercial paper outstanding. On average, the Firm held approximately 3% of daily multi-seller conduit issued commercial paper outstanding during 2008. Total multi-seller conduit issued commercial paper held by the Firm at December 31, 2008 and 2007, was \$360 million and \$131 million, respectively.

The Firm is not obligated under any agreement (contractual or non-contractual) to purchase the commercial paper issued by JPMorgan Chase-administered conduits.

Notes to consolidated financial statements

Consolidation analysis

The multi-seller conduits administered by the Firm were not consolidated at December 31, 2008 and 2007, because each conduit had issued expected loss notes ("ELNs"), the holders of which are committed to absorbing the majority of the expected loss of each respective conduit.

Implied support

The Firm did not have and continues not to have any intent to protect any ELN holders from potential losses on any of the conduits' holdings and has no plans to remove any assets from any conduit unless required to do so in its role as administrator. Should such a transfer occur, the Firm would allocate losses on such assets between itself and the ELN holders in accordance with the terms of the applicable ELN.

Expected loss modeling

In determining the primary beneficiary of the conduits the Firm uses a Monte Carlo-based model to estimate the expected losses of each of the conduits and considers the relative rights and obligations of each of the variable interest holders. The Firm's expected loss modeling treats all variable interests, other than the ELNs, as its own to determine consolidation. The variability to be considered in the modeling of expected losses is based on the design of the entity. The Firm's traditional multi-seller conduits are designed to pass credit risk, not liquidity risk, to its variable interest holders, as the assets are intended to be held in the conduit for the longer term.

Under FIN 46(R), the Firm is required to run the Monte Carlo-based expected loss model each time a reconsideration event occurs. In applying this guidance to the conduits, the following events, are considered to be reconsideration events, as they could affect the determination of the primary beneficiary of the conduits:

- New deals, including the issuance of new or additional variable interests (credit support, liquidity facilities, etc);
- Changes in usage, including the change in the level of outstanding variable interests (credit support, liquidity facilities, etc);
- Modifications of asset purchase agreements; and
- Sales of interests held by the primary beneficiary.

From an operational perspective, the Firm does not run its Monte Carlo-based expected loss model every time there is a reconsideration event due to the frequency of their occurrence. Instead, the Firm runs its expected loss model each quarter and includes a growth assumption for each conduit to ensure that a sufficient amount of ELNs exists for each conduit at any point during the quarter.

As part of its normal quarterly modeling, the Firm updates, when applicable, the inputs and assumptions used in the expected loss model. Specifically, risk ratings and loss given default assumptions are continually updated. The total amount of expected loss notes outstanding at December 31, 2008 and 2007, were \$136 million and \$130 million, respectively. Management has concluded that the model assumptions used were reflective of market participants' assumptions and appropriately considered the probability of changes to risk ratings and loss given defaults.

Qualitative considerations

The multi-seller conduits are primarily designed to provide an efficient means for clients to access the commercial paper market. The Firm believes the conduits effectively disperse risk among all parties and that the preponderance of the economic risk in the Firm's multi-seller conduits is not held by JPMorgan Chase.

Consolidated sensitivity analysis on capital

The table below shows the impact on the Firm's reported assets, liabilities, Tier 1 capital ratio and Tier 1 leverage ratio if the Firm were required to consolidate all of the multi-seller conduits that it administers at their current carrying value.

December 31, 2008		
(in billions, except ratios)	Reported	Pro forma ^{(a)(b)}
Assets	\$ 2,175.1	\$ 2,218.2
Liabilities	2,008.2	2,051.3
Tier 1 capital ratio	10.9%	10.9%
Tier 1 leverage ratio	6.9	6.8

- (a) The table shows the impact of consolidating the assets and liabilities of the multi-seller conduits at their current carrying value; as such, there would be no income statement or capital impact at the date of consolidation. If the Firm were required to consolidate the assets and liabilities of the conduits at fair value, the Tier 1 capital ratio would be approximately 10.8%. The fair value of the assets is primarily based upon pricing for comparable transactions. The fair value of these assets could change significantly because the pricing of conduit transactions is renegotiated with the client, generally, on an annual basis and due to changes in current market conditions.
- (b) Consolidation is assumed to occur on the first day of the quarter, at the quarter-end levels, in order to provide a meaningful adjustment to average assets in the denominator of the leverage ratio.

The Firm could fund purchases of assets from VIEs should it become necessary.

2007 activity

In July 2007, a reverse repurchase agreement collateralized by prime residential mortgages held by a Firm-administered multi-seller conduit was put to JPMorgan Chase under its deal-specific liquidity facility. The asset was transferred to and recorded by JPMorgan Chase at its par value based on the fair value of the collateral that supported the reverse repurchase agreement. During the fourth quarter of 2007, additional information regarding the value of the collateral, including performance statistics, resulted in the determination by the Firm that the fair value of the collateral was impaired. Impairment losses were allocated to the ELN holder (the party that absorbs the majority of the expected loss from the conduit) in accordance with the contractual provisions of the ELN note.

On October 29, 2007, certain structured CDO assets originated in the second quarter of 2007 and backed by subprime mortgages were transferred to the Firm from two Firm-administered multi-seller conduits. It became clear in October that commercial paper investors and rating agencies were becoming increasingly concerned about CDO assets backed by subprime mortgage exposures. Because of these concerns, and to ensure the continuing viability of the two conduits as financing vehicles for clients and as investment alternatives for commercial paper investors, the Firm, in its role as administrator, transferred the CDO assets out of the multi-seller conduits. The structured CDO assets were transferred to the Firm at

their par value of \$1.4 billion. As of December 31, 2008 and 2007, the CDO assets were valued on the Consolidated Balance Sheets at \$5 million and \$291 million, respectively.

There were no other structured CDO assets backed by subprime mortgages remaining in JPMorgan Chase-administered multi-seller conduits as of December 31, 2008 and 2007.

The Firm does not consider the October 2007 transfer of the structured CDO assets from the multi-seller conduits to JPMorgan Chase to be an indicator of JPMorgan Chase's intent to provide implicit support to the ELN holders. This transfer was a one-time, isolated event, limited to a specific type of asset that is not typically funded in the Firm's administered multi-seller conduits. In addition, the Firm has no plans to permit multi-seller conduits to purchase such assets in the future.

Investor intermediation

As a financial intermediary, the Firm creates certain types of VIEs and also structures transactions, typically derivative structures, with these VIEs 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 these structuring activities are municipal bond vehicles, credit-linked note vehicles, asset swap vehicles and collateralized debt obligation vehicles.

Municipal bond vehicles

The Firm has created a series of secondary market trusts that provide short-term investors with qualifying tax-exempt investments, and that allow investors in tax-exempt securities to finance their investments at short-term tax-exempt rates. In a typical transaction, the vehicle purchases fixed-rate longer-term highly rated municipal bonds and funds the purchase by issuing two types of securities: (1) putable floating-rate certificates and (2) inverse floating-rate residual interests ("residual interests"). The maturity of each of the putable floating-rate certificates and the residual interests is equal to the life of the vehicle, while the maturity of the underlying municipal bonds is longer. Holders of the putable 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, if the proceeds from the sale of the underlying municipal bonds are not sufficient to repay the liquidity facility, the liquidity provider has recourse either to excess collateralization in the vehicle or the residual interest holders for reimbursement.

The third-party holders of the residual interests in these vehicles could experience losses if the face amount of the putable floating-rate certificates exceeds the market value of the municipal bonds upon termination of the vehicle. Certain vehicles require a smaller initial investment by the residual interest holders and thus do not result in excess collateralization. For these vehicles there exists a reimbursement obligation which requires the residual interest holders to post, during the life of the vehicle, additional collateral to the vehicle on a daily basis as the market value of the municipal bonds declines.

JPMorgan Chase often serves as the sole liquidity provider and remarketing agent of the putable floating-rate certificates. As the liquidity provider, the Firm has an obligation to fund the purchase of the putable floating-rate certificates; this obligation is triggered by the failure to remarket the putable 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, and the immediate downgrade of the municipal bond to below investment grade. A downgrade of the JPMorgan Chase Bank, N.A.'s short-term rating does not affect the Firm's obligation under the liquidity facility. However, in the event of a downgrade in the Firm's credit ratings, holders of the putable floating-rate instruments supported by those liquidity facility commitments might choose to sell their instruments, which could increase the likelihood that the liquidity commitments could be drawn. In vehicles in which third-party investors own the residual interests, in addition to the termination events, the Firm's exposure as liquidity provider is further limited by the high credit quality of the underlying municipal bonds, and the excess collateralization in the vehicle or the reimbursement agreements with the residual interest holders. In the fourth quarter of 2008, a drawdown occurred on one liquidity facility as a result of a failure to remarket putable floating-rate certificates. The Firm was required to purchase \$19 million of putable floating-rate certificates. Subsequently, the municipal bond vehicle was terminated and the proceeds from the sales of the municipal bonds, together with the collateral posted by the residual interest holder, were sufficient to repay the putable floating-rate certificates. In 2007, the Firm did not experience a drawdown on the liquidity facilities.

As remarketing agent, the Firm may hold the putable floating-rate certificates. At December 31, 2008 and 2007, respectively, the Firm held \$293 million and \$617 million of these certificates on its Consolidated Balance Sheets. The largest amount held by the Firm at any time during 2008 and 2007 was \$2.2 billion and \$1.0 billion, respectively, or 11% and 5%, respectively, of the municipal bond vehicles' outstanding putable 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 long-term credit ratings of the putable floating-rate certificates are directly related to the credit ratings of the underlying municipal bonds, and to the credit rating of any insurer of the underlying municipal bond. A downgrade of a bond insurer would result in a downgrade of the insured municipal bonds, which would affect the rating of the putable floating-rate certificates. This could cause demand for these certificates by investors to decline or disappear, as putable floating-rate certificate holders typically require an "AA-" bond rating. At December 31, 2008 and 2007, 97% and 99%, respectively, of the municipal bonds held by vehicles to which the Firm served as liquidity provider were rated "AA-" or better, based upon either the rating of the underlying municipal bond itself, or the rating including any credit enhancement. At December 31, 2008 and 2007, \$2.6 billion and \$12.0 billion, respectively, of the bonds were

Notes to consolidated financial statements

insured by monoline bond insurers. In addition, the municipal bond vehicles did not experience any bankruptcy or downgrade termination events during 2008 and 2007.

The Firm sometimes invests in the residual interests of municipal bond vehicles. For VIEs in which the Firm owns the residual interests, the Firm consolidates the VIEs.

The likelihood that the Firm would have to consolidate VIEs where the Firm does not own the residual interests and that are currently off-balance sheet is remote.

Exposure to nonconsolidated municipal bond VIEs at December 31, 2008 and 2007, including the ratings profile of the VIEs' assets, were as follows.

December 31, (in billions)	2008				2007			
	Fair value of assets held by VIEs	Liquidity facilities ^(d)	Excess/ (deficit) ^(e)	Maximum exposure	Fair value of assets held by VIEs	Liquidity facilities ^(d)	Excess/ (deficit) ^(e)	Maximum exposure
Nonconsolidated Municipal bond vehicles ^{(a)(b)(c)}	\$ 10.0	\$ 6.9	\$ 3.1	\$ 6.9	\$ 19.2	\$ 18.1	\$ 1.1	\$ 18.1
December 31, (in billions)	Ratings profile of VIE assets ^(f)						Fair value of assets held by VIEs	Wt. avg. expected life of assets (years)
	Investment-grade				Noninvestment-grade			
	AAA to AAA-	AA+ to AA-	A+ to A-	BBB to BBB-	BB+ and below			
Nonconsolidated municipal bond vehicles ^(a)								
2008	\$ 3.8	\$ 5.9	\$ 0.2	\$ 0.1	\$ —	\$ 10.0	22.3	
2007	14.6	4.4	0.2	—	—	19.2	10.0	

(a) Excluded \$6.0 billion and \$6.9 billion at December 31, 2008 and 2007, respectively, which were consolidated due to the Firm owning the residual interests.

(b) Certain of the municipal bond vehicles are structured to meet the definition of a QSPE (as discussed in Note 1 on page 134 of this Annual Report); accordingly, the assets and liabilities of QSPEs are not reflected in the Firm's Consolidated Balance Sheets (except for retained interests that are reported at fair value). Excluded nonconsolidated amounts of \$603 million and \$7.1 billion at December 31, 2008 and 2007, respectively, related to QSPE municipal bond vehicles in which the Firm owned the residual interests.

(c) The decline in balances at December 31, 2008, compared with December 31, 2007, was due to third-party residual interest holders exercising their right to terminate the municipal bond vehicles. The proceeds from the sales of municipal bonds were sufficient to repay the putable floating-rate certificates, and the Firm did not incur losses as a result of these terminations.

(d) The Firm may serve as credit enhancement provider in 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 and \$103 million at December 31, 2008 and 2007, respectively.

(e) Represents the excess (deficit) of municipal bond asset fair value available to repay the liquidity facilities, if drawn.

(f) The ratings scale is based upon the Firm's internal risk ratings and presented on an S&P equivalent basis.

Credit-linked note vehicles

The Firm structures transactions with credit-linked note ("CLN") 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 CLNs with maturities predominantly ranging from one to ten years in order to transfer the risk of the referenced credit to the VIE's investors. Clients and investors often prefer using a CLN vehicle since the CLNs issued by the VIE generally carry a higher credit rating than such notes would if issued directly by JPMorgan Chase. The Firm's exposure to the CLN vehicles is generally limited to its rights and obligations under the credit derivative contract with the VIE, as 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. Accordingly, the Firm typically does

not consolidate the CLN vehicles. As a derivative counterparty in a credit-linked note structure, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its balance sheet at fair value. The collateral purchased by such VIEs is largely investment-grade, with a majority being rated "AAA". The Firm divides its credit-linked note structures broadly into two types: static and managed.

In a static credit-linked note structure, the CLNs and associated credit derivative contract either reference a single credit (e.g., a multinational corporation) or all or part of a fixed portfolio of credits. The Firm generally buys protection from the VIE under the credit derivative. As a net buyer of credit protection, the Firm pays a premium to the VIE in return for the receipt of a payment (up to the notional amount of the derivative) if one or more of the reference credits defaults, or if the losses resulting from the default of the reference credits exceed specified levels.

In a managed credit-linked 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. By participating in a structure where a portfolio manager has the ability to substitute credits within pre-agreed terms, the investors who own the CLNs seek to reduce the risk that any single credit in the portfolio will

default. 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, 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.

Exposure to nonconsolidated credit-linked note VIEs at December 31, 2008 and 2007, was as follows.

December 31, (in billions)	2008				2007			
	Derivative receivables	Trading assets ^(c)	Total exposure ^(d)	Par value of collateral held by VIEs ^(e)	Derivative receivables	Trading assets ^(c)	Total exposure ^(d)	Par value of collateral held by VIEs ^(e)
Credit-linked notes ^(a)								
Static structure	\$ 3.6	\$ 0.7	\$ 4.3	\$ 14.5	\$ 0.8	\$ 0.4	\$ 1.2	\$ 13.5
Managed structure ^(b)	7.7	0.3	8.0	16.6	4.5	0.9	5.4	12.8
Total	\$11.3	\$ 1.0	\$12.3	\$ 31.1	\$ 5.3	\$ 1.3	\$ 6.6	\$ 26.3

(a) Excluded fair value of collateral of \$2.1 billion and \$2.5 billion at December 31, 2008 and 2007, respectively, which was consolidated as the Firm, in its role as secondary market maker, held a majority of the issued CLNs of certain vehicles.

(b) Includes synthetic collateralized debt obligation vehicles, which have similar risk characteristics to managed credit-linked note vehicles. At December 31, 2008 and 2007, trading assets included \$7 million and \$291 million, respectively, of transactions with subprime collateral.

(c) Trading assets principally comprise notes issued by VIEs, which from time to time are held as part of the termination of a deal or to support limited market-making.

(d) On-balance sheet exposure that includes derivative receivables and trading assets.

(e) 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 upon 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.

Asset Swap Vehicles

The Firm also 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 currency risk, or both, of the assets 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; for example, an interest rate derivative may 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 the asset swap vehicles is generally limited to its rights and obligations under the interest rate and/or foreign exchange derivative contracts, as the Firm does not provide any contractual financial support to the VIE. In addition, the Firm historically has not provided any financial support to the asset swap vehicles over and above its contractual obligations. Accordingly, the Firm typically does not consolidate the asset swap vehicles. As a derivative counterparty, the Firm has a senior claim on the collateral of the VIE and reports such derivatives on its balance sheet at fair value. Substantially all of the assets purchased by such VIEs are investment-grade.

Notes to consolidated financial statements

Exposure to nonconsolidated asset swap VIEs at December 31, 2008 and 2007, was as follows.

December 31, (in billions)	2008				2007			
	Derivative receivables (payables)	Trading assets ^(a)	Total exposure ^(b)	Par value of collateral held by VIEs ^(c)	Derivative receivables (payables)	Trading assets ^(a)	Total exposure ^(b)	Par value of collateral held by VIEs ^(c)
Nonconsolidated								
Asset swap vehicles ^(d)	\$ (0.2)	\$ —	\$ (0.2)	\$ 7.3	\$ 0.2	\$ —	\$ 0.2	\$ 5.6

(a) Trading assets principally comprise notes issued by VIEs, which from time to time are held as part of the termination of a deal or to support limited market-making.

(b) On-balance sheet exposure that includes derivative receivables (payables) and trading assets.

(c) 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 upon 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.

(d) Excluded fair value of collateral of \$1.0 billion and \$976 million at December 31, 2008 and 2007, respectively, which was consolidated as the Firm, in its role as secondary market maker, held a majority of the issued notes of certain vehicles.

Collateralized Debt Obligations vehicles

A CDO typically refers to a security that is collateralized by a pool of bonds, loans, equity, derivatives or other assets. The Firm's involvement with a particular CDO vehicle may take one or more of the following forms: arranger, warehouse funding provider, placement agent or underwriter, secondary market-maker for securities issued, or derivative counterparty.

Prior to the formal establishment of a CDO vehicle, there is a warehousing period where a VIE may be used to accumulate the assets which will be subsequently securitized and serve as the collateral for the securities to be issued to investors. During this warehousing period, the Firm may provide all or a portion of the financing to the VIE, for which the Firm earns interest on the amounts it finances. A third-party asset manager that will serve as the manager for the CDO vehicle uses the warehouse funding provided by the Firm to purchase the financial assets. The funding commitments generally are one year in duration. In the event that the securitization of assets does not occur within the committed financing period, the warehoused assets are generally liquidated.

Because of the varied levels of support provided by the Firm during the warehousing period, which typically averages six to nine months, each CDO warehouse VIE is assessed in accordance with FIN 46(R) to determine whether the Firm is considered the primary

beneficiary that should consolidate the VIE. In general, the Firm would consolidate the warehouse VIE unless another third party, typically the asset manager, provides significant protection for potential declines in the value of the assets held by the VIE. In those cases, the third party that provides the protection to the warehouse VIE would consolidate the VIE.

Once the portfolio of warehoused assets is large enough, the VIE will issue securities where market conditions permit. The proceeds from the issuance of securities will be used to repay the warehouse financing obtained from the Firm and other counterparties. In connection with the establishment of the CDO vehicle, the Firm typically earns a fee for arranging the CDO vehicle and distributing the securities (as placement agent and/or underwriter) and does not typically own any equity tranches issued. Once the CDO vehicle closes and issues securities, the Firm has no further obligation to provide further support to the vehicle. At the time of closing, the Firm may hold unsold securities that the Firm was not able to place with third-party investors. The amount of unsold securities at December 31, 2008 and 2007, was insignificant. In addition, the Firm may on occasion hold some of the CDO vehicles' securities, including equity interests, as a secondary market-maker or as a principal investor, or it may be a derivative counterparty to the vehicles. At December 31, 2008 and 2007, these amounts were not significant.

Exposures to CDO warehouse VIEs at December 31, 2008 and 2007, were as follows.

December 31, 2008 (in billions)	Funded loans	Unfunded commitments ^(a)	Maximum exposure ^(b)
CDO warehouse VIEs			
Consolidated	\$ 0.4	\$ —	\$ 0.4
Nonconsolidated	0.4	0.7	1.1
Total	\$ 0.8	\$ 0.7	\$ 1.5

December 31, 2007 (in billions)	Funded loans	Unfunded commitments ^(a)	Maximum exposure ^(b)
CDO warehouse VIEs			
Consolidated	\$ 2.4	\$ 1.9	\$ 4.3
Nonconsolidated	2.7	3.4	6.1
Total	\$ 5.1	\$ 5.3	\$ 10.4

December 31, (in billions)	Ratings profile of VIE assets ^(c)					Total exposure
	Investment-grade				Noninvestment-grade	
	AAA to AAA-	AA+ to AA-	A+ to A-	BBB to BBB-	BB+ and below	
Nonconsolidated CDO warehouse VIEs						
2008	\$ —	\$ —	\$ —	\$ —	\$ 0.4	\$ 0.4
2007	—	—	—	—	2.7	2.7

(a) Typically contingent upon certain asset-quality conditions being met by asset managers.

(b) The aggregate of the fair value of loan exposure and any unfunded, contractually committed financing.

(c) The ratings scale is based upon JPMorgan Chase's internal risk ratings and presented on an S&P equivalent basis.

VIEs sponsored by third parties

Investment in a third-party credit card securitization trust

The Firm holds a note in a third-party-sponsored VIE, which is a credit card securitization trust (the "Trust"), that owns credit card receivables issued by a national retailer. The note is structured so that the principal amount can float up to 47% of the principal amount of the receivables held by the Trust not to exceed \$4.2 billion. The Firm is not the primary beneficiary of the Trust and accounts for its investment as an AFS security, which is recorded at fair value. At December 31, 2008, the amortized cost of the note was \$3.6 billion and the fair value was \$2.6 billion. For more information on accounting for AFS securities, see Note 12 on pages 170–174 of this Annual Report.

VIE used in FRBNY transaction

In conjunction with the Bear Stearns merger, in June 2008, the FRBNY took control, through an LLC formed for this purpose, of a portfolio of \$30.0 billion in assets, based upon 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 loan 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 loan, the JPMorgan Chase loan and the expense of the LLC, will be for the account of the FRBNY.

Other VIEs sponsored by third parties

The Firm enters into transactions with VIEs structured by other parties. These transactions 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 upon the analysis of the specific VIE, taking into consideration the quality of the underlying assets. Where these activities do not cause JPMorgan Chase to absorb a majority of the expected losses of the VIEs or to receive a majority of the residual returns of the VIEs, JPMorgan Chase records and reports these positions on its Consolidated Balance Sheets similar to the way it would record and report positions from any other third-party transaction. These transactions are not considered significant for disclosure purposes under FIN 46(R).

Notes to consolidated financial statements

Consolidated VIE assets and liabilities

The following table presents information on assets, liabilities and commitments related to VIEs that are consolidated by the Firm.

December 31, 2008 (in billions)	Consolidated VIEs				December 31, 2007 (in billions)	Consolidated VIEs			
	Assets					Assets			
	Trading debt and equity	Loans	Other ^(b)	Total assets ^(c)		Trading debt and equity	Loans	Other ^(b)	Total assets ^(c)
VIE program type									
Municipal bond vehicles	\$ 5.9	\$ —	\$ 0.1	\$ 6.0	Municipal bond vehicles	\$ 6.8	\$ —	\$ 0.1	\$ 6.9
Credit-linked notes	1.9	—	0.2	2.1	Credit-linked notes	2.3	—	0.2	2.5
CDO warehouses ^(a)	0.2	—	0.1	0.3	CDO warehouses ^(a)	2.2	0.3	0.1	2.6
Student loans	—	4.0	0.1	4.1	Student loans	—	4.1	—	4.1
Employee funds	—	—	0.5	0.5	Employee funds	—	—	—	—
Energy investments	—	—	0.4	0.4	Energy investments	—	—	—	—
Other	2.8	1.3	1.1	5.2	Other	3.0	—	0.5	3.5
Total	\$10.8	\$ 5.3	\$ 2.5	\$ 18.6	Total	\$ 14.3	\$ 4.4	\$ 0.9	\$ 19.6
Liabilities									
December 31, 2008 (in billions)	Beneficial interests in VIE Assets ^(d)		Other ^(e)	Total liabilities	December 31, 2007 (in billions)	Beneficial interests in VIE Assets ^(d)		Other ^(e)	Total liabilities
VIE program type									
Municipal bond vehicles	\$ 5.5	\$ 0.4	\$ 5.9		Municipal bond vehicles	\$ 6.2	\$ 0.6	\$ 6.8	
Credit-linked notes	1.3	0.6	1.9		Credit-linked notes	2.3	0.5	2.8	
CDO warehouses	—	—	—		CDO warehouses	—	—	—	
Student loans	2.8	1.1	3.9		Student loans	4.1	—	4.1	
Employee funds	0.1	—	0.1		Employee funds	—	—	—	
Energy investments	0.2	—	0.2		Energy investments	—	—	—	
Other	0.7	1.8	2.5		Other	1.4	0.5	1.9	
Total	\$ 10.6	\$ 3.9	\$ 14.5		Total	\$ 14.0	\$ 1.6	\$ 15.6	

(a) Excluded from total assets was \$1.9 billion of unfunded commitments at December 31, 2007. There were no unfunded commitments at December 31, 2008.

(b) Included assets classified as resale agreements and other assets within the Consolidated Balance Sheets.

(c) Assets of each consolidated VIE included in the program types above are generally used to satisfy the liabilities to third parties. 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.

(d) The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item titled, "Beneficial interests issued by consolidated variable interest entities" on the Consolidated Balance Sheets. 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 \$5.0 billion and \$7.2 billion at December 31, 2008 and 2007, respectively. See Note 23 on page 203 of this Annual Report for the maturity profile of FIN 46 long-term beneficial interests.

(e) Included liabilities classified as other borrowed funds, long-term debt and other liabilities in the Consolidated Balance Sheets.

Note 18 – Goodwill and other intangible assets

Goodwill is not amortized. Instead, it is tested for impairment in accordance with SFAS 142 at the reporting-unit segment, which is generally one level below the six major reportable business segments (as described in Note 37 on pages 226–227 of this Annual Report); plus Private Equity (which is included in Corporate). Goodwill is tested annually (during the fourth quarter) or more often if events or circumstances, such as adverse changes in the business climate, indicate there may be impairment. Management applies significant judgment when determining the fair value of its reporting units.

Imprecision in estimating the future earnings potential of the Firm's reporting units can affect their estimated fair value. In addition, if the current period of weak economic market conditions persists, then this could adversely impact the estimates management used to determine the fair value of its reporting units. Intangible assets deter-

mined to have indefinite lives are not amortized but are tested for impairment at least annually, or more frequently if events or changes in circumstances indicate that the asset might be impaired. The impairment test compares the fair value of the indefinite-lived intangible asset to its carrying amount. Other acquired intangible assets determined to have finite lives, such as core deposits and credit card relationships, are amortized over their estimated useful lives in a manner that best reflects the economic benefits of the intangible asset; impairment testing is performed periodically on these amortizing intangible assets.

Goodwill and other intangible assets consist of the following.

December 31, (in millions)	2008	2007
Goodwill	\$ 48,027	\$ 45,270
Mortgage servicing rights	9,403	8,632
Purchased credit card relationships	1,649	2,303
All other intangibles:		
Other credit card-related intangibles	\$ 743	\$ 346
Core deposit intangibles	1,597	2,067
Other intangibles	1,592	1,383
Total all other intangible assets	\$ 3,932	\$ 3,796

Goodwill

The \$2.8 billion increase in goodwill from the prior year primarily resulted from the dissolution of the Chase Paymentech Solutions joint venture, the merger with Bear Stearns, the purchase of an additional equity interest in Highbridge and the tax-related purchase accounting adjustments associated with the Bank One merger, which increased goodwill attributed to IB. The decrease in goodwill attributed to TSS predominantly resulted from the sale of a previously consolidated subsidiary. For additional information see Note 2 on pages 135–140 of this Annual Report.

Goodwill was not impaired at December 31, 2008, or 2007, nor was any goodwill written off due to impairment during 2008 and 2007.

Goodwill attributed to the business segments was as follows.

December 31, (in millions)	2008	2007
Investment Bank	\$ 4,765	\$ 3,578
Retail Financial Services	16,840	16,848
Card Services	13,977	12,810
Commercial Banking	2,870	2,873
Treasury & Securities Services	1,633	1,660
Asset Management	7,565	7,124
Corporate/Private Equity	377	377
Total goodwill	\$ 48,027	\$ 45,270

Mortgage servicing rights

JPMorgan Chase recognizes as intangible assets mortgage servicing rights, which represent the right to perform specified mortgage servicing activities (predominantly with respect to residential mortgages) for others. MSR are either purchased from third parties or retained upon sale or securitization of mortgage loans. Servicing activities include collecting principal, interest, and escrow payments from borrowers; making tax and insurance payments on behalf of borrowers; monitoring delinquencies and executing foreclosure proceedings; and accounting for and remitting principal and interest payments to the investors of the mortgage-backed securities.

As permitted by SFAS 156, the Firm elected to fair value MSRs as one class of servicing assets. The Firm defined MSRs as one class based on the availability of market inputs to measure MSR fair value and its treatment of MSRs as one aggregate pool for risk management purposes.

The Firm initially capitalizes MSRs based on the estimated fair value at the time of initial recognition. The Firm estimates the fair value of MSRs for initial capitalization and ongoing valuation using an option-adjusted spread model, which projects MSR cash flows over multiple interest rate scenarios in conjunction with the Firm's proprietary 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 reassesses and periodically adjusts the underlying inputs and assumptions used in the OAS model to reflect market conditions and assumptions that a market participant would consider in valuing the MSR asset. During 2007 and 2008, the Firm continued to refine its proprietary payment model based upon a number of market-related factors, including a downward trend in home prices, general tightening of credit underwriting standards and the associated impact on refinancing activity. The Firm compares fair value estimates and assumptions to observable market data where available and to 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. JPMorgan Chase uses or has used combinations of derivatives and trading instruments to manage changes in the fair value of MSRs. The intent is to offset any changes in the fair value of MSRs with changes in the fair value of the related risk management instruments. MSRs decrease in value when interest rates decline. Conversely, securities (such as mortgage-backed securities), principal-only certificates and certain derivatives (when the Firm receives fixed-rate interest payments) increase in value when interest rates decline.

Notes to consolidated financial statements

The following table summarizes MSR activity for the years ended December 31, 2008, 2007 and 2006.

Year ended December 31, (in millions, except where otherwise noted)	2008	2007	2006
Balance at beginning of period after valuation allowance	\$ 8,632	\$ 7,546	\$ 6,452
Cumulative effect of change in accounting principle	—	—	230
Fair value at beginning of period	8,632	7,546	6,682
MSR activity			
Originations of MSRs	3,061	2,335	1,512
Purchase of MSRs	6,755 ^(c)	798	627
Total additions	9,816	3,133	2,139
Change in valuation due to inputs and assumptions ^(a)	(6,933)	(516)	165
Other changes in fair value ^(b)	(2,112)	(1,531)	(1,440)
Total change in fair value of MSRs	(9,045) ^(d)	(2,047)	(1,275)
Fair value at December 31	\$ 9,403	\$ 8,632	\$ 7,546
Change in unrealized gains (losses) included in income related to MSRs held at December 31	\$ (6,933)	\$ (516)	NA
Contractual service fees, late fees and other ancillary fees included in income	\$ 3,353	\$ 2,429	\$ 2,038
Third-party mortgage loans serviced at December 31, (in billions)	\$ 1,185.0	\$ 614.7	\$ 526.7

(a) Represents MSR asset fair value adjustments due to changes in inputs, such as interest rates and volatility, as well as updates to assumptions used in the valuation model. This caption also represents total realized and unrealized gains (losses) included in net income per the SFAS 157 disclosure for fair value measurement using significant unobservable inputs (level 3).

(b) Includes changes in the MSR value due to modeled servicing portfolio runoff (or time decay). This caption represents the impact of cash settlements per the SFAS 157 disclosure for fair value measurement using significant unobservable inputs (level 3).

(c) Includes MSRs acquired as a result of the Washington Mutual transaction (of which, \$59 million related to commercial real estate) and the Bear Stearns merger. For further discussion, see Note 2 on pages 135–140 of this Annual Report.

(d) Includes \$4 million related to commercial real estate.

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSRs at December 31, 2008 and 2007, respectively; and it outlines the sensitivities of those fair values to immediate 10% and 20% adverse changes in those assumptions.

Year ended December 31 (in millions, except rates)	2008	2007
Weighted-average prepayment speed assumption (CPR)	35.21%	12.49%
Impact on fair value of 10% adverse change	\$ (1,039)	\$ (481)
Impact on fair value of 20% adverse change	(1,970)	(926)
Weighted-average option adjusted spread	3.80%	3.00%
Impact on fair value of 100 basis points adverse change	\$ (311)	\$ (311)
Impact on fair value of 200 basis points adverse change	(606)	(599)

CPR: Constant prepayment rate.

The sensitivity analysis in the preceding table is hypothetical and should be used with caution. Changes in fair value based upon a 10% and 20% variation in assumptions generally cannot be easily extrapolated because the relationship of the change in the assumptions to the change in fair value may not be linear. Also, 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 might magnify or counteract the sensitivities.

Purchased credit card relationships and all other intangible assets

During 2008, purchased credit card relationships, other credit card-related intangibles and core deposit intangibles decreased \$727 million, primarily as a result of amortization expense, partially offset by an increase in intangibles recognized related to the dissolution of the Chase Paymentech Solutions joint venture. Other intangibles (net of amortization) increased \$209 million primarily as a result of the purchase of an additional equity interest in Highbridge as well as the acquisition of an institutional global custody portfolio.

Except for \$517 million of indefinite-lived intangibles related to asset management advisory contracts, which are not amortized but are tested for impairment at least annually, the remainder of the Firm's other acquired intangible assets are subject to amortization.

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

December 31, (in millions)	2008			2007		
	Gross amount	Accumulated amortization	Net carrying value	Gross amount	Accumulated amortization	Net carrying value
Purchased credit card relationships	\$ 5,765	\$ 4,116	\$ 1,649	\$ 5,794	\$ 3,491	\$ 2,303
All other intangibles:						
Other credit card-related intangibles	\$ 852	\$ 109	\$ 743	\$ 422	\$ 76	\$ 346
Core deposit intangibles	4,280	2,683	1,597	4,281	2,214	2,067
Other intangibles	2,376	784 ^(a)	1,592	2,026	643 ^(a)	1,383

(a) Includes amortization expense related to servicing assets on securitized automobile loans, which is recorded in lending & deposit-related fees, of \$5 million and \$9 million for the years ended December 31, 2008 and 2007, respectively.

Amortization expense

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

Year ended December 31, (in millions)	2008	2007	2006
Purchased credit card relationships	\$ 625	\$ 710	\$ 731
All other intangibles:			
Other credit card-related intangibles	33	11	6
Core deposit intangibles	469	554	568
Other intangibles	136	119	123 ^(a)
Total amortization expense	\$1,263	\$ 1,394	\$ 1,428

(a) Amortization expense related to the aforementioned selected corporate trust businesses were reported in income from discontinued operations for 2006.

Future amortization expense

The following table presents estimated future amortization expense related to credit card relationships, core deposits and all other intangible assets at December 31, 2008.

Year ended December 31, (in millions)	Purchased credit card relationships	Other credit card-related intangibles	Core deposit intangibles	All other intangible assets	Total
2009	\$ 419	\$ 93	\$ 390	\$ 123	\$ 1,025
2010	350	98	329	106	883
2011	287	97	285	96	765
2012	249	98	239	93	679
2013	210	97	196	90	593

Note 19 – 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 under SFAS 143 and FIN 47 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 under SOP 98-1. 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.

Notes to consolidated financial statements

Note 20 – Deposits

At December 31, 2008 and 2007, noninterest-bearing and interest-bearing deposits were as follows.

December 31, (in millions)	2008	2007
U.S. offices:		
Noninterest-bearing	\$ 210,899	\$ 129,406
Interest-bearing (included \$1,849 and \$1,909 at fair value at December 31, 2008 and 2007, respectively)	511,077	376,194
Non-U.S. offices:		
Noninterest-bearing	7,697	6,342
Interest-bearing (included \$3,756 and \$4,480 at fair value at December 31, 2008 and 2007, respectively)	279,604	228,786
Total	\$ 1,009,277	\$ 740,728

At December 31, 2008 and 2007, time deposits in denominations of \$100,000 or more were as follows.

December 31, (in millions)	2008	2007
U.S.	\$ 147,493	\$ 134,529
Non-U.S.	58,247	69,171
Total	\$ 205,740	\$ 203,700

At December 31, 2008, the maturities of time deposits were as follows.

December 31, 2008 (in millions)	U.S.	Non-U.S.	Total
2009	\$ 200,586	\$ 77,934	\$ 278,520
2010	5,388	916	6,304
2011	4,299	811	5,110
2012	4,418	429	4,847
2013	2,767	525	3,292
After 5 years	802	226	1,028
Total	\$ 218,260	\$ 80,841	\$ 299,101

On October 3, 2008, the Emergency Economic Stabilization Act of 2008 was signed into law. The Act increased FDIC deposit insurance from \$100,000 to \$250,000 per depositor through December 31, 2009. In addition, on November 21, 2008, the FDIC released the Final Rule for the FDIC Temporary Liquidity Guarantee Program ("TLG Program"), which provides unlimited deposit insurance through December 31, 2009, for noninterest-bearing transaction deposit accounts at FDIC-insured participating institutions. The Firm elected to continue to participate in the TLG Program and, as a result, will be required to pay additional insurance premiums to the FDIC in an amount equal to an annualized 10-basis points on balances in noninterest-bearing transaction accounts that exceed the \$250,000 FDIC deposit insurance limits, as determined on a quarterly basis.

Note 21 – Other borrowed funds

The following table details the components of other borrowed funds.

December 31, (in millions)	2008	2007
Advances from Federal Home Loan Banks ^(a)	\$ 70,187	\$ 450
Nonrecourse advances – FRBB ^(b)	11,192	—
Other	51,021 ^(c)	28,385
Total	\$ 132,400	\$ 28,835

- (a) Maturities of advances from the Federal Home Loan Banks were \$47.4 billion, \$18.5 billion, \$2.6 billion, and \$714 million in each of the 12-month periods ending December 31, 2009, 2010, 2011, and 2013, respectively, and \$1.0 billion maturing after December 31, 2013. Maturities for the 12-month period ending December 31, 2012 were not material.
- (b) On September 19, 2008, the Federal Reserve Board established a temporary lending facility, the AML Facility, to provide liquidity to eligible U.S. money market mutual funds ("MMMFs"). Under the AML Facility, banking organizations must use the loan proceeds to finance their purchases of eligible high-quality ABCP investments from MMMFs, which are pledged to secure nonrecourse advances from the FRBB. Participating banking organizations do not bear any credit or market risk related to the ABCP investments they hold under this facility; therefore, the ABCP investments held are not assessed any regulatory capital. The AML Facility will be in effect until October 30, 2009. The nonrecourse advances from the FRBB were elected under the fair value option and recorded in other borrowed funds; the corresponding ABCP investments were also elected under the fair value option and recorded in other assets.
- (c) Includes \$30.0 billion of advances from the Federal Reserve under the Federal Reserve's Term Auction Facility ("TAF"), pursuant to which the Federal Reserve auctions term funds to depository institutions that are eligible to borrow under the primary credit program. The TAF allows all eligible depository institutions to place a bid for an advance from its local Federal Reserve Bank at an interest rate set by an auction. All advances are required to be fully collateralized. The TAF is designed to improve liquidity by making it easier for sound institutions to borrow when the markets are not operating efficiently. The TAF does not have a fixed expiration date.

Note 22 – Accounts payable and other liabilities

The following table details the components of accounts payable and other liabilities at each of the dates indicated.

December 31, (in millions)	2008	2007
Accounts payable and other liabilities:		
Accounts payable	\$ 48,019	\$ 39,785
Brokerage payables ^(a)	88,585	14,612
Other liabilities	51,374	40,079
Total	\$ 187,978	\$ 94,476

- (a) Includes payables to customers, brokers, dealers and clearing organizations, and securities fails.

Note 23 – 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. The following table is a summary of long-term debt carrying values (including unamortized original issue discount, SFAS 133 valuation adjustments and fair value adjustments, where applicable) by contractual maturity as of December 31, 2008.

By remaining maturity at December 31, (in millions, except rates)	2008				2007 Total
	Under 1 year	1–5 years	After 5 years	Total	
Parent company					
Senior debt: ^(a)					
Fixed rate	\$ 5,030	\$ 47,606 ^(f)	\$ 27,272	\$ 79,908	\$ 29,386
Variable rate	16,999	39,050 ^(g)	9,185	65,234	47,546
Interest rates ^(b)	0.20–7.63%	0.42–7.00%	1.40–7.50%	0.20–7.63%	0.75–7.43%
Subordinated debt:					
Fixed rate	\$ 3,732	\$ 8,296	\$ 16,938	\$ 28,966	\$ 27,761
Variable rate	—	37	1,749	1,786	1,888
Interest rates ^(b)	6.00–9.88%	5.25–10.00%	1.92–9.88%	1.92–10.00%	1.92–10.00%
	Subtotal	\$ 25,761	\$ 94,989	\$ 175,894	\$ 106,581
Subsidiaries					
Senior debt: ^(a)					
Fixed rate	\$ 1,052	\$ 4,433	\$ 2,885	\$ 8,370	\$ 6,406
Variable rate ^(c)	9,213	30,050	18,717	57,980	60,556
Interest rates ^(b)	0.03–4.45%	0.05–5.75%	0.44–14.21%	0.03–14.21%	3.70–14.21%
Subordinated debt:					
Fixed rate	\$ —	\$ 2	\$ 8,698	\$ 8,700	\$ 9,169
Variable rate	—	—	1,150	1,150	1,150
Interest rates ^(b)	—	6.25%	2.33–8.25%	2.33–8.25%	4.38–8.25%
	Subtotal	\$ 10,265	\$ 34,485	\$ 31,450	\$ 77,281
Total long-term debt^(d)	\$ 36,026	\$ 129,474	\$ 86,594	\$ 252,094^{(h)(i)(j)}	\$ 183,862⁽ⁱ⁾
FIN 46R long-term beneficial interests:					
Fixed rate	\$ 16	\$ 486	\$ 69	\$ 571	\$ 701
Variable rate	51	1,002	3,381	4,434	6,508
Interest rates	3.51–7.75%	3.05–8.75%	3.40–9.16%	3.05–9.16%	1.73–12.79%
Total FIN 46R long-term beneficial interests^(e)	\$ 67	\$ 1,488	\$ 3,450	\$ 5,005	\$ 7,209

(a) Included are various equity-linked or other indexed instruments. Embedded derivatives, separated from hybrid securities in accordance with SFAS 133, are reported at fair value and shown net with the host contract on the Consolidated Balance Sheets. Changes in fair value of separated derivatives are recorded in principal transactions revenue. Hybrid securities which the Firm has elected to measure at fair value are classified in the line item of the host contract on the Consolidated Balance Sheets; changes in fair value are recorded in principal transactions revenue in the Consolidated Statements of Income.

(b) 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 SFAS 133 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 SFAS 133 hedge accounting derivatives, the range of modified rates in effect at December 31, 2008, for total long-term debt was 0.18% to 14.21%, versus the contractual range of 0.03% to 14.21% presented in the table above. The interest rate ranges shown exclude structured notes accounted for at fair value under SFAS 155 or SFAS 159.

(c) Included \$7.8 billion principal amount of U.S. dollar-denominated floating-rate mortgage bonds issued to an unaffiliated statutory trust, which in turn issued €6.0 billion in covered bonds secured by mortgage loans at December 31, 2008.

(d) Included \$58.2 billion and \$70.5 billion of outstanding structured notes accounted for at fair value at December 31, 2008 and 2007, respectively.

(e) Included on the Consolidated Balance Sheets in beneficial interests issued by consolidated VIEs. Also included \$1.7 billion and \$3.0 billion of outstanding structured notes accounted for at fair value at December 31, 2008 and 2007, respectively.

(f) Included \$14.1 billion as of December 31, 2008, guaranteed under the TLG Program whereby newly issued senior, unsecured debt is guaranteed by the FDIC, which is discussed below.

(g) Included \$6.9 billion as of December 31, 2008, guaranteed by the FDIC under the TLG Program, which is discussed below.

(h) At December 31, 2008, long-term debt aggregating \$7.4 billion was redeemable at the option of JPMorgan Chase, in whole or in part, prior to maturity, based upon the terms specified in the respective notes.

(i) The aggregate principal amount of debt that matures in each of the five years subsequent to 2008 is \$36.0 billion in 2009, \$38.5 billion in 2010, \$39.7 billion in 2011, \$32.7 billion in 2012 and \$18.6 billion in 2013.

(j) Included \$3.4 billion and \$4.6 billion of outstanding zero-coupon notes at December 31, 2008 and 2007, respectively. The aggregate principal amount of these notes at their respective maturities was \$7.1 billion and \$7.7 billion, respectively.

The weighted-average contractual interest rate for total long-term debt was 4.06% and 5.20% as of December 31, 2008 and 2007, 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 rate for total long-term debt, including the effects of related derivative instruments, was 3.53% and 5.13% as of December 31, 2008 and 2007, respectively.

JPMorgan Chase has elected to continue to participate in the TLG Program, which is available to, among others, all U.S. depository institutions insured by the FDIC and all U.S. bank holding companies, unless they have opted out of the TLG Program or the FDIC has terminated their participation. Under the TLG Program, the FDIC guarantees certain senior unsecured debt of JPMorgan Chase through the earlier of maturity and June 30, 2012, and in return for the guarantees, the FDIC is paid a fee based on the amount and maturity of the debt.

Notes to consolidated financial statements

Under the TLG Program, the FDIC will pay the unpaid principal and interest on an FDIC-guaranteed debt instrument upon the uncured failure of the participating entity to make a timely payment of principal or interest in accordance with the terms of the instrument. The guarantee of new obligations under the TLG Program is scheduled to expire in October 2009.

JPMorgan Chase & Co. (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 rank on a parity with all of the Firm's other unsecured and unsubordinated indebtedness. Guaranteed liabilities totaled \$4.8 billion and \$4.7 billion at December 31, 2008 and 2007, respectively. For additional information, see Note 2 on pages 135–140 of this Annual Report.

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

At December 31, 2008, the Firm had established 24 wholly-owned Delaware statutory business trusts ("issuer trusts") that had issued guaranteed capital debt securities.

The junior subordinated deferrable interest debentures issued by the Firm to the issuer trusts, totaling \$18.6 billion and \$15.1 billion at December 31, 2008 and 2007, respectively, were reflected in the Firm's Consolidated Balance Sheets in the liabilities section under the caption "Junior subordinated deferrable interest debentures held by trusts that issued guaranteed capital debt securities" (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, 2008 and 2007.

The debentures issued to the issuer trusts by the Firm, less the common capital securities of the issuer trusts, qualify as Tier 1 capital.

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, 2008.

December 31, 2008 (in millions)	Amount of capital debt securities issued by trust ^(a)	Principal amount of debenture issued to trust ^(b)	Issue date	Stated maturity of capital securities and debentures	Earliest redemption date	Interest rate of capital securities and debentures	Interest payment/distribution dates
Bank One Capital III	\$ 474	\$ 764	2000	2030	Any time ^(c)	8.75%	Semiannually
Bank One Capital VI	525	554	2001	2031	Any time ^(c)	7.20%	Quarterly
Bear Stearns Capital Trust III	263	262	2001	2031	Any time ^(c)	7.80%	Quarterly
Chase Capital II	496	511	1997	2027	Any time ^(c)	LIBOR + 0.50%	Quarterly
Chase Capital III	297	306	1997	2027	Any time ^(c)	LIBOR + 0.55%	Quarterly
Chase Capital VI	249	256	1998	2028	Any time ^(c)	LIBOR + 0.625%	Quarterly
First Chicago NBD Capital I	248	256	1997	2027	Any time ^(c)	LIBOR + 0.55%	Quarterly
J.P. Morgan Chase Capital X	1,000	1,014	2002	2032	Any time ^(c)	7.00%	Quarterly
J.P. Morgan Chase Capital XI	1,075	995	2003	2033	Any time ^(c)	5.88%	Quarterly
J.P. Morgan Chase Capital XII	400	388	2003	2033	Any time ^(c)	6.25%	Quarterly
JPMorgan Chase Capital XIII	472	487	2004	2034	2014	LIBOR + 0.95%	Quarterly
JPMorgan Chase Capital XIV	600	583	2004	2034	2009	6.20%	Quarterly
JPMorgan Chase Capital XV	995	1,370	2005	2035	Any time ^(c)	5.88%	Semiannually
JPMorgan Chase Capital XVI	500	490	2005	2035	2010	6.35%	Quarterly
JPMorgan Chase Capital XVII	496	696	2005	2035	Any time ^(c)	5.85%	Semiannually
JPMorgan Chase Capital XVIII	748	749	2006	2036	Any time ^(c)	6.95%	Semiannually
JPMorgan Chase Capital XIX	562	564	2006	2036	2011	6.63%	Quarterly
JPMorgan Chase Capital XX	995	996	2006	2036	Any time ^(c)	6.55%	Semiannually
JPMorgan Chase Capital XXI	845	846	2007	2037	2012	LIBOR + 0.95%	Quarterly
JPMorgan Chase Capital XXII	996	997	2007	2037	Any time ^(c)	6.45%	Semiannually
JPMorgan Chase Capital XXIII	746	746	2007	2047	2012	LIBOR + 1.00%	Quarterly
JPMorgan Chase Capital XXIV	700	700	2007	2047	2012	6.88%	Quarterly
JPMorgan Chase Capital XXV	1,492	2,244	2007	2037	2037	6.80%	Semiannually
JPMorgan Chase Capital XXVI	1,815	1,815	2008	2048	2013	8.00%	Quarterly
Total	\$16,989	\$ 18,589					

(a) Represents the amount of capital 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.

(c) Subject to Series K Preferred Stock restrictions, which are discussed in Note 24 below.

Note 24 – Preferred stock

JPMorgan Chase is authorized to issue 200 million shares of preferred stock, in one or more series, with a par value of \$1 per share.

On April 23, 2008, the Firm issued 600,000 shares of Fixed to Floating Rate Noncumulative Perpetual Preferred Stock, Series I (“Series I”).

On July 15, 2008, each series of Bear Stearns preferred stock then issued and outstanding was exchanged into a series of JPMorgan Chase preferred stock (Cumulative Preferred Stock, Series E, Series F and Series G) having substantially identical terms. As a result of the exchange, these preferred shares rank equally with the other series of the Firm’s preferred stock.

On August 21, 2008, the Firm issued 180,000 shares of 8.625% Noncumulative Perpetual Preferred Stock, Series J (“Series J”).

On October 28, 2008, pursuant to the U.S. Department of the Treasury’s (the “U.S. Treasury”) Capital Purchase Program (the “Capital Purchase Program”), the Firm issued to the U.S. Treasury, in exchange for total proceeds of \$25.0 billion, (i) 2.5 million shares of the Firm’s Fixed Rate Cumulative Perpetual Preferred Stock, Series K, par value \$1 per share and liquidation preference \$10,000 per share (the “Series K Preferred Stock”), and (ii) a warrant to purchase 88,401,697 shares of the Firm’s common stock at an exercise price

of \$42.42 per share (the “Warrant”). The \$25.0 billion proceeds were allocated to the Series K Preferred Stock and the Warrant based on the relative fair value of the instruments. The difference between the initial carrying value of \$23.7 billion that was allocated to the Series K Preferred Stock and its redemption value of \$25.0 billion will be charged to retained earnings (with a corresponding increase in the carrying value of the Series K Preferred Stock) over the first five years of the contract as an adjustment to the dividend yield using the effective yield method. The Series K Preferred Stock is non-voting, qualifies as Tier 1 capital and ranks equally with the Firm’s other series of preferred stock.

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.

Generally, dividends on shares of outstanding series of preferred stock are payable quarterly. Dividends on the shares of Series I preferred stock 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 are payable quarterly on the Series K Preferred Stock at a fixed annual dividend rate of 5% for the first five years, and a fixed annual dividend rate of 9% thereafter. The effective dividend yield of Series K Preferred stock is 6.16%.

The following is a summary of JPMorgan Chase preferred stock outstanding as of December 31, 2008. There was no preferred stock outstanding at December 31, 2007.

	Share value and redemption price per share ^(b)	Shares	Outstanding at December 31, 2008 (in millions)	Earliest redemption date	Contractual rate in effect at December 31, 2008
Cumulative Preferred Stock, Series E ^(a)	\$ 200	818,113	\$ 164	Any time ^(d)	6.15%
Cumulative Preferred Stock, Series F ^(a)	200	428,825	86	Any time ^(d)	5.72
Cumulative Preferred Stock, Series G ^(a)	200	511,169	102	Any time ^(d)	5.49
Fixed to Floating Rate Noncumulative Perpetual Preferred Stock, Series I ^(a)	10,000	600,000	6,000	4/30/2018	7.90
Noncumulative Perpetual Preferred Stock, Series J ^(a)	10,000	180,000	1,800	9/1/2013	8.63
Fixed Rate Cumulative Perpetual Preferred Stock, Series K	10,000	2,500,000	23,787 ^(c)	12/1/2011 ^(e)	5.00
Total preferred stock		5,038,107	\$ 31,939		

(a) Represented by depositary shares.

(b) Redemption price includes amount shown in the table plus any accrued but unpaid dividends.

(c) Represents the carrying value as of December 31, 2008. The redemption value is \$25.0 billion.

(d) Subject to Series K Preferred Stock restrictions, which are discussed below.

(e) Generally, the Firm may not redeem Series K Preferred Stock prior to the first dividend payment date falling on or after October 28, 2011. However, prior to this date, the Firm may redeem the securities up to the amount of the aggregate gross proceeds from a “qualified equity offering” if it has received aggregate gross proceeds from such offerings above an amount agreed with the U.S. Treasury and received approval from the applicable federal banking agencies.

Notes to consolidated financial statements

Series K Preferred Stock

Dividend restrictions

For as long as any shares of Series K Preferred Stock are outstanding, no dividends may be declared or paid on stock ranking junior or equally with the Series K Preferred Stock, unless all accrued and unpaid dividends for all past dividend periods on the Series K Preferred Stock are fully paid. Pursuant to the Capital Purchase Program, until October 28, 2011, the U.S. Treasury's consent is required for any increase in dividends on the Firm's common stock from the amount of the last quarterly stock dividend declared by the Firm prior to October 14, 2008, unless the Series K Preferred Stock is redeemed in whole before then, or the U.S. Treasury has transferred all of the Series K Preferred Stock it owns to third parties.

Stock repurchase restrictions

The Firm may not repurchase or redeem any common stock or other equity securities of the Firm, or any trust preferred capital debt securities issued by the Firm or any of its affiliates, without the prior consent of the U.S. Treasury (other than (i) repurchases of the Series K Preferred Stock and (ii) repurchases of junior preferred shares or common stock in connection with any employee benefit plan in the ordinary course of business consistent with past practice) until October 28, 2011, unless the Series K Preferred Stock is redeemed in whole before then, or the U.S. Treasury has transferred all of the Series K Preferred Stock it owns to third parties.

Note 25 – Common stock

At December 31, 2008, JPMorgan Chase was authorized to issue 9.0 billion shares of common stock with a \$1 par value per share.

On September 30, 2008, the Firm issued \$11.5 billion of new shares of common stock at \$40.50 per share, representing 284 million shares.

On April 8, 2008, pursuant to the Share Exchange Agreement dated March 24, 2008, between JPMorgan Chase and Bear Stearns, 20.7 million newly issued shares of JPMorgan Chase common stock were issued to Bear Stearns in a transaction that was exempt from registration under the Securities Act of 1933, pursuant to Section 4(2) thereof, in exchange for 95.0 million newly issued shares of Bear Stearns common stock (or 39.5% of Bear Stearns common stock after giving effect to the issuance). Upon the consummation of the Bear Stearns merger, on May 30, 2008, the 20.7 million shares of JPMorgan Chase common stock and 95.0 million shares of Bear Stearns common stock were cancelled. For a further discussion of this transaction, see Note 2 on pages 135–140 of this Annual Report.

Common shares issued (newly issued or distributed from treasury) by JPMorgan Chase during 2008, 2007 and 2006 were as follows.

December 31, (in millions)	2008	2007	2006
Issued – balance at January 1	3,657.7	3,657.8	3,618.2
Newly issued:			
Common stock:			
Open market issuance	283.9	—	—
Bear Stearns Share Exchange Agreement	20.7	—	—
Employee benefits and compensation plans	—	—	39.3
Employee stock purchase plans	—	—	0.6
Total newly issued	304.6	—	39.9
Canceled shares	(20.7)	(0.1)	(0.3)
Total issued – balance at December 31	3,941.6	3,657.7	3,657.8
Treasury – balance at January 1	(290.3)	(196.1)	(131.5)
Purchases of treasury stock	—	(168.2)	(90.7)
Share repurchases related to employee stock-based awards ^(a)	(0.5)	(2.7)	(8.8)
Issued from treasury:			
Change from the Bear Stearns merger as a result of the reissuance of Treasury stock and the Share Exchange Agreement	26.5	—	—
Employee benefits and compensation plans	54.4	75.7	34.4
Employee stock purchase plans	1.1	1.0	0.5
Total issued from treasury	82.0	76.7	34.9
Total treasury – balance at December 31	(208.8)	(290.3)	(196.1)
Outstanding	3,732.8	3,367.4	3,461.7

(a) Participants in the Firm's stock-based incentive plans may have shares withheld to cover income taxes. The shares withheld amounted to 0.5 million, 2.7 million and 8.1 million for 2008, 2007 and 2006, respectively.

Pursuant to the 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. Based upon its fair value relative to the Series K Preferred Stock as discussed in Note 24 on pages 205–206 of this Annual Report, the Warrant was recorded in capital surplus at a value of \$1.3 billion and is accounted for as equity. The Warrant is exercisable, in whole or in part, at any time and from time to time until the tenth anniversary of the issue date.

During the year ended December 31, 2008, the Firm did not repurchase any shares of common stock. During 2007 and 2006, the Firm repurchased 168 million shares and 91 million shares, respectively, of common stock under stock repurchase programs approved by the Board of Directors.

The Board of Directors approved in April 2007, a stock repurchase program that authorizes the repurchase of up to \$10.0 billion of the Firm's common shares, which superseded an \$8.0 billion stock repurchase program approved in 2006. The \$10.0 billion authorization includes shares to be repurchased to offset issuances under the Firm's employee stock-based plans. The actual number of shares that may be repurchased is subject to various factors, including market conditions; legal considerations affecting the amount and timing of repurchase activity; the Firm's capital position (taking into account goodwill and intangibles); internal capital generation; and alternative potential investment opportunities. The repurchase program does not include specific price targets or timetables; may be executed through open market purchases or privately negotiated transactions, or utilizing Rule 10b5-1 programs; and may be suspended at any time. A Rule 10b5-1 repurchase plan allows the Firm to repurchase shares during periods when it would not otherwise be repurchasing common stock – for example, during internal trading "black-out periods." All purchases under a Rule 10b5-1 plan must be made according to a predefined plan that is established when the Firm is not aware of material nonpublic information.

For a discussion of restrictions on the Firm's ability to repurchase the Firm's common stock, see Note 24 above.

As of December 31, 2008, approximately 524 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 Warrant issued to the U.S. Treasury under the Capital Purchase Program as discussed above.

Note 26 – Earnings per share

SFAS 128 requires the presentation of basic and diluted earnings per share ("EPS") in the Consolidated Statements of Income. Basic EPS is computed by dividing net income applicable to common stock by the weighted-average number of common shares outstanding for the period. Diluted EPS is computed using the same method for the numerator as basic EPS but, in the denominator, the number of common shares reflect, in addition to outstanding shares, the potential

dilution that could occur if convertible securities or other contracts to issue common stock were converted or exercised into common stock. Net income available for common stock is the same for basic EPS and diluted EPS, as JPMorgan Chase had no convertible securities, and therefore, no adjustments to net income applicable to common stock were necessary. The following table presents the calculation of basic and diluted EPS for 2008, 2007 and 2006.

Year ended December 31, (in millions, except per share amounts)	2008	2007	2006
Basic earnings per share			
Income from continuing operations	\$ 3,699	\$ 15,365	\$ 13,649
Income from discontinued operations	—	—	795
Income before extraordinary gain	\$ 3,699	\$ 15,365	\$ 14,444
Extraordinary gain	1,906	—	—
Net income	5,605	15,365	14,444
Less: preferred stock dividends	674	—	4
Net income applicable to common stock	\$ 4,931	\$ 15,365	\$ 14,440
Weighted-average basic shares outstanding	3,501	3,404	3,470
Income from continuing operations per share	\$ 0.86	\$ 4.51	\$ 3.93
Discontinued operations per share	—	—	0.23
Extraordinary gain per share	0.55	—	—
Net income per share	\$ 1.41	\$ 4.51	\$ 4.16

Year ended December 31, (in millions, except per share amounts)	2008	2007	2006
Diluted earnings per share			
Net income applicable to common stock	\$ 4,931	\$ 15,365	\$ 14,440
Weighted-average basic shares outstanding	3,501	3,404	3,470
Add: Employee restricted stock, RSUs, stock options and SARs	104	104	104
Weighted-average diluted shares outstanding^(a)	3,605	3,508	3,574
Income from continuing operations per share	\$ 0.84	\$ 4.38	\$ 3.82
Discontinued operations per share	—	—	0.22
Extraordinary gain per share	0.53	—	—
Net income per share	\$ 1.37	\$ 4.38	\$ 4.04

(a) Options issued under employee benefit plans and, in 2008, the warrant issued under the U.S. Treasury's Capital Purchase Program to purchase an aggregate 209 million, 129 million and 150 million shares of common stock were outstanding for the years ended December 31, 2008, 2007 and 2006, respectively, but were not included in the computation of diluted EPS, because the options and warrant were antidilutive.

Notes to consolidated financial statements

Note 27 – Accumulated other comprehensive income (loss)

Accumulated other comprehensive income (loss) includes the after-tax change in unrealized gains and losses on AFS securities, SFAS 52 foreign currency translation adjustments (including the impact of related derivatives), SFAS 133 cash flow hedging activities and SFAS 158 net loss and prior service cost (credit) related to the Firm's defined benefit pension and OPEB plans.

(in millions)	Unrealized gains (losses) on AFS securities ^(a)	Translation adjustments, net of hedges	Cash flow hedges	Net loss and prior service costs (credit) of defined benefit pension and OPEB plans ^(e)	Accumulated other comprehensive income (loss)
Balance at December 31, 2005	\$ (224)	\$ (8)	\$ (394)	\$ —	\$ (626)
Net change	253 ^(b)	13	(95)	—	171
Adjustment to initially apply SFAS 158, net of taxes	—	—	—	(1,102)	(1,102)
Balance at December 31, 2006	29	5	(489)	(1,102)	(1,557)
Cumulative effect of changes in accounting principles (SFAS 159)	(1)	—	—	—	(1)
Balance at January 1, 2007, adjusted	28	5	(489)	(1,102)	(1,558)
Net change	352 ^(c)	3	(313)	599	641
Balance at December 31, 2007	380	8	(802)	(503)	(917)
Net change	(2,481)^(d)	(606)	600	(2,283)	(4,770)
Balance at December 31, 2008	\$ (2,101)	\$ (598)	\$ (202)	\$ (2,786)	\$ (5,687)

(a) Represents the after-tax difference between the fair value and amortized cost of the AFS securities portfolio and retained interests in securitizations recorded in other assets.

(b) The net change during 2006 was due primarily to the reversal of unrealized losses from securities sales.

(c) The net change during 2007 was due primarily to a decline in interest rates.

(d) The net change during 2008 was due primarily to spread widening in credit card asset-backed securities, non-agency mortgage-backed securities and collateralized loan obligations.

(e) For further discussion of SFAS 158, see Note 9 on pages 161–167 of this Annual Report.

The following table presents the after-tax changes in net unrealized gains (losses); and reclassification adjustments for realized (gains) losses on AFS securities and cash flow hedges; changes resulting from foreign currency translation adjustments (including the impact of related derivatives); net gains (losses) and prior service costs from pension and OPEB plans; and amortization of pension and OPEB amounts into net income. The table also reflects the adjustment to accumulated other comprehensive income (loss) resulting from the initial application of SFAS 158 to the Firm's defined benefit pension and OPEB plans. Reclassification adjustments include amounts recognized in net income that had been recorded previously in other comprehensive income (loss).

Year ended December 31, (in millions)	2008			2007			2006		
	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	\$ (3,071)	\$ 1,171	\$ (1,900)	\$ 759	\$ (310)	\$ 449	\$ (403)	\$ 144	\$ (259)
Reclassification adjustment for realized (gains) losses included in net income	(965)	384	(581)	(164)	67	(97)	797	(285)	512
Net change	(4,036)	1,555	(2,481)	595	(243)	352	394	(141)	253
Translation adjustments:									
Translation	(1,781)	682	(1,099)	754	(281)	473	590	(236)	354
Hedges	820	(327)	493	(780)	310	(470)	(563)	222	(341)
Net change	(961)	355	(606)	(26)	29	3	27	(14)	13
Cash flow hedges:									
Net unrealized gains (losses) arising during the period	584	(226)	358	(737)	294	(443)	(250)	98	(152)
Reclassification adjustment for realized (gains) losses included in net income	402	(160)	242	217	(87)	130	93	(36)	57
Net change	986	(386)	600	(520)	207	(313)	(157)	62	(95)
Net loss and prior service cost (credit) of defined benefit pension and OPEB plans:^(a)									
Net gains (losses) and prior service credits arising during the period	(3,579)	1,289	(2,290)	934	(372)	562	NA	NA	NA
Reclassification adjustment for net loss and prior service credit included in net income	14	(7)	7	59	(22)	37	NA	NA	NA
Net change	(3,565)	1,282	(2,283)	993	(394)	599	NA	NA	NA
Total other comprehensive income (loss)	\$ (7,576)	\$ 2,806	\$ (4,770)	\$ 1,042	\$ (401)	\$ 641	\$ 264	\$ (93)	\$ 171
Net loss and prior service cost (credit) of defined benefit pension and OPEB plans:									
Adjustments to initially apply SFAS 158 ^(a)	NA	NA	NA	NA	NA	NA	\$ (1,746)	\$ 644	\$ (1,102)

(a) For further discussion of SFAS 158 and details of changes to accumulated other comprehensive income (loss), see Note 9 on pages 161–167 of this Annual Report.

Note 28 – Income taxes

JPMorgan Chase and eligible subsidiaries file a consolidated U.S. federal income tax return. JPMorgan Chase uses the asset-and-liability method required by SFAS 109 as amended by FIN 48 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 liability or asset for each temporary difference is determined based upon 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 than those currently reported.

The components of income tax expense (benefit) included in the Consolidated Statements of Income were as follows.

Year ended December 31, (in millions)	2008	2007	2006
Current income tax expense			
U.S. federal	\$ 395	\$ 2,805	\$ 5,512
Non-U.S.	1,009	2,985	1,656
U.S. state and local	307	343	879
Total current income tax expense	1,711	6,133	8,047
Deferred income tax expense (benefit)			
U.S. federal	(3,015)	1,122	(1,628)
Non-U.S.	1	(185)	194
U.S. state and local	377	370	(376)
Total deferred income tax expense (benefit)	(2,637)	1,307	(1,810)
Total income tax expense (benefit) from continuing operations	(926)	7,440	6,237
Total income tax expense from discontinued operations	—	—	572
Total income tax expense (benefit)	\$ (926)	\$ 7,440	\$ 6,809

Total income tax expense includes \$55 million, \$74 million, and \$367 million of tax benefits recorded in 2008, 2007 and 2006, 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 table does not reflect the cumulative tax effects of initially implementing new accounting pronouncements in 2007 and 2006. The tax effect of all items recorded directly to stockholders' equity was an increase in stockholders' equity of \$3.0 billion, \$159 million and \$885 million in 2008, 2007 and 2006, respectively.

U.S. federal income taxes have not been provided on the undistributed earnings of certain non-U.S. subsidiaries, to the extent that such earnings have been reinvested abroad for an indefinite period of time. During 2008, as part of JPMorgan Chase's periodic 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 determined that the undistributed earnings of certain of its subsidiaries, for which U.S. federal income taxes had been provided, will remain indefinitely reinvested to fund the 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. This determination resulted in the release of deferred tax liabilities and the recognition of an income tax benefit of \$1.1 billion associated with these undistributed earnings. For 2008, pretax earnings of approximately \$2.5 billion were generated that will remain indefinitely invested in these subsidiaries. At December 31, 2008, the cumulative amount of undistributed pretax earnings in these subsidiaries approximated \$12.9 billion. If the Firm were to record a deferred tax liability associated with these undistributed earnings, the amount would be \$2.9 billion at December 31, 2008.

The tax expense (benefit) applicable to securities gains and losses for the years 2008, 2007 and 2006 was \$608 million, \$60 million and \$(219) million, respectively.

A reconciliation of the applicable statutory U.S. income tax rate to the effective tax rate for continuing operations for the past three years is shown in the following table.

Year ended December 31,	2008	2007	2006
Statutory U.S. federal tax rate	35.0%	35.0%	35.0%
Increase (decrease) in tax rate resulting from:			
U.S. state and local income taxes, net of federal income tax benefit	16.0	2.0	2.1
Tax-exempt income	(14.8)	(2.4)	(2.2)
Non-U.S. subsidiary earnings	(53.6)	(1.1)	(0.5)
Business tax credits	(24.5)	(2.5)	(2.5)
Bear Stearns equity losses	5.7	—	—
Other, net	2.8	1.6	(0.5)
Effective tax rate	(33.4)%	32.6%	31.4%

Notes to consolidated financial statements

Deferred income tax expense (benefit) results from differences between assets and liabilities measured for financial reporting and for income-tax return purposes. The significant components of deferred tax assets and liabilities are reflected in the following table.

December 31, (in millions)	2008	2007
Deferred tax assets		
Allowance for loan losses	\$ 8,029	\$ 3,800
Employee benefits	4,841	3,391
Allowance for other than loan losses	3,686	3,635
Fair value adjustments	2,565	—
Non-U.S. operations	2,504	285
Tax attribute carryforwards	1,383	—
Gross deferred tax assets	\$23,008	\$11,111
Deferred tax liabilities		
Depreciation and amortization	\$ 4,681	\$ 2,966
Leasing transactions	1,895	2,304
Fee income	1,015	548
Non-U.S. operations	946	1,790
Fair value adjustments	—	570
Other, net	202	207
Gross deferred tax liabilities	\$ 8,739	\$ 8,385
Valuation allowance	1,266	220
Net deferred tax asset	\$13,003	\$ 2,506

JPMorgan Chase has recorded deferred tax assets of \$1.4 billion in connection with net operating loss and business tax credit carry forwards. The U.S. federal net operating loss carryforward of approximately \$1.3 billion, the state and local net operating loss carryforwards of approximately \$7.2 billion, and the business tax credit carryforward of approximately \$300 million are subject to annual limitations on utilization. If not utilized, the net operating losses would expire in 2026, 2027 and 2028, and the business tax credits would expire in 2028. In addition, an alternative minimum tax credit carryforward has been recorded for approximately \$200 million and has an indefinite carryforward period.

A valuation allowance has been recorded relating to state and local net operating losses, losses associated with non-U.S. subsidiaries and losses associated with certain portfolio investments. The increase in the valuation allowance from the prior year to 2008 is largely related to Bear Stearns.

The Firm adopted and applied FIN 48, which addresses the recognition and measurement of tax positions taken or expected to be taken, and also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods and disclosure, to all of its income tax positions at the required effective date of January 1, 2007, resulting in a \$436 million cumulative effect increase to retained earnings, a reduction in goodwill of \$113 million and a \$549 million decrease in the liability for income taxes.

At December 31, 2008 and 2007, JPMorgan Chase's unrecognized tax benefits, excluding related interest expense and penalties, were \$5.9 billion and \$4.8 billion, respectively, of which \$2.9 billion and \$1.3 billion, if recognized, would reduce the annual effective tax rate. As JPMorgan Chase is presently under audit by a number of tax authorities, it is reasonably possible that unrecognized tax benefits could significantly change over the next 12 months, which could also significantly impact JPMorgan Chase's quarterly and annual effective tax rates.

The following table presents a reconciliation of the beginning and ending amount of unrecognized tax benefits for the years 2008 and 2007.

Year ended December 31, (in millions)	2008	2007
Unrecognized tax benefits		
Balance at January 1,	\$ 4,811	\$ 4,677
Increases based on tax positions related to the current period	890	434
Decreases based on tax positions related to the current period	(109)	(241)
Increases associated with the Bear Stearns merger	1,387	—
Increases based on tax positions related to prior periods	501	903
Decreases based on tax positions related to prior periods	(1,386)	(791)
Decreases related to settlements with taxing authorities	(181)	(158)
Decreases related to a lapse of applicable statute of limitations	(19)	(13)
Balance at December 31,	\$5,894	\$ 4,811

Pretax interest expense and penalties related to income tax liabilities recognized in income tax expense were \$571 million (\$346 million after-tax) in 2008 and \$516 million (\$314 million after-tax) in 2007. Included in accounts payable and other liabilities at December 31, 2008 and 2007, in addition to the Firm's liability for unrecognized tax benefits, was \$2.3 billion and \$1.6 billion, respectively, for income tax-related interest and penalties, of which the penalty component was insignificant.

JPMorgan Chase is subject to ongoing tax examinations by the tax authorities of the various jurisdictions in which it operates, including U.S. federal and state and non-U.S. jurisdictions. The Firm's consolidated federal income tax returns are presently under examination by the Internal Revenue Service ("IRS") for the years 2003, 2004 and 2005. The consolidated federal income tax returns of Bank One Corporation, which merged with and into JPMorgan Chase on July 1, 2004, are under examination for the years 2000 through 2003, and for the period January 1, 2004, through July 1, 2004. The consolidated federal income tax returns of Bear Stearns for the years ended November 30, 2003, 2004 and 2005, are also under examination. All three examinations are expected to conclude in 2009. The IRS audits of the consolidated federal income tax returns of JPMorgan Chase for the years 2006 and 2007, and for Bear Stearns for the years ended November 30, 2006 and 2007, are expected to commence in 2009. Administrative appeals are pending with the IRS relating to prior examination periods. For 2002 and prior years, refund claims relating to income and credit adjustments, and to tax attribute carry-backs, for JPMorgan Chase and its predecessor entities, including Bank One, have been filed. Amended returns to reflect refund claims primarily attributable to net operating losses and tax credit carry-backs will be filed for the final Bear Stearns federal consolidated tax return for the period December 1, 2007, through May 30, 2008, and for prior years.

The following table presents the U.S. and non-U.S. components of income from continuing operations before income tax expense (benefit).

Year ended December 31, (in millions)	2008	2007	2006
U.S.	\$ (2,094)	\$ 13,720	\$ 12,934
Non-U.S. ^(a)	4,867	9,085	6,952
Income from continuing operations before income tax expense (benefit)	\$ 2,773	\$ 22,805	\$ 19,886

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

Note 29 – 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 are insured by the FDIC as discussed in Note 20 on page 202 of this Annual Report.

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 \$1.6 billion in 2008 and 2007.

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, 2009 and 2008, JPMorgan Chase's banking subsidiaries could pay, in the aggregate, \$17.0 billion and \$16.2 billion, respectively, in dividends to their respective bank holding companies without the prior approval of their relevant banking regulators. The capacity to pay dividends in 2009 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, 2008 and 2007, cash in the amount of \$20.8 billion and \$16.0 billion, respectively, and securities with a fair value of \$12.1 billion and \$3.4 billion, respectively, were segregated in special bank accounts for the benefit of securities and futures brokerage customers.

Notes to consolidated financial statements

Note 30 – 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 includes common stockholders' equity, qualifying preferred stock and minority interest less goodwill and other adjustments. Tier 2 capital consists of preferred stock not qualifying as Tier 1, subordinated long-term debt and other instruments qualifying as Tier 2, and the aggregate allowance for credit losses up to a certain percentage of risk-weighted assets. Total regulatory capital is subject to deductions for investments in certain subsidiaries. Under the risk-based capital guidelines of the Federal Reserve, JPMorgan Chase is required to maintain minimum ratios of Tier 1 and Total (Tier 1 plus Tier 2) capital to risk-weighted assets, as well

as minimum leverage ratios (which are defined as Tier 1 capital to average adjusted on-balance sheet 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, 2008 and 2007, JPMorgan Chase and all of its banking subsidiaries were well-capitalized and met all capital requirements to which each was subject.

The Federal Reserve granted the Firm, for a period of 18 months following the Bear Stearns merger, relief up to a certain specified amount and subject to certain conditions from the Federal Reserve's risk-based capital and leverage requirements with respect to Bear Stearns' risk-weighted assets and other exposures acquired. The amount of such relief is subject to reduction by one-sixth each quarter subsequent to the merger and expires on October 1, 2009. The OCC granted JPMorgan Chase Bank, N.A. similar relief from its risk-based capital and leverage requirements.

The following table presents the risk-based capital ratios for JPMorgan Chase and its significant banking subsidiaries at December 31, 2008 and 2007.

(in millions, except ratios)	Tier 1 capital	Total capital	Risk-weighted assets ^(c)	Adjusted average assets ^(d)	Tier 1 capital ratio	Total capital ratio	Tier 1 leverage ratio
December 31, 2008^(a)							
JPMorgan Chase & Co.	\$136,104	\$ 184,720	\$ 1,244,659	\$ 1,966,895	10.9%	14.8%	6.9%
JPMorgan Chase Bank, N.A.	100,594	143,854	1,153,039	1,705,750	8.7	12.5	5.9
Chase Bank USA, N.A.	11,190	12,901	101,472	87,286	11.0	12.7	12.8
December 31, 2007 ^(a)							
JPMorgan Chase & Co.	\$ 88,746	\$ 132,242	\$ 1,051,879	\$ 1,473,541	8.4%	12.6%	6.0%
JPMorgan Chase Bank, N.A.	78,453	112,253	950,001	1,268,304	8.3	11.8	6.2
Chase Bank USA, N.A.	9,407	10,720	73,169	60,905	12.9	14.7	15.5
Well-capitalized ratios ^(b)					6.0%	10.0%	5.0% ^(e)
Minimum capital ratios ^(b)					4.0	8.0	3.0 ^(f)

(a) 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.

(b) As defined by the regulations issued by the Federal Reserve, OCC and FDIC.

(c) Includes off-balance sheet risk-weighted assets in the amounts of \$357.5 billion, \$332.2 billion and \$18.6 billion, respectively, at December 31, 2008, and \$352.7 billion, \$336.8 billion and \$13.4 billion, respectively, at December 31, 2007, for JPMorgan Chase, JPMorgan Bank, N.A. and Chase Bank USA, N.A.

(d) Adjusted average assets, for purposes of calculating the leverage ratio, include total 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) Represents requirements for banking subsidiaries pursuant to regulations issued under the Federal Deposit Insurance Corporation Improvement Act. There is no Tier 1 leverage component in the definition of a well-capitalized bank holding company.

(f) 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 \$1.1 billion at December 31, 2008, and \$2.0 billion at December 31, 2007. Additionally, the Firm had deferred tax liabilities resulting from tax-deductible goodwill of \$1.6 billion at December 31, 2008, and \$939 million at December 31, 2007.

The following table shows the components of the Firm's Tier 1 and Total capital.

December 31, (in millions)	2008	2007
Tier 1 capital		
Total stockholders' equity	\$ 166,884	\$ 123,221
Effect of certain items in accumulated other comprehensive income (loss) excluded from Tier 1 capital	5,084	925
Adjusted stockholders' equity	171,968	124,146
Minority interest ^(a)	17,257	15,005
Less: Goodwill	48,027	45,270
SFAS 157 DVA	2,358	882
Investments in certain subsidiaries	679	782
Nonqualifying intangible assets	2,057	3,471
Tier 1 capital	136,104	88,746
Tier 2 capital		
Long-term debt and other instruments qualifying as Tier 2	31,659	32,817
Qualifying allowance for credit losses	17,187	10,084
Adjustment for investments in certain subsidiaries and other	(230)	595
Tier 2 capital	48,616	43,496
Total qualifying capital	\$ 184,720	\$ 132,242

(a) Primarily includes trust preferred capital debt securities of certain business trusts.

Note 31 – Commitments and contingencies

At December 31, 2008, 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 upon maintenance, utility and tax increases or 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, 2008.

Year ended December 31, (in millions)	
2009	\$ 1,676
2010	1,672
2011	1,543
2012	1,456
2013	1,387
After 2013	9,134
Total minimum payments required^(a)	16,868
Less: Sublease rentals under noncancelable subleases	(2,266)
Net minimum payment required	\$ 14,602

(a) Lease restoration obligations are accrued in accordance with SFAS 13, and are not reported as a required minimum lease payment.

Total rental expense was as follows.

Year ended December 31, (in millions)	2008	2007	2006
Gross rental expense	\$ 1,917	\$ 1,380	\$ 1,266
Sublease rental income	(415)	(175)	(194)
Net rental expense	\$ 1,502	\$ 1,205	\$ 1,072

At December 31, 2008, assets were pledged to secure public deposits and for other purposes. The significant components of the assets pledged were as follows.

December 31, (in billions)	2008	2007
Reverse repurchase/securities borrowing agreements	\$ 456.6	\$ 333.7
Securities	31.0	4.5
Loans	342.3	160.4
Trading assets and other	98.0	102.2
Total assets pledged^(a)	\$ 927.9	\$ 600.8

(a) Total assets pledged do not include assets of consolidated VIEs. These assets are generally used to satisfy liabilities to third parties. See Note 17 on pages 189–198 of this Annual Report for additional information on assets and liabilities of consolidated VIEs.

The Firm has resolved with the IRS issues related to compliance with reporting and withholding requirements for certain accounts transferred to The Bank of New York Mellon Corporation ("BNYM") in connection with the Firm's sale to BNYM of its corporate trust business. The resolution of these issues did not have a material effect on the Firm.

Notes to consolidated financial statements

Note 32 – Accounting for derivative instruments and hedging activities

Derivative instruments enable end-users to increase, reduce or alter exposure to credit or market risks. The value of a derivative is derived from its reference to an underlying variable or combination of variables such as equity, foreign exchange, credit, commodity or interest rate prices or indices. JPMorgan Chase makes markets in derivatives for customers and also is an end-user of derivatives in order to hedge or manage risks of market exposures, modify the interest rate characteristics of related balance sheet instruments or meet longer-term investment objectives. The majority of the Firm's derivatives are entered into for market-making purposes. SFAS 133, as amended by SFAS 138, SFAS 149, SFAS 155 and FSP FAS 133-1, establishes accounting and reporting standards for derivative instruments, including those used for trading and hedging activities and derivative instruments embedded in other contracts. All free-standing derivatives are required to be recorded on the Consolidated Balance Sheets at fair value. The accounting for changes in value of a derivative depends on whether or not the contract has been designated and qualifies for hedge accounting. Derivative receivables and payables, whether designated for hedging relationships or not, are recorded in trading assets and trading liabilities as set forth in Note 6 on page 159 of this Annual Report.

Derivatives used for trading purposes

The Firm makes markets in derivatives for customers seeking to modify, or reduce interest rate, credit, foreign exchange, equity and commodity and other market risks or for risk-taking purposes. The Firm typically manages its exposure from such derivatives by entering into derivatives or other financial instruments that partially or fully offset the exposure from the client transaction. The Firm actively manages any residual exposure and seeks to earn a spread between the client derivatives and offsetting positions. For the Firm's own account, the Firm uses derivatives to take risk positions or to benefit from differences in prices between derivative markets and markets for other financial instruments.

Derivatives used for risk management purposes

Interest rate contracts, which are generally interest rate swaps, forwards and futures are utilized in the Firm's risk management activities to minimize fluctuations in earnings caused by interest rate volatility. As a result of interest rate fluctuations, fixed-rate assets and liabilities appreciate or depreciate in market value. Gains or losses on the derivative instruments that are linked to fixed-rate assets and liabilities and forecasted transactions are expected to offset substantially this unrealized appreciation or depreciation. Interest income and interest expense on variable-rate assets and liabilities and on forecasted transactions increase or decrease as a result of interest rate fluctuations. Gains and losses on the derivative instruments that are linked to assets and liabilities and forecasted transactions are expected to offset substantially this variability in earnings. Interest rate swaps involve the exchange of fixed-rate and variable-rate interest payments based on the contracted notional amount. Forward contracts used for the Firm's interest rate risk management activities are primarily arrangements to exchange cash in the future

based on price movements of specified financial instruments. Futures contracts used are primarily index futures which provide for cash payments based upon the movements of an underlying rate index.

The Firm uses foreign currency contracts to manage the foreign exchange risk associated with certain foreign currency-denominated (i.e., non-U.S.) assets and liabilities and forecasted transactions denominated in a foreign currency, as well as the Firm's equity investments in foreign subsidiaries. As a result of foreign currency fluctuations, the U.S. dollar equivalent values of the foreign currency-denominated assets and liabilities or forecasted transactions change. Gains or losses on the derivative instruments that are linked to the foreign currency denominated assets or liabilities or forecasted transactions are expected to offset substantially this variability. Foreign exchange forward contracts represent agreements to exchange the currency of one country for the currency of another country at an agreed-upon price on an agreed-upon settlement date.

The Firm uses forward contracts to manage the overall price risk associated with the gold inventory in its commodities portfolio. As a result of gold price fluctuations, the fair value of the gold inventory changes. Gains or losses on the derivative instruments that are linked to gold inventory are expected to substantially offset this unrealized appreciation or depreciation. Forward contracts used for the Firm's gold inventory risk management activities are arrangements to deliver gold in the future.

The Firm uses credit derivatives to manage the credit risk associated with loans, lending-related commitments and derivative receivables, as well as exposure to residential and commercial mortgages. 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. For a further discussion of credit derivatives, see the discussion below.

In order to qualify for hedge accounting, a derivative must be considered highly effective at reducing the risk associated with the exposure being hedged. In order for a derivative to be designated as a hedge, there must be documentation of the risk management objective and strategy, including identification of the hedging instrument, the hedged item and the risk exposure, and how effectiveness is to be assessed prospectively and retrospectively. To assess effectiveness, the Firm uses statistical methods such as regression analysis, as well as nonstatistical methods including dollar value comparisons of the change in the fair value of the derivative to the change in the fair value or cash flows of the hedged item. The extent to which a hedging instrument has been and is expected to continue to be effective at achieving offsetting changes in fair value or cash flows must be assessed and documented at least quarterly. Any ineffectiveness 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.

For qualifying fair value hedges, all changes in the fair value of the derivative and in the fair 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 item and continues to be amortized to earnings as a yield adjustment. For qualifying cash flow hedges, the effective portion of the change in the fair value of the derivative is recorded in other comprehensive income (loss) and recognized in the Consolidated Statements of Income when the hedged cash flows affect earnings. The ineffective portions of cash flow hedges are immediately recognized in earnings. If the hedge relationship is terminated, then the change in fair value of the derivative recorded in accumulated other comprehensive income (loss) is recognized when the cash flows that were hedged occur, consistent with the original hedge strategy. For hedge relationships that are discontinued because the forecasted transaction is not expected to occur according to the original strategy, any related derivative amounts recorded in accumulated other comprehensive income (loss) are immediately recognized in earnings. For qualifying net investment hedges, changes in the fair value of the derivative or the revaluation of the foreign currency-denominated debt instrument are recorded in the translation adjustments account within accumulated other comprehensive income (loss).

JPMorgan Chase's fair value hedges primarily include hedges of the interest rate risk inherent in fixed-rate long-term debt, warehouse loans, AFS securities, and the overall price of gold inventory. All changes in the hedging derivative's fair value are included in earnings consistent with the classification of the hedged item, primarily net interest income for long-term debt and AFS securities; other income for warehouse loans; and principal transactions revenue for gold inventory. The Firm did not recognize any gains or losses during 2008, 2007 or 2006 on firm commitments that no longer qualified as fair value hedges.

JPMorgan Chase also enters into derivative contracts to hedge 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. All hedging derivative amounts affecting earnings are recognized consistent with the classification of the hedged item, primarily net interest income.

The Firm uses forward foreign exchange contracts and foreign currency-denominated debt instruments to protect the value of net investments in subsidiaries whose functional currency is not the U.S. dollar. The portion of the hedging derivative excluded from the assessment of hedge effectiveness (i.e., forward points) is recorded in net interest income.

JPMorgan Chase does not seek to apply hedge accounting to all of the Firm's economic hedges. 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 under SFAS 133. Similarly, the Firm does not apply hedge accounting to certain interest rate derivatives used as economic hedges.

The following table presents derivative instrument hedging-related activities for the periods indicated.

Year ended December 31, (in millions)	2008	2007	2006
Fair value hedge ineffective net gains ^(a)	\$ 434	\$ 111	\$ 51
Cash flow hedge ineffective net gains ^(a)	18	29	2
Cash flow hedging net gains on forecasted transactions that failed to occur	—	15 ^(b)	—

(a) Includes ineffectiveness and the components of hedging instruments that have been excluded from the assessment of hedge effectiveness.

(b) During the second half of 2007, the Firm did not issue short-term fixed rate Canadian dollar denominated notes due to the weak credit market for Canadian short-term debt.

Over the next 12 months, it is expected that \$348 million (after-tax) of net losses recorded in accumulated other comprehensive income (loss) at December 31, 2008, will be recognized in earnings. The maximum length of time over which forecasted transactions are hedged is ten years, and such transactions primarily relate to core lending and borrowing activities.

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, 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 subjected to a credit event.

The Firm is both a purchaser and seller of credit protection in the credit derivatives market and uses credit 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 in order to mitigate the Firm's credit risk associated with the 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. See Note 4 on pages 141–155 of this Annual Report for further information on the Firm's mortgage-related exposures. In accomplishing the above, the Firm uses different types of credit derivatives. Following is a summary of various types of credit derivatives.

Notes to consolidated financial statements

Credit default swaps

Credit derivatives may reference the credit of either a single reference entity ("single-name") or a broad-based index, as described further below. The Firm purchases and sells protection on both single-name and index-reference obligations. Single-name credit default swaps ("CDS") and index CDS contracts are both OTC derivative contracts. Single-name CDS are used to manage the default risk of a single reference entity, while CDS index are used to manage credit risk associated with the broader credit markets or credit market segments. Like the S&P 500 and other market indices, a CDS index is comprised of a portfolio of CDS across many reference entities. New series of CDS indices are established approximately every six months 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 and is replaced with another reference entity. 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, 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-linked notes

A credit linked note ("CLN") is a funded credit derivative where the issuer of the CLN purchases credit protection on a referenced entity from the note investor. Under the contract, the investor pays the issuer 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. In that event, 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 CLN has recourse to the defaulting reference entity. For a further discussion of CLNs, see Note 17 on pages 194–195 of this Annual Report.

The following table presents a summary of the notional amounts of credit derivatives and credit-linked notes the Firm sold and purchased, and the net position as of December 31, 2008. Upon a credit event, the Firm as seller of protection would typically pay out only a percentage of the full notional of net protection sold; as the amount that is actually required to be paid on the contracts take 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; as such other protection purchased referenced in the following table includes credit derivatives bought on related, but not identical reference positions, including indices, portfolio coverage and other reference points, which further mitigates the risk associated with the net protection sold.

Total credit derivatives and credit-linked notes

December 31, 2008 (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	\$ (4,194,707)	\$ 3,876,890	\$ (317,817)	\$ 302,160
Other credit derivatives ^(a)	(4,026)	—	(4,026)	10,096
Total credit derivatives	(4,198,733)	3,876,890	(321,843)	312,256
Credit-linked notes	(1,263)	141	(1,122)	1,792
Total	\$ (4,199,996)	\$ 3,877,031	\$ (322,965)	\$ 314,048

(a) Primarily consists of total return swaps and options to enter into credit default swap contracts.

(b) Represents the notional amount of purchased credit derivatives where the underlying reference instrument is identical to the reference instrument on which the Firm has sold credit protection.

(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 single-name and index CDS protection the Firm purchased primarily to risk manage the net protection sold.

The following table summarizes the notional and fair value amounts of credit derivatives and credit-linked notes as of December 31, 2008, where JPMorgan Chase is the seller of protection. The maturity profile presents the years to maturity based upon 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 protection purchased is comparable to the profile reflected below.

Protection sold – credit derivatives and credit-linked notes ratings/maturity profile^(a)

December 31, 2008 (in millions)	< 1 year	1-5 years	> 5 years	Total notional amount	Fair value ^(c)
Risk rating of reference entity					
Investment grade (AAA to BBB-) ^(b)	\$ (177,404)	\$ (1,767,004)	\$ (713,555)	\$ (2,657,963)	\$ (215,217)
Noninvestment grade (BB+ and below) ^(b)	(121,040)	(992,098)	(428,895)	(1,542,033)	(244,975)
Total	\$ (298,444)	\$ (2,759,102)	\$ (1,142,450)	\$ (4,199,996)	\$ (460,192)

(a) The contractual maturity for single-name CDS contract generally ranges from three months to ten years and the contractual maturity for index CDS is generally five years. The contractual maturity for CLNs typically ranges from three to five years.

(b) Ratings scale is based upon the Firm's internal ratings, which generally correspond to ratings defined by S&P and Moody's.

(c) Amounts are shown on a gross basis, before the benefit of legally enforceable master netting agreements and cash collateral held by the Firm.

Notes to consolidated financial statements

Note 33 – Off-balance sheet lending-related financial instruments and guarantees

JPMorgan Chase utilizes 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 should the counterparties draw down on these commitments or the Firm fulfills its obligation under these guarantees, and the counterparties subsequently fail to perform according to the terms of these contracts. Most of these commitments and guarantees expire without a default occurring or

without being drawn. 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. Further, certain commitments, predominantly related to consumer financings, are cancelable, upon notice, at the option of the Firm.

To provide for the risk of loss inherent in wholesale related contracts, an allowance for credit losses on lending-related commitments is maintained. See Note 15 on pages 178–180 of this Annual Report for further discussion of the allowance for credit losses on lending-related commitments.

The following table summarizes the contractual amounts of off-balance sheet lending-related financial instruments and guarantees and the related allowance for credit losses on lending-related commitments at December 31, 2008 and 2007.

Off-balance sheet lending-related financial instruments and guarantees

December 31, (in millions)	Contractual amount		Allowance for lending-related commitments	
	2008	2007	2008	2007
Lending-related				
Consumer ^(a)	\$ 741,507	\$ 815,936	\$ 25	\$ 15
Wholesale:				
Other unfunded commitments to extend credit ^{(b)(c)(d)(e)}	225,863	250,954	349	571
Asset purchase agreements ^(f)	53,729	90,105	9	9
Standby letters of credit and financial guarantees ^{(c)(g)(h)}	95,352	100,222	274	254
Other letters of credit ^(c)	4,927	5,371	2	1
Total wholesale	379,871	446,652	634	835
Total lending-related	\$ 1,121,378	\$ 1,262,588	\$ 659	\$ 850
Other guarantees				
Securities lending guarantees ⁽ⁱ⁾	\$ 169,281	\$ 385,758	NA	NA
Residual value guarantees	670	NA	NA	NA
Derivatives qualifying as guarantees ^(j)	83,835	85,262	NA	NA

(a) Includes credit card and home equity lending-related commitments of \$623.7 billion and \$95.7 billion, respectively, at December 31, 2008; and \$714.8 billion and \$74.2 billion, respectively, at December 31, 2007. These amounts 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 these lines of credit by providing the borrower prior notice or, in some cases, without notice as permitted by law.

(b) Includes unused advised lines of credit totaling \$36.3 billion and \$38.4 billion at December 31, 2008 and 2007, respectively, which are not legally binding. In regulatory filings with the Federal Reserve, unused advised lines are not reportable.

(c) Represents contractual amount net of risk participations totaling \$28.3 billion at both December 31, 2008 and 2007.

(d) Excludes unfunded commitments to third-party private equity funds of \$1.4 billion and \$881 million at December 31, 2008 and 2007, respectively. Also excludes unfunded commitments for other equity investments of \$1.0 billion and \$903 million at December 31, 2008 and 2007, respectively.

(e) Includes commitments to investment and noninvestment grade counterparties in connection with leveraged acquisitions of \$3.6 billion and \$8.2 billion at December 31, 2008 and 2007, respectively.

(f) Largely represents asset purchase agreements with the Firm's administered multi-seller, asset-backed commercial paper conduits. It also includes \$96 million and \$1.1 billion of asset purchase agreements to other third-party entities at December 31, 2008 and 2007, respectively.

(g) JPMorgan Chase held collateral relating to \$31.0 billion and \$31.5 billion of these arrangements at December 31, 2008 and 2007, respectively. Prior periods have been revised to conform to the current presentation.

(h) Includes unissued standby letters of credit commitments of \$39.5 billion and \$50.7 billion at December 31, 2008 and 2007, respectively.

(i) Collateral held by the Firm in support of securities lending indemnification agreements was \$170.1 billion and \$390.5 billion at December 31, 2008 and 2007, respectively. Securities lending collateral comprises primarily cash, securities issued by governments that are members of the Organisation for Economic Co-operation and Development and U.S. government agencies.

(j) Represents notional amounts of derivatives qualifying as guarantees.

Other unfunded commitments to extend credit

Unfunded commitments to extend credit are agreements to lend or to purchase securities only when a customer has complied with pre-determined conditions, and they generally expire on fixed dates.

Other unfunded commitments to extend credit include commitments to U.S. domestic states and municipalities, hospitals and other not-for-profit entities to provide funding for periodic tenders of their variable-rate demand bond obligations or commercial paper. Performance by the Firm is required in the event that the variable-rate demand bonds or commercial paper cannot be remarketed to new investors. The performance required of the Firm under these agreements is conditional and limited by certain termination events, which include bankruptcy and the credit rating downgrade of the issuer of the variable-rate demand bonds or commercial paper to below certain predetermined thresholds. The commitment period is generally one to three years. The amount of commitments related to variable-rate demand bonds and commercial paper of U.S. domestic states and municipalities, hospitals and not-for-profit entities at December 31, 2008 and 2007, was \$23.5 billion and \$24.1 billion, respectively.

Included in other unfunded commitments to extend credit are commitments to investment and noninvestment grade counterparties in connection with leveraged acquisitions. These commitments are dependent on whether the acquisition by the borrower is successful, tend to be short-term in nature and, in most cases, are subject to certain conditions based on the borrower's financial condition or other factors. Additionally, the Firm often syndicates portions of the commitment to other investors, depending on market conditions. These commitments often contain flexible pricing features to adjust for changing market conditions prior to closing. Alternatively, the borrower may turn to the capital markets for required funding instead of drawing on the commitment provided by the Firm, and the commitment may expire unused. As such, these commitments may not necessarily be indicative of the Firm's actual risk, and the total commitment amount may not reflect actual future cash flow requirements. The amount of commitments related to leveraged acquisitions at December 31, 2008 and 2007, was \$3.6 billion and \$8.2 billion, respectively. For further information, see Note 4 and Note 5 on pages 141–155 and 156–158, respectively, of this Annual Report.

FIN 45 guarantees

FIN 45 establishes accounting and disclosure requirements for guarantees, requiring 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. FIN 45 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 FIN 45: certain asset purchase agreements, standby letters of credit and financial guarantees, securities lending indemnifications, certain indemnification agreements included within third-party contractual arrangements and certain derivative contracts. These guarantees are described in further detail below.

The fair value at inception of the obligation undertaken when issuing the guarantees and commitments that qualify under FIN 45 is typically equal to the net present value of the future amount of premium receivable under the contract. The Firm has recorded this amount in other liabilities with an offsetting entry recorded in other assets. As cash is received under the contract, it is applied to the premium receivable recorded in other assets, and the fair value of the liability recorded at inception is amortized into income as lending & deposit-related fees over the life of the guarantee contract. The amount of the liability related to FIN 45 guarantees recorded at December 31, 2008 and 2007, excluding the allowance for lending-related commitments and derivative contracts discussed below, was approximately \$535 million and \$335 million, respectively.

Asset purchase agreements

The majority of the Firm's unfunded commitments are not guarantees as defined in FIN 45, except for certain asset purchase agreements that are principally used as a mechanism to provide liquidity to SPEs, predominantly multi-seller conduits, as described in Note 17 on pages 189–198 of this Annual Report. The conduit's administrative agent can require the liquidity provider to perform under their asset purchase agreement with the conduit at any time. These agreements may cause the Firm to purchase an asset from the SPE at an amount above the asset's then fair value, in effect providing a guarantee of the initial value of the reference asset as of the date of the agreement. In most instances, third-party credit enhancements of the SPE mitigate the Firm's potential losses on these agreements.

The carrying value of asset purchase agreements of \$147 million at December 31, 2008, classified in accounts payable and other liabilities on the Consolidated Balance Sheets, includes \$9 million for the allowance for lending-related commitments and \$138 million for the FIN 45 guarantee liability.

Standby letters of credit

Standby letters of credit ("SBLC") and 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 majority of SBLCs mature in 5 years or less; as of December 31, 2008 and 2007, 64% and 52%, respectively, of these arrangements mature within three years. The Firm has recourse to recover from the customer any amounts paid under these guarantees; in addition, the Firm may hold cash or other highly liquid collateral to support these guarantees. The carrying value of standby letters of credit of \$673 million and \$590 million at December 31, 2008 and 2007, respectively, which is classified in accounts payable and other liabilities in the Consolidated Balance Sheets, includes \$276 million and \$255 million at December 31, 2008 and 2007, respectively, for the allowance for lending-related commitments, and \$397 million and \$335 million at December 31, 2008 and 2007, respectively, for the FIN 45 guarantee.

Notes to consolidated financial statements

The following table summarizes the type 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, 2008 and 2007. The ratings scale is representative of the payment or performance risk to the Firm under the guarantee and is based upon the Firm's internal risk ratings, which generally correspond to ratings defined by S&P and Moody's.

December 31, (in millions)	2008		2007	
	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade ^(a)	\$ 73,394	\$ 4,165	\$ 71,904	\$ 4,153
Noninvestment-grade ^(a)	21,958	762	28,318	1,218
Total contractual amount	\$ 95,352 ^(b)	\$ 4,927	\$ 100,222 ^(b)	\$ 5,371
Allowance for lending-related commitments	\$ 274	\$ 2	\$ 254	\$ 1
Commitments with collateral	30,972	1,000	31,502	809

(a) Ratings scale is based upon the Firm's internal ratings which generally correspond to ratings defined by S&P and Moody's.

(b) Represents contractual amount net of risk participations totaling \$28.3 billion at both December 31, 2008 and 2007.

Derivatives qualifying as guarantees

In addition to the contracts described above, the Firm transacts certain derivative contracts that meet the characteristics of a guarantee under FIN 45. 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 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 typically have a longer-term maturity or allow either party to terminate the contract subject to contractually specified terms.

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 \$83.8 billion and \$85.3 billion at December 31, 2008 and 2007, respectively. The notional value generally represents the Firm's maximum exposure to derivatives qualifying as guarantees, although exposure to certain stable value derivatives is contractually limited to a substantially lower percentage of the notional value. The fair value of the contracts reflects the probability of whether the Firm will be required to perform under the contract. The fair value related to derivative guarantees was a derivative receivable of \$184 million and \$213 million, and a derivative payable of \$5.6 billion and \$2.5 bil-

lion at December 31, 2008 and 2007, 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 under FIN 45, 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 32 on pages 214–217 of this Annual Report.

Securities lending indemnification

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 third-party 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.

Also, as part of this program, the Firm invests cash collateral received from the borrower in accordance with approved guidelines.

Based upon historical experience, management believes that risk of loss under its indemnification obligations is remote.

Indemnification agreements – general

In connection with issuing securities to investors, the Firm may enter into contractual arrangements with third parties that may 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 upon historical experience, management expects the risk of loss to be remote.

Loan sale and securitization-related indemnifications

Indemnifications for breaches of representations and warranties

As part of the Firm’s loan sale and securitization activities, as described in Note 14 and Note 16 on pages 175–178 and 180–188, respectively, of this Annual Report, the Firm generally makes representations and warranties in its loan sale and securitization agreements that the loans sold meet certain requirements. These agreements may require the Firm (including in its roles as a servicer) to repurchase the loans and/or indemnify the purchaser of the loans against losses due to any breaches of such representations or warranties. Generally, the maximum amount of future payments the Firm would be required to make for breaches under these representations and warranties would be equal to the current amount of assets held by such securitization-related SPEs plus, in certain circumstances, accrued and unpaid interest on such loans and certain expense.

At December 31, 2008 and 2007, the Firm had recorded a repurchase liability of \$1.1 billion and \$15 million, respectively.

Loans sold with recourse

The Firm provides servicing for mortgages and certain commercial lending products on both a recourse and nonrecourse basis. In non-recourse servicing, the principal credit risk to the Firm is the cost of temporary servicing advances of funds (i.e., normal servicing advances). In recourse servicing, the servicer agrees to share credit risk with the owner of the mortgage loans, such as the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation 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 loan sale transactions have primarily been executed on a nonrecourse basis, thereby effectively transferring the risk of future credit losses to the purchaser of the mortgage-backed securities issued by the trust. At December 31, 2008 and 2007, the unpaid principal balance of loans sold with recourse totaled \$15.0 billion and \$557 million, respectively. The increase in loans sold with recourse between December 31, 2008 and 2007, was driven by the Washington Mutual transaction. The carrying value of the related liability that the Firm had recorded, which is representative of the Firm’s view of the likelihood it will have to perform under this guarantee, was \$241 million and zero at December 31, 2008 and 2007, respectively.

Credit card charge-backs

Prior to November 1, 2008, the Firm was a partner with one of the leading companies in electronic payment services in a joint venture operating under the name of Chase Paymentech Solutions, LLC (the “joint venture”). The joint venture was formed in October 2005, as a result of an agreement by the Firm and First Data Corporation, its joint venture partner, to integrate the companies’ jointly-owned Chase Merchant Services and Paymentech merchant businesses. The joint venture provided merchant processing services in the United States and Canada. The dissolution of the joint venture was completed on November 1, 2008, and JPMorgan Chase retained approximately 51% of the business under the Chase Paymentech Solutions name.

Notes to consolidated financial statements

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 Solutions 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 Solutions is unable to collect the amount from the merchant, Chase Paymentech Solutions will bear the loss for the amount credited or refunded to the cardmember. Chase Paymentech Solutions 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 Solutions does not have sufficient collateral from the merchant to provide customer refunds; and (3) Chase Paymentech Solutions 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, 2008, Chase Paymentech Solutions incurred aggregate credit losses of \$13 million on \$713.9 billion of aggregate volume processed, and at December 31, 2008, it held \$222 million of collateral. For the year ended December 31, 2007, the joint venture incurred aggregate credit losses of \$10 million on \$719.1 billion of aggregate volume processed, and at December 31, 2007, the joint venture held \$779 million of collateral. The Firm believes that, based upon historical experience and the collateral held by Chase Paymentech Solutions, the amount of the Firm's charge back-related obligations, which is representative of the payment or performance risk to the Firm, is immaterial.

Credit card association, exchange and clearinghouse guarantees

The Firm holds an equity interest in VISA Inc. During October 2007, certain VISA-related entities completed a series of restructuring transactions to combine their operations, including VISA USA, under one holding company, VISA Inc. Upon the restructuring, the Firm's membership interest in VISA USA was converted into an equity interest in VISA Inc. VISA Inc. sold shares via an initial public offering and used a portion of the proceeds from the offering to redeem a portion of the Firm's equity interest in Visa Inc. Prior to the restructuring, VISA USA's by-laws obligated the Firm upon demand by VISA USA to indemnify VISA USA for, among other things, litigation obligations of Visa USA. The accounting for that guarantee was not subject to fair value accounting under FIN 45, because the guarantee was in effect prior to the effective date of FIN 45. Upon the restructuring event, the Firm's obligation to indemnify Visa Inc. was limited to certain identified litigations. Such a limitation is deemed a modification of the indemnity by-law and, accordingly, is now subject to the provisions of FIN 45. The value of the litigation guarantee has been recorded in the Firm's financial statements based on its fair value; the net amount recorded (within other liabilities) did not have a material adverse effect on the Firm's financial statements.

In addition to Visa, the Firm is a member of other associations, including several securities and futures exchanges and clearinghouses, both in the United States 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 upon historical experience, management expects the risk of loss to be remote.

Residual value guarantee

In connection with the Bear Stearns merger, the Firm succeeded to an operating lease arrangement for the building located at 383 Madison Avenue in New York City (the "Synthetic Lease"). Under the terms of the Synthetic Lease, the Firm is obligated to make periodic payments based on the lessor's underlying interest costs. The Synthetic Lease expires on November 1, 2010. Under the terms of the Synthetic Lease, the Firm has the right to purchase the building for the amount of the then outstanding indebtedness of the lessor, or to arrange for the sale of the building, with the proceeds of the sale to be used to satisfy the lessor's debt obligation. If the sale does not generate sufficient proceeds to satisfy the lessor's debt obligation, the Firm is required to fund the shortfall up to a maximum residual value guarantee. As of December 31, 2008, there was no expected shortfall, and the maximum residual value guarantee was approximately \$670 million. Under a separate ground lease, the land on which the building is built was leased to an affiliate of Bear Stearns which, as part of the Synthetic Lease, assigned this position to the Synthetic Lease lessor. The owner of the land sued the Firm, alleging that certain provisions of the merger agreement violated a "right of first offer" provision of the ground lease. The Firm's motion to dismiss the lawsuit was granted, and a judgment of dismissal was entered on January 12, 2009. The owner has filed a notice of appeal.

Note 34 – 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 management's risk tolerance.

In the Firm's wholesale portfolio, risk concentrations are evaluated primarily by industry and geographic region, 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 exposure to any one loan product with varying terms (e.g., interest-only payments for an introductory period, option ARMs) or exposure to loans with high loan-to-value ratios would result 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 geography, see Note 14 on pages 175–178 and Note 15 on pages 178–180 of this Annual Report. For information regarding concentrations of off-balance sheet lending-related financial instruments by major product, see Note 33 on pages 218–222 of this Annual Report.

The table below presents both on- and off-balance sheet wholesale- and consumer-related credit exposure as of December 31, 2008 and 2007.

December 31, (in millions)	2008				2007			
	Credit exposure	On-balance sheet		Off-balance sheet ^(c)	Credit exposure	On-balance sheet		Off-balance sheet ^(c)
		Loans	Derivatives			Loans	Derivatives	
Wholesale-related:								
Real estate	\$ 83,799	\$ 66,881	\$ 2,289	\$ 14,629	\$ 38,295	\$ 20,274	\$ 893	\$ 17,128
Banks and finance companies	75,577	19,055	33,457	23,065	65,288	16,776	12,502	36,010
Asset managers	49,256	9,640	18,806	20,810	38,554	8,534	7,763	22,257
Healthcare	38,032	7,004	3,723	27,305	30,746	5,644	885	24,217
State & municipal governments	35,954	5,873	9,427	20,654	31,425	5,699	3,205	22,521
Utilities	34,246	9,184	4,664	20,398	28,679	5,840	1,870	20,969
Retail & consumer services	32,714	8,433	3,079	21,202	23,969	6,665	517	16,787
Consumer products	29,766	10,081	2,225	17,460	29,941	8,915	1,084	19,942
Securities firms & exchanges	25,590	6,360	14,111	5,119	23,274	5,120	11,022	7,132
Oil & gas	24,746	8,796	2,220	13,730	26,082	10,348	1,570	14,164
Insurance	17,744	1,942	5,494	10,308	16,782	1,067	2,442	13,273
Technology	17,555	5,028	1,361	11,166	18,335	4,674	1,309	12,352
Media	17,254	7,535	1,248	8,471	16,253	4,909	1,268	10,076
Central government	15,259	555	10,537	4,167	9,075	583	3,989	4,503
Metals/mining	14,980	6,470	1,991	6,519	17,714	7,282	2,673	7,759
All other wholesale	278,114	75,252	47,994	154,868	298,803	77,097	24,144	197,562
Loans held-for-sale and loans at fair value	13,955	13,955	—	—	23,649	23,649	—	—
Receivables from customers ^(a)	16,141	—	—	—	—	—	—	—
Total wholesale-related	820,682	262,044	162,626	379,871	736,864	213,076	77,136	446,652
Consumer-related:								
Home equity	238,633	142,890	—	95,743	169,023	94,832	—	74,191
Prime mortgage	99,200	94,121	—	5,079	47,382	39,988	—	7,394
Subprime mortgage	22,090	22,090	—	—	15,489	15,473	—	16
Option ARMs	40,661	40,661	—	—	—	—	—	—
Auto loans	47,329	42,603	—	4,726	50,408	42,350	—	8,058
Credit card ^(b)	728,448	104,746	—	623,702	799,200	84,352	—	714,848
All other loans	45,972	33,715	—	12,257	36,743	25,314	—	11,429
Loans held-for-sale	2,028	2,028	—	—	3,989	3,989	—	—
Total consumer-related	1,224,361	482,854	—	741,507	1,122,234	306,298	—	815,936
Total exposure	\$ 2,045,043	\$ 744,898	\$ 162,626	\$ 1,121,378	\$ 1,859,098	\$ 519,374	\$ 77,136	\$ 1,262,588

(a) Primarily represents margin loans to prime and retail brokerage customers which are included in accrued interest and accounts receivable on the Consolidated Balance Sheets.

(b) Excludes \$85.6 billion and \$72.7 billion of securitized credit card receivables at December 31, 2008 and 2007, respectively.

(c) Represents lending-related financial instruments.

Notes to consolidated financial statements

Note 35 – International operations

The following table presents income statement information of JPMorgan Chase by major international geographic area. The Firm defines international activities as business transactions that involve customers residing outside of the U.S., and the information presented below is based primarily upon the domicile of the customer or the location from which the customer relationship is managed. However, many of the Firm's U.S. operations serve international businesses.

As the Firm's operations are highly integrated, estimates and subjective assumptions have been made to apportion revenue and expense between U.S. and international operations. These estimates and assumptions are consistent with the allocations used for the Firm's segment reporting as set forth in Note 37 on pages 226–227 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.

Year ended December 31, (in millions)	Revenue ^(a)	Expense ^(b)	Income (loss) from continuing operations before income tax expense (benefit)	Net income
2008				
Europe/Middle East and Africa	\$ 11,449	\$ 8,403	\$ 3,046	\$ 2,483
Asia and Pacific	4,097	3,580	517	672
Latin America and the Caribbean	1,353	903	450	274
Other	499	410	89	21
Total international	17,398	13,296	4,102	3,450
Total U.S.	49,854	51,183	(1,329)	2,155
Total	\$ 67,252	\$ 64,479	\$ 2,773	\$ 5,605
2007				
Europe/Middle East and Africa	\$ 12,070	\$ 8,445	\$ 3,625	\$ 2,585
Asia and Pacific	4,730	3,117	1,613	945
Latin America and the Caribbean	2,028	975	1,053	630
Other	407	289	118	79
Total international	19,235	12,826	6,409	4,239
Total U.S.	52,137	35,741	16,396	11,126
Total	\$ 71,372	\$ 48,567	\$ 22,805	\$ 15,365
2006				
Europe/Middle East and Africa	\$ 11,342	\$ 7,471	\$ 3,871	\$ 2,774
Asia and Pacific	3,227	2,649	578	400
Latin America and the Caribbean	1,342	820	522	333
Other	381	240	141	90
Total international	16,292	11,180	5,112	3,597
Total U.S.	45,707	30,933	14,774	10,847
Total	\$ 61,999	\$ 42,113	\$ 19,886	\$ 14,444

(a) Revenue is composed of net interest income and noninterest revenue.

(b) Expense is composed of noninterest expense and provision for credit losses.

Note 36 – Parent company

Parent company – statements of income

Year ended December 31, (in millions)	2008	2007	2006
Income			
Dividends from bank and bank holding company subsidiaries	\$ 3,085	\$ 5,834	\$ 2,935
Dividends from nonbank subsidiaries ^(a)	1,687	2,463	1,999
Interest income from subsidiaries	4,539	5,082	3,612
Other interest income	212	263	273
Other income from subsidiaries, primarily fees:			
Bank and bank holding company	244	182	220
Nonbank	95	960	739
Other income (loss)	(1,038)	(131)	(206)
Total income	8,824	14,653	9,572
Expense			
Interest expense to subsidiaries ^(a)	1,302	1,239	1,025
Other interest expense	6,879	6,427	4,536
Compensation expense	43	125	519
Other noninterest expense ^(b)	732	329	295
Total expense	8,956	8,120	6,375
Income (loss) before income tax benefit and undistributed net income of subsidiaries	(132)	6,533	3,197
Income tax benefit ^(b)	2,582	589	982
Equity in undistributed net income of subsidiaries ^(b)	3,155	8,243	10,265
Net income	\$ 5,605	\$ 15,365	\$ 14,444

Parent company – balance sheets

December 31, (in millions)	2008	2007
Assets		
Cash and due from banks	\$ 35	\$ 110
Deposits with banking subsidiaries	60,551	52,972
Trading assets	12,487	9,563
Available-for-sale securities	1,587	43
Loans	1,525	1,423
Advances to, and receivables from, subsidiaries:		
Bank and bank holding company	33,293	28,705
Nonbank	131,032	52,895
Investments (at equity) in subsidiaries:		
Bank and bank holding company	153,140	128,711
Nonbank ^(a)	27,968	25,710
Goodwill and other intangibles	1,616	850
Other assets	12,934	13,241
Total assets	\$ 436,168	\$ 314,223
Liabilities and stockholders' equity		
Borrowings from, and payables to, subsidiaries ^(a)	\$ 44,467	\$ 23,938
Other borrowed funds, primarily commercial paper	39,560	52,440
Other liabilities	9,363	8,043
Long-term debt ^(c)	175,894	106,581
Total liabilities	269,284	191,002
Stockholders' equity	166,884	123,221
Total liabilities and stockholders' equity	\$ 436,168	\$ 314,223

Parent company – statements of cash flows

Year ended December 31, (in millions)	2008	2007	2006
Operating activities			
Net income	\$ 5,605	\$ 15,365	\$ 14,444
Less: Net income of subsidiaries ^{(a)(b)}	7,927	16,540	15,199
Parent company net loss	(2,322)	(1,175)	(755)
Add: Cash dividends from subsidiaries ^(a)	4,648	8,061	4,934
Other, net	1,920	3,496	(185)
Net cash provided by operating activities	4,246	10,382	3,994
Investing activities			
Net change in:			
Deposits with banking subsidiaries	(7,579)	(34,213)	(9,307)
Securities purchased under resale agreements, primarily with nonbank subsidiaries	—	—	24
Loans	(102)	(452)	(633)
Advances to subsidiaries	(82,725)	(24,553)	(3,032)
Investments (at equity) in subsidiaries ^{(a)(b)}	(26,212)	(4,135)	579
Other, net	—	—	(1)
Available-for-sale securities:			
Purchases	(1,475)	(104)	—
Proceeds from sales and maturities	—	318	29
Net cash used in investing activities	(118,093)	(63,139)	(12,341)
Financing activities			
Net change in borrowings from subsidiaries ^(a)	20,529	4,755	2,672
Net change in other borrowed funds	(12,880)	31,429	5,336
Proceeds from the issuance of long-term debt ^(d)	89,791	38,986	18,153
Repayments of long-term debt	(22,972)	(11,662)	(10,557)
Excess tax benefits related to stock-based compensation	148	365	302
Proceeds from issuance of common stock	11,969	1,467	1,659
Proceeds from issuance of preferred stock and warrant to the U.S. Treasury	25,000	—	—
Proceeds from issuance of preferred stock ^(e)	8,098	—	—
Redemption of preferred stock	—	—	(139)
Repurchases of treasury stock	—	(8,178)	(3,938)
Cash dividends paid	(5,911)	(5,051)	(4,846)
Net cash provided by financing activities	113,772	52,111	8,642
Net (decrease) increase in cash and due from banks	(75)	(646)	295
Cash and due from banks at the beginning of the year, primarily with bank subsidiaries	110	756	461
Cash and due from banks at the end of the year, primarily with bank subsidiaries	\$ 35	\$ 110	\$ 756
Cash interest paid	\$ 7,485	\$ 7,470	\$ 5,485
Cash income taxes paid	156	5,074	3,599

(a) Subsidiaries include trusts that issued guaranteed capital debt securities ("issuer trusts"). As a result of FIN 46R, the Parent Company deconsolidated these trusts in 2003. The Parent Company received dividends of \$15 million, \$18 million and \$23 million from the issuer trusts in 2008, 2007 and 2006, respectively. For further discussion on these issuer trusts, see Note 23 on page 204 of this Annual Report.

(b) Amounts for 2007 have been revised to reflect the push down of certain litigation expense, which had previously been recorded at the parent company level, to the bank subsidiary level. There was no change to net income as the increase in Parent Company profitability was offset by a decrease in the net income of subsidiaries.

(c) At December 31, 2008, debt that contractually matures in 2009 through 2013 totaled \$25.8 billion, \$28.6 billion, \$29.3 billion, \$25.3 billion and \$11.8 billion, respectively.

(d) Includes \$39.8 billion of Bear Stearns' long-term debt assumed by JPMorgan Chase & Co.

(e) Includes the conversion of Bear Stearns' preferred stock into JPMorgan Chase preferred stock.

Notes to consolidated financial statements

Note 37 – Business segments

JPMorgan Chase is organized into six major reportable business segments — Investment Bank, Retail Financial Services, Card Services, Commercial Banking, Treasury & Securities Services and Asset Management, as well as a Corporate/Private Equity segment. The segments are based upon 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 50–51 of this Annual Report. For a further discussion concerning JPMorgan Chase's business segments, see Business segment results on pages 52–53 of this Annual Report.

Segment results

The following table provides a summary of the Firm's segment results for 2008, 2007 and 2006 on a managed basis. The impact of credit card securitizations and tax-equivalent adjustments have been included in Reconciling items so that the total Firm results are on a reported basis.

Segment results and reconciliation^(a) (table continued on next page)

Year ended December 31, (in millions, except ratios)	Investment Bank			Retail Financial Services			Card Services			Commercial Banking		
	2008	2007	2006	2008	2007	2006	2008	2007	2006	2008	2007	2006
Noninterest revenue	\$ 1,930	\$ 14,094	\$ 18,334	\$ 9,355	\$ 6,779	\$ 4,660	\$ 2,719	\$ 3,046	\$ 2,944	\$ 1,481	\$ 1,263	\$ 1,073
Net interest income	10,284	4,076	499	14,165	10,526	10,165	13,755	12,189	11,801	3,296	2,840	2,727
Total net revenue	12,214	18,170	18,833	23,520	17,305	14,825	16,474	15,235	14,745	4,777	4,103	3,800
Provision for credit losses	2,015	654	191	9,905	2,610	561	10,059	5,711	4,598	464	279	160
Credit reimbursement (to)/from TSS ^(b)	121	121	121	—	—	—	—	—	—	—	—	—
Noninterest expense ^(c)	13,844	13,074	12,860	12,077	9,905	8,927	5,140	4,914	5,086	1,946	1,958	1,979
Income (loss) from continuing operations before income tax expense (benefit)	(3,524)	4,563	5,903	1,538	4,790	5,337	1,275	4,610	5,061	2,367	1,866	1,661
Income tax expense (benefit)	(2,349)	1,424	2,229	658	1,865	2,124	495	1,691	1,855	928	732	651
Income (loss) from continuing operations	(1,175)	3,139	3,674	880	2,925	3,213	780	2,919	3,206	1,439	1,134	1,010
Income from discontinued operations	—	—	—	—	—	—	—	—	—	—	—	—
Income (loss) before extraordinary gain	(1,175)	3,139	3,674	880	2,925	3,213	780	2,919	3,206	1,439	1,134	1,010
Extraordinary gain ^(d)	—	—	—	—	—	—	—	—	—	—	—	—
Net income (loss)	\$ (1,175)	\$ 3,139	\$ 3,674	\$ 880	\$ 2,925	\$ 3,213	\$ 780	\$ 2,919	\$ 3,206	\$ 1,439	\$ 1,134	\$ 1,010
Average common equity	\$ 26,098	\$ 21,000	\$ 20,753	\$ 19,011	\$ 16,000	\$ 14,629	\$ 14,326	\$ 14,100	\$ 14,100	\$ 7,251	\$ 6,502	\$ 5,702
Average assets	832,729	700,565	647,569	304,442	241,112	231,566	173,711	155,957	148,153	114,299	87,140	57,754
Return on average common equity	(5)%	15%	18%	5%	18%	22%	5%	21%	23%	20%	17%	18%
Overhead ratio	113	72	68	51	57	60	31	32	34	41	48	52

(a) In addition to analyzing the Firm's results on a reported basis, management reviews the Firm's results and the results of the lines of business on a "managed basis," which is a non-GAAP financial measure. The Firm's definition of managed basis starts with the reported U.S. GAAP results and includes certain reclassifications that do not have any impact on net income as reported by the lines of business or by the Firm as a whole.

(b) TSS is charged a credit reimbursement related to certain exposures managed within IB credit portfolio on behalf of clients shared with TSS.

(c) Includes merger costs which are reported in the Corporate/Private Equity segment. Merger costs attributed to the business segments for 2008, 2007 and 2006 were as follows.

Year ended December 31, (in millions)	2008	2007	2006
Investment Bank	\$ 183	\$ (2)	\$ 2
Retail Financial Services	90	14	24
Card Services	20	(1)	29
Commercial Banking	4	(1)	1
Treasury & Securities Services	—	121	117
Asset Management	3	20	23
Corporate/Private Equity	132	58	109

(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 SFAS 141, 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.

(e) Included a \$1.5 billion charge to conform Washington Mutual's loan loss reserve to JPMorgan Chase's allowance methodology.

Line of business equity increased during the second quarter of 2008 in IB and AM due to the Bear Stearns merger and, for AM, the purchase of the additional equity interest in Highbridge. At the end of the third quarter of 2008, equity was increased for each line of business with a view toward the future implementation of the new Basel II capital rules. In addition, equity allocated to RFS, CS and CB was increased as a result of the Washington Mutual transaction.

Discontinued operations

As a result of the transaction with The Bank of New York, selected corporate trust businesses have been transferred from TSS to the Corporate/Private Equity segment and reported in discontinued operations for all periods reported.

(table continued from previous page)

Treasury & Securities Services			Asset Management			Corporate/Private Equity			Reconciling items ^{(g)(h)}			Total		
2008	2007	2006	2008	2007	2006	2008	2007	2006	2008	2007	2006	2008	2007	2006
\$ 5,196	\$ 4,681	\$ 4,039	\$ 6,066	\$ 7,475	\$ 5,816	\$ (278)	\$ 5,056	\$ 1,058	\$ 2,004	\$ 2,572	\$ 2,833	\$ 28,473	\$ 44,966	\$ 40,757
2,938	2,264	2,070	1,518	1,160	971	347	(637)	(1,044)	(7,524)	(6,012)	(5,947)	38,779	26,406	21,242
8,134	6,945	6,109	7,584	8,635	6,787	69	4,419	14	(5,520)	(3,440)	(3,114)	67,252	71,372	61,999
82	19	(1)	85	(18)	(28)	1,981 ^{(e)(f)}	(11)	(1)	(3,612)	(2,380)	(2,210)	20,979	6,864	3,270
(121)	(121)	(121)	—	—	—	—	—	—	—	—	—	—	—	—
5,223	4,580	4,266	5,298	5,515	4,578	(28)	1,757	1,147	—	—	—	43,500	41,703	38,843
2,708	2,225	1,723	2,201	3,138	2,237	(1,884)	2,673	(1,132)	(1,908)	(1,060)	(904)	2,773	22,805	19,886
941	828	633	844	1,172	828	(535)	788	(1,179)	(1,908)	(1,060)	(904)	(926)	7,440	6,237
1,767	1,397	1,090	1,357	1,966	1,409	(1,349)	1,885	47	—	—	—	3,699	15,365	13,649
—	—	—	—	—	—	—	—	795	—	—	—	—	—	795
1,767	1,397	1,090	1,357	1,966	1,409	(1,349)	1,885	842	—	—	—	3,699	15,365	14,444
—	—	—	—	—	—	1,906	—	—	—	—	—	1,906	—	—
\$ 1,767	\$ 1,397	\$ 1,090	\$ 1,357	\$ 1,966	\$ 1,409	\$ 557	\$ 1,885	\$ 842	\$ —	\$ —	\$ —	\$ 5,605	\$ 15,365	\$ 14,444
\$ 3,751	\$ 3,000	\$ 2,285	\$ 5,645	\$ 3,876	\$ 3,500	\$ 53,034	\$ 54,245	\$ 49,728	\$ —	\$ —	\$ —	\$ 129,116	\$ 118,723	\$ 110,697
54,563	53,350	31,760	65,550	51,882	43,635	323,227	231,818	218,623	(76,904)	(66,780)	(65,266)	1,791,617	1,455,044	1,313,794
47%	47%	48%	24%	51%	40%	NM	NM	NM	NM	NM	NM	4% ⁽ⁱ⁾	13%	13% ⁽ⁱ⁾
64	66	70	70	64	67	NM	NM	NM	NM	NM	NM	65	58	63

(f) In November 2008, the Firm transferred \$5.8 billion of higher quality credit card loans from the legacy Chase portfolio to a securitization trust previously established by Washington Mutual ("the Trust"). As a result of converting higher credit quality Chase-originated on-book receivables to the Trust's seller's interest which has a higher overall loss rate reflective of the total assets within the Trust, approximately \$400 million of incremental provision expense was recorded during the fourth quarter. This incremental provision expense was recorded in Corporate segment as the action related to the acquisition of Washington Mutual's banking operations. For further discussion of credit card securitizations, see Note 16 on page 182 of this Annual Report.

(g) Managed results for credit card exclude the impact of CS securitizations on total net revenue, provision for credit losses and average assets, as JPMorgan Chase treats 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 upon 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)	2008	2007	2006
Noninterest revenue	\$ (3,333)	\$ (3,255)	\$ (3,509)
Net interest income	6,945	5,635	5,719
Provision for credit losses	3,612	2,380	2,210
Average assets	76,904	66,780	65,266

(h) 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, 2008, 2007 and 2006 were as follows.

Year ended December 31, (in millions)	2008	2007	2006
Noninterest revenue	\$ 1,329	\$ 683	\$ 676
Net interest income	579	377	228
Income tax expense	1,908	1,060	904

(i) Ratio is based upon net income.