
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549
FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2016
OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 001-07436

HSBC USA Inc.

(Exact name of registrant as specified in its charter)

Maryland

(State of incorporation)

452 Fifth Avenue, New York

(Address of principal executive offices)

13-2764867

(I.R.S. Employer Identification No.)

10018

(Zip Code)

(212) 525-5000

Registrant's telephone number, including area code

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

(Do not check if a smaller
reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of November 4, 2016, there were 714 shares of the registrant's common stock outstanding, all of which are owned by HSBC North America Inc.

TABLE OF CONTENTS

| Part/Item No. | | Page |
|----------------------|--|-------------|
| Part I | | |
| Item 1. | Financial Statements (Unaudited): | |
| | Consolidated Statement of Income..... | 3 |
| | Consolidated Statement of Comprehensive Income (Loss) | 4 |
| | Consolidated Balance Sheet | 5 |
| | Consolidated Statement of Changes in Shareholders' Equity..... | 7 |
| | Consolidated Statement of Cash Flows | 8 |
| | Notes to the Consolidated Financial Statements | 9 |
| Item 2. | Management's Discussion and Analysis of Financial Condition and Results of Operations: | |
| | Forward-Looking Statements | 80 |
| | Executive Overview | 82 |
| | Basis of Reporting | 85 |
| | Balance Sheet Review | 86 |
| | Results of Operations | 92 |
| | Segment Results - Group Reporting Basis | 103 |
| | Credit Quality | 111 |
| | Liquidity and Capital Resources | 120 |
| | Off-Balance Sheet Arrangements, Credit Derivatives and Other Contractual Obligations | 124 |
| | Fair Value..... | 125 |
| | Risk Management..... | 127 |
| | Consolidated Average Balances and Interest Rates | 135 |
| Item 3. | Quantitative and Qualitative Disclosures about Market Risk..... | 137 |
| Item 4. | Controls and Procedures | 137 |
| Part II | | |
| Item 1. | Legal Proceedings | 137 |
| Item 5. | Other Information | 137 |
| Item 6. | Exhibits | 139 |
| Index..... | | 140 |
| Signatures | | 142 |

PART I

Item 1. Financial Statements

CONSOLIDATED STATEMENT OF INCOME (UNAUDITED)

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|-------------------------------------|------------|------------------------------------|--------------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Interest income: | | | | |
| Loans | \$ 568 | \$ 539 | \$ 1,709 | \$ 1,555 |
| Securities | 234 | 234 | 721 | 657 |
| Trading securities | 52 | 75 | 197 | 261 |
| Short-term investments | 100 | 30 | 268 | 78 |
| Other | 12 | 15 | 31 | 44 |
| Total interest income | 966 | 893 | 2,926 | 2,595 |
| Interest expense: | | | | |
| Deposits | 122 | 77 | 344 | 177 |
| Short-term borrowings | 22 | 13 | 61 | 35 |
| Long-term debt | 213 | 184 | 613 | 524 |
| Other | 5 | 2 | 12 | 10 |
| Total interest expense | 362 | 276 | 1,030 | 746 |
| Net interest income | 604 | 617 | 1,896 | 1,849 |
| Provision for credit losses | 62 | 47 | 353 | 94 |
| Net interest income after provision for credit losses | 542 | 570 | 1,543 | 1,755 |
| Other revenues: | | | | |
| Credit card fees | 12 | 11 | 39 | 32 |
| Trust and investment management fees | 40 | 46 | 118 | 127 |
| Other fees and commissions | 215 | 188 | 557 | 560 |
| Trading revenue (expense) | 120 | (34) | 185 | 23 |
| Other securities gains, net | 16 | 11 | 81 | 69 |
| Servicing and other fees from HSBC affiliates | 50 | 53 | 155 | 162 |
| Residential mortgage banking revenue (expense) | (3) | 16 | 24 | 50 |
| Gain (loss) on instruments designated at fair value and related derivatives | (88) | 165 | 90 | 306 |
| Other income (loss) | (42) | 75 | (174) | 69 |
| Total other revenues | 320 | 531 | 1,075 | 1,398 |
| Operating expenses: | | | | |
| Salaries and employee benefits | 235 | 254 | 718 | 767 |
| Support services from HSBC affiliates | 354 | 361 | 1,029 | 1,098 |
| Occupancy expense, net | 57 | 57 | 173 | 172 |
| Other expenses | 157 | 114 | 432 | 376 |
| Total operating expenses | 803 | 786 | 2,352 | 2,413 |
| Income before income tax | 59 | 315 | 266 | 740 |
| Income tax expense | 26 | 111 | 100 | 285 |
| Net income | \$ 33 | \$ 204 | \$ 166 | \$ 455 |

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS) (UNAUDITED)

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|--------|------------------------------------|--------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| <i>Net income</i> | \$ 33 | \$ 204 | \$ 166 | \$ 455 |
| Net change in unrealized gains (losses), net of tax: | | | | |
| Investment securities | (112) | 5 | 374 | (236) |
| Derivatives designated as cash flow hedges | 9 | (32) | (47) | (20) |
| Pension and post-retirement benefit plans | — | — | — | 1 |
| <i>Total other comprehensive income (loss)</i> | (103) | (27) | 327 | (255) |
| <i>Comprehensive income (loss)</i> | \$ (70) | \$ 177 | \$ 493 | \$ 200 |

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEET (UNAUDITED)

| | September 30, 2016 | December 31, 2015 |
|---|----------------------------------|----------------------|
| | (in millions, except share data) | |
| Assets⁽¹⁾ | | |
| Cash and due from banks..... | \$ 903 | \$ 968 |
| Interest bearing deposits with banks..... | 17,139 | 7,478 |
| Federal funds sold and securities purchased under agreements to resell (includes \$769 million designated under fair value option at September 30, 2016)..... | 30,714 | 19,847 |
| Trading assets..... | 19,586 | 17,085 |
| Securities available-for-sale..... | 40,800 | 35,773 |
| Securities held-to-maturity (fair value of \$13.8 billion and \$14.2 billion at September 30, 2016 and December 31, 2015, respectively)..... | 13,431 | 14,024 |
| Loans..... | 77,625 | 82,917 |
| Less – allowance for credit losses..... | 1,060 | 912 |
| Loans, net..... | 76,565 | 82,005 |
| Loans held for sale (includes \$649 million and \$151 million designated under fair value option at September 30, 2016 and December 31, 2015, respectively)..... | 1,791 | 2,185 |
| Properties and equipment, net..... | 202 | 230 |
| Intangible assets, net..... | 36 | 181 |
| Goodwill..... | 1,612 | 1,612 |
| Other assets..... | 5,531 | 6,890 |
| Total assets | \$ 208,310 | \$ 188,278 |
| Liabilities⁽¹⁾ | | |
| Debt: | | |
| Domestic deposits: | | |
| Noninterest bearing..... | \$ 30,096 | \$ 29,693 |
| Interest bearing (includes \$7.5 billion and \$6.9 billion designated under fair value option at September 30, 2016 and December 31, 2015, respectively)..... | 86,138 | 77,259 |
| Foreign deposits: | | |
| Noninterest bearing..... | 770 | 747 |
| Interest bearing..... | 14,078 | 10,880 |
| Total deposits..... | 131,082 | 118,579 |
| Short-term borrowings (includes \$2.7 billion and \$2.0 billion designated under fair value option at September 30, 2016 and December 31, 2015, respectively)..... | 6,062 | 4,995 |
| Long-term debt (includes \$10.0 billion and \$9.2 billion designated under fair value option at September 30, 2016 and December 31, 2015, respectively)..... | 39,500 | 33,509 |
| Total debt..... | 176,644 | 157,083 |
| Trading liabilities..... | 7,537 | 7,455 |
| Interest, taxes and other liabilities..... | 3,152 | 3,215 |
| Total liabilities | 187,333 | 167,753 |
| Shareholders' equity | | |
| Preferred stock (no par value; 40,999,000 shares authorized; 1,265 and 21,447,500 shares issued and outstanding at September 30, 2016 and December 31, 2015, respectively)..... | 1,265 | 1,265 |
| Common shareholder's equity: | | |
| Common stock (\$5 par; 150,000,000 shares authorized; 714 shares issued and outstanding at both September 30, 2016 and December 31, 2015)..... | — | — |
| Additional paid-in capital..... | 18,157 | 18,169 |
| Retained earnings..... | 1,635 | 1,498 |
| Accumulated other comprehensive loss..... | (80) | (407) |
| Total common shareholder's equity..... | 19,712 | 19,260 |
| Total shareholders' equity | 20,977 | 20,525 |
| Total liabilities and shareholders' equity | \$ 208,310 | \$ 188,278 |

⁽¹⁾ The following table summarizes assets and liabilities related to our consolidated variable interest entities ("VIEs") at September 30, 2016 and December 31, 2015 which are consolidated on our balance sheet. Assets and liabilities exclude intercompany balances that eliminate in consolidation. See Note 17, "Variable Interest Entities," for additional information.

| | September 30, 2016 | December 31, 2015 |
|---|-----------------------|----------------------|
| (in millions) | | |
| <i>Assets</i> | | |
| Other assets | \$ 248 | \$ 320 |
| Total assets | <u>\$ 248</u> | <u>\$ 320</u> |
| <i>Liabilities</i> | | |
| Long-term debt..... | \$ 79 | \$ 92 |
| Interest, taxes and other liabilities | 55 | 68 |
| Total liabilities | <u>\$ 134</u> | <u>\$ 160</u> |

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (UNAUDITED)

| Nine Months Ended September 30, | 2016 | 2015 |
|---|------------------|------------------|
| | (in millions) | |
| <i>Preferred stock</i> | | |
| Balance at beginning of period | \$ 1,265 | \$ 1,565 |
| Preferred stock issuance | 1,265 | — |
| Preferred stock redemption | (1,265) | (300) |
| Balance at end of period | <u>1,265</u> | <u>1,265</u> |
| <i>Common stock</i> | | |
| Balance at beginning and end of period | — | — |
| <i>Additional paid-in capital</i> | | |
| Balance at beginning of period | 18,169 | 14,170 |
| Capital contribution from parent | — | 4,000 |
| Employee benefit plans | (12) | 3 |
| Balance at end of period | <u>18,157</u> | <u>18,173</u> |
| <i>Retained earnings</i> | | |
| Balance at beginning of period | 1,498 | 1,233 |
| Net income | 166 | 455 |
| Cash dividends declared on preferred stock | (29) | (50) |
| Balance at end of period | <u>1,635</u> | <u>1,638</u> |
| <i>Accumulated other comprehensive loss</i> | | |
| Balance at beginning of period | (407) | (1) |
| Other comprehensive income (loss), net of tax | 327 | (255) |
| Balance at end of period | <u>(80)</u> | <u>(256)</u> |
| <i>Total common shareholder's equity</i> | <u>19,712</u> | <u>19,555</u> |
| <i>Total shareholders' equity</i> | <u>\$ 20,977</u> | <u>\$ 20,820</u> |

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)

| Nine Months Ended September 30, | 2016 | 2015 |
|---|-----------------|-----------------|
| | (in millions) | |
| <i>Cash flows from operating activities</i> | | |
| Net income..... | \$ 166 | \$ 455 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | |
| Depreciation and amortization | (29) | 122 |
| Provision for credit losses | 353 | 94 |
| Net realized gains on securities available-for-sale..... | (81) | (69) |
| Net change in other assets and liabilities | 1,010 | (463) |
| Net change in loans held for sale: | | |
| Originations and purchases of loans held for sale | (1,733) | (1,823) |
| Sales and collections of loans held for sale | 2,051 | 1,974 |
| Net change in trading assets and liabilities | (2,419) | 3,612 |
| Lower of amortized cost or fair value adjustments on loans held for sale..... | 82 | 15 |
| Gain on instruments designated at fair value and related derivatives | (90) | (306) |
| Net cash provided by (used in) operating activities | <u>(690)</u> | <u>3,611</u> |
| <i>Cash flows from investing activities</i> | | |
| Net change in interest bearing deposits with banks..... | (9,661) | 8,507 |
| Net change in federal funds sold and securities purchased under agreements to resell..... | (10,866) | (19,010) |
| Securities available-for-sale: | | |
| Purchases of securities available-for-sale | (18,364) | (17,435) |
| Proceeds from sales of securities available-for-sale | 13,697 | 9,882 |
| Proceeds from maturities of securities available-for-sale | 1,315 | 1,596 |
| Securities held-to-maturity: | | |
| Purchases of securities held-to-maturity | (1,311) | (2,890) |
| Proceeds from maturities of securities held-to-maturity | 1,871 | 1,856 |
| Change in loans: | | |
| Originations, net of collections | 3,697 | (7,229) |
| Loans sold to third parties | 1,458 | — |
| Net cash used for acquisitions of properties and equipment | (17) | (29) |
| Other, net | (60) | (384) |
| Net cash used in investing activities..... | <u>(18,241)</u> | <u>(25,136)</u> |
| <i>Cash flows from financing activities</i> | | |
| Net change in deposits..... | 12,285 | 15,358 |
| Debt: | | |
| Net change in short-term borrowings..... | 1,069 | (3,851) |
| Issuance of long-term debt | 7,675 | 15,775 |
| Repayment of long-term debt..... | (2,122) | (9,387) |
| Preferred stock issuance | 1,265 | — |
| Preferred stock redemption..... | (1,265) | (300) |
| Capital contribution from parent | — | 4,000 |
| Other increases (decreases) in capital surplus | (12) | 3 |
| Dividends paid..... | (29) | (50) |
| Net cash provided by financing activities | <u>18,866</u> | <u>21,548</u> |
| Net change in cash and due from banks | (65) | 23 |
| Cash and due from banks at beginning of period | 968 | 891 |
| <i>Cash and due from banks at end of period</i> | <u>\$ 903</u> | <u>\$ 914</u> |

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

| Note | Page | Note | Page |
|--|-------------|---|-------------|
| 1 Organization and Presentation | 9 | 12 Accumulated Other Comprehensive Loss | 41 |
| 2 Trading Assets and Liabilities..... | 10 | 13 Pension and Other Postretirement Benefits | 42 |
| 3 Securities..... | 11 | 14 Related Party Transactions | 43 |
| 4 Loans..... | 16 | 15 Business Segments..... | 46 |
| 5 Allowance for Credit Losses | 26 | 16 Retained Earnings and Regulatory Capital Requirements | 48 |
| 6 Loans Held for Sale | 28 | 17 Variable Interest Entities..... | 50 |
| 7 Intangible Assets..... | 29 | 18 Guarantee Arrangements, Pledged Assets and Repurchase Agreements..... | 52 |
| 8 Goodwill | 30 | 19 Fair Value Measurements | 58 |
| 9 Other Assets Held for Sale..... | 30 | 20 Litigation and Regulatory Matters..... | 76 |
| 10 Derivative Financial Instruments..... | 31 | 21 New Accounting Pronouncements..... | 77 |
| 11 Fair Value Option..... | 38 | | |

1. Organization and Presentation

HSBC USA Inc. ("HSBC USA"), incorporated under the laws of Maryland, is a New York State based bank holding company and an indirect wholly-owned subsidiary of HSBC North America Holdings Inc. ("HSBC North America"), which is an indirect wholly-owned subsidiary of HSBC Holdings plc ("HSBC" and, together with its subsidiaries, "HSBC Group"). The accompanying unaudited interim consolidated financial statements of HSBC USA and its subsidiaries (collectively "HUSI") have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X, as well as in accordance with predominant practices within the banking industry. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all normal and recurring adjustments considered necessary for a fair presentation of financial position, results of operations and cash flows for the interim periods have been made. HUSI may also be referred to in these notes to the consolidated financial statements as "we", "us" or "our". These unaudited interim consolidated financial statements should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2015 (the "2015 Form 10-K"). Certain reclassifications have been made to prior period amounts to conform to the current period presentation.

For the three months ended September 30, 2016, our income tax expense reflects an immaterial out of period adjustment to reverse a tax benefit of approximately \$7 million recorded in the second quarter of 2016 relating to a non-deductible expense.

The preparation of financial statements in conformity with U.S. GAAP requires the use of estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates. Interim results should not be considered indicative of results in future periods.

2. Trading Assets and Liabilities

Trading assets and liabilities consisted of the following:

| | September 30, 2016 | December 31, 2015 |
|---|-----------------------|----------------------|
| (in millions) | | |
| Trading assets: | | |
| U.S. Treasury | \$ 4,374 | \$ 3,088 |
| U.S. Government agency issued or guaranteed | 11 | 13 |
| U.S. Government sponsored enterprises ⁽¹⁾ | 169 | 154 |
| Obligations of U.S. states and political subdivisions | — | 559 |
| Asset-backed securities..... | 374 | 424 |
| Corporate and foreign bonds | 8,300 | 6,899 |
| Other securities | 15 | 18 |
| Precious metals | 2,669 | 780 |
| Derivatives, net | 3,674 | 5,150 |
| Total trading assets..... | <u>\$ 19,586</u> | <u>\$ 17,085</u> |
| Trading liabilities: | | |
| Securities sold, not yet purchased..... | \$ 1,030 | \$ 399 |
| Payables for precious metals | 49 | 650 |
| Derivatives, net | 6,458 | 6,406 |
| Total trading liabilities | <u>\$ 7,537</u> | <u>\$ 7,455</u> |

⁽¹⁾ Consists of mortgage backed securities of \$142 million and \$154 million issued or guaranteed by the Federal National Mortgage Association ("FNMA") at September 30, 2016 and December 31, 2015, respectively, and \$27 million issued or guaranteed by the Federal Home Loan Mortgage Corporation ("FHLMC") at September 30, 2016.

At September 30, 2016 and December 31, 2015, the fair value of derivatives included in trading assets is net of \$4,463 million and \$4,652 million, respectively, relating to amounts recognized for the obligation to return cash collateral received under master netting agreements with derivative counterparties.

At September 30, 2016 and December 31, 2015, the fair value of derivatives included in trading liabilities is net of \$1,305 million and \$1,530 million, respectively, relating to amounts recognized for the right to reclaim cash collateral paid under master netting agreements with derivative counterparties.

See Note 10, "Derivative Financial Instruments," for further information on our trading derivatives and related collateral.

3. Securities

Our securities available-for-sale and securities held-to-maturity portfolios consisted of the following:

| September 30, 2016 | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value |
|--|-------------------|---------------------|----------------------|------------------|
| (in millions) | | | | |
| Securities available-for-sale: | | | | |
| U.S. Treasury | \$ 21,482 | \$ 385 | \$ (220) | \$ 21,647 |
| U.S. Government sponsored enterprises: ⁽¹⁾ | | | | |
| Mortgage-backed securities | 3,318 | 40 | (1) | 3,357 |
| Collateralized mortgage obligations | 2,244 | 8 | (7) | 2,245 |
| Direct agency obligations..... | 4,335 | 159 | (20) | 4,474 |
| U.S. Government agency issued or guaranteed: | | | | |
| Mortgage-backed securities | 6,385 | 57 | (4) | 6,438 |
| Collateralized mortgage obligations | 1,443 | 20 | (2) | 1,461 |
| Asset-backed securities collateralized by: | | | | |
| Commercial mortgages | 4 | — | — | 4 |
| Home equity | 74 | — | (9) | 65 |
| Other..... | 517 | — | (23) | 494 |
| Foreign debt securities ⁽²⁾ | 458 | — | (1) | 457 |
| Equity securities..... | 159 | — | (1) | 158 |
| Total available-for-sale securities..... | <u>\$ 40,419</u> | <u>\$ 669</u> | <u>\$ (288)</u> | <u>\$ 40,800</u> |
| Securities held-to-maturity: | | | | |
| U.S. Government sponsored enterprises: ⁽³⁾ | | | | |
| Mortgage-backed securities | \$ 2,607 | \$ 77 | \$ — | \$ 2,684 |
| Collateralized mortgage obligations | 1,625 | 84 | — | 1,709 |
| U.S. Government agency issued or guaranteed: | | | | |
| Mortgage-backed securities | 2,753 | 69 | — | 2,822 |
| Collateralized mortgage obligations | 6,424 | 102 | (3) | 6,523 |
| Obligations of U.S. states and political subdivisions..... | 16 | 1 | — | 17 |
| Asset-backed securities collateralized by residential mortgages..... | 6 | 1 | — | 7 |
| Total held-to-maturity securities..... | <u>\$ 13,431</u> | <u>\$ 334</u> | <u>\$ (3)</u> | <u>\$ 13,762</u> |

| December 31, 2015 | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value |
|---|-------------------|---------------------|----------------------|------------------|
| | (in millions) | | | |
| Securities available-for-sale: | | | | |
| U.S. Treasury | \$ 17,026 | \$ 142 | \$ (270) | \$ 16,898 |
| U.S. Government sponsored enterprises: ⁽¹⁾ | | | | |
| Mortgage-backed securities | 1,451 | 2 | (12) | 1,441 |
| Collateralized mortgage obligations | 159 | — | (5) | 154 |
| Direct agency obligations | 4,136 | 133 | (26) | 4,243 |
| U.S. Government agency issued or guaranteed: | | | | |
| Mortgage-backed securities | 10,645 | 9 | (145) | 10,509 |
| Collateralized mortgage obligations | 1,293 | 11 | (4) | 1,300 |
| Obligations of U.S. states and political subdivisions | 340 | 8 | — | 348 |
| Asset-backed securities collateralized by: | | | | |
| Commercial mortgages | 9 | — | — | 9 |
| Home equity | 83 | — | (8) | 75 |
| Other | 110 | — | (21) | 89 |
| Foreign debt securities ⁽²⁾ | 548 | — | (2) | 546 |
| Equity securities | 161 | 3 | (3) | 161 |
| Total available-for-sale securities | <u>\$ 35,961</u> | <u>\$ 308</u> | <u>\$ (496)</u> | <u>\$ 35,773</u> |
| Securities held-to-maturity: | | | | |
| U.S. Government sponsored enterprises: ⁽³⁾ | | | | |
| Mortgage-backed securities | \$ 2,945 | \$ 20 | \$ (9) | \$ 2,956 |
| Collateralized mortgage obligations | 1,755 | 73 | (5) | 1,823 |
| U.S. Government agency issued or guaranteed: | | | | |
| Mortgage-backed securities | 3,269 | 19 | (11) | 3,277 |
| Collateralized mortgage obligations | 6,029 | 63 | (11) | 6,081 |
| Obligations of U.S. states and political subdivisions | 19 | 1 | — | 20 |
| Asset-backed securities collateralized by residential mortgages | 7 | 1 | — | 8 |
| Total held-to-maturity securities | <u>\$ 14,024</u> | <u>\$ 177</u> | <u>\$ (36)</u> | <u>\$ 14,165</u> |

⁽¹⁾ Includes securities at amortized cost of \$3,076 million and \$1,577 million issued or guaranteed by FNMA at September 30, 2016 and December 31, 2015, respectively, and \$2,486 million and \$33 million issued or guaranteed by FHLMC at September 30, 2016 and December 31, 2015, respectively.

⁽²⁾ Foreign debt securities represent public sector entity, bank or corporate debt.

⁽³⁾ Includes securities at amortized cost of \$2,913 million and \$3,182 million issued or guaranteed by FNMA at September 30, 2016 and December 31, 2015, respectively, and \$1,319 million and \$1,518 million issued and guaranteed by FHLMC at September 30, 2016 and December 31, 2015, respectively.

Net unrealized gains increased within the available-for-sale portfolio in the nine months ended September 30, 2016 due primarily to decreasing yields on U.S. Treasury and U.S. Government agency mortgage-backed securities.

The following table summarizes gross unrealized losses and related fair values at September 30, 2016 and December 31, 2015 classified as to the length of time the losses have existed:

| September 30, 2016 | One Year or Less | | | Greater Than One Year | | |
|---|---------------------------|-------------------------|------------------------------------|-----------------------|-------------------------|------------------------------------|
| | Number of Securities | Gross Unrealized Losses | Aggregate Fair Value of Investment | Number of Securities | Gross Unrealized Losses | Aggregate Fair Value of Investment |
| | (dollars are in millions) | | | | | |
| Securities available-for-sale: | | | | | | |
| U.S. Treasury | 15 | \$ (28) | \$ 3,110 | 28 | \$ (192) | \$ 3,573 |
| U.S. Government sponsored enterprises | 13 | (4) | 1,683 | 22 | (24) | 818 |
| U.S. Government agency issued or guaranteed | 4 | — | 316 | 5 | (6) | 91 |
| Asset-backed securities | 1 | — | 4 | 8 | (32) | 159 |
| Foreign debt securities | 1 | — | 27 | 1 | (1) | 182 |
| Equity securities | 1 | (1) | 158 | — | — | — |
| Securities available-for-sale | <u>35</u> | <u>\$ (33)</u> | <u>\$ 5,298</u> | <u>64</u> | <u>\$ (255)</u> | <u>\$ 4,823</u> |
| Securities held-to-maturity: | | | | | | |
| U.S. Government sponsored enterprises | 14 | \$ — | \$ 20 | 46 | \$ — | \$ 21 |
| U.S. Government agency issued or guaranteed | 114 | (2) | 1,251 | 512 | (1) | 71 |
| Obligations of U.S. states and political subdivisions | — | — | — | 3 | — | — |
| Securities held-to-maturity | <u>128</u> | <u>\$ (2)</u> | <u>\$ 1,271</u> | <u>561</u> | <u>\$ (1)</u> | <u>\$ 92</u> |
| | | | | | | |
| December 31, 2015 | One Year or Less | | | Greater Than One Year | | |
| | Number of Securities | Gross Unrealized Losses | Aggregate Fair Value of Investment | Number of Securities | Gross Unrealized Losses | Aggregate Fair Value of Investment |
| | (dollars are in millions) | | | | | |
| Securities available-for-sale: | | | | | | |
| U.S. Treasury | 52 | \$ (227) | \$ 11,046 | 5 | \$ (43) | \$ 924 |
| U.S. Government sponsored enterprises | 164 | (30) | 1,451 | 19 | (13) | 282 |
| U.S. Government agency issued or guaranteed | 62 | (141) | 9,725 | 3 | (8) | 101 |
| Obligations of U.S. states and political subdivisions | 4 | — | 16 | 3 | — | 45 |
| Asset-backed securities | 1 | — | 9 | 8 | (29) | 164 |
| Foreign debt securities | 3 | (2) | 351 | — | — | — |
| Equity securities | 1 | (3) | 156 | — | — | — |
| Securities available-for-sale | <u>287</u> | <u>\$ (403)</u> | <u>\$ 22,754</u> | <u>38</u> | <u>\$ (93)</u> | <u>\$ 1,516</u> |
| Securities held-to-maturity: | | | | | | |
| U.S. Government sponsored enterprises | 312 | \$ (14) | \$ 1,143 | 49 | \$ — | \$ — |
| U.S. Government agency issued or guaranteed | 145 | (22) | 3,303 | 657 | — | 20 |
| Obligations of U.S. states and political subdivisions | 1 | — | — | 3 | — | 1 |
| Securities held-to-maturity | <u>458</u> | <u>\$ (36)</u> | <u>\$ 4,446</u> | <u>709</u> | <u>\$ —</u> | <u>\$ 21</u> |

Although the fair value of a particular security is below its amortized cost, it does not necessarily result in a credit loss and hence an other-than-temporary impairment. The decline in fair value may be caused by, among other things, the illiquidity of the market. We have reviewed the securities for which there is an unrealized loss for other-than-temporary impairment in accordance with our accounting policies, discussed further below. At September 30, 2016 and December 31, 2015, we do not consider any of our debt securities to be other-than-temporarily impaired as we expect to recover their amortized cost basis and we neither intend nor expect

to be required to sell these securities prior to recovery, even if that equates to holding securities until their individual maturities. However, other-than-temporary impairments may occur in future periods if the credit quality of the securities deteriorates.

Other-Than-Temporary Impairment On a quarterly basis, we perform an assessment to determine whether there have been any events or economic circumstances to indicate that a security with an unrealized loss has suffered other-than-temporary impairment. A debt security is considered impaired if its fair value is less than its amortized cost at the reporting date. If impaired, we assess whether the impairment is other-than-temporary.

If we intend to sell the debt security or if it is more-likely-than-not that we will be required to sell the debt security before the recovery of its amortized cost basis, the impairment is considered other-than-temporary and the unrealized loss is recorded in earnings. An impairment is also considered other-than-temporary if a credit loss exists (i.e., the present value of the expected future cash flows is less than the amortized cost basis of the debt security). In the event a credit loss exists, the credit loss component of an other-than-temporary impairment is recorded in earnings while the remaining portion of the impairment loss attributable to factors other than credit loss is recognized, net of tax, in other comprehensive income (loss).

For all securities held in the available-for-sale or held-to-maturity portfolios for which unrealized losses attributed to factors other than credit existed, we do not have the intention to sell and believe we will not be required to sell the securities for contractual, regulatory or liquidity reasons as of the reporting date. For a complete description of the factors considered when analyzing debt securities for impairments, see Note 4, "Securities," in our 2015 Form 10-K. There have been no material changes in our process for assessing impairment during 2016.

During the three and nine months ended September 30, 2016 and 2015, none of our debt securities were determined to have either initial other-than-temporary impairment or changes to previous other-than-temporary impairment estimates relating to the credit component, as such, there were no other-than-temporary impairment losses recognized related to credit loss.

Certain asset-backed securities in the available-for-sale portfolio have an embedded financial guarantee provided by monoline insurers. Because the financial guarantee is not a separate and distinct contract from the asset-backed security, they are considered a single unit of account for fair value measurement and impairment assessment purposes. In evaluating the degree of reliance to be placed on the financial guarantee of a monoline insurer when estimating the cash flows to be collected for the purpose of recognizing and measuring impairment loss, consideration is given to our assessment of the creditworthiness of the monoline and other market factors. Based on the information available, including any actions undertaken by the regulatory agencies over the monoline insurers and their published financial results, we perform both a credit as well as a liquidity analysis on the monoline insurers each quarter. Our analysis also includes a review of market-based credit default spreads, when available, to assess the appropriateness of our assessment of the monoline insurer's creditworthiness. A credit downgrade to non-investment grade is key but not the only factor in determining the monoline insurer's ability to fulfill its contractual obligation under the financial guarantee. Although a monoline may have been downgraded by the credit rating agencies or ordered to commute its operations by the insurance commissioners, it may retain the ability and the obligation to continue to pay claims in the near term.

At September 30, 2016, we held 12 individual asset-backed securities in the available-for-sale portfolio, of which 5 were also wrapped by a monoline insurance company. The asset-backed securities backed by a monoline wrap comprised \$159 million of the total aggregate fair value of asset-backed securities of \$563 million at September 30, 2016. The gross unrealized losses on these monoline wrapped securities were \$32 million at September 30, 2016. We did not take into consideration the value of the monoline wrap of any non-investment grade monoline insurers at September 30, 2016 and, therefore, we only considered the financial guarantee of investment grade monoline insurers for purposes of evaluating other-than-temporary impairment on securities with a fair value of \$65 million.

At December 31, 2015, we held 12 individual asset-backed securities in the available-for-sale portfolio, of which 5 were also wrapped by a monoline insurance company. The asset-backed securities backed by a monoline wrap comprised \$164 million of the total aggregate fair value of asset-backed securities of \$173 million at December 31, 2015. The gross unrealized losses on these monoline wrapped securities were \$29 million at December 31, 2015. We did not take into consideration the value of the monoline wrap of any non-investment grade monoline insurers at December 31, 2015 and, therefore, we only considered the financial guarantee of investment grade monoline insurers for purposes of evaluating other-than-temporary impairment on securities with a fair value of \$75 million.

Other securities gains (losses), net The following table summarizes realized gains and losses on investment securities transactions attributable to available-for-sale securities:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|----------------------------|-------------------------------------|-------|------------------------------------|-------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Gross realized gains..... | \$ 25 | \$ 13 | \$ 112 | \$ 86 |
| Gross realized losses..... | (9) | (2) | (31) | (17) |
| Net realized gains..... | \$ 16 | \$ 11 | \$ 81 | \$ 69 |

Contractual Maturities and Yields The following table summarizes the amortized cost and fair values of securities available-for-sale and securities held-to-maturity at September 30, 2016 by contractual maturity. Expected maturities differ from contractual maturities because borrowers have the right to prepay obligations without prepayment penalties in certain cases. Securities available-for-sale amounts exclude equity securities as they do not have stated maturities. The table below also reflects the distribution of maturities of debt securities held at September 30, 2016, together with the approximate taxable equivalent yield of the portfolio. The yields shown are calculated by dividing annualized interest income, including the accretion of discounts and the amortization of premiums, by the amortized cost of securities outstanding at September 30, 2016. Yields on tax-exempt obligations have been computed on a taxable equivalent basis using applicable statutory tax rates.

| Taxable Equivalent Basis | Within One Year | | After One But Within Five Years | | After Five But Within Ten Years | | After Ten Years | |
|---|---------------------------|-------|---------------------------------------|-------|---------------------------------------|-------|--------------------|-------|
| | Amount | Yield | Amount | Yield | Amount | Yield | Amount | Yield |
| | (dollars are in millions) | | | | | | | |
| Available-for-sale: | | | | | | | | |
| U.S. Treasury..... | \$ — | —% | \$ 5,733 | 1.20% | \$ 10,427 | 2.12% | \$ 5,322 | 2.56% |
| U.S. Government sponsored enterprises..... | 198 | 3.26 | 3,281 | 2.83 | 1,331 | 2.35 | 5,087 | 2.13 |
| U.S. Government agency issued or guaranteed..... | — | — | 3 | 4.21 | 27 | 3.81 | 7,798 | 2.37 |
| Asset-backed securities..... | 400 | 1.67 | — | — | — | — | 195 | 3.24 |
| Foreign debt securities..... | 197 | 1.21 | 261 | .87 | — | — | — | — |
| Total amortized cost..... | \$ 795 | 1.95% | \$ 9,278 | 1.77% | \$ 11,785 | 2.15% | \$ 18,402 | 2.37% |
| Total fair value..... | \$ 799 | | \$ 9,488 | | \$ 12,025 | | \$ 18,330 | |
| Held-to-maturity: | | | | | | | | |
| U.S. Government sponsored enterprises..... | \$ — | —% | \$ 213 | 2.05% | \$ 484 | 2.70% | \$ 3,535 | 2.88% |
| U.S. Government agency issued or guaranteed..... | — | — | 8 | 1.56 | 36 | 3.24 | 9,133 | 2.32 |
| Obligations of U.S. states and political subdivisions..... | 3 | 3.71 | 4 | 3.51 | 5 | 3.73 | 4 | 5.61 |
| Asset-backed securities..... | — | — | — | — | — | — | 6 | 6.41 |
| Total amortized cost..... | \$ 3 | 3.71% | \$ 225 | 2.06% | \$ 525 | 2.75% | \$ 12,678 | 2.48% |
| Total fair value..... | \$ 3 | | \$ 229 | | \$ 550 | | \$ 12,980 | |

Investments in Federal Home Loan Bank stock and Federal Reserve Bank stock of \$383 million and \$632 million, respectively, were included in other assets at September 30, 2016. Investments in Federal Home Loan Bank stock and Federal Reserve Bank stock of \$323 million and \$632 million, respectively, were included in other assets at December 31, 2015.

4. Loans

Loans consisted of the following:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| | (in millions) | |
| Commercial loans: | | |
| Construction and other real estate | \$ 10,958 | \$ 10,000 |
| Business and corporate banking | 17,665 | 19,116 |
| Global banking ⁽¹⁾ | 26,414 | 29,969 |
| Other commercial | 2,995 | 3,368 |
| Total commercial | <u>58,032</u> | <u>62,453</u> |
| Consumer loans: | | |
| Residential mortgages | 17,091 | 17,758 |
| Home equity mortgages | 1,454 | 1,600 |
| Credit cards | 668 | 699 |
| Other consumer | 380 | 407 |
| Total consumer | <u>19,593</u> | <u>20,464</u> |
| Total loans | <u>\$ 77,625</u> | <u>\$ 82,917</u> |

⁽¹⁾ Represents large multinational firms including globally focused U.S. corporate and financial institutions and U.S. dollar lending to multinational banking customers managed by HSBC on a global basis. Also includes loans to HSBC affiliates which totaled \$4,463 million and \$4,815 million at September 30, 2016 and December 31, 2015, respectively. See Note 14, "Related Party Transactions," for additional information regarding loans to HSBC affiliates.

Net deferred origination fees totaled \$54 million and \$62 million at September 30, 2016 and December 31, 2015, respectively. At September 30, 2016 and December 31, 2015, we had a net unamortized premium on our loans of \$2 million and \$16 million, respectively.

Aging Analysis of Past Due Loans The following table summarizes the past due status of our loans, excluding loans held for sale, at September 30, 2016 and December 31, 2015. The aging of past due amounts is determined based on the contractual delinquency status of payments under the loan. An account is generally considered to be contractually delinquent when payments have not been made in accordance with the loan terms. Delinquency status is affected by customer account management policies and practices such as re-age, which results in the re-setting of the contractual delinquency status to current.

| At September 30, 2016 | Past Due | | Total Past Due 30 Days or More | Current ⁽¹⁾ | Total Loans |
|--|---------------|---------------|-----------------------------------|------------------------|------------------|
| | 30 - 89 Days | 90+ Days | | | |
| (in millions) | | | | | |
| Commercial loans: | | | | | |
| Construction and other real estate..... | \$ 19 | \$ 2 | \$ 21 | \$ 10,937 | \$ 10,958 |
| Business and corporate banking | 29 | 11 | 40 | 17,625 | 17,665 |
| Global banking..... | — | 76 | 76 | 26,338 | 26,414 |
| Other commercial | — | 7 | 7 | 2,988 | 2,995 |
| Total commercial..... | <u>48</u> | <u>96</u> | <u>144</u> | <u>57,888</u> | <u>58,032</u> |
| Consumer loans: | | | | | |
| Residential mortgages ⁽²⁾ | 370 | 311 | 681 | 16,410 | 17,091 |
| Home equity mortgages..... | 11 | 44 | 55 | 1,399 | 1,454 |
| Credit cards..... | 9 | 9 | 18 | 650 | 668 |
| Other consumer..... | 6 | 7 | 13 | 367 | 380 |
| Total consumer..... | <u>396</u> | <u>371</u> | <u>767</u> | <u>18,826</u> | <u>19,593</u> |
| Total loans | <u>\$ 444</u> | <u>\$ 467</u> | <u>\$ 911</u> | <u>\$ 76,714</u> | <u>\$ 77,625</u> |

| At December 31, 2015 | Past Due | | Total Past Due 30 Days or More | Current ⁽¹⁾ | Total Loans |
|---|---------------|---------------|-----------------------------------|------------------------|------------------|
| | 30 - 89 Days | 90+ Days | | | |
| (in millions) | | | | | |
| Commercial loans: | | | | | |
| Construction and other real estate..... | \$ 31 | \$ 33 | \$ 64 | \$ 9,936 | \$ 10,000 |
| Business and corporate banking | 36 | 25 | 61 | 19,055 | 19,116 |
| Global banking..... | — | — | — | 29,969 | 29,969 |
| Other commercial | — | 6 | 6 | 3,362 | 3,368 |
| Total commercial..... | <u>67</u> | <u>64</u> | <u>131</u> | <u>62,322</u> | <u>62,453</u> |
| Consumer loans: | | | | | |
| Residential mortgages..... | 397 | 781 | 1,178 | 16,580 | 17,758 |
| Home equity mortgages..... | 15 | 50 | 65 | 1,535 | 1,600 |
| Credit cards..... | 10 | 9 | 19 | 680 | 699 |
| Other consumer..... | 7 | 7 | 14 | 393 | 407 |
| Total consumer..... | <u>429</u> | <u>847</u> | <u>1,276</u> | <u>19,188</u> | <u>20,464</u> |
| Total loans | <u>\$ 496</u> | <u>\$ 911</u> | <u>\$ 1,407</u> | <u>\$ 81,510</u> | <u>\$ 82,917</u> |

⁽¹⁾ Loans less than 30 days past due are presented as current.

⁽²⁾ The decrease in past due loans at September 30, 2016 reflects the impact of transfers of certain residential mortgage loans to held for sale during the nine months ended September 30, 2016. See Note 6, "Loans Held for Sale" for additional details.

Nonaccrual Loans Nonaccrual loans, including nonaccrual loans held for sale, and accruing loans 90 days or more delinquent consisted of the following:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| (in millions) | | |
| Nonaccrual loans: | | |
| Commercial: | | |
| Construction and other real estate | \$ 24 | \$ 53 |
| Business and corporate banking | 202 | 167 |
| Global banking | 621 | 44 |
| Other commercial | 1 | 1 |
| Commercial nonaccrual loans held for sale | — | 26 |
| Total commercial | <u>848</u> | <u>291</u> |
| Consumer: | | |
| Residential mortgages ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ | 389 | 814 |
| Home equity mortgages ⁽¹⁾⁽²⁾ | 73 | 71 |
| Consumer nonaccrual loans held for sale ⁽⁴⁾ | 416 | 3 |
| Total consumer | <u>878</u> | <u>888</u> |
| Total nonaccruing loans | <u>1,726</u> | <u>1,179</u> |
| Accruing loans contractually past due 90 days or more: | | |
| Commercial: | | |
| Business and corporate banking | 1 | 1 |
| Total commercial | <u>1</u> | <u>1</u> |
| Consumer: | | |
| Credit cards | 9 | 9 |
| Other consumer | 7 | 7 |
| Total consumer | <u>16</u> | <u>16</u> |
| Total accruing loans contractually past due 90 days or more | <u>17</u> | <u>17</u> |
| Total nonperforming loans | <u>\$ 1,743</u> | <u>\$ 1,196</u> |

⁽¹⁾ At September 30, 2016 and December 31, 2015, nonaccrual consumer mortgage loans held for investment include \$318 million and \$768 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell.

⁽²⁾ Nonaccrual consumer mortgage loans held for investment include all loans which are 90 or more days contractually delinquent as well as loans discharged under Chapter 7 bankruptcy and not re-affirmed and second lien loans where the first lien loan that we own or service is 90 or more days contractually delinquent.

⁽³⁾ Nonaccrual consumer mortgage loans for all periods does not include guaranteed loans purchased from the Government National Mortgage Association. Repayment of these loans are predominantly insured by the Federal Housing Administration and as such, these loans have different risk characteristics from the rest of our consumer loan portfolio.

⁽⁴⁾ The trend in nonaccrual loans reflects the impact of transfers of certain residential mortgage loans to held for sale during the nine months ended September 30, 2016.

The following table provides additional information on our nonaccrual loans:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|-------------------------------------|-------|------------------------------------|-------|
| | 2016 | 2015 | 2016 | 2015 |
| (in millions) | | | | |
| Interest income that would have been recorded if the nonaccrual loans had been current in accordance with contractual terms during the period | \$ 23 | \$ 21 | \$ 67 | \$ 65 |
| Interest income that was recorded on nonaccrual loans and included in interest income during the period | 5 | 5 | 14 | 17 |

Impaired Loans A loan is considered to be impaired when it is deemed probable that not all principal and interest amounts due according to the contractual terms of the loan agreement will be collected. Probable losses from impaired loans are quantified and recorded as a component of the overall allowance for credit losses. Commercial and consumer loans for which we have modified the loan terms as part of a troubled debt restructuring are considered to be impaired loans. Additionally, commercial loans in nonaccrual status, or that have been partially charged-off or assigned a specific allowance for credit losses are also considered impaired loans.

Troubled debt restructurings TDR Loans represent loans for which the original contractual terms have been modified to provide for terms that are less than what we would be willing to accept for new loans with comparable risk because of deterioration in the borrower's financial condition.

Modifications for consumer or commercial loans may include changes to one or more terms of the loan, including, but not limited to, a change in interest rate, extension of the amortization period, reduction in payment amount and partial forgiveness or deferment of principal, accrued interest or other loan covenants. A substantial amount of our modifications involve interest rate reductions which lower the amount of interest income we are contractually entitled to receive in future periods. Through lowering the interest rate and other loan term changes, we believe we are able to increase the amount of cash flow that will ultimately be collected from the loan, given the borrower's financial condition. TDR Loans are reserved for either based on the present value of expected future cash flows discounted at the loans' original effective interest rates which generally results in a higher reserve requirement for these loans or in the case of certain secured loans, the estimated fair value of the underlying collateral. Once a consumer loan is classified as a TDR Loan, it continues to be reported as such until it is paid off or charged-off. For commercial loans, if subsequent performance is in accordance with the new terms and such terms reflect current market rates at the time of restructure, they will no longer be reported as a TDR Loan beginning in the year after restructuring. During the three and nine months ended September 30, 2016 and 2015 there were no commercial loans that met this criteria and were removed from TDR Loan classification.

The following table presents information about loans which were modified during the three and nine months ended September 30, 2016 and 2015 and as a result of this action became classified as TDR Loans:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|--------|------------------------------------|--------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Commercial loans: | | | | |
| Construction and other real estate | \$ — | \$ — | \$ — | \$ 4 |
| Business and corporate banking | — | 87 | 304 | 137 |
| Global banking | — | — | — | 13 |
| Total commercial | — | 87 | 304 | 154 |
| Consumer loans: | | | | |
| Residential mortgages | 12 | 47 | 55 | 117 |
| Home equity mortgages | 2 | 1 | 7 | 2 |
| Credit cards | 1 | 1 | 3 | 3 |
| Total consumer | 15 | 49 | 65 | 122 |
| Total | \$ 15 | \$ 136 | \$ 369 | \$ 276 |

The weighted-average contractual rate reduction for consumer loans which became classified as TDR Loans during the three and nine months ended September 30, 2016 was 1.41 percent and 1.61 percent, respectively, compared with 1.62 percent and 1.76 percent during the three and nine months ended September 30, 2015, respectively. The weighted-average contractual rate reduction for commercial loans was not significant in either the number of loans or rate.

The following table presents information about our TDR Loans and the related allowance for credit losses for TDR Loans:

| | September 30, 2016 | | December 31, 2015 | |
|--|--------------------|--------------------------|-------------------|--------------------------|
| | Carrying Value | Unpaid Principal Balance | Carrying Value | Unpaid Principal Balance |
| | (in millions) | | | |
| TDR Loans ⁽¹⁾⁽²⁾ : | | | | |
| Commercial loans: | | | | |
| Construction and other real estate..... | \$ 45 | \$ 47 | \$ 94 | \$ 106 |
| Business and corporate banking | 404 | 437 | 227 | 240 |
| Global banking..... | 72 | 73 | 44 | 44 |
| Total commercial ⁽³⁾ | <u>521</u> | <u>557</u> | <u>365</u> | <u>390</u> |
| Consumer loans: | | | | |
| Residential mortgages ⁽⁴⁾⁽⁵⁾ | 701 | 785 | 1,060 | 1,233 |
| Home equity mortgages ⁽⁴⁾ | 27 | 58 | 23 | 50 |
| Credit cards | 5 | 5 | 5 | 5 |
| Total consumer..... | <u>733</u> | <u>848</u> | <u>1,088</u> | <u>1,288</u> |
| Total TDR Loans ⁽⁶⁾ | <u>\$ 1,254</u> | <u>\$ 1,405</u> | <u>\$ 1,453</u> | <u>\$ 1,678</u> |
| Allowance for credit losses for TDR Loans ⁽⁷⁾ : | | | | |
| Commercial loans: | | | | |
| Construction and other real estate..... | \$ — | | \$ — | |
| Business and corporate banking | 59 | | 24 | |
| Global banking..... | — | | — | |
| Total commercial..... | <u>59</u> | | <u>24</u> | |
| Consumer loans: | | | | |
| Residential mortgages..... | 10 | | 33 | |
| Home equity mortgages | 1 | | 1 | |
| Credit cards | 1 | | 1 | |
| Total consumer..... | <u>12</u> | | <u>35</u> | |
| Total allowance for credit losses for TDR Loans | <u>\$ 71</u> | | <u>\$ 59</u> | |

(1) TDR Loans are considered to be impaired loans. For consumer loans, all such loans are considered impaired loans regardless of accrual status. For commercial loans, impaired loans include other loans in addition to TDR Loans which totaled \$614 million and \$88 million at September 30, 2016 and December 31, 2015, respectively.

(2) The carrying value of TDR Loans includes basis adjustments on the loans, such as unearned income, unamortized deferred fees and costs on originated loans, partial charge-offs and premiums or discounts on purchased loans.

(3) Additional commitments to lend to commercial borrowers whose loans have been modified in TDRs totaled \$205 million and \$112 million at September 30, 2016 and December 31, 2015, respectively.

(4) At September 30, 2016 and December 31, 2015, the carrying value of consumer mortgage TDR Loans held for investment includes \$662 million and \$881 million, respectively, of loans that are recorded at the lower of amortized cost or fair value of the collateral less cost to sell.

(5) The decrease in TDR Loans at September 30, 2016 reflects the impact of transfers of certain residential mortgage loans to held for sale during the nine months ended September 30, 2016. There is no allowance for credit losses associated with loans classified as held for sale as they are carried at the lower of amortized cost or fair value less cost to sell.

(6) At September 30, 2016 and December 31, 2015, the carrying value of TDR Loans includes \$610 million and \$676 million, respectively, of loans which are classified as nonaccrual.

(7) Included in the allowance for credit losses.

The following table presents information about average TDR Loans and interest income recognized on TDR Loans:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|-----------------|------------------------------------|-----------------|
| | 2016 | 2015 | 2016 | 2015 |
| (in millions) | | | | |
| Average balance of TDR Loans: | | | | |
| Commercial loans: | | | | |
| Construction and other real estate | \$ 63 | \$ 112 | \$ 78 | \$ 147 |
| Business and corporate banking | 427 | 106 | 343 | 70 |
| Global banking | 69 | 17 | 60 | 12 |
| Total commercial..... | <u>559</u> | <u>235</u> | <u>481</u> | <u>229</u> |
| Consumer loans: | | | | |
| Residential mortgages | 917 | 1,037 | 966 | 1,004 |
| Home equity mortgages | 27 | 22 | 25 | 20 |
| Credit cards | 5 | 6 | 5 | 6 |
| Total consumer | <u>949</u> | <u>1,065</u> | <u>996</u> | <u>1,030</u> |
| Total average balance of TDR Loans..... | <u>\$ 1,508</u> | <u>\$ 1,300</u> | <u>\$ 1,477</u> | <u>\$ 1,259</u> |
| Interest income recognized on TDR Loans: | | | | |
| Commercial loans: | | | | |
| Construction and other real estate | \$ 2 | \$ 1 | \$ 3 | \$ 3 |
| Business and corporate banking | 3 | 1 | 7 | 2 |
| Total commercial..... | <u>5</u> | <u>2</u> | <u>10</u> | <u>5</u> |
| Consumer loans: | | | | |
| Residential mortgages | 10 | 9 | 29 | 27 |
| Home equity mortgages | — | — | 1 | 1 |
| Total consumer | <u>10</u> | <u>9</u> | <u>30</u> | <u>28</u> |
| Total interest income recognized on TDR Loans..... | <u>\$ 15</u> | <u>\$ 11</u> | <u>\$ 40</u> | <u>\$ 33</u> |

The following table presents loans which were classified as TDR Loans during the previous 12 months which for commercial loans became 90 days or greater contractually delinquent or for consumer loans became 60 days or greater contractually delinquent during the three and nine months ended September 30, 2016 and 2015:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|--------------|------------------------------------|--------------|
| | 2016 | 2015 | 2016 | 2015 |
| (in millions) | | | | |
| Commercial loans: | | | | |
| Construction and other real estate | \$ — | \$ — | \$ — | \$ 2 |
| Business and corporate banking | — | 7 | 4 | 10 |
| Total commercial..... | <u>—</u> | <u>7</u> | <u>4</u> | <u>12</u> |
| Consumer loans: | | | | |
| Residential mortgages | 6 | 6 | 21 | 23 |
| Home equity mortgages | — | 1 | — | 1 |
| Total consumer | <u>6</u> | <u>7</u> | <u>21</u> | <u>24</u> |
| Total | <u>\$ 6</u> | <u>\$ 14</u> | <u>\$ 25</u> | <u>\$ 36</u> |

Impaired commercial loans The following table presents information about impaired commercial loans and the related impairment reserve for impaired commercial loans:

| | Amount with Impairment Reserves ⁽¹⁾ | Amount without Impairment Reserves ⁽¹⁾ | Total Impaired Commercial Loans ⁽¹⁾⁽²⁾ | Impairment Reserve | Unpaid Principal Balance |
|--|---|--|---|-----------------------|--------------------------------|
| (in millions) | | | | | |
| At September 30, 2016 | | | | | |
| Construction and other real estate | \$ 6 | \$ 53 | \$ 59 | \$ 2 | \$ 62 |
| Business and corporate banking | 204 | 243 | 447 | 68 | 482 |
| Global banking | 550 | 72 | 622 | 271 | 636 |
| Other commercial | 1 | 6 | 7 | 1 | 8 |
| Total commercial..... | <u>\$ 761</u> | <u>\$ 374</u> | <u>\$ 1,135</u> | <u>\$ 342</u> | <u>\$ 1,188</u> |
| At December 31, 2015 | | | | | |
| Construction and other real estate | \$ 2 | \$ 108 | \$ 110 | \$ 1 | \$ 125 |
| Business and corporate banking | 168 | 124 | 292 | 52 | 342 |
| Global banking | — | 44 | 44 | — | 44 |
| Other commercial | 1 | 6 | 7 | 1 | 8 |
| Total commercial..... | <u>\$ 171</u> | <u>\$ 282</u> | <u>\$ 453</u> | <u>\$ 54</u> | <u>\$ 519</u> |

⁽¹⁾ Reflects the carrying value of impaired commercial loans and includes basis adjustments on the loans, such as partial charge-offs, unamortized deferred fees and costs on originated loans and any premiums or discounts on purchased loans.

⁽²⁾ Includes impaired commercial loans that are also considered TDR Loans which totaled \$521 million and \$365 million at September 30, 2016 and December 31, 2015, respectively.

The following table presents information about average impaired commercial loans and interest income recognized on impaired commercial loans:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|---------------|------------------------------------|---------------|
| | 2016 | 2015 | 2016 | 2015 |
| (in millions) | | | | |
| Average balance of impaired commercial loans: | | | | |
| Construction and other real estate | \$ 79 | \$ 124 | \$ 93 | \$ 161 |
| Business and corporate banking | 474 | 139 | 398 | 116 |
| Global banking | 633 | 17 | 390 | 12 |
| Other commercial | 8 | 7 | 7 | 7 |
| Total average balance of impaired commercial loans..... | <u>\$ 1,194</u> | <u>\$ 287</u> | <u>\$ 888</u> | <u>\$ 296</u> |
| Interest income recognized on impaired commercial loans: | | | | |
| Construction and other real estate | \$ 2 | \$ 1 | \$ 3 | \$ 3 |
| Business and corporate banking | 3 | 2 | 8 | 3 |
| Total interest income recognized on impaired commercial loans..... | <u>\$ 5</u> | <u>\$ 3</u> | <u>\$ 11</u> | <u>\$ 6</u> |

Commercial Loan Credit Quality Indicators The following credit quality indicators are monitored for our commercial loan portfolio:

Criticized loans Criticized loan classifications presented in the table below are determined by the assignment of various criticized facility grades based on the risk rating standards of our regulator. The following facility grades are deemed to be criticized:

- *Special Mention* – generally includes loans that are protected by collateral and/or the credit worthiness of the customer, but are potentially weak based upon economic or market circumstances which, if not checked or corrected, could weaken our credit position at some future date.
- *Substandard* – includes loans that are inadequately protected by the underlying collateral and/or general credit worthiness of the customer. These loans present a distinct possibility that we will sustain some loss if the deficiencies are not corrected.
- *Doubtful* – includes loans that have all the weaknesses exhibited by substandard loans, with the added characteristic that the weaknesses make collection or liquidation in full of the recorded loan highly improbable. However, although the possibility of loss is extremely high, certain factors exist which may strengthen the credit at some future date, and therefore the decision to charge off the loan is deferred. Loans graded as doubtful are required to be placed in nonaccruing status.

The following table summarizes criticized commercial loans:

| | Special Mention | Substandard | Doubtful | Total |
|---|-----------------|-----------------|---------------|-----------------|
| (in millions) | | | | |
| At September 30, 2016 | | | | |
| Construction and other real estate..... | \$ 445 | \$ 159 | \$ 5 | \$ 609 |
| Business and corporate banking..... | 803 | 839 | 53 | 1,695 |
| Global banking..... | 1,040 | 2,427 | 445 | 3,912 |
| Other commercial..... | — | 6 | 1 | 7 |
| Total commercial..... | <u>\$ 2,288</u> | <u>\$ 3,431</u> | <u>\$ 504</u> | <u>\$ 6,223</u> |
| At December 31, 2015 | | | | |
| Construction and other real estate..... | \$ 239 | \$ 187 | \$ — | \$ 426 |
| Business and corporate banking..... | 941 | 690 | 52 | 1,683 |
| Global banking..... | 1,069 | 2,300 | 12 | 3,381 |
| Other commercial..... | 1 | 37 | 1 | 39 |
| Total commercial..... | <u>\$ 2,250</u> | <u>\$ 3,214</u> | <u>\$ 65</u> | <u>\$ 5,529</u> |

The increase in criticized commercial loans at September 30, 2016 was driven by downgrades, predominantly emerging markets related.

Nonperforming The following table summarizes the status of our commercial loan portfolio, excluding loans held for sale:

| | Performing Loans | Nonaccrual Loans | Accruing Loans Contractually Past Due 90 days or More | Total |
|--|------------------|------------------|---|------------------|
| (in millions) | | | | |
| At September 30, 2016 | | | | |
| Construction and other real estate | \$ 10,934 | \$ 24 | \$ — | \$ 10,958 |
| Business and corporate banking | 17,462 | 202 | 1 | 17,665 |
| Global banking | 25,793 | 621 | — | 26,414 |
| Other commercial | 2,994 | 1 | — | 2,995 |
| Total commercial..... | <u>\$ 57,183</u> | <u>\$ 848</u> | <u>\$ 1</u> | <u>\$ 58,032</u> |
| At December 31, 2015 | | | | |
| Construction and other real estate | \$ 9,947 | \$ 53 | \$ — | \$ 10,000 |
| Business and corporate banking | 18,948 | 167 | 1 | 19,116 |
| Global banking | 29,925 | 44 | — | 29,969 |
| Other commercial | 3,367 | 1 | — | 3,368 |
| Total commercial..... | <u>\$ 62,187</u> | <u>\$ 265</u> | <u>\$ 1</u> | <u>\$ 62,453</u> |

Credit risk profile The following table shows the credit risk profile of our commercial loan portfolio:

| | Investment Grade ⁽¹⁾ | Non-Investment Grade | Total |
|--|---------------------------------|----------------------|------------------|
| | (in millions) | | |
| At September 30, 2016 | | | |
| Construction and other real estate | \$ 8,273 | \$ 2,685 | \$ 10,958 |
| Business and corporate banking | 8,561 | 9,104 | 17,665 |
| Global banking | 17,904 | 8,510 | 26,414 |
| Other commercial | 1,965 | 1,030 | 2,995 |
| Total commercial..... | <u>\$ 36,703</u> | <u>\$ 21,329</u> | <u>\$ 58,032</u> |
| At December 31, 2015 | | | |
| Construction and other real estate | \$ 8,487 | \$ 1,513 | \$ 10,000 |
| Business and corporate banking | 10,373 | 8,743 | 19,116 |
| Global banking | 23,111 | 6,858 | 29,969 |
| Other commercial | 1,883 | 1,485 | 3,368 |
| Total commercial..... | <u>\$ 43,854</u> | <u>\$ 18,599</u> | <u>\$ 62,453</u> |

⁽¹⁾ Investment grade includes commercial loans with credit ratings of at least BBB- or above or the equivalent based on our internal credit rating system.

Consumer Loan Credit Quality Indicators The following credit quality indicators are utilized for our consumer loan portfolio:

Delinquency The following table summarizes dollars of two-months-and-over contractual delinquency and as a percent of total loans and loans held for sale ("delinquency ratio") for our consumer loan portfolio:

| | September 30, 2016 | | December 31, 2015 | |
|---|---------------------------|-------------------|-------------------|-------------------|
| | Delinquent Loans | Delinquency Ratio | Delinquent Loans | Delinquency Ratio |
| | (dollars are in millions) | | | |
| Residential mortgages ⁽¹⁾⁽²⁾ | \$ 774 | 4.28% | \$ 858 | 4.83% |
| Home equity mortgages ⁽¹⁾⁽²⁾ | 47 | 3.22 | 56 | 3.50 |
| Credit cards | 13 | 1.95 | 13 | 1.86 |
| Other consumer | 10 | 2.20 | 11 | 2.26 |
| Total consumer..... | <u>\$ 844</u> | <u>4.09%</u> | <u>\$ 938</u> | <u>4.56%</u> |

⁽¹⁾ At September 30, 2016 and December 31, 2015, consumer mortgage loan delinquency includes \$699 million and \$793 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell, including \$391 million and \$3 million, respectively, relating to loans held for sale.

⁽²⁾ At September 30, 2016 and December 31, 2015, consumer mortgage loans and loans held for sale include \$495 million and \$567 million, respectively, of loans that were in the process of foreclosure.

Nonperforming The following table summarizes the status of our consumer loan portfolio, excluding loans held for sale:

| | Performing Loans | Nonaccrual Loans | Accruing Loans Contractually Past Due 90 days or More | Total |
|--|---------------------|---------------------|---|------------------|
| | (in millions) | | | |
| At September 30, 2016 | | | | |
| Residential mortgages ⁽¹⁾ | \$ 16,702 | \$ 389 | \$ — | \$ 17,091 |
| Home equity mortgages | 1,381 | 73 | — | 1,454 |
| Credit cards | 659 | — | 9 | 668 |
| Other consumer | 373 | — | 7 | 380 |
| Total consumer | <u>\$ 19,115</u> | <u>\$ 462</u> | <u>\$ 16</u> | <u>\$ 19,593</u> |
| At December 31, 2015 | | | | |
| Residential mortgages | \$ 16,944 | \$ 814 | \$ — | \$ 17,758 |
| Home equity mortgages | 1,529 | 71 | — | 1,600 |
| Credit cards | 690 | — | 9 | 699 |
| Other consumer | 400 | — | 7 | 407 |
| Total consumer | <u>\$ 19,563</u> | <u>\$ 885</u> | <u>\$ 16</u> | <u>\$ 20,464</u> |

⁽¹⁾ The decrease in nonaccrual loans at September 30, 2016 reflects the impact of transfers of certain residential mortgage loans to held for sale during the nine months ended September 30, 2016.

Troubled debt restructurings See discussion of impaired loans above for further details on this credit quality indicator.

Concentration of Credit Risk At September 30, 2016 and December 31, 2015, our loan portfolios included interest-only residential mortgage loans totaling \$3,623 million and \$3,645 million, respectively. An interest-only residential mortgage loan allows a customer to pay the interest-only portion of the monthly payment for a period of time which results in lower payments during the initial loan period. However, subsequent events affecting a customer's financial position could affect the ability of customers to repay the loan in the future when the principal payments are required which increases the credit risk of this loan type.

5. Allowance for Credit Losses

The following table summarizes the changes in the allowance for credit losses by product and the related loan balance by product during the three and nine months ended September 30, 2016 and 2015:

| | Commercial | | | | Consumer | | | | Total |
|---|------------------------------------|--------------------------------|----------------|--------------|-----------------------|-----------------------|-------------|----------------|-----------|
| | Construction and Other Real Estate | Business and Corporate Banking | Global Banking | Other Comm'l | Residential Mortgages | Home Equity Mortgages | Credit Card | Other Consumer | |
| (in millions) | | | | | | | | | |
| Three Months Ended September 30, 2016 | | | | | | | | | |
| Allowance for credit losses – beginning of period..... | \$ 92 | \$ 358 | \$ 488 | \$ 15 | \$ 50 | \$ 19 | \$ 33 | \$ 8 | \$ 1,063 |
| Provision charged (credited) to income ⁽¹⁾ | (8) | 7 | 44 | (1) | 11 | 1 | 7 | 1 | 62 |
| Charge-offs ⁽¹⁾⁽²⁾ | — | (26) | (7) | — | (34) | (4) | (7) | (1) | (79) |
| Recoveries..... | 6 | 3 | — | — | 3 | 1 | 1 | — | 14 |
| Net (charge-offs) recoveries..... | 6 | (23) | (7) | — | (31) | (3) | (6) | (1) | (65) |
| Allowance for credit losses – end of period.. | \$ 90 | \$ 342 | \$ 525 | \$ 14 | \$ 30 | \$ 17 | \$ 34 | \$ 8 | \$ 1,060 |
| Three Months Ended September 30, 2015 | | | | | | | | | |
| Allowance for credit losses – beginning of period..... | \$ 89 | \$ 260 | \$ 130 | \$ 18 | \$ 83 | \$ 27 | \$ 33 | \$ 8 | \$ 648 |
| Provision charged (credited) to income..... | (3) | 32 | 16 | (1) | (3) | (2) | 7 | 1 | 47 |
| Charge-offs..... | — | (11) | — | — | (3) | (1) | (8) | (1) | (24) |
| Recoveries..... | 1 | 2 | — | — | 2 | 1 | 1 | — | 7 |
| Net (charge-offs) recoveries..... | 1 | (9) | — | — | (1) | — | (7) | (1) | (17) |
| Allowance for credit losses – end of period.. | \$ 87 | \$ 283 | \$ 146 | \$ 17 | \$ 79 | \$ 25 | \$ 33 | \$ 8 | \$ 678 |
| Nine Months Ended September 30, 2016 | | | | | | | | | |
| Allowance for credit losses – beginning of period..... | \$ 86 | \$ 434 | \$ 240 | \$ 19 | \$ 68 | \$ 24 | \$ 32 | \$ 9 | \$ 912 |
| Provision charged (credited) to income ⁽¹⁾ | (2) | (35) | 377 | (5) | (5) | (2) | 21 | 4 | 353 |
| Charge-offs ⁽¹⁾⁽²⁾ | — | (65) | (92) | — | (43) | (9) | (23) | (6) | (238) |
| Recoveries..... | 6 | 8 | — | — | 10 | 4 | 4 | 1 | 33 |
| Net (charge-offs) recoveries..... | 6 | (57) | (92) | — | (33) | (5) | (19) | (5) | (205) |
| Allowance for credit losses – end of period.. | \$ 90 | \$ 342 | \$ 525 | \$ 14 | \$ 30 | \$ 17 | \$ 34 | \$ 8 | \$ 1,060 |
| Ending balance: collectively evaluated for impairment..... | \$ 88 | \$ 274 | \$ 254 | \$ 13 | \$ 20 | \$ 16 | \$ 33 | \$ 8 | \$ 706 |
| Ending balance: individually evaluated for impairment..... | 2 | 68 | 271 | 1 | 10 | 1 | 1 | — | 354 |
| Total allowance for credit losses..... | \$ 90 | \$ 342 | \$ 525 | \$ 14 | \$ 30 | \$ 17 | \$ 34 | \$ 8 | \$ 1,060 |
| Loans: | | | | | | | | | |
| Collectively evaluated for impairment ⁽³⁾ | \$ 10,899 | \$ 17,218 | \$ 25,792 | \$ 2,988 | \$ 16,121 | \$ 1,378 | \$ 663 | \$ 380 | \$ 75,439 |
| Individually evaluated for impairment ⁽⁴⁾ | 59 | 447 | 622 | 7 | 62 | 4 | 5 | — | 1,206 |
| Loans carried at lower of amortized cost or fair value less cost to sell..... | — | — | — | — | 908 | 72 | — | — | 980 |
| Total loans..... | \$ 10,958 | \$ 17,665 | \$ 26,414 | \$ 2,995 | \$ 17,091 | \$ 1,454 | \$ 668 | \$ 380 | \$ 77,625 |

| | Commercial | | | | Consumer | | | | Total |
|---|------------------------------------|--------------------------------|----------------|--------------|-----------------------|-----------------------|-------------|----------------|-----------|
| | Construction and Other Real Estate | Business and Corporate Banking | Global Banking | Other Comm'l | Residential Mortgages | Home Equity Mortgages | Credit Card | Other Consumer | |
| (in millions) | | | | | | | | | |
| Nine Months Ended September 30, 2015 | | | | | | | | | |
| Allowance for credit losses – beginning of period..... | \$ 89 | \$ 275 | \$ 107 | \$ 21 | \$ 107 | \$ 32 | \$ 39 | \$ 10 | \$ 680 |
| Provision charged (credited) to income | (4) | 54 | 39 | (3) | (9) | (4) | 14 | 7 | 94 |
| Charge-offs..... | (2) | (55) | — | (1) | (27) | (6) | (24) | (11) | (126) |
| Recoveries..... | 4 | 9 | — | — | 8 | 3 | 4 | 2 | 30 |
| Net (charge-offs) recoveries..... | 2 | (46) | — | (1) | (19) | (3) | (20) | (9) | (96) |
| Allowance for credit losses – end of period.. | \$ 87 | \$ 283 | \$ 146 | \$ 17 | \$ 79 | \$ 25 | \$ 33 | \$ 8 | \$ 678 |
| Ending balance: collectively evaluated for impairment..... | \$ 86 | \$ 269 | \$ 146 | \$ 17 | \$ 41 | \$ 24 | \$ 32 | \$ 8 | \$ 623 |
| Ending balance: individually evaluated for impairment..... | 1 | 14 | — | — | 38 | 1 | 1 | — | 55 |
| Total allowance for credit losses..... | \$ 87 | \$ 283 | \$ 146 | \$ 17 | \$ 79 | \$ 25 | \$ 33 | \$ 8 | \$ 678 |
| Loans: | | | | | | | | | |
| Collectively evaluated for impairment ⁽³⁾ | \$ 11,980 | \$ 19,325 | \$ 29,787 | \$ 3,328 | \$ 15,801 | \$ 1,561 | \$ 677 | \$ 409 | \$ 82,868 |
| Individually evaluated for impairment ⁽⁴⁾ | 116 | 189 | 21 | 6 | 214 | 5 | 5 | — | 556 |
| Loans carried at lower of amortized cost or fair value less cost to sell..... | — | — | — | — | 1,445 | 73 | — | — | 1,518 |
| Total loans..... | \$ 12,096 | \$ 19,514 | \$ 29,808 | \$ 3,334 | \$ 17,460 | \$ 1,639 | \$ 682 | \$ 409 | \$ 84,942 |

⁽¹⁾ The provision for credit losses and charge-offs for residential mortgage loans during both the three and nine months ended September 30, 2016 includes \$11 million related to the lower of amortized cost or fair value adjustment attributable to credit factors for loans transferred to held for sale. See Note 6, "Loans Held for Sale," for additional information.

⁽²⁾ For collateral dependent loans that are transferred to held for sale, the existing allowance for credit losses at the time of transfer are recognized as a charge-off. We transferred to held for sale certain residential mortgage loans during the three and nine months ended September 30, 2016 and, accordingly, we recognized the existing allowance for credit losses on these loans as additional charge-off totaling \$20 million and \$22 million during the three and nine months ended September 30, 2016, respectively.

⁽³⁾ Global Banking includes loans to HSBC affiliates totaling \$4,463 million and \$5,447 million at September 30, 2016 and 2015, respectively, for which we do not carry an associated allowance for credit losses.

⁽⁴⁾ For consumer loans and certain small business loans, these amounts represent TDR Loans for which we evaluate reserves using a discounted cash flow methodology. Each loan is individually identified as a TDR Loan and then grouped together with other TDR Loans with similar characteristics. The discounted cash flow analysis is then applied to these groups of TDR Loans. Loans individually evaluated for impairment exclude TDR loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell which totaled \$662 million and \$858 million at September 30, 2016 and 2015, respectively.

6. Loans Held for Sale

Loans held for sale consisted of the following:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| (in millions) | | |
| Commercial loans: | | |
| Construction and other real estate | \$ — | \$ 1,895 |
| Global banking | 741 | 200 |
| Total commercial..... | <u>741</u> | <u>2,095</u> |
| Consumer loans: | | |
| Residential mortgages | 971 | 11 |
| Home equity mortgages | 4 | — |
| Other consumer | 75 | 79 |
| Total consumer | <u>1,050</u> | <u>90</u> |
| Total loans held for sale | <u>\$ 1,791</u> | <u>\$ 2,185</u> |

Commercial Loans During the second quarter of 2016, we sold \$1,161 million of commercial real estate loans to a third party and recognized a loss on sale of approximately \$3 million, including transaction costs. Upon completion of the sale, the remaining loans that were not sold, which had a carrying value of \$612 million at June 30, 2016, were transferred back to held for investment as we now intend to hold these loans for the foreseeable future.

Global banking loans held for sale includes commercial loans that we originate in connection with our participation in a number of syndicated credit facilities with the intent of selling them to unaffiliated third parties as well as commercial loans that we purchase from the secondary market and hold as hedges against our exposure to certain total return swaps. The fair value of these loans, which we have elected to designate under the fair value option, totaled \$649 million and \$151 million at September 30, 2016 and December 31, 2015, respectively. See Note 11, "Fair Value Option," for additional information.

Global banking loans held for sale also includes certain loans that we no longer intend to hold for investment and transferred to held for sale which totaled \$92 million and \$49 million at September 30, 2016 and December 31, 2015, respectively.

We recorded lower of amortized cost or fair value adjustments associated with the write-down of commercial loans held for sale of \$7 million and \$37 million during the three and nine months ended September 30, 2016, respectively, compared with \$2 million and \$16 million during the three and nine months ended September 30, 2015, respectively, as a component of other income (loss) in the consolidated statement of income. The \$7 million lower of amortized cost or fair value adjustment recorded during the three months ended September 30, 2016 reflects an immaterial out of period adjustment related to certain commercial real estate loans which were transferred back to held for investment in the second quarter of 2016 as discussed above.

Consumer Loans As previously disclosed, we continue to evaluate our overall operations as we seek to optimize our risk profile and cost efficiencies, as well as our liquidity, capital and funding requirements. As part of this on-going evaluation, as well as continued market demand for non-performing residential mortgage loans, during the first quarter of 2016 we decided we no longer have the intent to hold for investment certain residential mortgage loans and adopted a formal program to initiate sale activities for these residential mortgage loans when a loan meeting pre-determined criteria is written down to the lower of amortized cost or fair value of the collateral less cost to sell (generally 180 days past due) in accordance with our existing charge-off policies. These loans were largely originated by us prior to the implementation of our Premier strategy.

Under this program, during the three and nine months ended September 30, 2016, we transferred residential mortgage loans to held for sale with a total unpaid principal balance of approximately \$25 million and \$549 million, respectively, at the time of transfer. The carrying value of these loans prior to transfer, after considering the fair value of the property less costs to sell, was approximately \$23 million and \$456 million, respectively, including related escrow advances. During the three and nine months ended September 30, 2016, we recorded an initial lower of amortized cost or fair value adjustment of \$4 million and \$42 million, respectively, associated with newly transferred loans, all of which was attributed to non-credit factors and recorded as a component of other income (loss) in the consolidated statement of income. During the three and nine months ended September 30, 2016, we recorded \$2 million and \$8 million, respectively, of additional lower of amortized cost or fair value adjustment on these loans held for sale as a component of other income (loss) in the consolidated statement of income as a result of a change in the estimated pricing on specific pools of loans. As we plan to sell these loans to third party investors, fair value represents the price we believe a third party investor would pay to acquire the loan portfolios.

In addition to the residential mortgage sales program discussed above, during the third quarter of 2016, we decided we no longer have the intent to hold for investment a portfolio of residential mortgage loans that we previously purchased from HSBC Finance Corporation ("HSBC Finance"), along with any home equity mortgage balances associated with these loans. As a result of this decision, during the third quarter of 2016, we transferred residential mortgage and home equity mortgage loans to held for sale with a total unpaid principal balance of approximately \$648 million at the time of transfer. The carrying value of these loans prior to transfer, after considering the fair value of the property less costs to sell, as applicable, was approximately \$628 million, including accrued interest. During the third quarter of 2016, we recorded an initial lower of cost or fair value adjustment of \$11 million associated with the newly transferred loans, all of which was attributed to credit factors and recorded as a component of the provision for credit losses in the consolidated statement of income. As we plan to sell these loans to third party investors, fair value represents the price we believe a third party investor would pay to acquire the loans.

We also continue to sell all our agency eligible residential mortgage loan originations servicing released directly to PHH Mortgage Corporation ("PHH Mortgage"). Gains and losses from the sale of these residential mortgage loans are reflected as a component of residential mortgage banking revenue (expense) in the accompanying consolidated statement of income. Residential mortgage loans held for sale also includes subprime residential mortgage loans with a fair value of \$3 million at both September 30, 2016 and December 31, 2015 which were previously acquired from unaffiliated third parties and from HSBC Finance with the intent of securitizing or selling the loans to third parties.

Loans held for sale are subject to market risk, liquidity risk and interest rate risk, in that their value will fluctuate as a result of changes in market conditions, as well as the credit environment. PHH Mortgage is obligated to purchase agency eligible loans from us as of the earlier of when the customer locks the mortgage loan pricing or when the mortgage loan application is approved. As such, we retain none of the risk of market changes in mortgage rates for these loans purchased by PHH Mortgage.

Other consumer loans held for sale reflects student loans which we no longer originate.

Valuation Allowances Excluding the commercial loans designated under fair value option discussed above, loans held for sale are recorded at the lower of amortized cost or fair value, with adjustments to fair value being recorded as a valuation allowance. The valuation allowance on consumer loans held for sale was \$60 million and \$13 million at September 30, 2016 and December 31, 2015, respectively. The valuation allowance on commercial loans held for sale was \$54 million and \$21 million at September 30, 2016 and December 31, 2015, respectively.

7. Intangible Assets

Intangible assets consisted of the following:

| | September 30, 2016 | December 31, 2015 |
|---|-----------------------|----------------------|
| | (in millions) | |
| Mortgage servicing rights | \$ — | \$ 140 |
| Purchased credit card relationships | 36 | 41 |
| Total intangible assets | <u>\$ 36</u> | <u>\$ 181</u> |

Mortgage Servicing Rights ("MSRs") A servicing asset is a contract under which estimated future revenues from contractually specified cash flows, such as servicing fees and other ancillary revenues, are expected to exceed the obligation to service the financial assets. Prior to our agreement with PHH Mortgage, we recognized the right to service residential mortgage loans as a separate and distinct asset at the time they were acquired or when originated loans were sold.

In March 2016, we initiated an active program to sell our remaining MSRs portfolio and reclassified them to held for sale within other assets on the consolidated balance sheet. See Note 9, "Other Assets Held for Sale," for additional information on our MSRs portfolio at September 30, 2016 and during the three and nine months ended September 30, 2016.

The following table summarizes the critical assumptions used to calculate the fair value of MSRs at December 31, 2015:

| | December 31, 2015 |
|--|----------------------|
| Annualized constant prepayment rate..... | 13.8% |
| Constant discount rate..... | 12.6% |
| Weighted average life (in years)..... | 4.5 |

The following table summarizes MSR activity during the three and nine months ended September 30, 2015:

| | Three Months Ended September 30, 2015 | Nine Months Ended September 30, 2015 |
|---|--|---|
| | (in millions) | |
| Fair value of MSRs: | | |
| Beginning balance | \$ 158 | \$ 159 |
| Changes in fair value due to changes in valuation inputs or assumptions | (21) | (13) |
| Reductions related to customer payments | (7) | (16) |
| Ending balance | <u>\$ 130</u> | <u>\$ 130</u> |

The outstanding principal balance of serviced for others mortgages, which are not included in the consolidated balance sheet, totaled \$18,930 million at December 31, 2015. Servicing fees collected are included in residential mortgage banking revenue (expense) and totaled \$13 million and \$43 million during the three and nine months ended September 30, 2015, respectively.

PHH Mortgage provides us with mortgage origination processing services as well as the sub-servicing of our portfolio of owned and serviced for others mortgages with an outstanding principal balance of \$35,164 million and \$37,544 million at September 30, 2016 and December 31, 2015, respectively. Although we continue to own both the mortgages on our balance sheet and the mortgage servicing rights associated with the serviced loans at the time of conversion, we sell our agency eligible originations to PHH Mortgage on a servicing released basis which results in no new mortgage servicing rights being recognized.

Purchased credit card relationships In 2012, we purchased from HSBC Finance the account relationships associated with \$746 million of credit card receivables which were not included in the sale to Capital One Financial Corporation at a fair value of \$108 million. Approximately \$43 million of this value was associated with the credit card receivables sold to First Niagara Bank, National Association and was written off at the time of sale. The remaining \$65 million was included in intangible assets and is being amortized over the estimated useful life of the credit card relationships which is ten years.

8. Goodwill

Goodwill was \$1,612 million at both September 30, 2016 and December 31, 2015. Included in goodwill for these periods were accumulated impairment losses of \$670 million.

During the third quarter of 2016, we completed our annual impairment test of goodwill and determined that the fair value of all of our reporting units exceeded their carrying amounts.

9. Other Assets Held for Sale

In March 2016, our Retail Banking and Wealth Management business initiated an active program to sell its remaining MSR portfolio which has been in run-off for several years. As a result, we now consider the MSR portfolio and related servicing advances to be held for sale at September 30, 2016 and reported them in other assets on the consolidated balance sheet. In August 2016, we entered into an agreement to sell the remaining MSR portfolio to a third party and expect the sale to be completed during the fourth quarter of 2016. As the MSR continue to be carried at fair value and we expect to transfer the related servicing advances to the buyer at near cost, the resulting gain or loss on sale, including transaction costs, is not expected to be significant.

The disposal group held for sale reported in other assets consisted of the following at September 30, 2016:

| | Location on Consolidated Balance Sheet Prior to Reclassification to Held for Sale | September 30, 2016 |
|----------------------------------|---|-----------------------|
| | | (in millions) |
| Mortgage servicing rights | Intangible assets, net | \$ 95 |
| Servicing advances | Other assets | 208 |
| Total assets held for sale | | <u>\$ 303</u> |

MSRs are subject to credit, prepayment and interest rate risk, in that their value will fluctuate as a result of changes in these economic variables. Interest rate risk is mitigated through an economic hedging program that uses securities and derivatives to offset changes in the fair value of MSRs. Since the hedging program involves trading activity, risk is quantified and managed using a number of risk assessment techniques.

MSRs are initially measured at fair value at the time that the related loans are sold and remeasured at fair value at each reporting date. Changes in fair value of MSRs are reflected in residential mortgage banking revenue (expense) in the period in which the changes occur. At September 30, 2016, fair value is determined based upon the sales price formula as defined in the executed sales agreement. Previously, fair value was determined based upon the application of valuation models and other inputs. The valuation models incorporated assumptions market participants would use in estimating future cash flows. The reasonableness of these valuation models was periodically validated by reference to external independent broker valuations and industry surveys.

The following table summarizes MSRs activity during the three and nine months ended September 30, 2016:

| | Three Months Ended September 30, 2016 | Nine Months Ended September 30, 2016 |
|---|--|---|
| | (in millions) | |
| Fair value of MSRs: | | |
| Beginning balance | \$ 104 | \$ 140 |
| Changes in fair value due to changes in valuation inputs or assumptions | (4) | (28) |
| Reductions related to customer payments | (5) | (17) |
| Ending balance | <u>\$ 95</u> | <u>\$ 95</u> |

The outstanding principal balance of serviced for others mortgages, which are not included in the consolidated balance sheet, totaled \$16,476 million at September 30, 2016. Servicing fees collected are included in residential mortgage banking revenue (expense) and totaled \$11 million and \$36 million during the three and nine months ended September 30, 2016, respectively.

10. Derivative Financial Instruments

In the normal course of business, the derivative instruments entered into are for trading, market making and risk management purposes. For financial reporting purposes, derivative instruments are designated in one of the following categories: (a) financial instruments held for trading, (b) hedging instruments designated as qualifying hedges under derivative and hedge accounting principles or (c) non-qualifying economic hedges. The derivative instruments held are predominantly swaps, futures, options and forward contracts. All derivatives are stated at fair value. Where we enter into enforceable master netting agreements with counterparties, the master netting agreements permit us to net those derivative asset and liability positions and to offset cash collateral held and posted with the same counterparty.

The following table presents the fair value of derivative contracts by major product type on a gross basis. Gross fair values exclude the effects of both counterparty netting as well as collateral, and therefore are not representative of our exposure. The table below presents the amounts of counterparty netting and cash collateral that have been offset in the consolidated balance sheet, as well as cash and securities collateral posted and received under enforceable master netting agreements that do not meet the criteria for netting. Derivative assets and liabilities which are not subject to an enforceable master netting agreement, or are subject to a netting agreement where an appropriate legal opinion to determine such agreements are enforceable has not been either sought or obtained, have not been netted in the table below. Where we have received or posted collateral under netting agreements where an appropriate legal opinion to determine such agreements are enforceable has not been either sought or obtained, the related collateral also has not been netted in the table below.

| | September 30, 2016 | | December 31, 2015 | |
|---|--------------------|------------------------|-------------------|------------------------|
| | Derivative assets | Derivative liabilities | Derivative assets | Derivative liabilities |
| | (in millions) | | | |
| Derivatives accounted for as fair value hedges⁽¹⁾ | | | | |
| OTC-cleared ⁽²⁾ | \$ 52 | \$ 1,021 | \$ 42 | \$ 240 |
| Bilateral OTC ⁽²⁾ | — | 342 | — | 292 |
| Interest rate contracts | 52 | 1,363 | 42 | 532 |
| Derivatives accounted for as cash flow hedges⁽¹⁾ | | | | |
| Foreign exchange contracts - bilateral OTC⁽²⁾ | — | 4 | 17 | — |
| OTC-cleared ⁽²⁾ | 6 | 24 | 6 | 16 |
| Bilateral OTC ⁽²⁾ | — | 221 | — | 137 |
| Interest rate contracts | 6 | 245 | 6 | 153 |
| Total derivatives accounted for as hedges | 58 | 1,612 | 65 | 685 |
| Trading derivatives not accounted for as hedges⁽³⁾ | | | | |
| Exchange-traded ⁽²⁾ | 56 | 61 | 27 | 27 |
| OTC-cleared ⁽²⁾ | 25,111 | 23,293 | 15,717 | 14,723 |
| Bilateral OTC ⁽²⁾ | 21,624 | 23,861 | 18,716 | 19,906 |
| Interest rate contracts | 46,791 | 47,215 | 34,460 | 34,656 |
| Exchange-traded ⁽²⁾ | — | 6 | — | 15 |
| Bilateral OTC ⁽²⁾ | 19,473 | 17,656 | 24,160 | 22,324 |
| Foreign exchange contracts | 19,473 | 17,662 | 24,160 | 22,339 |
| Equity contracts - bilateral OTC⁽²⁾ | 1,439 | 1,435 | 1,344 | 1,340 |
| Exchange-traded ⁽²⁾ | 38 | 21 | 38 | 39 |
| Bilateral OTC ⁽²⁾ | 740 | 653 | 891 | 552 |
| Precious metals contracts | 778 | 674 | 929 | 591 |
| OTC-cleared ⁽²⁾ | 213 | 258 | 899 | 1,212 |
| Bilateral OTC ⁽²⁾ | 1,431 | 1,262 | 2,913 | 2,565 |
| Credit contracts | 1,644 | 1,520 | 3,812 | 3,777 |
| Other derivatives not accounted for as hedges⁽¹⁾ | | | | |
| OTC-cleared ⁽²⁾ | 5 | 64 | — | — |
| Bilateral OTC ⁽²⁾ | 1,045 | 117 | 761 | 120 |
| Interest rate contracts | 1,050 | 181 | 761 | 120 |
| Foreign exchange contracts - bilateral OTC⁽²⁾ | — | 38 | — | 97 |
| Equity contracts - bilateral OTC⁽²⁾ | 542 | 272 | 462 | 422 |
| Credit contracts - bilateral OTC⁽²⁾ | 36 | 4 | 73 | 6 |
| Total derivatives | 71,811 | 70,613 | 66,066 | 64,033 |
| Less: Gross amounts of receivable / payable subject to enforceable master netting agreements⁽⁴⁾⁽⁶⁾ | 62,411 | 62,411 | 55,510 | 55,510 |
| Less: Gross amounts of cash collateral received / posted subject to enforceable master netting agreements⁽⁵⁾⁽⁶⁾ | 5,473 | 1,305 | 4,942 | 1,530 |
| Net amounts of derivative assets / liabilities presented in the balance sheet | 3,927 | 6,897 | 5,614 | 6,993 |
| Less: Gross amounts of financial instrument collateral received / posted subject to enforceable master netting agreements but not offset in the consolidated balance sheet | 895 | 4,736 | 1,114 | 3,674 |
| Net amounts of derivative assets / liabilities | \$ 3,032 | \$ 2,161 | \$ 4,500 | \$ 3,319 |

⁽¹⁾ Derivative assets / liabilities related to cash flow hedges, fair value hedges and derivative instruments held for purposes other than for trading are recorded in other assets / interest, taxes and other liabilities on the consolidated balance sheet.

⁽²⁾ Over-the-counter (OTC) derivatives include derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. The credit risk associated with bilateral OTC derivatives is managed through master netting agreements and obtaining collateral. OTC-cleared derivatives are executed bilaterally in the OTC market but then novated to a central clearing counterparty, whereby the central clearing counterparty becomes the counterparty to both of the original counterparties. Exchange traded derivatives are executed directly on an organized exchange that provides pre-trade price transparency. Credit risk is minimized for OTC-cleared derivatives and exchange traded derivatives through daily margining required by central clearing counterparties.

⁽³⁾ Trading related derivative assets/liabilities are recorded in trading assets / trading liabilities on the consolidated balance sheet.

⁽⁴⁾ Represents the netting of derivative receivable and payable balances for the same counterparty under enforceable netting agreements.

- (5) Represents the netting of cash collateral posted and received by counterparty under enforceable netting agreements.
- (6) Netting is performed at a counterparty level in cases where enforceable master netting agreements are in place, regardless of the type of derivative instrument. Therefore, we have not attempted to allocate netting to the different types of derivative instruments shown in the table above.

See Note 18, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," for further information on offsetting related to resale and repurchase agreements and securities borrowing and lending arrangements.

Derivatives Held for Risk Management Purposes Our risk management policy requires us to identify, analyze and manage risks arising from the activities conducted during the normal course of business. We use derivative instruments as an asset and liability management tool to manage our exposures in interest rate, foreign currency and credit risks in existing assets and liabilities, commitments and forecasted transactions. The accounting for changes in fair value of a derivative instrument will depend on whether the derivative has been designated and qualifies for hedge accounting.

We designate derivative instruments to offset the fair value risk and cash flow risk arising from fixed-rate and floating-rate assets and liabilities as well as forecasted transactions. We assess the hedging relationships, both at the inception of the hedge and on an ongoing basis, using a regression approach to determine whether the designated hedging instrument is highly effective in offsetting changes in the fair value or the cash flows attributable to the hedged risk. Accounting principles for qualifying hedges require us to prepare detailed documentation describing the relationship between the hedging instrument and the hedged item, including, but not limited to, the risk management objective, the hedging strategy and the methods to assess and measure the ineffectiveness of the hedging relationship. We discontinue hedge accounting when we determine that the hedge is no longer highly effective, the hedging instrument is terminated, sold or expired, the designated forecasted transaction is not probable of occurring, or when the designation is removed by us.

Fair Value Hedges In the normal course of business, we hold fixed-rate loans and securities and issue fixed-rate senior and subordinated debt obligations. The fair value of fixed-rate (U.S. dollar and non-U.S. dollar denominated) assets and liabilities fluctuates in response to changes in interest rates or foreign currency exchange rates. We utilize interest rate swaps, forward and futures contracts and foreign currency swaps to minimize the effect on earnings caused by interest rate and foreign currency volatility. The changes in the fair value of the hedged item designated in a qualifying hedge are captured as an adjustment to the carrying amount of the hedged item (basis adjustment). If the hedging relationship is terminated and the hedged item continues to exist, the basis adjustment is amortized over the remaining life of the hedged item.

We recorded basis adjustments for active fair value hedges which decreased the carrying amount of our debt by \$26 million and increased by \$70 million during the three and nine months ended September 30, 2016, respectively, compared with increases of \$25 million and \$13 million during the three and nine months ended September 30, 2015, respectively. We amortized \$2 million and \$5 million of basis adjustments related to terminated and/or re-designated fair value hedge relationships of our debt during the three and nine months ended September 30, 2016, respectively, compared with \$2 million and \$5 million during the three and nine months ended September 30, 2015, respectively. The total accumulated unamortized basis adjustments amounted to an increase in the carrying amount of our debt of \$59 million at September 30, 2016, compared with a decrease of \$6 million at December 31, 2015.

Basis adjustments for active fair value hedges of available-for-sale ("AFS") securities decreased the carrying amount of the securities by \$93 million and increased by \$861 million during the three and nine months ended September 30, 2016, respectively, compared with increases of \$412 million and \$234 million during the three and nine months ended September 30, 2015, respectively. The total accumulated unamortized basis adjustments for active fair value hedges of AFS securities amounted to increases in the carrying amount of the securities of \$1,278 million and \$439 million at September 30, 2016 and December 31, 2015, respectively.

The following table presents information on gains and losses on derivative instruments designated and qualifying as hedging instruments in fair value hedges and the hedged items in fair value hedges and their location on the consolidated statement of income:

| | Gain (Loss) on Derivative | | Gain (Loss) on Hedged Items | | Net Ineffective |
|--|------------------------------|------------------------|------------------------------|------------------------|---|
| | Interest Income (Expense) | Other Income (Loss) | Interest Income (Expense) | Other Income (Loss) | Gain (Loss) Recognized Other Income (Loss) |
| (in millions) | | | | | |
| Three Months Ended September 30, 2016 | | | | | |
| Interest rate contracts/AFS Securities | \$ (38) | \$ 26 | \$ 92 | \$ (37) | \$ (11) |
| Interest rate contracts/long-term debt | 8 | (27) | (34) | 26 | (1) |
| Total | <u>\$ (30)</u> | <u>\$ (1)</u> | <u>\$ 58</u> | <u>\$ (11)</u> | <u>\$ (12)</u> |
| Three Months Ended September 30, 2015 | | | | | |
| Interest rate contracts/AFS Securities | \$ (51) | \$ (434) | \$ 92 | \$ 414 | \$ (20) |
| Interest rate contracts/long-term debt | 7 | 27 | (22) | (25) | 2 |
| Total | <u>\$ (44)</u> | <u>\$ (407)</u> | <u>\$ 70</u> | <u>\$ 389</u> | <u>\$ (18)</u> |
| Nine Months Ended September 30, 2016 | | | | | |
| Interest rate contracts/AFS Securities | \$ (133) | \$ (1,027) | \$ 281 | \$ 965 | \$ (62) |
| Interest rate contracts/long-term debt | 23 | 71 | (95) | (70) | 1 |
| Total | <u>\$ (110)</u> | <u>\$ (956)</u> | <u>\$ 186</u> | <u>\$ 895</u> | <u>\$ (61)</u> |
| Nine Months Ended September 30, 2015 | | | | | |
| Interest rate contracts/AFS Securities | \$ (154) | \$ (229) | \$ 273 | \$ 217 | \$ (12) |
| Interest rate contracts/long-term debt | 16 | 15 | (55) | (13) | 2 |
| Total | <u>\$ (138)</u> | <u>\$ (214)</u> | <u>\$ 218</u> | <u>\$ 204</u> | <u>\$ (10)</u> |

Cash Flow Hedges We own or issue floating rate financial instruments and enter into forecasted transactions that give rise to variability in future cash flows. As a part of our risk management strategy, we use interest rate swaps, currency swaps and futures contracts to mitigate risk associated with variability in the cash flows. Changes in fair value of a derivative instrument associated with the effective portion of a qualifying cash flow hedge are recognized initially in other comprehensive income (loss). When the cash flows being hedged materialize and are recorded in income or expense, the associated gain or loss from the hedging derivative previously recorded in accumulated other comprehensive loss ("AOCI") is reclassified into earnings in the same accounting period in which the designated forecasted transaction or hedged item affects earnings. If a cash flow hedge of a forecasted transaction is de-designated because it is no longer highly effective, or if the hedge relationship is terminated, the cumulative gain or loss on the hedging derivative to that date will continue to be reported in AOCI unless it is probable that the hedged forecasted transaction will not occur by the end of the originally specified time period as documented at the inception of the hedge, at which time the cumulative gain or loss is released into earnings.

At September 30, 2016 and December 31, 2015, active cash flow hedge relationships extend or mature through July 2036. During the three and nine months ended September 30, 2016, respectively, \$5 million and \$14 million of losses related to terminated and/or re-designated cash flow hedge relationships were amortized to earnings from AOCI, compared with losses of \$3 million and \$8 million during the three and nine months ended September 30, 2015, respectively. During the next twelve months, we expect to amortize \$13 million of remaining losses to earnings resulting from these terminated and/or re-designated cash flow hedges. The interest accrual related to the hedging instruments is recognized in interest income.

The following table presents information on gains and losses on derivative instruments designated and qualifying as hedging instruments in cash flow hedges (including amounts recognized in AOCI from all terminated cash flow hedges) and their locations on the consolidated statement of income:

| | Gain (Loss) Recognized in AOCI on Derivative (Effective Portion) | | Location of Gain (Loss) Reclassified from AOCI into Income (Effective Portion) | Gain (Loss) Reclassified From AOCI into Income (Effective Portion) | | Location of Gain (Loss) Recognized in Income on the Derivative (Ineffective Portion and Amount Excluded from Effectiveness Testing) | Gain (Loss) Recognized in Income on the Derivative (Ineffective Portion) | |
|---|--|----------------|--|--|---------------|---|--|-------------|
| | 2016 | 2015 | | 2016 | 2015 | | 2016 | 2015 |
| (in millions) | | | | | | | | |
| Three Months Ended September 30, | | | | | | | | |
| Foreign exchange contracts | \$ — | \$ (2) | Interest income (expense) | \$ — | \$ — | Other income (loss) | \$ — | \$ — |
| Interest rate contracts | 11 | (51) | Interest income (expense) | (5) | (3) | Other income (loss) | — | — |
| Total | \$ 11 | \$ (53) | | \$ (5) | \$ (3) | | \$ — | \$ — |
| Nine Months Ended September 30, | | | | | | | | |
| Foreign exchange contracts | \$ — | \$ (1) | Interest income (expense) | \$ — | \$ — | Other income (loss) | \$ — | \$ — |
| Interest rate contracts | (89) | (36) | Interest income (expense) | (14) | (8) | Other income (loss) | — | — |
| Total | \$ (89) | \$ (37) | | \$ (14) | \$ (8) | | \$ — | \$ — |

Trading Derivatives and Non-Qualifying Hedging Activities In addition to risk management, we enter into derivative instruments, including buy- and sell-protection credit derivatives, for trading and market making purposes, to repackage risks and structure trades to facilitate clients' needs for various risk taking and risk modification purposes. We manage our risk exposure by entering into offsetting derivatives with other financial institutions to mitigate the market risks, in part or in full, arising from our trading activities with our clients. In addition, we also enter into buy-protection credit derivatives with other market participants to manage our counterparty credit risk exposure. Where we enter into derivatives for trading purposes, realized and unrealized gains and losses are recognized in trading revenue or residential mortgage banking revenue (expense). Credit losses arising from counterparty risk on over-the-counter derivative instruments and offsetting buy protection credit derivative positions are recognized as an adjustment to the fair value of the derivatives and are recorded in trading revenue.

Our non-qualifying hedging activities include:

- Derivative contracts related to the fixed-rate long-term debt issuances and hybrid instruments, including all structured notes and structured deposits, for which we have elected fair value option accounting. These derivative contracts are non-qualifying hedges but are considered economic hedges.
- Credit default swaps which are designated as economic hedges against the credit risks within our loan portfolio. In the event of an impairment loss occurring in a loan that is economically hedged, the impairment loss is recognized as provision for credit losses while the gain on the credit default swap is recorded as other income.
- Forward purchase or sale of to-be-announced ("TBA") securities designated to economically hedge mortgage servicing rights. Changes in the fair value of TBA positions, which are considered derivatives, are recorded in residential mortgage banking revenue (expense).

Derivative instruments designated as economic hedges that do not qualify for hedge accounting are recorded at fair value through profit and loss. Realized and unrealized gains and losses on economic hedges are recognized in gain (loss) on instruments designated at fair value and related derivatives, other income (loss) or residential mortgage banking revenue (expense) while the derivative asset or liability positions are reflected as other assets or other liabilities.

The following table presents information on gains and losses on derivative instruments held for trading purposes and their locations on the consolidated statement of income:

| Location of Gain (Loss) Recognized in Income on Derivatives | | Amount of Gain (Loss) Recognized in Income on Derivatives | | | |
|--|---|--|----------------|------------------------------------|---------------|
| | | Three Months Ended September 30, | | Nine Months Ended September 30, | |
| | | 2016 | 2015 | 2016 | 2015 |
| (in millions) | | | | | |
| Interest rate contracts | Trading revenue (expense) | \$ 97 | \$ 260 | \$ (413) | \$ 801 |
| Interest rate contracts | Residential mortgage banking revenue (expense) | (3) | 28 | 40 | 34 |
| Foreign exchange contracts..... | Trading revenue (expense) | (243) | (372) | (15) | (521) |
| Equity contracts | Trading revenue (expense) | 2 | (3) | 5 | — |
| Precious metals contracts..... | Trading revenue (expense) | 35 | 25 | 64 | 44 |
| Credit contracts | Trading revenue (expense) | (40) | (23) | (102) | (40) |
| Total | | <u>\$ (152)</u> | <u>\$ (85)</u> | <u>\$ (421)</u> | <u>\$ 318</u> |

The following table presents information on gains and losses on derivative instruments held for non-qualifying hedging activities and their locations on the consolidated statement of income:

| Location of Gain (Loss) Recognized in Income on Derivatives | | Amount of Gain (Loss) Recognized in Income on Derivatives | | | |
|--|--|--|-----------------|------------------------------------|-----------------|
| | | Three Months Ended September 30, | | Nine Months Ended September 30, | |
| | | 2016 | 2015 | 2016 | 2015 |
| (in millions) | | | | | |
| Interest rate contracts | Gain (loss) on instruments designated at fair value and related derivatives | \$ (6) | \$ 164 | \$ 319 | \$ 131 |
| Interest rate contracts | Residential mortgage banking revenue (expense) | — | (1) | — | — |
| Foreign exchange contracts | Gain (loss) on instruments designated at fair value and related derivatives | 6 | (18) | 26 | (13) |
| Equity contracts | Gain (loss) on instruments designated at fair value and related derivatives | 194 | (533) | 226 | (401) |
| Precious metals contracts..... | Gain (loss) on instruments designated at fair value and related derivatives | — | (1) | — | — |
| Credit contracts | Gain (loss) on instruments designated at fair value and related derivatives | — | — | — | (3) |
| Credit contracts | Other income (loss) | (23) | 92 | (64) | 69 |
| Total | | <u>\$ 171</u> | <u>\$ (297)</u> | <u>\$ 507</u> | <u>\$ (217)</u> |

Credit-Risk Related Contingent Features We enter into total return swap, interest rate swap, cross-currency swap and credit default swap contracts, amongst others, which contain provisions that require us to maintain a specific credit rating from each of the major credit rating agencies. Sometimes the derivative instrument transactions are a part of broader structured product transactions. If HSBC Bank USA, National Association's ("HSBC Bank USA") credit ratings were to fall below the current ratings, the counterparties to our derivative instruments could demand us to post additional collateral. The amount of additional collateral required to be posted will depend on whether HSBC Bank USA is downgraded by one or more notches. The aggregate fair value of all derivative instruments with credit-risk related contingent features that were in a liability position at September 30, 2016 was \$7,949 million, for which we had posted collateral of \$7,575 million. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a liability position at December 31, 2015 was \$7,139 million, for which we had posted collateral of \$6,283 million. Substantially all of the collateral posted is in the form of cash or securities available-for-sale. See Note 18, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," for further details.

The following tables summarize our obligation to post additional collateral (from the current collateral level) in certain hypothetical commercially reasonable downgrade scenarios of our long term ratings. It is not appropriate to accumulate or extrapolate information presented in the tables below to determine our total obligation because the information presented to determine the obligation in hypothetical rating scenarios is not mutually exclusive.

| Moody's | Single-notch downgrade A1 | Two-notch downgrade A2 |
|---|---------------------------------|------------------------------|
| | (in millions) | |
| Amount of additional collateral to be posted upon downgrade | \$ 59 | \$ 65 |
| | | |
| Standard & Poor's ("S&P") | Single-notch downgrade A+ | Two-notch downgrade A |
| | (in millions) | |
| Amount of additional collateral to be posted upon downgrade | \$ 59 | \$ 65 |

Notional Value of Derivative Contracts The following table summarizes the notional values of derivative contracts:

| | September 30, 2016 | December 31, 2015 |
|--|---------------------|---------------------|
| | (in millions) | |
| Interest rate: | | |
| Futures and forwards | \$ 421,519 | \$ 149,413 |
| Swaps | 2,245,350 | 2,453,526 |
| Options written | 91,443 | 65,747 |
| Options purchased | 110,002 | 80,092 |
| | 2,868,314 | 2,748,778 |
| Foreign exchange: | | |
| Swaps, futures and forwards | 1,055,428 | 980,811 |
| Options written | 72,066 | 81,132 |
| Options purchased | 73,007 | 82,004 |
| Spot..... | 27,429 | 42,724 |
| | 1,227,930 | 1,186,671 |
| Commodities, equities and precious metals: | | |
| Swaps, futures and forwards | 73,915 | 35,546 |
| Options written | 17,466 | 19,601 |
| Options purchased | 29,929 | 33,374 |
| | 121,310 | 88,521 |
| Credit derivatives | 143,515 | 188,070 |
| Total..... | \$ 4,361,069 | \$ 4,212,040 |

11. Fair Value Option

We report our results to HSBC in accordance with HSBC Group accounting and reporting policies ("Group Reporting Basis"), which apply International Financial Reporting Standards ("IFRSs") as issued by the International Accounting Standards Board ("IASB") and as endorsed by the European Union ("EU"). We typically have elected to apply fair value option ("FVO") accounting to selected financial instruments to align the measurement attributes of those instruments under U.S. GAAP and the Group Reporting Basis and to simplify the accounting model applied to those financial instruments. We elected to apply FVO accounting to certain commercial loans held for sale, certain securities sold under repurchase agreements, certain fixed-rate long-term debt issuances and hybrid instruments which include all structured notes and structured deposits. Changes in fair value for these assets and liabilities are reported as gain (loss) on instruments designated at fair value and related derivatives in the consolidated statement of income.

Loans We elected to apply FVO accounting to certain commercial syndicated loans which are originated with the intent to sell and certain commercial loans that we purchased from the secondary market and hold as hedges against our exposure to certain total return swaps and include these loans as loans held for sale in the consolidated balance sheet. The election allows us to account for these loans at fair value which is consistent with the manner in which the instruments are managed. Where available, fair value is based on observable market consensus pricing obtained from independent sources, relevant broker quotes or observed market prices of instruments with similar characteristics. Where observable market parameters are not available, fair value is determined based on contractual cash flows adjusted for estimates of prepayment rates, expected default rates and loss severity discounted at management's estimate of the expected rate of return required by market participants. We also consider loan specific risk mitigating factors such as collateral arrangements in determining the fair value estimate. Interest from these loans is recorded as interest income in the consolidated statement of income. Because a substantial majority of the loans elected for the fair value option are floating rate assets, changes in their fair value are primarily attributable to changes in loan-specific credit risk factors. The components of gain (loss) related to loans designated at fair value are summarized in the table below. As of September 30, 2016 and December 31, 2015, no loans for which the fair value option has been elected were 90 days or more past due or in nonaccrual status.

Resale and Repurchase Agreements We elected to apply FVO accounting to certain securities purchased and sold under resale and repurchase agreements which are trading in nature. The election allows us to account for these resale and repurchase agreements at fair value which is consistent with the manner in which the instruments are managed. The fair value of the resale and repurchase agreements is determined using market rates currently offered on comparable transactions with similar underlying collateral and maturities. Interest on these resale and repurchase agreements is recorded as interest income or expense in the consolidated statement of income. The components of gain (loss) related to these resale and repurchase agreements designated at fair value are summarized in the table below.

Long-Term Debt (Own Debt Issuances) We elected to apply FVO accounting for certain fixed-rate long-term debt for which we had applied or otherwise would elect to apply fair value hedge accounting. The election allows us to achieve a similar accounting effect without having to meet the hedge accounting requirements. The own debt issuances elected under FVO are traded in secondary markets and, as such, the fair value is determined based on observed prices for the specific instruments. The observed market price of these instruments reflects the effect of changes to our own credit spreads and interest rates. Interest on the fixed-rate debt accounted for under FVO is recorded as interest expense in the consolidated statement of income. The components of gain (loss) related to long-term debt designated at fair value are summarized in the table below.

Hybrid Instruments We elected to apply FVO accounting to all of our hybrid instruments issued, including structured notes and structured deposits. The valuation of the hybrid instruments is predominantly driven by the derivative features embedded within the instruments and own credit risk. Cash flows of the hybrid instruments in their entirety, including the embedded derivatives, are discounted at an appropriate rate for the applicable duration of the instrument adjusted for our own credit spreads. The credit spreads applied to structured notes are determined with reference to our own debt issuance rates observed in the primary and secondary markets, internal funding rates, and structured note rates in recent executions while the credit spreads applied to structured deposits are determined using market rates currently offered on comparable deposits with similar characteristics and maturities. Interest on this debt is recorded as interest expense in the consolidated statement of income. The components of gain (loss) related to hybrid instruments designated at fair value which reflect the instruments described above are summarized in the table below.

The following table summarizes the fair value and unpaid principal balance for items we account for under FVO:

| | Fair Value | Unpaid Principal Balance | Fair Value over (under) Unpaid Principal Balance |
|--|---------------|--------------------------------|--|
| | (in millions) | | |
| At September 30, 2016 | | | |
| Commercial loans held for sale..... | \$ 649 | \$ 666 | \$ (17) |
| Securities purchased under resale agreements | 769 | 767 | 2 |
| Securities sold under repurchase agreements | 2,675 | 2,670 | 5 |
| Fixed rate long-term debt..... | 2,097 | 1,750 | 347 |
| Hybrid instruments: | | | |
| Structured deposits | 7,472 | 7,361 | 111 |
| Structured notes..... | 7,902 | 7,796 | 106 |
| At December 31, 2015 | | | |
| Commercial loans held for sale..... | \$ 151 | \$ 159 | \$ (8) |
| Securities sold under repurchase agreements | 1,976 | 1,970 | 6 |
| Fixed rate long-term debt..... | 2,007 | 1,750 | 257 |
| Hybrid instruments: | | | |
| Structured deposits | 6,919 | 7,016 | (97) |
| Structured notes..... | 7,164 | 7,323 | (159) |

Components of Gain (Loss) on Instruments at Fair Value and Related Derivatives Gain (loss) on instruments designated at fair value and related derivatives includes the changes in fair value related to interest, credit and other risks as well as the mark-to-market adjustment on the related derivatives and the net realized gains or losses on these derivatives. The following table summarizes the components of gain (loss) on instruments designated at fair value and related derivatives related to the changes in fair value of the financial instrument accounted for under FVO:

| | Loans | Securities Purchased Under Resale Agreements | Securities Sold Under Repurchase Agreements | Long-Term Debt | Hybrid Instruments | Total |
|--|--------|--|--|-------------------|-----------------------|----------|
| (in millions) | | | | | | |
| Three Months Ended September 30, 2016 | | | | | | |
| Interest rate and other components ⁽¹⁾ | \$ — | \$ (4) | \$ 1 | \$ (5) | \$ (220) | \$ (228) |
| Credit risk component ⁽²⁾⁽³⁾ | 6 | — | — | 5 | (65) | (54) |
| Total mark-to-market on financial instruments designated at fair value | 6 | (4) | 1 | — | (285) | (282) |
| Mark-to-market on the related derivatives | — | — | — | (10) | 188 | 178 |
| Net realized gain on the related long-term debt derivatives | — | — | — | 16 | — | 16 |
| Gain (loss) on instruments designated at fair value and related derivatives | \$ 6 | \$ (4) | \$ 1 | \$ 6 | \$ (97) | \$ (88) |
| Three Months Ended September 30, 2015 | | | | | | |
| Interest rate and other components ⁽¹⁾ | \$ — | \$ — | \$ (2) | \$ (100) | \$ 499 | \$ 397 |
| Credit risk component ⁽²⁾⁽³⁾ | (1) | — | — | 96 | 61 | 156 |
| Total mark-to-market on financial instruments designated at fair value | (1) | — | (2) | (4) | 560 | 553 |
| Mark-to-market on the related derivatives | — | — | — | 98 | (503) | (405) |
| Net realized gain on the related long-term debt derivatives | — | — | — | 17 | — | 17 |
| Gain (loss) on instruments designated at fair value and related derivatives | \$ (1) | \$ — | \$ (2) | \$ 111 | \$ 57 | \$ 165 |
| Nine Months Ended September 30, 2016 | | | | | | |
| Interest rate and other components ⁽¹⁾ | \$ — | \$ 1 | \$ 2 | \$ (202) | \$ (382) | \$ (581) |
| Credit risk component ⁽²⁾⁽³⁾ | 6 | — | — | 113 | (19) | 100 |
| Total mark-to-market on financial instruments designated at fair value | 6 | 1 | 2 | (89) | (401) | (481) |
| Mark-to-market on the related derivatives | — | — | — | 184 | 339 | 523 |
| Net realized gain on the related long-term debt derivatives | — | — | — | 48 | — | 48 |
| Gain (loss) on instruments designated at fair value and related derivatives | \$ 6 | \$ 1 | \$ 2 | \$ 143 | \$ (62) | \$ 90 |
| Nine Months Ended September 30, 2015 | | | | | | |
| Interest rate and other components ⁽¹⁾ | \$ — | \$ — | \$ (4) | \$ (50) | \$ 423 | \$ 369 |
| Credit risk component ⁽²⁾⁽³⁾ | (9) | — | — | 214 | 18 | 223 |
| Total mark-to-market on financial instruments designated at fair value | (9) | — | (4) | 164 | 441 | 592 |
| Mark-to-market on the related derivatives | — | — | — | 41 | (378) | (337) |
| Net realized gain on the related long-term debt derivatives | — | — | — | 51 | — | 51 |
| Gain (loss) on instruments designated at fair value and related derivatives | \$ (9) | \$ — | \$ (4) | \$ 256 | \$ 63 | \$ 306 |

⁽¹⁾ As it relates to hybrid instruments, interest rate and other components includes interest rate, foreign exchange and equity contract risks.

⁽²⁾ During the three and nine months ended September 30, 2016 and 2015, the gains in the credit risk component for long-term debt were attributable to the widening of our own credit spreads.

⁽³⁾ During the three months ended September 30, 2016, the loss in the credit risk component for hybrid instruments was attributable primarily to the tightening of our own credit spreads related to structured notes. During the nine months ended September 30, 2016, the loss in the credit risk component for hybrid

instruments was attributable to the tightening of credit spreads on structured deposits, partially offset by the widening of our own credits spreads related to structured notes. During the three and nine months ended September 30, 2015, the gains in the credit risk component for hybrid instruments were attributable primarily to the widening of credit spreads on structured deposits and, in the three month period, the widening of our own credit spreads related to structured notes. These gains were partially offset in the year-to-date period by a loss due to changes in estimates associated with the valuation techniques used to measure the fair value of certain structured notes and deposits.

12. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss includes certain items that are reported directly within a separate component of shareholders' equity. The following table presents changes in accumulated other comprehensive loss balances:

| Three Months Ended September 30, | 2016 | 2015 |
|--|----------------|-----------------|
| | (in millions) | |
| Unrealized gains (losses) on investment securities: | | |
| Balance at beginning of period..... | \$ 252 | \$ (83) |
| Other comprehensive income (loss) for period: | | |
| Net unrealized gains (losses) arising during period, net of tax of \$(65) million and \$2 million, respectively | (108) | 7 |
| Reclassification adjustment for gains realized in net income, net of tax of \$(6) million and \$(4) million, respectively ⁽¹⁾ | (10) | (7) |
| Amortization of net unrealized losses on securities transferred from available-for-sale to held-to-maturity realized in net income, net of tax of \$4 million and \$3 million, respectively ⁽²⁾ | 6 | 5 |
| Total other comprehensive income (loss) for period..... | (112) | 5 |
| Balance at end of period..... | 140 | (78) |
| Unrealized losses on derivatives designated as cash flow hedges: | | |
| Balance at beginning of period..... | (226) | (144) |
| Other comprehensive income (loss) for period: | | |
| Net unrealized gains (losses) arising during period, net of tax of \$5 million and \$(19) million, respectively | 6 | (34) |
| Reclassification adjustment for losses realized in net income, net of tax of \$2 million and \$1 million, respectively ⁽³⁾ | 3 | 2 |
| Total other comprehensive income (loss) for period..... | 9 | (32) |
| Balance at end of period..... | (217) | (176) |
| Pension and postretirement benefit liability: | | |
| Balance at beginning and end of period | (3) | (2) |
| Total accumulated other comprehensive loss at end of period..... | \$ (80) | \$ (256) |

| Nine Months Ended September 30, | 2016 | 2015 |
|--|----------------|-----------------|
| | (in millions) | |
| Unrealized gains (losses) on investment securities: | | |
| Balance at beginning of period..... | \$ (234) | \$ 158 |
| Other comprehensive income (loss) for period: | | |
| Net unrealized gains (losses) arising during period, net of tax of \$243 million and \$(126) million, respectively | 407 | (210) |
| Reclassification adjustment for gains realized in net income, net of tax of \$(30) million and \$(26) million, respectively ⁽¹⁾ | (51) | (43) |
| Amortization of net unrealized losses on securities transferred from available-for-sale to held-to-maturity realized in net income, net of tax of \$11 million and \$10 million, respectively ⁽²⁾ | 18 | 17 |
| Total other comprehensive income (loss) for period..... | 374 | (236) |
| Balance at end of period..... | 140 | (78) |
| Unrealized losses on derivatives designated as cash flow hedges: | | |
| Balance at beginning of period..... | (170) | (156) |
| Other comprehensive income (loss) for period: | | |
| Net unrealized gains (losses) arising during period, net of tax of \$(33) million and \$(12) million, respectively | (56) | (25) |
| Reclassification adjustment for losses realized in net income, net of tax of \$5 million and \$3 million, respectively ⁽³⁾ | 9 | 5 |
| Total other comprehensive loss for period | (47) | (20) |
| Balance at end of period..... | (217) | (176) |
| Pension and postretirement benefit liability: | | |
| Balance at beginning of period..... | (3) | (3) |
| Other comprehensive income (loss) for period: | | |
| Change in unfunded pension and postretirement liability, net of tax of less than \$1 million..... | — | 1 |
| Total other comprehensive income for period..... | — | 1 |
| Balance at end of period..... | (3) | (2) |
| Total accumulated other comprehensive loss at end of period..... | \$ (80) | \$ (256) |

⁽¹⁾ Amount reclassified to net income is included in other securities gains, net in our consolidated statement of income.

⁽²⁾ Amount amortized to net income is included in interest income in our consolidated statement of income. During 2014, we transferred securities from available-for-sale to held-to-maturity. At the date of transfer, AOCI included net pretax unrealized losses of \$234 million related to the transferred securities which will be amortized over the remaining contractual life of each security as an adjustment of yield in a manner consistent with the amortization of any premium or discount.

⁽³⁾ Amount reclassified to net income is included in interest income (expense) in our consolidated statement of income.

13. Pension and Other Postretirement Benefits

Defined Benefit Pension Plan The components of pension expense for the defined benefit pension plan recorded in our consolidated statement of income and shown in the table below reflect the portion of pension expense of the combined HSBC North America Pension Plan (either the "HSBC North America Pension Plan" or the "Plan") which has been allocated to us.

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|-------------|------------------------------------|--------------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Interest cost on projected benefit obligation..... | \$ 18 | \$ 18 | \$ 53 | \$ 51 |
| Expected return on plan assets..... | (21) | (22) | (63) | (68) |
| Amortization of net actuarial loss | 13 | 10 | 32 | 29 |
| Administrative costs..... | 1 | 2 | 4 | 5 |
| Pension expense..... | <u>\$ 11</u> | <u>\$ 8</u> | <u>\$ 26</u> | <u>\$ 17</u> |

During the three and nine months ended September 30, 2016, pension expense was impacted by an immaterial out of period adjustment which increased pension expense by \$6 million in order to properly reflect changes in participant census data which should have been included in pension valuations in prior periods.

Postretirement Plans Other Than Pensions The components of net periodic benefit cost for our postretirement plans other than pension are as follows:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|-------------------------------------|-------------|------------------------------------|-------------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Interest cost on accumulated benefit obligation | \$ 1 | \$ 1 | \$ 2 | \$ 2 |
| Net periodic postretirement benefit cost..... | <u>\$ 1</u> | <u>\$ 1</u> | <u>\$ 2</u> | <u>\$ 2</u> |

14. Related Party Transactions

In the normal course of business, we conduct transactions with HSBC and its subsidiaries. HSBC policy requires that these transactions occur at prevailing market rates and terms and include funding arrangements, derivative transactions, servicing arrangements, information technology support, centralized support services, banking and other miscellaneous services and where applicable, these transactions are compliant with United States banking regulations. All extensions of credit by (and certain credit exposures of) HSBC Bank USA to other HSBC affiliates (other than Federal Deposit Insurance Corporation ("FDIC") insured banks) are legally required to be secured by eligible collateral. The following tables and discussions below present the more significant related party balances and the income (expense) generated by related party transactions:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| | (in millions) | |
| Assets: | | |
| Cash and due from banks..... | \$ 133 | \$ 169 |
| Interest bearing deposits with banks..... | 26 | 244 |
| Securities purchased under agreements to resell ⁽¹⁾ | 4,000 | 4,000 |
| Trading assets ⁽²⁾ | 17,305 | 18,632 |
| Loans..... | 4,463 | 4,815 |
| Other ⁽³⁾ | 203 | 458 |
| Total assets..... | <u>\$ 26,130</u> | <u>\$ 28,318</u> |
| Liabilities: | | |
| Deposits | \$ 20,130 | \$ 13,486 |
| Trading liabilities ⁽²⁾ | 18,391 | 19,496 |
| Short-term borrowings..... | 2,134 | 2,004 |
| Long-term debt | 5,832 | 1,827 |
| Other ⁽³⁾ | 277 | 346 |
| Total liabilities..... | <u>\$ 46,764</u> | <u>\$ 37,159</u> |

⁽¹⁾ Reflects overnight purchases of U.S. Treasury securities which HSBC Securities (USA) Inc. ("HSI") has agreed to repurchase.

⁽²⁾ Trading assets and trading liabilities do not reflect the impact of netting which allows the offsetting of amounts relating to certain contracts if certain conditions are met. Trading assets and liabilities primarily consist of derivatives contracts.

⁽³⁾ Other assets and other liabilities primarily consist of derivative balances associated with hedging activities and other miscellaneous account receivables and payables.

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|-------|------------------------------------|---------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Income/(Expense): | | | | |
| Interest income | \$ 30 | \$ 28 | \$ 90 | \$ 86 |
| Interest expense | (38) | (19) | (102) | (41) |
| Net interest income (expense)..... | (8) | 9 | (12) | 45 |
| Trading revenue (expense)..... | (661) | 72 | 138 | 441 |
| Servicing and other fees from HSBC affiliates: | | | | |
| HSBC Bank plc | 22 | 23 | 70 | 60 |
| HSBC Finance Corporation | 8 | 11 | 29 | 40 |
| HSBC Markets (USA) Inc. ("HMUS")..... | 5 | 6 | 15 | 19 |
| Other HSBC affiliates | 15 | 13 | 41 | 43 |
| Total servicing and other fees from HSBC affiliates..... | 50 | 53 | 155 | 162 |
| Gain (loss) on instruments designed at fair value and related derivatives..... | 193 | (535) | 228 | (405) |
| Support services from HSBC affiliates: | | | | |
| HMUS | (42) | (66) | (150) | (199) |
| HSBC Technology & Services (USA) ("HTSU")..... | (252) | (250) | (734) | (754) |
| Other HSBC affiliates | (60) | (45) | (145) | (145) |
| Total support services from HSBC affiliates | (354) | (361) | (1,029) | (1,098) |
| Stock based compensation expense with HSBC ⁽¹⁾ | (7) | (12) | (24) | (40) |

⁽¹⁾ Employees may participate in one or more stock compensation plans sponsored by HSBC. These expenses are included in salaries and employee benefits in our consolidated statement of income. Employees also may participate in a defined benefit pension plan and other postretirement plans sponsored by HSBC North America which are discussed in Note 13, "Pension and Other Postretirement Benefits."

Funding Arrangements with HSBC Affiliates:

We use HSBC affiliates to fund a portion of our borrowing and liquidity needs. At September 30, 2016 and December 31, 2015, long-term debt with affiliates reflected \$5.9 billion and \$1.9 billion, respectively, of floating rate borrowings from HSBC North America. The outstanding balances include:

- \$1.0 billion of senior debt which was issued during the second quarter of 2015 and matures in December 2016;
- \$2.0 billion of senior debt which was issued during the third quarter of 2016 and matures in August 2021;
- \$0.9 billion of subordinated debt which was issued during the second quarter of 2015 and matures in May 2025; and
- \$2.0 billion of senior debt which was issued during the third quarter of 2016 and matures in August 2026.

We have a \$150 million uncommitted line of credit with HSBC North America Inc. although there was no outstanding balance at either September 30, 2016 or December 31, 2015.

We have also incurred short-term borrowings with certain affiliates, largely securities sold under repurchase agreements with HSI. In addition, certain affiliates have also placed deposits with us.

Lending and Derivative Related Arrangements Extended to HSBC Affiliates:

At September 30, 2016 and December 31, 2015, we have the following loan balances outstanding with HSBC affiliates:

| | September 30, 2016 | December 31, 2015 |
|---|-----------------------|----------------------|
| | (in millions) | |
| HSBC Finance Corporation | \$ 3,013 | \$ 3,014 |
| HSBC Markets (USA) Inc. ("HMUS") and subsidiaries | 473 | 978 |
| HSBC Mexico S.A. | 975 | 725 |
| Regency Assets Limited ("Regency") ⁽¹⁾ | — | 58 |
| Other short-term affiliate lending | 2 | 40 |
| Total loans | <u>\$ 4,463</u> | <u>\$ 4,815</u> |

⁽¹⁾ An asset-backed commercial paper conduit consolidated by an HSBC affiliate.

HSBC Finance Corporation We have extended a \$5.0 billion, 364-day uncommitted unsecured revolving credit agreement to HSBC Finance which expires during the fourth quarter of 2017. The credit agreement allows for borrowings with maturities of up to 5 years. At both September 30, 2016 and December 31, 2015, \$3.0 billion was outstanding under this credit agreement with \$0.5 billion maturing in September 2017, \$1.5 billion maturing in January 2018 and \$1.0 billion maturing in September 2018. At December 31, 2015, we also had extended a committed revolving credit facility to HSBC Finance of \$1.0 billion which did not have any outstanding balance. During the third quarter of 2016, this credit facility was terminated.

HMUS and subsidiaries We have extended loans and lines, some of them uncommitted, to HMUS and its subsidiaries in the amount of \$8.9 billion and \$10.7 billion at both September 30, 2016 and December 31, 2015, respectively, of which \$473 million and \$978 million, respectively, was outstanding. The maturities of the outstanding balances range from overnight to three months. Each borrowing is re-evaluated prior to its maturity date and either extended or allowed to mature.

HSBC Mexico S.A. We have extended an uncommitted line of credit to HSBC Mexico S.A. in the amount of \$1.2 billion at both September 30, 2016 and December 31, 2015, of which \$975 million and \$725 million was outstanding at September 30, 2016 and December 31, 2015, respectively. The outstanding balances mature at various stages between 2017 and 2018.

Regency During the third quarter of 2016, Regency was restructured and the liquidity facilities we previously provided to them were terminated. See Note 17, "Variable Interest Entities," for additional discussion. Prior to the third quarter of 2016, HUSI was committed to provide liquidity facilities to backstop the liquidity risk in Regency in relation to assets originated in the United States. The notional amount of the liquidity facilities provided by HUSI to Regency was approximately \$3.4 billion at December 31, 2015 which was less than half of Regency's total liquidity facilities. At December 31, 2015, \$58 million was outstanding under these facilities.

We have extended lines of credit to various other HSBC affiliates totaling \$3.1 billion which did not have any outstanding balances at either September 30, 2016 and December 31, 2015.

Other short-term affiliate lending In addition to loans and lines extended to affiliates discussed above, from time to time we may extend loans to affiliates which are generally short term in nature. At September 30, 2016 and December 31, 2015, there were \$2 million and \$40 million, respectively, of these loans outstanding.

As part of a global HSBC strategy to offset interest rate or other market risks associated with certain securities, debt issues and derivative contracts with unaffiliated third parties, we routinely enter into derivative transactions with HSBC Finance, HSBC Bank plc and other HSBC affiliates. The notional value of derivative contracts related to these transactions was approximately \$979.1 billion and \$1,004.1 billion at September 30, 2016 and December 31, 2015, respectively. The net credit exposure (defined as the net fair value of derivative assets and liabilities, including any collateral received) related to the contracts was approximately \$6 million and \$216 million at September 30, 2016 and December 31, 2015, respectively. Our Global Banking and Markets business accounts for these transactions on a mark to market basis, with the change in value of contracts with HSBC affiliates substantially offset by the change in value of related contracts entered into with unaffiliated third parties.

Services Provided Between HSBC Affiliates:

Under multiple service level agreements, we provide services to and receive services from various HSBC affiliates. The following summarizes these activities:

- Servicing activities for residential mortgage loans across North America are performed both by us and HSBC Finance. As a result, we receive servicing fees from HSBC Finance for services performed on their behalf and pay servicing fees to HSBC Finance for services performed on our behalf. The fees we receive from HSBC Finance are reported in servicing and other fees from HSBC affiliates. Fees we pay to HSBC Finance are reported in support services from HSBC affiliates. This includes fees paid for the servicing of residential mortgage loans (with a carrying amount of \$586 million and \$696 million at September 30, 2016 and December 31, 2015, respectively) that we purchased from HSBC Finance in 2003 and 2004. During the third quarter of 2016, we transferred these residential mortgage loans to held for sale. See Note 7, "Loans Held for Sale," for additional information.
- HSBC North America's technology and certain centralized support services including human resources, corporate affairs, risk management, legal, compliance, tax, finance and other shared services that are centralized within HTSU. HTSU also provides certain item processing and statement processing activities to us. The fees we pay HTSU for the centralized support services and processing activities are included in support services from HSBC affiliates. We also receive fees from HTSU for providing certain administrative services to them. The fees we receive from HTSU are included in servicing and other fees from HSBC affiliates. In certain cases, for facilities used by HTSU, we may guarantee their performance under the lease agreements.
- We use HSBC Global Services Limited, an HSBC affiliate located outside of the United States, to provide various support services to our operations including among other areas, customer service, systems, collection and accounting functions. The expenses related to these services are included in support services from HSBC affiliates.
- We utilize HSI, a subsidiary of HMUS, for broker dealer, debt underwriting, customer referrals, loan syndication and other treasury and traded markets related services, pursuant to service level agreements. Debt underwriting fees charged by HSI are deferred as a reduction of long-term debt and amortized to interest expense over the life of the related debt. Fees charged by HSI for the other services are included in support services from HSBC affiliates.
- We receive fees from other subsidiaries of HSBC, including HSBC Bank plc and HSI, for providing them with banking and other miscellaneous services as well as support for certain administrative and global business activities. These fees are reported in servicing and other fees from HSBC affiliates.

Other Transactions with HSBC Affiliates

We received revenue from our affiliates for rent on certain office space, which has been recorded as a component of support services from HSBC affiliates. Rental revenue from our affiliates totaled \$16 million and \$47 million during the three and nine months ended September 30, 2016, respectively, compared with \$15 million and \$44 million during the three and nine months ended September 30, 2015, respectively.

During the second quarter of 2016, HSBC USA issued \$1,265 million of 6.0 percent Non-Cumulative Series I Preferred Stock to HSBC North America. See Note 16, "Retained Earnings and Regulatory Capital Requirements," for additional details.

15. Business Segments

We have four distinct business segments that we utilize for management reporting and analysis purposes, which are aligned with HSBC's global businesses and business strategy: Retail Banking and Wealth Management ("RBWM"), Commercial Banking ("CMB"), Global Banking and Markets ("GB&M") and Private Banking ("PB").

We previously announced that with effect from January 1, 2016, a portion of our Business Banking client group, generally representing those small business customers with \$3 million or less in annual revenue (now referred to as Retail Business Banking), would be better managed as part of RBWM rather than CMB given the similarities in their banking activities with the RBWM customer base. Therefore, to coincide with the change in our management reporting effective beginning in the first quarter of 2016, we have included the results of Retail Business Banking in the RBWM segment for all periods presented. As a result, loss before tax for the RBWM segment increased \$9 million and \$25 million during the three and nine months ended September 30, 2015, respectively. There have been no other changes in the basis of our segmentation or measurement of segment profit as compared with the presentation in our 2015 Form 10-K.

During the first half of 2016, we determined that a portion of our Large Corporate client group, generally representing those large business customers with more complex banking activities which require the levels of support routinely provided by relationship managers in GB&M, would be better managed as part of GB&M rather than CMB, effective October 1, 2016. Therefore, beginning in the fourth quarter of 2016, we will include the results of the transferred client relationships in the GB&M segment for all periods presented. We currently expect this transfer will result in an increase to loans and deposits for the GB&M segment of approximately

\$3.4 billion and \$2.4 billion, respectively. The profit before tax associated with these relationships was approximately \$83 million and \$54 million during the years ended December 31, 2015 and 2014, respectively.

Our segment results are presented in accordance with HSBC Group accounting and reporting policies, which apply IFRSs as issued by the IASB and as endorsed by the EU, and, as a result, our segment results are prepared and presented using financial information prepared on the Group Reporting Basis as operating results are monitored and reviewed, trends are evaluated and decisions about allocating resources, such as employees, are primarily made on this basis. However, we continue to monitor capital adequacy and report to regulatory agencies on a U.S. GAAP basis.

We continue to review the financial information used to manage our businesses, including the scope and content of the financial data, including the U.S. GAAP financial data, being reported to our Management and our Board. To the extent we make changes to this reporting in the future, we will evaluate any impact such changes may have on our segment reporting.

A summary of differences between U.S. GAAP and the Group Reporting Basis as they impact our results are presented in Note 22, "Business Segments," in our 2015 Form 10-K. There have been no significant changes since December 31, 2015 in the differences between U.S. GAAP and the Group Reporting Basis.

The following table summarizes the results for each segment on a Group Reporting Basis, as well as provides a reconciliation of total results under the Group Reporting Basis to U.S. GAAP consolidated totals:

| | Group Reporting Basis Consolidated Amounts | | | | | | | Group Reporting Basis Adjustments ⁽³⁾ | Group Reporting Basis Reclassifications ⁽⁴⁾ | U.S. GAAP Consolidated Totals |
|---|--|--------|--------|-------|---------|-------------------------------|--------|--|--|-------------------------------|
| | RBWM | CMB | GB&M | PB | Other | Adjustments/Reconciling Items | Total | | | |
| | (in millions) | | | | | | | | | |
| Three Months Ended September 30, 2016 | | | | | | | | | | |
| Net interest income ⁽¹⁾ | \$ 204 | \$ 205 | \$ 156 | \$ 53 | \$ (10) | \$ — | \$ 608 | \$ (18) | \$ 14 | \$ 604 |
| Other operating income..... | 72 | 66 | 188 | 22 | 9 | — | 357 | (27) | (10) | 320 |
| Total operating income | 276 | 271 | 344 | 75 | (1) | — | 965 | (45) | 4 | 924 |
| Loan impairment charges... | 27 | (19) | 33 | 1 | — | — | 42 | 16 | 4 | 62 |
| | 249 | 290 | 311 | 74 | (1) | — | 923 | (61) | — | 862 |
| Operating expenses ⁽²⁾ | 283 | 167 | 241 | 56 | 67 | — | 814 | (11) | — | 803 |
| Profit (loss) before income tax expense | \$ (34) | \$ 123 | \$ 70 | \$ 18 | \$ (68) | \$ — | \$ 109 | \$ (50) | \$ — | \$ 59 |
| Three Months Ended September 30, 2015 | | | | | | | | | | |
| Net interest income ⁽¹⁾ | \$ 197 | \$ 209 | \$ 142 | \$ 49 | \$ (5) | \$ (1) | \$ 591 | \$ (19) | \$ 45 | \$ 617 |
| Other operating income..... | 85 | 82 | 287 | 26 | 109 | 1 | 590 | (11) | (48) | 531 |
| Total operating income | 282 | 291 | 429 | 75 | 104 | — | 1,181 | (30) | (3) | 1,148 |
| Loan impairment charges... | 15 | 23 | 5 | (1) | — | — | 42 | 4 | 1 | 47 |
| | 267 | 268 | 424 | 76 | 104 | — | 1,139 | (34) | (4) | 1,101 |
| Operating expenses ⁽²⁾ | 280 | 171 | 247 | 62 | 37 | — | 797 | (7) | (4) | 786 |
| Profit (loss) before income tax expense | \$ (13) | \$ 97 | \$ 177 | \$ 14 | \$ 67 | \$ — | \$ 342 | \$ (27) | \$ — | \$ 315 |

Group Reporting Basis Consolidated Amounts

| | RBWM | CMB | GB&M | PB | Other | Adjustments/ Reconciling Items | Total | Group Reporting Basis Adjustments ⁽³⁾ | Group Reporting Basis Reclassi- fications ⁽⁴⁾ | U.S. GAAP Consolidated Totals |
|--|-----------|-----------|------------|----------|---------|--------------------------------------|------------|---|--|-------------------------------------|
| (in millions) | | | | | | | | | | |
| Nine Months Ended September 30, 2016 | | | | | | | | | | |
| Net interest income ⁽¹⁾ | \$ 609 | \$ 623 | \$ 522 | \$ 153 | \$ (20) | \$ (2) | \$ 1,885 | \$ (59) | \$ 70 | \$ 1,896 |
| Other operating income..... | 229 | 206 | 585 | 67 | 167 | 2 | 1,256 | (111) | (70) | 1,075 |
| Total operating income | 838 | 829 | 1,107 | 220 | 147 | — | 3,141 | (170) | — | 2,971 |
| Loan impairment charges... | 52 | 12 | 387 | — | — | — | 451 | (72) | (26) | 353 |
| | 786 | 817 | 720 | 220 | 147 | — | 2,690 | (98) | 26 | 2,618 |
| Operating expenses ⁽²⁾ | 810 | 495 | 714 | 173 | 156 | — | 2,348 | (22) | 26 | 2,352 |
| Profit (loss) before income tax expense | \$ (24) | \$ 322 | \$ 6 | \$ 47 | \$ (9) | \$ — | \$ 342 | \$ (76) | \$ — | \$ 266 |
| Balances at end of period: | | | | | | | | | | |
| Total assets..... | \$ 20,719 | \$ 28,832 | \$ 195,803 | \$ 8,149 | \$ 471 | \$ — | \$ 253,974 | \$ (45,673) | \$ 9 | \$ 208,310 |
| Total loans, net..... | 17,727 | 27,740 | 21,730 | 6,433 | — | — | 73,630 | (447) | 3,382 | 76,565 |
| Goodwill | 581 | 358 | — | 325 | — | — | 1,264 | 348 | — | 1,612 |
| Total deposits | 31,702 | 24,926 | 30,151 | 13,216 | — | — | 99,995 | (4,919) | 36,006 | 131,082 |
| Nine Months Ended September 30, 2015 | | | | | | | | | | |
| Net interest income ⁽¹⁾ | \$ 597 | \$ 613 | \$ 392 | \$ 148 | \$ (16) | \$ (9) | \$ 1,725 | \$ (51) | \$ 175 | \$ 1,849 |
| Other operating income..... | 260 | 228 | 772 | 77 | 266 | 9 | 1,612 | (36) | (178) | 1,398 |
| Total operating income | 857 | 841 | 1,164 | 225 | 250 | — | 3,337 | (87) | (3) | 3,247 |
| Loan impairment charges... | 52 | 37 | 17 | (2) | — | — | 104 | (9) | (1) | 94 |
| | 805 | 804 | 1,147 | 227 | 250 | — | 3,233 | (78) | (2) | 3,153 |
| Operating expenses ⁽²⁾ | 887 | 499 | 770 | 178 | 114 | — | 2,448 | (33) | (2) | 2,413 |
| Profit (loss) before income tax expense | \$ (82) | \$ 305 | \$ 377 | \$ 49 | \$ 136 | \$ — | \$ 785 | \$ (45) | \$ — | \$ 740 |
| Balances at end of period: | | | | | | | | | | |
| Total assets..... | \$ 20,177 | \$ 32,143 | \$ 196,535 | \$ 8,491 | \$ 787 | \$ — | \$ 258,133 | \$ (54,496) | \$ 729 | \$ 204,366 |
| Total loans, net..... | 17,217 | 30,905 | 25,025 | 6,711 | — | — | 79,858 | 286 | 4,120 | 84,264 |
| Goodwill | 581 | 358 | — | 325 | — | — | 1,264 | 348 | — | 1,612 |
| Total deposits | 31,260 | 22,580 | 31,621 | 13,137 | — | — | 98,598 | (5,167) | 38,019 | 131,450 |

(1) Net interest income of each segment represents the difference between actual interest earned on assets and interest paid on liabilities of the segment adjusted for a funding charge or credit. Segments are charged a cost to fund assets (e.g. customer loans) and receive a funding credit for funds provided (e.g. customer deposits) based on equivalent market rates. The objective of these charges/credits is to transfer interest rate risk from the segments to one centralized unit in Balance Sheet Management and more appropriately reflect the profitability of segments.

(2) Expenses for the segments include fully apportioned corporate overhead expenses.

(3) Represents adjustments associated with differences between U.S. GAAP and the Group Reporting Basis.

(4) Represents differences in financial statement presentation between U.S. GAAP and the Group Reporting Basis.

16. Retained Earnings and Regulatory Capital Requirements

Bank dividends are one of the sources of funds used for payment of shareholder dividends and other HSBC USA cash needs. Any non-contractual dividend from HSBC Bank USA would require the approval of the Office of the Comptroller of the Currency ("the OCC"). Approval is also required if the total of all dividends HSBC Bank USA declares in any year exceeds the cumulative net profits for that year, combined with the profits for the two preceding years reduced by dividends attributable to those years. Under a separate restriction, payment of dividends is prohibited in amounts greater than undivided profits then on hand, after deducting actual losses and bad debts. Bad debts are debts due and unpaid for a period of six months unless well secured, as defined, and in the process of collection.

The following table summarizes the capital amounts and ratios of HSBC USA and HSBC Bank USA, calculated in accordance with banking regulations in effect at September 30, 2016 and December 31, 2015:

| | September 30, 2016 | | | December 31, 2015 | | |
|-----------------------------|--------------------|---------------------------------------|--------------|-------------------|---------------------------------------|--------------|
| | Capital Amount | Well-Capitalized Ratio ⁽¹⁾ | Actual Ratio | Capital Amount | Well-Capitalized Ratio ⁽¹⁾ | Actual Ratio |
| (dollars are in millions) | | | | | | |
| Common equity Tier 1 ratio: | | | | | | |
| HSBC USA..... | \$ 17,939 | 4.5% ⁽²⁾ | 13.5% | \$ 17,766 | 4.5% ⁽²⁾ | 12.0% |
| HSBC Bank USA..... | 19,980 | 6.5 | 15.6 | 19,796 | 6.5 | 13.8 |
| Tier 1 capital ratio: | | | | | | |
| HSBC USA..... | 19,003 | 6.0 | 14.3 | 18,764 | 6.0 | 12.6 |
| HSBC Bank USA..... | 22,334 | 8.0 | 17.4 | 22,109 | 8.0 | 15.4 |
| Total capital ratio: | | | | | | |
| HSBC USA..... | 23,951 | 10.0 | 18.0 | 24,425 | 10.0 | 16.5 |
| HSBC Bank USA..... | 26,715 | 10.0 | 20.8 | 26,670 | 10.0 | 18.6 |
| Tier 1 leverage ratio: | | | | | | |
| HSBC USA..... | 19,003 | 4.0 ⁽²⁾ | 9.1 | 18,764 | 4.0 ⁽²⁾ | 9.5 |
| HSBC Bank USA..... | 22,334 | 5.0 | 11.0 | 22,109 | 5.0 | 11.6 |
| Risk weighted assets: | | | | | | |
| HSBC USA..... | 132,885 | | | 148,421 | | |
| HSBC Bank USA..... | 128,290 | | | 143,393 | | |

⁽¹⁾ HSBC USA and HSBC Bank USA are categorized as "well-capitalized," as defined by their principal regulators. To be categorized as well-capitalized under regulatory guidelines, a banking institution must have the ratios reflected in the above table, and must not be subject to a directive, order, or written agreement to meet and maintain specific capital levels.

⁽²⁾ There are no common equity Tier 1 or Tier 1 leverage ratio components in the definition of a well-capitalized bank holding company. The ratios shown are the regulatory minimum ratios.

In 2013, U.S. banking regulators issued a final rule implementing the Basel III capital framework in the U.S. ("the Basel III final rule") which, for banking organizations such as HSBC North America and HSBC Bank USA, took effect in 2014 with certain provisions being phased in over time through the beginning of 2019. As a result, the capital ratios in the table above are reported in accordance with the Basel III transition rules within the final rule. In addition, risk weighted assets in the table above are calculated using the Basel III Standardized Approach.

As previously reported, as a result of the adoption of the final rules by the U.S. banking regulators implementing the Basel III regulatory capital and liquidity reforms from the Basel Committee, together with the impact of similar implementation by United Kingdom banking regulators, we continue to review the composition of our capital structure. During the second quarter of 2016, HSBC USA redeemed all of its remaining externally issued preferred stock, including its Floating Rate Non-Cumulative Series F Preferred Stock, Floating Rate Non-Cumulative Series G Preferred Stock and 6.50 percent Non-Cumulative Series H Preferred Stock, at their stated values of \$25 per share, \$1,000 per share and \$1,000 per share, respectively, resulting in a total cash payment of \$1,265 million. In connection with these redemptions, HSBC USA issued 1,265 shares of 6.0 percent Non-Cumulative Series I Preferred Stock to HSBC North America in exchange for cash consideration of \$1,265 million. Dividends on the 6.0 percent Non-Cumulative Series I Preferred Stock are non-cumulative and will be payable when and if declared by our Board of Directors semi-annually on the first business day of June and December of each year at the stated rate of 6.0 percent. The Series I Preferred Stock may be redeemed at our option, in whole or in part, on or after May 31, 2021 or at any time after we receive notice from the Federal Reserve Board ("FRB") that the Series I Preferred Stock may no longer be included in the calculation of regulatory capital as a result of any subsequent changes in applicable laws, rules or regulations, at a redemption price equal to \$1,000,000 per share, plus an amount equal to any declared and unpaid dividends, but only after receipt of written approval from the FRB.

17. Variable Interest Entities

In the ordinary course of business, we have organized special purpose entities ("SPEs") primarily to structure financial products to meet our clients' investment needs, to facilitate clients to access and raise financing from capital markets and to securitize financial assets held to meet our own funding needs. For disclosure purposes, we aggregate SPEs based on the purpose, risk characteristics and business activities of the SPEs. An SPE is a VIE if it lacks sufficient equity investment at risk to finance its activities without additional subordinated financial support or, as a group, the holders of the equity investment at risk lack either a) the power through voting or similar rights to direct the activities of the entity that most significantly impacts the entity's economic performance; or b) the obligation to absorb the entity's expected losses, the right to receive the expected residual returns, or both.

Variable Interest Entities We consolidate VIEs in which we hold a controlling financial interest as evidenced by the power to direct the activities of a VIE that most significantly impact its economic performance and the obligation to absorb losses of, or the right to receive benefits from, the VIE that could potentially be significant to the VIE and therefore are deemed to be the primary beneficiary. We take into account our entire involvement in a VIE (explicit or implicit) in identifying variable interests that individually or in the aggregate could be significant enough to warrant our designation as the primary beneficiary and hence require us to consolidate the VIE or otherwise require us to make appropriate disclosures. We consider our involvement to be potentially significant where we, among other things, (i) provide liquidity put options or other liquidity facilities to support the VIE's debt obligations; (ii) enter into derivative contracts to absorb the risks and benefits from the VIE or from the assets held by the VIE; (iii) provide a financial guarantee that covers assets held or liabilities issued by a VIE; (iv) sponsor the VIE in that we design, organize and structure the transaction; and (v) retain a financial or servicing interest in the VIE.

We are required to evaluate whether to consolidate a VIE when we first become involved and on an ongoing basis. In almost all cases, a qualitative analysis of our involvement in the entity provides sufficient evidence to determine whether we are the primary beneficiary. In rare cases, a more detailed analysis to quantify the extent of variability to be absorbed by each variable interest holder is required to determine the primary beneficiary.

Consolidated VIEs The following table summarizes assets and liabilities related to our consolidated VIEs at September 30, 2016 and December 31, 2015 which are consolidated on our balance sheet. Assets and liabilities exclude intercompany balances that eliminate in consolidation.

| | September 30, 2016 | | December 31, 2015 | |
|--|---------------------|--------------------------|---------------------|--------------------------|
| | Consolidated Assets | Consolidated Liabilities | Consolidated Assets | Consolidated Liabilities |
| (in millions) | | | | |
| Low income housing limited liability partnership: | | | | |
| Other assets | \$ 248 | \$ — | \$ 320 | \$ — |
| Long-term debt..... | — | 79 | — | 92 |
| Interest, taxes and other liabilities..... | — | 55 | — | 68 |
| Total | <u>\$ 248</u> | <u>\$ 134</u> | <u>\$ 320</u> | <u>\$ 160</u> |

Low income housing limited liability partnership In 2009, all low income housing investments held by us at the time were transferred to a Limited Liability Partnership ("LLP") in exchange for debt and equity while a third party invested cash for an equity interest that is mandatorily redeemable at a future date. The LLP was created in order to ensure the utilization of future tax benefits from these low income housing tax projects. The LLP was deemed to be a VIE as it does not have sufficient equity investment at risk to finance its activities. Upon entering into this transaction, we concluded that we are the primary beneficiary of the LLP due to the nature of our continuing involvement and, as a result, consolidate the LLP and report the equity interest issued to the third party investor in other liabilities and the assets of the LLP in other assets on our consolidated balance sheet. The investments held by the LLP represent equity investments in the underlying low income housing partnerships. The LLP does not consolidate the underlying partnerships because it does not have the power to direct the activities of the partnerships that most significantly impact the economic performance of the partnerships.

As a practical expedient, we amortize our low income housing investments in proportion to the allocated tax benefits under the proportional amortization method and present the associated tax benefits net of investment amortization in income tax expense.

Unconsolidated VIEs We also have variable interests in other VIEs that are not consolidated because we are not the primary beneficiary. The following table provides additional information on these unconsolidated VIEs, including the variable interests held by us and our maximum exposure to loss arising from our involvements in these VIEs, at September 30, 2016 and December 31, 2015:

| | Variable Interests Held Classified as Assets | Variable Interests Held Classified as Liabilities | Total Assets in Unconsolidated VIEs | Maximum Exposure to Loss |
|--|--|---|---|--------------------------------|
| (in millions) | | | | |
| At September 30, 2016 | | | | |
| Structured note vehicles | \$ 2,884 | \$ 7 | \$ 5,903 | \$ 5,895 |
| Limited partnership investments | 275 | 197 | 1,115 | 275 |
| Refinancing SPE | 477 | — | 1,206 | 477 |
| Total..... | <u>\$ 3,636</u> | <u>\$ 204</u> | <u>\$ 8,224</u> | <u>\$ 6,647</u> |
| At December 31, 2015 | | | | |
| Asset-backed commercial paper conduit..... | \$ 58 | \$ — | \$ 15,183 | \$ 3,362 |
| Structured note vehicles | 2,870 | 8 | 5,888 | 5,879 |
| Limited partnership investments | 138 | 121 | 302 | 138 |
| Refinancing SPE ⁽¹⁾ | 1,181 | — | 1,252 | 1,181 |
| Total..... | <u>\$ 4,247</u> | <u>\$ 129</u> | <u>\$ 22,625</u> | <u>\$ 10,560</u> |

⁽¹⁾ During 2016, we revised the above table to include a refinancing SPE which was an unconsolidated VIE at December 31, 2015 as discussed further below. This revision did not have any impact on our financial position or results of operations.

Information on the types of variable interest entities with which we are involved, the nature of our involvement and the variable interests held in those entities is presented below.

Asset-backed commercial paper ("ABCP") conduit Prior to the third quarter of 2016, we provided liquidity facilities to Regency, a multi-seller ABCP conduit consolidated by an HSBC affiliate. Customers sold financial assets, such as trade receivables, to Regency, which funded the purchases by issuing short-term highly-rated commercial paper collateralized by the assets acquired. We, along with other financial institutions, provided liquidity facilities to Regency in the form of lines of credit or asset purchase commitments. These liquidity facilities supported transactions associated with a specific seller of assets to the conduit and we were only required to provide support in the event of certain triggers associated with those transactions and assets. Our obligations were generally pari passu with those of other institutions that also provided liquidity support to the same conduit or for the same transactions. We did not provide any program-wide credit enhancements to Regency. Each seller of assets to an ABCP conduit typically provides credit enhancements in the form of asset overcollateralization and, therefore, bears the risk of first loss related to the specific assets transferred. We did not transfer our own assets to Regency. We also did not provide the majority of the liquidity facilities to Regency. We had no ownership interests in, performed no administrative duties for, and did not service any of the assets held by Regency. We were not the primary beneficiary and did not consolidate Regency. Credit risk related to the liquidity facilities provided was managed by subjecting these facilities to our normal underwriting and risk management processes. The \$3,362 million maximum exposure to loss at December 31, 2015 presented in the table above represented the maximum amount of loans and asset purchases we could have been required to fund under the liquidity facilities. The maximum loss exposure was estimated assuming the facilities were fully drawn and the underlying collateralized assets were in default with zero recovery value.

During the third quarter of 2016, Regency was restructured and these liquidity facilities were terminated. In lieu of providing the liquidity facilities, we entered into risk participation agreements with Regency under which we purchased the specific underlying third party customer receivables from Regency and committed to provide funding to the specific third party customers on an ongoing basis as they draw or repay. Following the restructure, Regency will no longer issue commercial paper against these specific receivables as they will be fully-funded from our balance sheet. As a result of terminating the liquidity facilities and entering into the risk participation agreements, we no longer have a variable interest in Regency and we reported \$2,224 million and \$1,566 million of third party loans and unfunded commitments, respectively, at September 30, 2016.

Structured note vehicles We provide derivatives, such as interest rate and currency swaps, to structured note vehicles and, in certain instances, invest in the vehicles' debt instruments. We hold variable interests in these structured note vehicles in the form of total return swaps under which we take on the risks and benefits of the structured notes they issue. The same risks and benefits are passed on to third party entities through back-end total return swaps. We earn a spread for facilitating the transaction. Since

we do not have the power to direct the activities of the VIE and are not the primary beneficiary, we do not consolidate them. Our maximum exposure to loss is the notional amount of the derivatives wrapping the structured notes. The maximum exposure to loss will occur in the unlikely scenario where the value of the structured notes is reduced to zero and, at the same time, the counterparty of the back-end swap defaults with zero recovery. In certain instances, we hold credit default swaps with the structured note vehicles under which we receive credit protection on specified reference assets in exchange for the payment of a premium. Through these derivatives, the vehicles assume the credit risk associated with the reference assets which are then passed on to the holders of the debt instruments they issue. Because they create rather than absorb variability, the credit default swaps we hold are not considered variable interests. We record all investments in, and derivative contracts with, unconsolidated structured note vehicles at fair value on our consolidated balance sheet.

Limited partnership investments We invest as a limited partner in partnerships that operate qualified affordable housing, renewable energy and community development projects. The returns of these investments are generated primarily from the tax benefits, including federal tax credits and tax deductions from operating losses in the project companies. In addition, some of the investments also help us comply with the Community Reinvestment Act. Certain limited partnership structures are considered to be VIEs because either (a) they do not have sufficient equity investment at risk or (b) the limited partners with equity at risk do not have substantive kick-out rights through voting rights or substantive participating rights over the general partner. As a limited partner, we are not the primary beneficiary of the VIEs and do not consolidate them. Our investments in these partnerships are recorded in other assets on the consolidated balance sheet. The maximum exposure to loss shown in the table above represents our recorded investments.

Refinancing SPE We organized and provided loans to a SPE to purchase a senior secured financing facility from the originator designed to finance a third party borrower's acquisition of a portfolio of commercial real estate loans in Mexico. Interest and principal repayments of the prepayable financing facility are dependent on and are secured by the rental cash flows generated from the underlying commercial real estate properties. The financing facility contains additional credit enhancements, including a 15 percent equity subordination in the borrower's capital structure and a financial guarantee over 25 percent of the outstanding balance provided by the borrower's parent.

The SPE is a refinancing vehicle designed to secure term financing from external investors to repay our loans. The loans issued to the SPE are supported by the financing facility and the security interests in the commercial real estate loans and the credit enhancements. The refinancing vehicle is a VIE because it does not have sufficient equity investment at risk to permit the entity to finance the activities without additional subordination provided by any parties. We have a variable interest in the VIE through our ownership of the loans. In view of the purpose and design of the SPE, the overall funding structure, the additional credit enhancements and the risks inherent in the VIE, we concluded the investors absorb an insignificant amount of expected loss and/or benefit in the VIE. Rather, the borrower and its parent take on the risks and benefits in the VIE through the credit enhancements provided to the holder of the financing facility. In addition, the investors do not have the power to direct the activities that most significantly impact the economic performance of the VIE and, therefore, we are not the primary beneficiary of the VIE. The maximum exposure to loss shown in the table above represents our investment in the loans without consideration of any recovery benefits from the credit enhancements.

Third-party sponsored securitization entities We invest in asset-backed securities issued by third party sponsored securitization entities which may be considered VIEs. The investments are transacted at arm's-length and decisions to invest are based on a credit analysis of the underlying collateral assets or the issuer. We are a passive investor in these issuers and do not have the power to direct the activities of these issuers. As such, we do not consolidate these securitization entities. Additionally, we do not have other involvements in servicing or managing the collateral assets or provide financial or liquidity support to these issuers which potentially give rise to risk of loss exposure. These investments are an integral part of the disclosure in Note 2, "Trading Assets and Liabilities," Note 3, "Securities," and Note 19, "Fair Value Measurements," and, therefore, are not disclosed in this note to avoid redundancy.

18. Guarantee Arrangements, Pledged Assets and Repurchase Agreements

Guarantee Arrangements As part of our normal operations, we enter into credit derivatives and various off-balance sheet guarantee arrangements with affiliates and third parties. These arrangements arise principally in connection with our lending and client intermediation activities and include standby letters of credit and certain credit derivative transactions. The contractual amounts of these arrangements represent our maximum possible credit exposure in the event that we are required to fulfill the maximum obligation under the contractual terms of the guarantee.

The following table presents total carrying value and contractual amounts of our sell protection credit derivatives and major off-balance sheet guarantee arrangements at September 30, 2016 and December 31, 2015. Following the table is a description of the various arrangements.

| | September 30, 2016 | | December 31, 2015 | |
|--|--------------------|-------------------------------------|-------------------|-------------------------------------|
| | Carrying Value | Notional / Maximum Exposure to Loss | Carrying Value | Notional / Maximum Exposure to Loss |
| (in millions) | | | | |
| Credit derivatives ⁽¹⁾⁽⁴⁾ | \$ (682) | \$ 68,248 | \$ (2,621) | \$ 91,435 |
| Financial standby letters of credit, net of participations ⁽²⁾⁽³⁾ | — | 5,539 | — | 5,842 |
| Performance standby letters of credit, net of participations ⁽²⁾⁽³⁾ | — | 2,887 | — | 3,008 |
| Liquidity asset purchase agreements ⁽³⁾ | — | — | — | 3,362 |
| Total | \$ (682) | \$ 76,674 | \$ (2,621) | \$ 103,647 |

(1) Includes \$38,642 million and \$44,130 million of notional issued for the benefit of HSBC affiliates at September 30, 2016 and December 31, 2015, respectively.

(2) Includes \$1,204 million and \$910 million issued for the benefit of HSBC affiliates at September 30, 2016 and December 31, 2015, respectively.

(3) For standby letters of credit and liquidity asset purchase agreements, maximum loss represents losses to be recognized assuming the letter of credit and liquidity facilities have been fully drawn and the obligors have defaulted with zero recovery.

(4) For credit derivatives, the maximum loss is represented by the notional amounts without consideration of mitigating effects from collateral or recourse arrangements.

Credit-Risk Related Guarantees

Credit derivatives Credit derivatives are financial instruments that transfer the credit risk of a reference obligation from the credit protection buyer to the credit protection seller who is exposed to the credit risk without buying the reference obligation. We sell credit protection on underlying reference obligations (such as loans or securities) by entering into credit derivatives, primarily in the form of credit default swaps, with various institutions. We account for all credit derivatives at fair value. Where we sell credit protection to a counterparty that holds the reference obligation, the arrangement is effectively a financial guarantee on the reference obligation. Under a credit derivative contract, the credit protection seller will reimburse the credit protection buyer upon occurrence of a credit event (such as bankruptcy, insolvency, restructuring or failure to meet payment obligations when due) as defined in the derivative contract, in return for a periodic premium. Upon occurrence of a credit event, we will pay the counterparty the stated notional amount of the derivative contract and receive the underlying reference obligation. The recovery value of the reference obligation received could be significantly lower than its notional principal amount when a credit event occurs.

Certain derivative contracts are subject to master netting arrangements and related collateral agreements. A party to a derivative contract may demand that the counterparty post additional collateral in the event its net exposure exceeds certain predetermined limits and when the credit rating falls below a certain grade. We set the collateral requirements by counterparty such that the collateral covers various transactions and products, and is not allocated to specific individual contracts.

We manage our exposure to credit derivatives using a variety of risk mitigation strategies where we enter into offsetting hedge positions or transfer the economic risks, in part or in entirety, to investors through the issuance of structured credit products. We actively manage the credit and market risk exposure in the credit derivative portfolios on a net basis and, as such, retain no or a limited net sell protection position at any time. The following table summarizes our net credit derivative positions at September 30, 2016 and December 31, 2015:

| | September 30, 2016 | | December 31, 2015 | |
|---|-----------------------|-----------------|-----------------------|-----------------|
| | Carrying / Fair Value | Notional | Carrying / Fair Value | Notional |
| (in millions) | | | | |
| Sell-protection credit derivative positions | \$ (682) | \$ 68,248 | \$ (2,621) | \$ 91,435 |
| Buy-protection credit derivative positions | 889 | 75,267 | 2,789 | 96,635 |
| Net position⁽¹⁾ | \$ 207 | \$ 7,019 | \$ 168 | \$ 5,200 |

(1) Positions are presented net in the table above to provide a complete analysis of our risk exposure and depict the way we manage our credit derivative portfolio. The offset of the sell-protection credit derivatives against the buy-protection credit derivatives may not be legally binding in the absence of master netting agreements with the same counterparty. Furthermore, the credit loss triggering events for individual sell protection credit derivatives may not be the same or occur in the same period as those of the buy protection credit derivatives thereby not providing an exact offset.

Standby letters of credit A standby letter of credit is issued to a third party for the benefit of a customer and is a guarantee that the customer will perform or satisfy certain obligations under a contract. It irrevocably obligates us to pay a specified amount to the third party beneficiary if the customer fails to perform the contractual obligation. We issue two types of standby letters of credit: performance and financial. A performance standby letter of credit is issued where the customer is required to perform some non-financial contractual obligation, such as the performance of a specific act, whereas a financial standby letter of credit is issued where the customer's contractual obligation is of a financial nature, such as the repayment of a loan or debt instrument. At September 30, 2016, the total amount of outstanding financial standby letters of credit (net of participations) and performance guarantees (net of participations) were \$5,539 million and \$2,887 million, respectively. At December 31, 2015, the total amount of outstanding financial standby letters of credit (net of participations) and performance guarantees (net of participations) were \$5,842 million and \$3,008 million, respectively.

The issuance of a standby letter of credit is subject to our credit approval process and collateral requirements. We charge fees for issuing letters of credit commensurate with the customer's credit evaluation and the nature of any collateral. Included in other liabilities are deferred fees on standby letters of credit amounting to \$49 million and \$54 million at September 30, 2016 and December 31, 2015, respectively. Also included in other liabilities is an allowance for credit losses on unfunded standby letters of credit of \$38 million and \$19 million at September 30, 2016 and December 31, 2015, respectively.

The following table summarizes the credit ratings related to guarantees including the ratings of counterparties against which we sold credit protection and financial standby letters of credit at September 30, 2016 as an indicative proxy of payment risk:

| Notional/Contractual Amounts | Average Life (in years) | Credit Ratings of the Obligors or the Transactions | | |
|---|----------------------------|--|----------------------|-----------|
| | | Investment Grade | Non-Investment Grade | Total |
| (dollars are in millions) | | | | |
| Sell-protection Credit Derivatives ⁽¹⁾ | | | | |
| Single name credit default swaps ("CDS")..... | 2.3 | \$ 35,310 | \$ 18,357 | \$ 53,667 |
| Structured CDS..... | 0.8 | 3,719 | 491 | 4,210 |
| Index credit derivatives | 3.3 | 4,077 | 3,107 | 7,184 |
| Total return swaps..... | 2.6 | 2,837 | 351 | 3,188 |
| Subtotal..... | | 45,943 | 22,306 | 68,249 |
| Standby Letters of Credit ⁽²⁾ | 1.0 | 5,597 | 2,829 | 8,426 |
| Total..... | | \$ 51,540 | \$ 25,135 | \$ 76,675 |

⁽¹⁾ The credit ratings in the table represent external credit ratings for classification as investment grade and non-investment grade.

⁽²⁾ External ratings for most of the obligors are not available. Presented above are the internal credit ratings which are developed using similar methodologies and rating scale equivalent to external credit ratings for purposes of classification as investment grade and non-investment grade.

Our internal credit ratings are determined based on HSBC's risk rating systems and processes which assign a credit grade based on a scale which ranks the risk of default of a customer. The credit grades are assigned and used for managing risk and determining level of credit exposure appetite based on the customer's operating performance, liquidity, capital structure and debt service ability. In addition, we also incorporate subjective judgments into the risk rating process concerning such things as industry trends, comparison of performance to industry peers and perceived quality of management. We compare our internal risk ratings to outside external rating agency benchmarks, where possible, at the time of formal review and regularly monitor whether our risk ratings are comparable to the external ratings benchmark data.

A non-investment grade rating of a referenced obligor has a negative impact to the fair value of the credit derivative and increases the likelihood that we will be required to perform under the credit derivative contract. We employ market-based parameters and, where possible, use the observable credit spreads of the referenced obligors as measurement inputs in determining the fair value of the credit derivatives. We believe that such market parameters are more indicative of the current status of payment/performance risk than external ratings by the rating agencies which may not be forward-looking in nature and, as a result, lag behind those market-based indicators.

Non Credit-Risk Related Guarantees and Other Arrangements

Liquidity asset purchase agreements Prior to the third quarter of 2016, we provided liquidity facilities to Regency, a multi-seller ABCP conduit consolidated by an HSBC affiliate. Regency financed the purchase of individual assets by issuing commercial paper to third party investors. Each liquidity facility was transaction specific and had a maximum limit. Pursuant to the liquidity agreements, we were obligated, subject to certain limitations, to advance funds in an amount not to exceed the face value of the commercial paper in the event Regency was unable or unwilling to refinance its commercial paper. A liquidity asset purchase

agreement is economically a conditional written put option issued to the conduit where the exercise price is the face value of the commercial paper. At December 31, 2015 we had issued \$3,362 million of liquidity facilities to provide liquidity support to Regency. During the third quarter of 2016, Regency was restructured and these liquidity facilities were terminated. See Note 17, "Variable Interest Entities," for further discussion.

Clearinghouses and exchanges We are a member of various exchanges and clearinghouses that trade and clear securities and/or derivatives contracts. Under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, members of a clearinghouse may be required to contribute to a guaranty fund to backstop members' obligations to the clearinghouse. As a member, we may be required to pay a proportionate share of the financial obligations of another member who defaults on its obligations to the exchange or the clearinghouse. Our guarantee obligations would arise only if the exchange or clearinghouse had exhausted its resources. Any potential contingent liability under these membership agreements cannot be estimated.

Securitization Activity In addition to the repurchase risk described above, we have also been involved as a sponsor/seller of loans used to facilitate whole loan securitizations underwritten by our affiliate, HSI. In this regard, we began acquiring residential mortgage loans in 2005 which were warehoused on our balance sheet with the intent of selling them to HSI to facilitate HSI's whole loan securitization program which was discontinued in 2007. During 2005-2007, we purchased and sold \$24 billion of such loans to HSI which were subsequently securitized and sold by HSI to third parties. See "Mortgage Securitization Matters" in Note 27, "Litigation and Regulatory Matters," in our 2015 Form 10-K and in Note 20, "Litigation and Regulatory Matters," in our Form 10-Q for the three month period ended March 31, 2016 for additional discussion of related exposure. There have been no significant changes with regards to this exposure since March 31, 2016. The outstanding principal balance on these loans was approximately \$4.8 billion and \$5.2 billion at September 30, 2016 and December 31, 2015, respectively.

Mortgage Loan Repurchase Obligations Historically, we originated and sold mortgage loans, primarily to government sponsored entities, and provided various representations and warranties related to, among other things, the ownership of the loans, the validity of the liens, the loan selection and origination process, and the compliance to the origination criteria established by the agencies. In the event of a breach of our representations and warranties, we may be obligated to repurchase the loans with identified defects or to indemnify the buyers. Our contractual obligation arises only when the breach of representations and warranties are discovered and repurchase is demanded. As a result of settlements with FNMA and FHLMC during 2013 and 2014, the repurchase exposure associated with these sales has been substantially resolved. In addition, with the conversion of our mortgage processing and servicing operations to PHH Mortgage in 2013, new agency eligible originations are sold directly to PHH Mortgage and PHH Mortgage is responsible for origination representations and warranties for all loans purchased.

In estimating our repurchase liability arising from breaches of representations and warranties, we consider historical losses on residual risks not covered by settlement agreements adjusted for any risk factors not captured in the historical losses as well as the level of outstanding repurchase demands received. Outstanding repurchase demands received totaled \$9 million and \$5 million at September 30, 2016 and December 31, 2015, respectively.

The following table summarizes the change in our estimated repurchase liability during the three and nine months ended September 30, 2016 and 2015 for obligations arising from the breach of representations and warranties associated with mortgage loans sold:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|-------------------------------------|--------------|------------------------------------|--------------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Balance at beginning of period | \$ 13 | \$ 21 | \$ 17 | \$ 27 |
| Decrease in liability recorded through earnings | — | (2) | (3) | (7) |
| Realized losses | (1) | — | (2) | (1) |
| Balance at end of period | <u>\$ 12</u> | <u>\$ 19</u> | <u>\$ 12</u> | <u>\$ 19</u> |

Our remaining repurchase liability of \$12 million at September 30, 2016 represents our best estimate of the loss that has been incurred, including interest, arising from breaches of representations and warranties associated with mortgage loans sold. Because the level of mortgage loan repurchase losses is dependent upon economic factors, investor demand strategies and other external risk factors such as housing market trends that may change, the level of the liability for mortgage loan repurchase losses requires significant judgment. We continue to evaluate our methods of determining the best estimate of loss based on recent trends. As these estimates are influenced by factors outside our control, there is uncertainty inherent in these estimates making it reasonably possible that they could change. The range of reasonably possible losses in excess of our recorded repurchase liability is between zero and \$25 million at September 30, 2016. This estimated range of reasonably possible losses was determined based upon modifying the assumptions utilized in our best estimate of probable losses to reflect what we believe to be reasonably possible adverse assumptions.

Pledged Assets

Pledged assets included in the consolidated balance sheet consisted of the following:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| | (in millions) | |
| Interest bearing deposits with banks | \$ 1,274 | \$ 676 |
| Trading assets ⁽¹⁾ | 3,323 | 3,802 |
| Securities available-for-sale ⁽²⁾ | 10,417 | 11,092 |
| Securities held-to-maturity | 3,718 | 3,293 |
| Loans ⁽³⁾ | 18,135 | 17,880 |
| Other assets ⁽⁴⁾ | 644 | 1,765 |
| Total..... | <u>\$ 37,511</u> | <u>\$ 38,508</u> |

⁽¹⁾ Trading assets are primarily pledged against liabilities associated with repurchase agreements.

⁽²⁾ Securities available-for-sale are primarily pledged against derivatives, public fund deposits, trust deposits and various short-term and long term borrowings, as well as providing capacity for potential secured borrowings from the Federal Home Loan Bank of New York ("FHLB") and the Federal Reserve Bank of New York.

⁽³⁾ Loans are primarily residential mortgage loans pledged against current and potential borrowings from the FHLB and the Federal Reserve Bank of New York.

⁽⁴⁾ Other assets represent cash on deposit with non-banks related to derivative collateral support agreements.

Debt securities pledged as collateral that can be sold or repledged by the secured party continue to be reported on the consolidated balance sheet. The fair value of securities available-for-sale that could be sold or repledged was \$658 million and \$1,000 million at September 30, 2016 and December 31, 2015, respectively. The fair value of trading assets that could be sold or repledged was \$3,323 million and \$3,797 million at September 30, 2016 and December 31, 2015, respectively.

The fair value of collateral we accepted under security resale agreements but not reported on the consolidated balance sheet was \$32,118 million and \$25,058 million at September 30, 2016 and December 31, 2015, respectively, discussed further below. Of this collateral, \$26,478 million and \$19,558 million could be sold or repledged at September 30, 2016 and December 31, 2015, respectively, of which \$1,409 million and \$3,400 million, respectively, had been sold or repledged as collateral under repurchase agreements or to cover short sales.

Repurchase Agreements

We enter into purchases of securities under agreements to resell (resale agreements) and sales of securities under agreements to repurchase (repurchase agreements) identical or substantially the same securities. Resale and repurchase agreements are accounted for as secured lending and secured borrowing transactions, respectively.

Repurchase agreements may require us to deposit cash or other collateral with the lender. In connection with resale agreements, it is our policy to obtain possession of collateral, which may include the securities purchased, with market value in excess of the principal amount loaned. The market value of the collateral subject to the resale and repurchase agreements is regularly monitored, and additional collateral is obtained or provided when appropriate, to ensure appropriate collateral coverage of these secured financing transactions.

The following table provides information about resale and repurchase agreements that are subject to offset at September 30, 2016 and December 31, 2015:

| | Gross Amounts Recognized | Gross Amounts Offset in the Balance Sheet ⁽¹⁾ | Net Amounts Presented in the Balance Sheet | Gross Amounts Not Offset in the Balance Sheet | | Net Amount ⁽³⁾ |
|--|--------------------------|--|--|---|------------------------------------|---------------------------|
| | | | | Financial Instruments ⁽²⁾ | Cash Collateral Received / Pledged | |
| (in millions) | | | | | | |
| At September 30, 2016: | | | | | | |
| Assets: | | | | | | |
| Securities purchased under resale agreements | \$ 32,118 | \$ 1,404 | \$ 30,714 | \$ 30,680 | \$ — | \$ 34 |
| Liabilities: | | | | | | |
| Securities sold under repurchase agreements | \$ 5,390 | \$ 1,404 | \$ 3,986 | \$ 3,986 | \$ — | \$ — |
| At December 31, 2015: | | | | | | |
| Assets: | | | | | | |
| Securities purchased under resale agreements | \$ 25,058 | \$ 5,211 | \$ 19,847 | \$ 19,845 | \$ — | \$ 2 |
| Liabilities: | | | | | | |
| Securities sold under repurchase agreements | \$ 8,197 | \$ 5,211 | \$ 2,986 | \$ 2,954 | \$ — | \$ 32 |

⁽¹⁾ Represents recognized amount of resale and repurchase agreements with counterparties subject to legally enforceable netting agreements that meet the applicable netting criteria as permitted by generally accepted accounting principles.

⁽²⁾ Represents securities received or pledged to cover financing transaction exposures.

⁽³⁾ Represents the amount of our exposure that is not collateralized / covered by pledged collateral.

The following table provides the class of collateral pledged and remaining contractual maturity of repurchase agreements accounted for as secured borrowings at September 30, 2016 and December 31, 2015:

| | Overnight and Continuous | Up to 30 Days | 31 to 90 Days | 91 Days to One Year | Greater Than One Year | Total |
|---|--------------------------|---------------|---------------|---------------------|-----------------------|----------|
| | (in millions) | | | | | |
| At September 30, 2016: | | | | | | |
| U.S. Treasury, U.S. Government agency and sponsored entity securities | \$ 1,404 | \$ 311 | \$ — | \$ 368 | \$ 3,307 | \$ 5,390 |
| At December 31, 2015: | | | | | | |
| U.S. Treasury, U.S. Government agency and sponsored entity securities | \$ 1,764 | \$ 3,457 | \$ — | \$ — | \$ 2,976 | \$ 8,197 |

19. Fair Value Measurements

Accounting principles related to fair value measurements provide a framework for measuring fair value that focuses on the exit price that would be received to sell an asset or paid to transfer a liability in the principal market (or in the absence of the principal market, the most advantageous market) accessible in an orderly transaction between willing market participants (the "Fair Value Framework"). Where required by the applicable accounting standards, assets and liabilities are measured at fair value using the "highest and best use" valuation premise. Fair value measurement guidance clarifies that financial instruments do not have alternative use and, as such, the fair value of financial instruments should be determined using an "in-exchange" valuation premise. However, the fair value measurement literature provides a valuation exception and permits an entity to measure the fair value of a group of financial assets and financial liabilities with offsetting credit risks and/or market risks based on the exit price it would receive or pay to transfer the net risk exposure of a group of assets or liabilities if certain conditions are met. We elected to apply the measurement exception to a group of derivative instruments with offsetting credit risks and market risks, which primarily relate to interest rate, foreign currency, debt and equity price risk, and commodity price risk as of the reporting date.

Fair Value Adjustments The best evidence of fair value is quoted market price in an actively traded market, where available. In the event listed price or market quotes are not available, valuation techniques that incorporate relevant transaction data and market parameters reflecting the attributes of the asset or liability under consideration are applied. Where applicable, fair value adjustments are made to ensure the financial instruments are appropriately recorded at fair value. The fair value adjustments reflect the risks associated with the products, contractual terms of the transactions, and the liquidity of the markets in which the transactions occur. The fair value adjustments are broadly categorized by the following major types:

Credit risk adjustment - The credit risk adjustment is an adjustment to a group of financial assets and financial liabilities, predominantly derivative assets and derivative liabilities, to reflect the credit quality of the parties to the transaction in arriving at fair value. A credit valuation adjustment to a financial asset is required to reflect the default risk of the counterparty. A debit valuation adjustment to a financial liability is recorded to reflect the default risk of HUSI. See "Valuation Techniques - Derivatives" below for additional details.

Liquidity risk adjustment - The liquidity risk adjustment (primarily in the form of bid-offer adjustment) reflects the cost that would be incurred to close out the market risks by hedging, disposing or unwinding the position. Valuation models generally produce mid-market values. The bid-offer adjustment is made in such a way that results in a measure that reflects the exit price that most represents the fair value of the financial asset or financial liability under consideration or, where applicable, the fair value of the net market risk exposure of a group of financial assets or financial liabilities. These adjustments relate primarily to Level 2 assets.

Model valuation adjustment - Where fair value measurements are determined using an internal valuation model based on observable and unobservable inputs, certain valuation inputs may be less readily determinable. There may be a range of possible valuation inputs that market participants may assume in determining the fair value measurement. The resultant fair value measurement has inherent measurement risk if one or more parameters are unobservable and must be estimated. An input valuation adjustment is necessary to reflect the likelihood that market participants may use different input parameters, and to mitigate the possibility of measurement error. In addition, the values derived from valuation techniques are affected by the choice of valuation model and model limitation. When different valuation techniques are available, the choice of valuation model can be subjective. Furthermore, the valuation model applied may have measurement limitations. In those cases, an additional valuation adjustment is also applied to mitigate the measurement risk. Model valuation adjustments are not material and relate primarily to Level 2 instruments.

We apply stress scenarios in determining appropriate liquidity risk and model risk adjustments for Level 3 fair values by reviewing the historical data for unobservable inputs (e.g., correlation, volatility). Some stress scenarios involve at least a 95 percent confidence interval (i.e., two standard deviations). We also utilize unobservable parameter adjustments when instruments are valued using internally developed models which reflects the uncertainty in the value estimates provided by the model.

Valuation of uncollateralized derivatives - During 2014, we adopted a funding fair value adjustment ("FFVA") to reflect the estimated present value of the future market funding cost or benefit associated with funding uncollateralized derivative exposure at rates other than the Overnight Indexed Swap ("OIS") rate. See "Valuation Techniques - Derivatives" below for additional details.

Fair Value Hierarchy The Fair Value Framework establishes a three-tiered fair value hierarchy as follows:

Level 1 quoted market price - Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 valuation technique using observable inputs - Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are inactive, and measurements determined using valuation models where all significant inputs are observable, such as interest rates and yield curves that are observable at commonly quoted intervals.

Level 3 *valuation technique with significant unobservable inputs* - Level 3 inputs are unobservable inputs for the asset or liability and include situations where fair values are measured using valuation techniques based on one or more significant unobservable inputs.

Classification within the fair value hierarchy is based on whether the lowest hierarchical level input that is significant to the fair value measurement is observable. As such, the classification within the fair value hierarchy is dynamic and can be transferred to other hierarchy levels in each reporting period. Transfers between leveling categories are assessed, determined and recognized at the end of each reporting period.

Valuation Control Framework We have established a control framework which is designed to ensure that fair values are either determined or validated by a function independent of the risk-taker. To that end, the ultimate responsibility for the determination of fair values rests with Finance. Finance has established an independent price validation process to ensure that the assets and liabilities measured at fair value are properly stated.

A valuation committee, chaired by the Head of Product Control, meets monthly to review, monitor and discuss significant valuation matters arising from credit and market risks. The committee is responsible for reviewing and approving valuation policies and procedures including any valuation adjustments pertaining to, among other things, independent price verification, market liquidity, unobservable inputs, model uncertainty and counterparty credit risk. All valuation models are reviewed by the valuation committee in terms of model development, enhancements and performance. All models are independently reviewed by the Markets Independent Model Review function and applicable valuation model recommendations are reported to and discussed with the valuation committee. Significant valuation risks identified in business activities are corroborated and addressed by the committee members and, where applicable, are escalated to the Chief Financial Officer of HUSI and the Audit Committee of the Board of Directors.

Where fair value measurements are determined based on information obtained from independent pricing services or brokers, Finance applies appropriate validation procedures to substantiate fair value. For price validation purposes, quotations from at least two independent pricing sources are obtained for each financial instrument, where possible.

The following factors are considered in determining fair values:

- similarities between the asset or the liability under consideration and the asset or liability for which quotation is received;
- collaboration of pricing by referencing to other independent market data such as market transactions and relevant benchmark indices;
- consistency among different pricing sources;
- the valuation approach and the methodologies used by the independent pricing sources in determining fair value;
- the elapsed time between the date to which the market data relates and the measurement date;
- the source of the fair value information; and
- whether the security is traded in an active or inactive market.

Greater weight is given to quotations of instruments with recent market transactions, pricing quotes from dealers who stand ready to transact, quotations provided by market-makers who structured such instrument and market consensus pricing based on inputs from a large number of survey participants. Any significant discrepancies among the external quotations are reviewed and adjustments to fair values are recorded where appropriate. Where the transaction volume of a specific instrument has been reduced and the fair value measurement becomes less transparent, Finance will apply more detailed procedures to understand and challenge the appropriateness of the unobservable inputs and the valuation techniques used by the independent pricing service. Where applicable, Finance will develop a fair value estimate using its own pricing model inputs to test reasonableness. Where fair value measurements are determined using internal valuation models, Finance will validate the fair value measurement by either developing unobservable inputs based on the industry consensus pricing surveys in which we participate or back testing by observing the actual settlements occurring soon after the measurement date. Any significant valuation adjustments are reported to and discussed with the valuation committee.

Fair Value of Financial Instruments The fair value estimates, methods and assumptions set forth below for our financial instruments, including those financial instruments carried at cost, are made solely to comply with disclosures required by generally accepted accounting principles in the United States and should be read in conjunction with the financial statements and notes included in this report.

The following table summarizes the carrying value and estimated fair value of our financial instruments at September 30, 2016 and December 31, 2015:

| September 30, 2016 | Carrying Value | Fair Value | Level 1 | Level 2 | Level 3 |
|---|----------------|------------|---------|-----------|---------|
| | (in millions) | | | | |
| Financial assets: | | | | | |
| Short-term financial assets | \$ 18,062 | \$ 18,062 | \$ 903 | \$ 17,139 | \$ 20 |
| Federal funds sold and securities purchased under agreements to resell | 29,945 | 29,945 | — | 29,945 | — |
| Federal funds sold and securities purchased under agreements to resell designated under fair value option | 769 | 769 | — | 769 | — |
| Non-derivative trading assets | 15,912 | 15,912 | 4,374 | 8,463 | 3,075 |
| Derivatives..... | 3,927 | 3,927 | 5 | 3,904 | 18 |
| Securities | 54,231 | 54,562 | 26,435 | 28,127 | — |
| Commercial loans, net of allowance for credit losses | 57,061 | 58,676 | — | — | 58,676 |
| Commercial loans designated under fair value option and held for sale..... | 649 | 649 | — | 649 | — |
| Commercial loans held for sale | 92 | 92 | — | 92 | — |
| Consumer loans, net of allowance for credit losses | 19,504 | 18,753 | — | — | 18,753 |
| Consumer loans held for sale: | | | | | |
| Residential mortgages and home equity mortgages | 971 | 972 | — | 18 | 954 |
| Other consumer..... | 75 | 75 | — | — | 75 |
| Financial liabilities: | | | | | |
| Short-term financial liabilities | \$ 3,407 | \$ 3,469 | \$ — | \$ 3,449 | \$ 20 |
| Deposits: | | | | | |
| Without fixed maturities | 112,211 | 112,211 | — | 112,211 | — |
| Fixed maturities | 11,399 | 11,434 | — | 11,434 | — |
| Deposits designated under fair value option | 7,472 | 7,472 | — | 6,068 | 1,404 |
| Non-derivative trading liabilities..... | 1,079 | 1,079 | 1,030 | 49 | — |
| Derivatives..... | 6,897 | 6,897 | 8 | 6,877 | 12 |
| Short-term borrowings designated under fair value option | 2,675 | 2,675 | — | 2,675 | — |
| Long-term debt | 29,501 | 30,442 | — | 30,442 | — |
| Long-term debt designated under fair value option | 9,999 | 9,999 | — | 9,486 | 513 |

| December 31, 2015 | Carrying Value | Fair Value | Level 1 | Level 2 | Level 3 |
|---|-------------------|---------------|---------|----------|---------|
| (in millions) | | | | | |
| Financial assets: | | | | | |
| Short-term financial assets | \$ 8,494 | \$ 8,494 | \$ 968 | \$ 7,478 | \$ 48 |
| Federal funds sold and securities purchased under agreements to resell..... | 19,847 | 19,847 | — | 19,847 | — |
| Non-derivative trading assets | 11,935 | 11,935 | 3,088 | 5,756 | 3,091 |
| Derivatives..... | 5,614 | 5,614 | 5 | 5,579 | 30 |
| Securities | 49,797 | 49,938 | 21,924 | 28,014 | — |
| Commercial loans, net of allowance for credit losses | 61,674 | 62,417 | — | — | 62,417 |
| Commercial loans designated under fair value option and held for sale..... | 151 | 151 | — | 151 | — |
| Commercial loans held for sale | 1,944 | 1,958 | — | 55 | 1,903 |
| Consumer loans, net of allowance for credit losses | 20,331 | 19,185 | — | — | 19,185 |
| Consumer loans held for sale: | | | | | |
| Residential mortgages..... | 11 | 11 | — | 7 | 4 |
| Other consumer..... | 79 | 79 | — | — | 79 |
| Financial liabilities: | | | | | |
| Short-term financial liabilities | \$ 3,082 | \$ 3,124 | \$ — | \$ 3,076 | \$ 48 |
| Deposits: | | | | | |
| Without fixed maturities | 101,146 | 101,146 | — | 101,146 | — |
| Fixed maturities | 10,514 | 10,508 | — | 10,508 | — |
| Deposits designated under fair value option | 6,919 | 6,919 | — | 5,052 | 1,867 |
| Non-derivative trading liabilities..... | 1,049 | 1,049 | 363 | 686 | — |
| Derivatives..... | 6,993 | 6,993 | 9 | 6,957 | 27 |
| Short-term borrowings designated under fair value option..... | 1,976 | 1,976 | — | 1,976 | — |
| Long-term debt | 24,338 | 24,874 | — | 24,874 | — |
| Long-term debt designated under fair value option | 9,171 | 9,171 | — | 8,425 | 746 |

Loan values presented in the table above were determined using the Fair Value Framework for measuring fair value, which is based on our best estimate of the amount within a range of value we believe would be received in a sale as of the balance sheet date (i.e. exit price). The secondary market demand and estimated value for our residential mortgage loans has been heavily influenced by economic conditions, including house price depreciation, elevated unemployment, changes in consumer behavior, changes in discount rates and the lack of financing options available to support the purchase of loans. For certain consumer loans which were transferred to held for sale during the third quarter of 2016, investors incorporate numerous assumptions in predicting cash flows, such as future interest rates, higher charge-off levels, slower voluntary prepayment speeds, different default and loss curves and estimated collateral values than we, as the servicer of these loans, believe will ultimately be the case. The investor's valuation process reflects this difference in overall cost of capital assumptions as well as the potential volatility in the underlying cash flow assumptions, the combination of which may yield a significant pricing discount from our intrinsic value. The estimated fair values at September 30, 2016 and December 31, 2015 reflect these market conditions. The increase in the relative fair value of our residential mortgage loans since December 31, 2015 reflects the conditions in the housing industry which have continued to show improvement in 2016 due to improvements in property values as well as lower required market yields and increased investor demand for these types of loans.

Assets and Liabilities Recorded at Fair Value on a Recurring Basis The following table presents information about our assets and liabilities measured at fair value on a recurring basis at September 30, 2016 and December 31, 2015, and indicates the fair value hierarchy of the valuation techniques utilized to determine such fair value:

| September 30, 2016 | Fair Value Measurements on a Recurring Basis | | | | | |
|--|--|-----------|----------|---------------|------------------------|-------------|
| | Level 1 | Level 2 | Level 3 | Gross Balance | Netting ⁽¹⁾ | Net Balance |
| | (in millions) | | | | | |
| Assets: | | | | | | |
| Securities purchased under agreements to resell ⁽²⁾ | \$ — | \$ 769 | \$ — | \$ 769 | \$ — | \$ 769 |
| Trading Securities, excluding derivatives: | | | | | | |
| U.S. Treasury, U.S. Government agencies and sponsored enterprises..... | 4,374 | 180 | — | 4,554 | — | 4,554 |
| Collateralized debt obligations..... | — | — | 191 | 191 | — | 191 |
| Asset-backed securities: | | | | | | |
| Residential mortgages..... | — | 99 | — | 99 | — | 99 |
| Student Loans..... | — | 84 | — | 84 | — | 84 |
| Corporate and other domestic debt securities..... | — | — | 2,884 | 2,884 | — | 2,884 |
| Debt Securities issued by foreign entities..... | — | 5,416 | — | 5,416 | — | 5,416 |
| Equity securities..... | — | 15 | — | 15 | — | 15 |
| Precious metals trading..... | — | 2,669 | — | 2,669 | — | 2,669 |
| Derivatives ⁽³⁾ : | | | | | | |
| Interest rate contracts..... | 55 | 47,841 | 3 | 47,899 | — | 47,899 |
| Foreign exchange contracts..... | — | 19,459 | 14 | 19,473 | — | 19,473 |
| Equity contracts..... | — | 1,883 | 98 | 1,981 | — | 1,981 |
| Precious metals contracts..... | 38 | 740 | — | 778 | — | 778 |
| Credit contracts..... | — | 1,460 | 220 | 1,680 | — | 1,680 |
| Derivatives netting..... | — | — | — | — | (67,884) | (67,884) |
| Total derivatives..... | 93 | 71,383 | 335 | 71,811 | (67,884) | 3,927 |
| Securities available-for-sale: | | | | | | |
| U.S. Treasury, U.S. Government agencies and sponsored enterprises..... | 26,435 | 13,187 | — | 39,622 | — | 39,622 |
| Asset-backed securities: | | | | | | |
| Commercial mortgages..... | — | 4 | — | 4 | — | 4 |
| Home equity..... | — | 65 | — | 65 | — | 65 |
| Other..... | — | 494 | — | 494 | — | 494 |
| Debt Securities issued by foreign entities..... | — | 457 | — | 457 | — | 457 |
| Equity securities..... | — | 158 | — | 158 | — | 158 |
| Loans ⁽⁴⁾ | — | 649 | — | 649 | — | 649 |
| Mortgage servicing rights ⁽⁵⁾ | — | 95 | — | 95 | — | 95 |
| Total assets..... | \$ 30,902 | \$ 95,724 | \$ 3,410 | \$ 130,036 | \$ (67,884) | \$ 62,152 |
| Liabilities: | | | | | | |
| Domestic deposits ⁽²⁾ | \$ — | \$ 6,068 | \$ 1,404 | \$ 7,472 | \$ — | \$ 7,472 |
| Trading liabilities, excluding derivatives..... | 1,030 | 49 | — | 1,079 | — | 1,079 |
| Derivatives ⁽³⁾ : | | | | | | |
| Interest rate contracts..... | 60 | 48,942 | 2 | 49,004 | — | 49,004 |
| Foreign exchange contracts..... | 6 | 17,684 | 14 | 17,704 | — | 17,704 |
| Equity contracts..... | — | 1,614 | 93 | 1,707 | — | 1,707 |
| Precious metals contracts..... | 21 | 653 | — | 674 | — | 674 |
| Credit contracts..... | — | 1,511 | 13 | 1,524 | — | 1,524 |
| Derivatives netting..... | — | — | — | — | (63,716) | (63,716) |
| Total derivatives..... | 87 | 70,404 | 122 | 70,613 | (63,716) | 6,897 |
| Short-term borrowings ⁽²⁾ | — | 2,675 | — | 2,675 | — | 2,675 |
| Long-term debt ⁽²⁾ | — | 9,486 | 513 | 9,999 | — | 9,999 |
| Total liabilities..... | \$ 1,117 | \$ 88,682 | \$ 2,039 | \$ 91,838 | \$ (63,716) | \$ 28,122 |

| December 31, 2015 | Fair Value Measurements on a Recurring Basis | | | | | |
|--|--|------------------|-----------------|-------------------|------------------------|------------------|
| | Level 1 | Level 2 | Level 3 | Gross Balance | Netting ⁽¹⁾ | Net Balance |
| | (in millions) | | | | | |
| Assets: | | | | | | |
| Trading Securities, excluding derivatives: | | | | | | |
| U.S. Treasury, U.S. Government agencies and sponsored enterprises..... | \$ 3,088 | \$ 167 | \$ — | \$ 3,255 | \$ — | \$ 3,255 |
| Obligations of U. S. States and political subdivisions | — | 559 | — | 559 | — | 559 |
| Collateralized debt obligations | — | — | 221 | 221 | — | 221 |
| Asset-backed securities: | | | | | | |
| Residential mortgages | — | 114 | — | 114 | — | 114 |
| Student loans | — | 89 | — | 89 | — | 89 |
| Corporate and other domestic debt securities..... | — | — | 2,870 | 2,870 | — | 2,870 |
| Debt Securities issued by foreign entities: | | | | | | |
| Corporate | — | 55 | — | 55 | — | 55 |
| Government-backed | — | 3,974 | — | 3,974 | — | 3,974 |
| Equity securities | — | 18 | — | 18 | — | 18 |
| Precious metals trading | — | 780 | — | 780 | — | 780 |
| Derivatives ⁽³⁾ : | | | | | | |
| Interest rate contracts..... | 26 | 35,241 | 2 | 35,269 | — | 35,269 |
| Foreign exchange contracts | — | 24,161 | 16 | 24,177 | — | 24,177 |
| Equity contracts | — | 1,687 | 119 | 1,806 | — | 1,806 |
| Precious metals contracts | 38 | 891 | — | 929 | — | 929 |
| Credit contracts..... | — | 3,676 | 209 | 3,885 | — | 3,885 |
| Derivatives netting | — | — | — | — | (60,452) | (60,452) |
| Total derivatives..... | 64 | 65,656 | 346 | 66,066 | (60,452) | 5,614 |
| Securities available-for-sale: | | | | | | |
| U.S. Treasury, U.S. Government agencies and sponsored enterprises..... | 21,924 | 12,621 | — | 34,545 | — | 34,545 |
| Obligations of U.S. states and political subdivisions | — | 348 | — | 348 | — | 348 |
| Asset-backed securities: | | | | | | |
| Commercial mortgages..... | — | 9 | — | 9 | — | 9 |
| Home equity | — | 75 | — | 75 | — | 75 |
| Other..... | — | 89 | — | 89 | — | 89 |
| Debt Securities issued by foreign entities | — | 546 | — | 546 | — | 546 |
| Equity securities | — | 161 | — | 161 | — | 161 |
| Loans ⁽⁴⁾ | — | 151 | — | 151 | — | 151 |
| Mortgage servicing rights ⁽⁵⁾ | — | — | 140 | 140 | — | 140 |
| Total assets..... | <u>\$ 25,076</u> | <u>\$ 85,412</u> | <u>\$ 3,577</u> | <u>\$ 114,065</u> | <u>\$ (60,452)</u> | <u>\$ 53,613</u> |
| Liabilities: | | | | | | |
| Domestic deposits ⁽²⁾ | \$ — | \$ 5,052 | \$ 1,867 | \$ 6,919 | \$ — | \$ 6,919 |
| Trading liabilities, excluding derivatives | 363 | 686 | — | 1,049 | — | 1,049 |
| Derivatives ⁽³⁾ : | | | | | | |
| Interest rate contracts..... | 28 | 35,432 | 1 | 35,461 | — | 35,461 |
| Foreign exchange contracts | 15 | 22,405 | 16 | 22,436 | — | 22,436 |
| Equity contracts | — | 1,560 | 202 | 1,762 | — | 1,762 |
| Precious metals contracts | 39 | 552 | — | 591 | — | 591 |
| Credit contracts..... | — | 3,753 | 30 | 3,783 | — | 3,783 |
| Derivatives netting | — | — | — | — | (57,040) | (57,040) |
| Total derivatives..... | 82 | 63,702 | 249 | 64,033 | (57,040) | 6,993 |
| Short-term borrowings ⁽²⁾ | — | 1,976 | — | 1,976 | — | 1,976 |
| Long-term debt ⁽²⁾ | — | 8,425 | 746 | 9,171 | — | 9,171 |
| Total liabilities..... | <u>\$ 445</u> | <u>\$ 79,841</u> | <u>\$ 2,862</u> | <u>\$ 83,148</u> | <u>\$ (57,040)</u> | <u>\$ 26,108</u> |

⁽¹⁾ Represents counterparty and cash collateral netting which allow the offsetting of amounts relating to certain contracts if certain conditions are met.

⁽²⁾ See Note 11, "Fair Value Option," for additional information.

⁽³⁾ Includes trading derivative assets of \$3,674 million and \$5,150 million and trading derivative liabilities of \$6,458 million and \$6,406 million at September 30, 2016 and December 31, 2015, respectively, as well as derivatives held for hedging and commitments accounted for as derivatives.

⁽⁴⁾ Includes certain commercial loans held for sale which we have elected to apply the fair value option. See Note 6, "Loans Held for Sale," for further information.

⁽⁵⁾ See Note 7, "Intangible Assets," and Note 9, "Other Assets Held for Sale," for additional information.

Transfers between levels of the fair value hierarchy are recognized at the end of each reporting period.

Transfers between Level 1 and Level 2 measurements There were no transfers between Levels 1 and 2 during the three and nine months ended September 30, 2016 and 2015.

Information on Level 3 assets and liabilities The following table summarizes additional information about changes in the fair value of Level 3 assets and liabilities during the three and nine months ended September 30, 2016 and 2015. As a risk management practice, we may risk manage the Level 3 assets and liabilities, in whole or in part, using securities and derivative positions that are classified as Level 1 or Level 2 measurements within the fair value hierarchy. Since those Level 1 and Level 2 risk management positions are not included in the table below, the information provided does not reflect the effect of such risk management activities related to the Level 3 assets and liabilities.

| | Jul. 1, 2016 | Total Gains and (Losses) Included in ⁽¹⁾ | | | | | Transfers Into Level 3 | Transfers Out of Level 3 | Sep. 30, 2016 | Current Period Unrealized Gains (Losses) |
|--|-------------------|--|------------------|----------------|-----------------|------------------|------------------------------|--------------------------------|-------------------|--|
| | | Trading Revenue (Loss) | Other Revenue | Purch- ases | Issu- ances | Settle- ments | | | | |
| (in millions) | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Trading assets, excluding derivatives: | | | | | | | | | | |
| Collateralized debt obligations | \$ 201 | \$ 4 | \$ — | \$ — | \$ — | \$ (14) | \$ — | \$ — | \$ 191 | \$ 2 |
| Corporate and other domestic debt securities | 2,879 | 1 | — | 4 | — | — | — | — | 2,884 | 1 |
| Derivatives, net ⁽²⁾ : | | | | | | | | | | |
| Interest rate contracts | 1 | — | — | — | — | — | — | — | 1 | — |
| Foreign exchange contracts..... | — | — | — | — | — | — | — | — | — | — |
| Equity contracts | (15) | 20 | — | — | (2) | (1) | 3 | 5 | — | — |
| Credit contracts | 188 | 11 | — | — | 8 | — | — | 207 | (3) | (3) |
| Mortgage servicing rights ⁽³⁾ | 104 | — | (4) | — | (5) | — | (95) | — | — | (4) |
| Total assets..... | <u>\$ 3,358</u> | <u>\$ 36</u> | <u>\$ (4)</u> | <u>\$ 4</u> | <u>\$ —</u> | <u>\$ (13)</u> | <u>\$ (1)</u> | <u>\$ (92)</u> | <u>\$ 3,288</u> | <u>\$ (4)</u> |
| Liabilities: | | | | | | | | | | |
| Domestic deposits ⁽⁴⁾ | \$ (1,677) | \$ — | \$ (3) | \$ — | \$ (42) | \$ 300 | \$ (39) | \$ 57 | \$ (1,404) | \$ (26) |
| Long-term debt ⁽⁴⁾ | (573) | — | (31) | — | (86) | 110 | — | 67 | (513) | (42) |
| Total liabilities | <u>\$ (2,250)</u> | <u>\$ —</u> | <u>\$ (34)</u> | <u>\$ —</u> | <u>\$ (128)</u> | <u>\$ 410</u> | <u>\$ (39)</u> | <u>\$ 124</u> | <u>\$ (1,917)</u> | <u>\$ (68)</u> |

| | Jan. 1, 2016 | Total Gains and (Losses) Included in ⁽¹⁾ | | | | | Transfers Into Level 3 | Transfers Out of Level 3 | Sep. 30, 2016 | Current Period Unrealized Gains (Losses) |
|--|-------------------|--|------------------|----------------|-----------------|------------------|------------------------------|--------------------------------|-------------------|--|
| | | Trading Revenue (Loss) | Other Revenue | Purch- ases | Issu- ances | Settle- ments | | | | |
| (in millions) | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Trading assets, excluding derivatives: | | | | | | | | | | |
| Collateralized debt obligations..... | \$ 221 | \$ (4) | \$ — | \$ — | \$ — | \$ (26) | \$ — | \$ — | \$ 191 | \$ (9) |
| Corporate and other domestic debt securities | 2,870 | — | — | 14 | — | — | — | — | 2,884 | — |
| Derivatives, net ⁽²⁾ : | | | | | | | | | | |
| Interest rate contracts..... | 1 | — | — | — | — | — | — | — | 1 | — |
| Foreign exchange contracts | — | — | — | — | — | — | — | — | — | — |
| Equity contracts..... | (83) | 75 | — | — | — | 10 | — | 3 | 5 | 50 |
| Credit contracts..... | 179 | 27 | — | — | — | 1 | — | — | 207 | 18 |
| Mortgage servicing rights ⁽³⁾ .. | 140 | — | (28) | — | — | (17) | — | (95) | — | (28) |
| Total assets..... | <u>\$ 3,328</u> | <u>\$ 98</u> | <u>\$ (28)</u> | <u>\$ 14</u> | <u>\$ —</u> | <u>\$ (32)</u> | <u>\$ —</u> | <u>\$ (92)</u> | <u>\$ 3,288</u> | <u>\$ 31</u> |
| Liabilities: | | | | | | | | | | |
| Domestic deposits ⁽⁴⁾ | \$ (1,867) | \$ — | \$ (74) | \$ — | \$ (206) | \$ 599 | \$ (54) | \$ 198 | \$ (1,404) | \$ (46) |
| Long-term debt ⁽⁴⁾ | (746) | — | (23) | — | (216) | 259 | — | 213 | (513) | (23) |
| Total liabilities..... | <u>\$ (2,613)</u> | <u>\$ —</u> | <u>\$ (97)</u> | <u>\$ —</u> | <u>\$ (422)</u> | <u>\$ 858</u> | <u>\$ (54)</u> | <u>\$ 411</u> | <u>\$ (1,917)</u> | <u>\$ (69)</u> |

| | Jul. 1, 2015 | Total Gains and (Losses) Included in ⁽¹⁾ | | | | | Transfers Into Level 3 | Transfers Out of Level 3 | Sep. 30, 2015 | Current Period Unrealized Gains (Losses) |
|--|-------------------|--|------------------|----------------|-----------------|------------------|------------------------------|--------------------------------|-------------------|--|
| | | Trading Revenue (Loss) | Other Revenue | Purch- ases | Issu- ances | Settle- ments | | | | |
| (in millions) | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Trading assets, excluding derivatives: | | | | | | | | | | |
| Collateralized debt obligations | \$ 240 | \$ 3 | \$ — | \$ — | \$ — | \$ (10) | \$ — | \$ — | \$ 233 | \$ — |
| Corporate and other domestic debt securities | 2,855 | — | — | 7 | — | — | — | — | 2,862 | — |
| Derivatives, net ⁽²⁾ : | | | | | | | | | | |
| Interest rate contracts | 1 | — | (1) | — | — | — | — | — | — | (1) |
| Foreign exchange contracts..... | — | — | — | — | — | — | — | — | — | — |
| Equity contracts | (10) | (70) | — | — | — | (17) | — | 2 | (95) | (79) |
| Credit contracts | 179 | (8) | — | — | — | — | — | — | 171 | (7) |
| Mortgage servicing rights ⁽³⁾ . | 158 | — | (21) | — | — | (7) | — | — | 130 | (21) |
| Total assets | <u>\$ 3,423</u> | <u>\$ (75)</u> | <u>\$ (22)</u> | <u>\$ 7</u> | <u>\$ —</u> | <u>\$ (34)</u> | <u>\$ —</u> | <u>\$ 2</u> | <u>\$ 3,301</u> | <u>\$ (108)</u> |
| Liabilities: | | | | | | | | | | |
| Domestic deposits ⁽⁴⁾ | \$ (1,817) | \$ — | \$ 9 | \$ — | \$ (86) | \$ 130 | \$ (44) | \$ 54 | \$ (1,754) | \$ 15 |
| Long-term debt ⁽⁴⁾ | (662) | — | 73 | — | (186) | 13 | (1) | 18 | (745) | 71 |
| Total liabilities | <u>\$ (2,479)</u> | <u>\$ —</u> | <u>\$ 82</u> | <u>\$ —</u> | <u>\$ (272)</u> | <u>\$ 143</u> | <u>\$ (45)</u> | <u>\$ 72</u> | <u>\$ (2,499)</u> | <u>\$ 86</u> |

| | Total Gains and (Losses) Included in ⁽¹⁾ | | | | | | | Transfers Into Level 3 | Transfers Out of Level 3 | Sep. 30, 2015 | Current Period Unrealized Gains (Losses) |
|--|--|------------------------------|------------------|----------------|-----------------|------------------|----------------|------------------------------|--------------------------------|------------------|--|
| | Jan. 1, 2015 | Trading Revenue (Loss) | Other Revenue | Purch- ases | Issu- ances | Settle- ments | | | | | |
| (in millions) | | | | | | | | | | | |
| Assets: | | | | | | | | | | | |
| Trading assets, excluding derivatives: | | | | | | | | | | | |
| Collateralized debt obligations..... | \$ 253 | \$ 15 | \$ — | \$ — | \$ — | \$ (35) | \$ — | \$ — | \$ 233 | \$ 7 | |
| Corporate and other domestic debt securities | 2,840 | — | — | 22 | — | — | — | — | 2,862 | — | |
| Derivatives, net ⁽²⁾ : | | | | | | | | | | | |
| Interest rate contracts..... | — | — | — | — | — | — | — | — | — | — | |
| Foreign exchange contracts | — | — | — | — | — | — | — | — | — | — | |
| Equity contracts..... | 42 | (74) | — | — | — | (65) | — | 2 | (95) | (101) | |
| Credit contracts..... | 210 | (30) | — | — | — | (9) | — | — | 171 | (60) | |
| Mortgage servicing rights ⁽³⁾ .. | 159 | — | (13) | — | — | (16) | — | — | 130 | (13) | |
| Total assets..... | <u>\$ 3,504</u> | <u>\$ (89)</u> | <u>\$ (13)</u> | <u>\$ 22</u> | <u>\$ —</u> | <u>\$ (125)</u> | <u>\$ —</u> | <u>\$ 2</u> | <u>\$ 3,301</u> | <u>\$ (167)</u> | |
| Liabilities: | | | | | | | | | | | |
| Domestic deposits ⁽⁴⁾ | \$ (1,968) | \$ — | \$ 4 | \$ — | \$ (270) | \$ 313 | \$ (66) | \$ 233 | \$ (1,754) | \$ 21 | |
| Long-term debt ⁽⁴⁾ | (647) | — | 79 | — | (423) | 197 | (1) | 50 | (745) | 81 | |
| Total liabilities..... | <u>\$ (2,615)</u> | <u>\$ —</u> | <u>\$ 83</u> | <u>\$ —</u> | <u>\$ (693)</u> | <u>\$ 510</u> | <u>\$ (67)</u> | <u>\$ 283</u> | <u>\$ (2,499)</u> | <u>\$ 102</u> | |

⁽¹⁾ Includes realized and unrealized gains and losses.

⁽²⁾ Level 3 net derivatives included derivative assets of \$335 million and derivative liabilities of \$122 million at September 30, 2016 and derivative assets of \$304 million and derivative liabilities of \$228 million at September 30, 2015.

⁽³⁾ See Note 7, "Intangible Assets," and Note 9, "Other Assets Held for Sale," for additional information.

⁽⁴⁾ See Note 11, "Fair Value Option," for additional information.

The following table presents quantitative information about the unobservable inputs used to determine the recurring fair value measurement of assets and liabilities classified as Level 3 fair value measurements at September 30, 2016 and December 31, 2015:

September 30, 2016

| Financial Instrument Type | Fair Value (in millions) | Valuation Technique(s) | Significant Unobservable Inputs | Range of Inputs |
|---|-----------------------------|---|--|-----------------|
| Collateralized debt obligations | 191 | Broker quotes or consensus pricing and, where applicable, discounted cash flows | Prepayment rates | 2% - 5% |
| | | | Conditional default rates | 6% - 7% |
| | | | Loss severity rates | 90% - 95% |
| Corporate and other domestic debt securities | 2,884 | Discounted cash flows | Spread volatility on collateral assets | 2% - 4% |
| | | | Correlation between insurance claim shortfall and collateral value | 80% |
| Interest rate derivative contracts | 1 | Market comparable adjusted for probability to fund | Probability to fund for rate lock commitments | 38% - 100% |
| Foreign exchange derivative contracts ⁽¹⁾ | — | Option pricing model | Implied volatility of currency pairs | 15% - 21% |
| Equity derivative contracts ⁽¹⁾ | 5 | Option pricing model | Equity / Equity Index volatility | 10% - 50% |
| | | | Equity / Equity and Equity / Index correlation | 47% - 58% |
| | | | Equity dividend yields | 0% - 15% |
| Credit derivative contracts | 207 | Option pricing model | Issuer by issuer correlation of defaults | 82% - 83% |
| Domestic deposits (structured deposits) ⁽¹⁾⁽²⁾ | (1,404) | Option adjusted discounted cash flows | Implied volatility of currency pairs | 15% - 21% |
| | | | Equity / Equity Index volatility | 10% - 50% |
| | | | Equity / Equity and Equity / Index correlation | 47% - 58% |
| Long-term debt (structured notes) ⁽¹⁾⁽²⁾ | (513) | Option adjusted discounted cash flows | Implied volatility of currency pairs | 15% - 21% |
| | | | Equity / Equity Index volatility | 10% - 50% |
| | | | Equity / Equity and Equity / Index correlation | 47% - 58% |

December 31, 2015

| Financial Instrument Type | Fair Value (in millions) | Valuation Technique(s) | Significant Unobservable Inputs | Range of Inputs |
|---|-----------------------------|---|--|--------------------------|
| Collateralized debt obligations | 221 | Broker quotes or consensus pricing and, where applicable, discounted cash flows | Prepayment rates | 1% - 6% |
| | | | Conditional default rates | 3% - 7% |
| | | | Loss severity rates | 90% - 99% |
| Corporate and other domestic debt securities | 2,870 | Discounted cash flows | Spread volatility on collateral assets | 2% - 4% |
| | | | Correlation between insurance claim shortfall and collateral value | 80% |
| Interest rate derivative contracts | 1 | Market comparable adjusted for probability to fund | Probability to fund for rate lock commitments | 18% - 100% |
| Foreign exchange derivative contracts ⁽¹⁾ | — | Option pricing model | Implied volatility of currency pairs | 18% - 22% |
| Equity derivative contracts ⁽¹⁾ | (83) | Option pricing model | Equity / Equity Index volatility | 14% - 72% |
| | | | Equity / Equity and Equity / Index correlation | 48% - 59% |
| | | | Equity dividend yields | 0% - 18% |
| Credit derivative contracts | 179 | Option pricing model | Correlation of defaults of a portfolio of reference credit names | 44% - 47% |
| | | | Issuer by issuer correlation of defaults | 82% - 83% |
| Mortgage servicing rights | 140 | Option adjusted discounted cash flows | Constant prepayment rates | 11% - 50% |
| | | | Option adjusted spread | 8% - 14% |
| | | | Estimated annualized costs to service | \$87 - \$329 per account |
| Domestic deposits (structured deposits) ⁽¹⁾⁽²⁾ | (1,867) | Option adjusted discounted cash flows | Implied volatility of currency pairs | 18% - 22% |
| | | | Equity / Equity Index volatility | 14% - 72% |
| | | | Equity / Equity and Equity / Index correlation | 48% - 59% |
| Long-term debt (structured notes) ⁽¹⁾⁽²⁾ | (746) | Option adjusted discounted cash flows | Implied volatility of currency pairs | 18% - 22% |
| | | | Equity / Equity Index volatility | 14% - 72% |
| | | | Equity / Equity and Equity / Index correlation | 48% - 59% |

(1) We are the client-facing entity and we enter into identical but opposite derivatives to transfer the resultant risks to our affiliates. With the exception of counterparty credit risks, we are market neutral. The corresponding intra-group derivatives are presented as equity derivatives and foreign exchange derivatives in the table.

(2) Structured deposits and structured notes contain embedded derivative features whose fair value measurements contain significant Level 3 inputs.

Significant Unobservable Inputs for Recurring Fair Value Measurements

Collateralized Debt Obligations ("CDOs")

- **Prepayment rate** - The rate at which borrowers pay off the mortgage loans early. The prepayment rate is affected by a number of factors including the location of the mortgage collateral, the interest rate type of the mortgage loans, borrowers' credit and sensitivity to interest rate movement. The prepayment rate of our CDOs portfolio is tilted towards the low end of the range.
- **Default rate** - Annualized percentage of default rate over a group of collateral such as residential or commercial mortgage loans. The default rate and loss severity rate are positively correlated. The default rate of our portfolio is close to the mid-point of the range.
- **Loss severity rate** - Included in our Level 3 CDOs portfolio are collateralized loan obligations (CLOs) and trust preferred securities which are about equally distributed. The loss severity rate for trust preferred securities at September 30, 2016 is about 1.8 times that of CLOs.

Derivatives

- **Correlation of default** - The default correlation of a group of credit exposures measures the likelihood that the credit references within a group will default together. The default correlation is a significant input to structured credit products such as nth-to-

default swaps. In addition, the correlation between the currency and the default risk of the reference credits is a critical input to a foreign currency denominated credit default swap where the correlation is not observable.

- *Implied volatility* - The implied volatility is a significant pricing input for freestanding or embedded options including equity, foreign currency and interest rate options. The level of volatility is a function of the nature of the underlying risk, the level of strike price and the years to maturity of the option. Depending on the underlying risk and tenure, we determine the implied volatility based on observable input where information is available. However, substantially all of the implied volatilities are derived based on historical information. The implied volatility for different foreign currency pairs is between 15 percent and 21 percent while the implied volatility for equity/equity or equity/equity index is between 10 percent and 50 percent, respectively, at September 30, 2016. Although implied foreign currency volatility and equity volatility appear to be widely distributed at the portfolio level, the deviation of implied volatility on a trade-by-trade basis is narrower. The average deviation of implied volatility for the foreign currency pair and at-the-money equity option are 4 percent and 5 percent, respectively, at September 30, 2016.
- *Correlations of a group of foreign currency or equity* - Correlation measures the relative change in values among two or more variables (i.e., equity or foreign currency pair). Variables can be positively or negatively correlated. Correlation is a key input in determining the fair value of a derivative referenced to a basket of variables such as equities or foreign currencies. A majority of the correlations are not observable, but are derived based on historical data. The correlation between equity/equity and equity/equity index was between 47 percent and 58 percent at September 30, 2016.

Sensitivity of Level 3 Inputs to Fair Value Measurements

Collateralized debt obligations - Probability of default, prepayment speed and loss severity rate are significant unobservable inputs. Significant increase (decrease) in these inputs will result in a lower (higher) fair value measurement of a collateralized debt obligation. A change in assumption for default probability is often accompanied by a directionally similar change in loss severity, and a directionally opposite change in prepayment speed.

Corporate and domestic debt securities - The fair value measurements of certain corporate debt securities are affected by the fair value of the underlying portfolios of investments used as collateral and the make-whole guarantee provided by third party guarantors. The probability that the collateral fair value declines below the collateral call threshold concurrent with the guarantors' failure to perform its make whole obligation is unobservable. The increase (decrease) in the probability the collateral value falls below the collateral call threshold is often accompanied by a directionally similar change in default probability of the guarantor.

Credit derivatives - Correlation of default among a basket of reference credit names is a significant unobservable input if the credit attributes of the portfolio are not within the parameters of relevant standardized CDS indices. Significant increase (decrease) in the unobservable input will result in a lower (higher) fair value measurement of the credit derivative. A change in assumption for default correlation is often accompanied by a directionally similar change in default probability and loss rates of other credit names in the basket.

Equity and foreign exchange derivatives - The fair value measurement of a structured equity or foreign exchange derivative is primarily affected by the implied volatility of the underlying equity price or exchange rate of the paired foreign currencies. The implied volatility is not observable. Significant increase (decrease) in the implied volatility will result in a higher (lower) fair value of a long position in the derivative contract.

Significant Transfers Into and Out of Level 3 Measurements During the three and nine months ended September 30, 2016, we transferred \$57 million and \$198 million, respectively, of domestic deposits and \$67 million and \$213 million, respectively, of long-term debt, which we have elected to carry at fair value, from Level 3 to Level 2 as a result of the embedded derivative no longer being unobservable as the derivative option is closer to maturity and there is more observability in short term volatility. During the third quarter of 2016, we transferred \$95 million of mortgage servicing rights from Level 3 to Level 2 upon execution of the sale agreement with a third party. Additionally, during the three and nine months ended September 30, 2016, we transferred \$39 million and \$54 million, respectively, of domestic deposits, which we have elected to carry at fair value, from Level 2 to Level 3 as a result of a change in the observability of underlying instruments that resulted in the embedded derivative being unobservable.

During the three and nine months ended September 30, 2015, we transferred \$54 million and \$233 million, respectively, of domestic deposits and \$18 million and \$50 million, respectively, of long-term debt, which we have elected to carry at fair value, from Level 3 to Level 2 as a result of the embedded derivative no longer being unobservable as the derivative option is closer in maturity and there is more observability in short term volatility. Additionally, during the three and nine months ended September 30, 2015, we transferred \$44 million and \$66 million, respectively, of domestic deposits, which we have elected to carry at fair value, from Level 2 to Level 3 as a result of a change in the observability of underlying instruments that resulted in the embedded derivative being unobservable.

Assets and Liabilities Recorded at Fair Value on a Non-recurring Basis Certain financial and non-financial assets are measured at fair value on a non-recurring basis and therefore, are not included in the tables above. These assets include (a) mortgage and commercial loans classified as held for sale reported at the lower of amortized cost or fair value and (b) impaired loans or assets that are written down to fair value based on the valuation of underlying collateral during the period. These instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustment in certain circumstances (e.g., impairment). The following table presents the fair value hierarchy level within which the fair value of the financial and non-financial assets has been recorded at September 30, 2016 and December 31, 2015. The gains (losses) during the three and nine months ended September 30, 2016 and 2015 are also included.

| | Non-Recurring Fair Value Measurements at September 30, 2016 | | | | Total Gains (Losses) For the Three Months Ended September 30, 2016 | Total Gains (Losses) For the Nine Months Ended September 30, 2016 |
|--|--|--------------|-----------------|-----------------|---|--|
| | Level 1 | Level 2 | Level 3 | Total | | |
| (in millions) | | | | | | |
| Residential mortgage and home equity mortgage loans held for sale ⁽¹⁾ | \$ — | \$ — | \$ 958 | \$ 958 | \$ (17) | \$ (61) |
| Consumer loans ⁽²⁾ | — | 32 | — | 32 | (10) | (19) |
| Commercial loans held for sale ⁽³⁾ | — | 19 | — | 19 | (7) | (37) |
| Impaired commercial loans ⁽⁴⁾ | — | — | 420 | 420 | 7 | (295) |
| Real estate owned ⁽⁵⁾ | — | 27 | — | 27 | 2 | 6 |
| Total assets at fair value on a non-recurring basis | \$ — | \$ 78 | \$ 1,378 | \$ 1,456 | \$ (25) | \$ (406) |

| | Non-Recurring Fair Value Measurements at December 31, 2015 | | | | Total Gains (Losses) For the Three Months Ended September 30, 2015 | Total Gains (Losses) For the Nine Months Ended September 30, 2015 |
|--|---|---------------|---------------|---------------|---|--|
| | Level 1 | Level 2 | Level 3 | Total | | |
| (in millions) | | | | | | |
| Residential mortgage loans held for sale ⁽¹⁾ | \$ — | \$ 2 | \$ 3 | \$ 5 | \$ — | \$ — |
| Consumer loans ⁽²⁾ | — | 133 | — | 133 | (6) | (24) |
| Commercial loans held for sale ⁽³⁾ | — | 55 | — | 55 | (2) | (16) |
| Impaired commercial loans ⁽⁴⁾ | — | — | 116 | 116 | (16) | (31) |
| Real estate owned ⁽⁵⁾ | — | 22 | — | 22 | 1 | 3 |
| Total assets at fair value on a non-recurring basis | \$ — | \$ 212 | \$ 119 | \$ 331 | \$ (23) | \$ (68) |

⁽¹⁾ At September 30, 2016 and December 31, 2015, the fair value of the loans held for sale was below cost. Certain residential mortgage and home equity mortgage loans held for sale have been classified as Level 3 fair value measurements within the fair value hierarchy, including certain residential mortgage and home equity mortgage loans which were transferred to held for sale during the nine months ended September 30, 2016 for which significant inputs in estimating fair value were unobservable and, to a lesser extent, certain residential mortgage loans held for sale for which the underlying real estate properties used to determine fair value are illiquid assets as a result of market conditions. Additionally, the fair value of these properties is affected by, among other things, the location, the payment history and the completeness of the loan documentation.

⁽²⁾ Represents residential mortgage loans held for investment whose carrying amount was reduced during the periods presented based on the fair value of the underlying collateral. Total gains (losses) for the three and nine months ended September 30, 2016 include amounts recorded on loans that were subsequently transferred to held for sale.

⁽³⁾ At September 30, 2016 and December 31, 2015, the fair value of the loans held for sale was below cost.

⁽⁴⁾ Certain commercial loans have undergone troubled debt restructurings and are considered impaired. As a matter of practical expedient, we measure the credit impairment of a collateral-dependent loan based on the fair value of the collateral asset. The collateral often involves real estate properties that are illiquid due to market conditions. As a result, these loans are classified as a Level 3 fair value measurement within the fair value hierarchy.

⁽⁵⁾ Real estate owned is required to be reported on the balance sheet net of transactions costs. The real estate owned amounts in the table above reflect the fair value unadjusted for transaction costs.

The following tables present quantitative information about non-recurring fair value measurements of assets and liabilities classified with Level 3 of the fair value hierarchy at September 30, 2016 and December 31, 2015:

At September 30, 2016

| Financial Instrument Type | Fair Value (in millions) | Valuation Technique(s) | Significant Unobservable Inputs | Range of Inputs |
|---|-----------------------------|--|---|-----------------------|
| Residential mortgage and home equity mortgage loans held for sale | \$ 958 | Third party appraisal valuation based on estimated loss severities, including collateral values and market discount rate | Loss severity rates Market discount rate | 0% - 100% 8% - 14% |
| Impaired commercial loans | 420 | Valuation of third party appraisal on underlying collateral | Loss severity rates | 0% - 100% |

At December 31, 2015

| Financial Instrument Type | Fair Value (in millions) | Valuation Technique(s) | Significant Unobservable Inputs | Range of Inputs |
|--|-----------------------------|---|---------------------------------------|--------------------|
| Residential mortgage loans held for sale | \$ 3 | Valuation of third party appraisal on underlying collateral | Loss severity rates | 0% - 100% |
| Impaired commercial loans | 116 | Valuation of third party appraisal on underlying collateral | Loss severity rates | 0% - 70% |

Significant Unobservable Inputs for Non-Recurring Fair Value Measurements

Residential mortgage and home equity mortgage loans held for sale represent residential mortgage and home equity mortgage loans which were transferred to held for sale during the nine months ended September 30, 2016 and, to a lesser extent, subprime residential mortgage loans which were previously acquired with the intent of securitizing or selling them to third parties. The weighted average loss severity rate for residential mortgage and home equity mortgage loans held for sale was approximately 52 percent at September 30, 2016. These severity rates are primarily impacted by the value of the underlying collateral securing the loans.

Impaired loans represent commercial loans. The weighted average severity rate for these loans was approximately 34 percent at September 30, 2016. These severity rates are primarily impacted by the value of the underlying collateral securing the loans.

Valuation Techniques Following is a description of valuation methodologies used for assets and liabilities recorded at fair value and for estimating fair value for those financial instruments not recorded at fair value for which fair value disclosure is required.

Short-term financial assets and liabilities - The carrying amount of certain financial assets and liabilities recorded at cost is considered to approximate fair value because they are short-term in nature, bear interest rates that approximate market rates, and generally have negligible credit risk. These items include cash and due from banks, interest bearing deposits with banks, customer acceptance assets and liabilities, short-term borrowings and dividends payable.

Federal funds sold and purchased and securities purchased and sold under resale and repurchase agreements - We record certain securities purchased and sold under resale and repurchase agreements at fair value. The fair value of these resale and repurchase agreements is determined using market rates currently offered on comparable transactions with similar underlying collateral and maturities.

The remaining federal funds sold and purchased and securities purchased and sold under resale and repurchase agreements are recorded at cost. A majority of these transactions are short-term in nature and, as such, the recorded amounts approximate fair value. For transactions with long-dated maturities, fair value is based on dealer quotes for instruments with similar terms and collateral.

Loans - Except for certain commercial loans held for sale for which the fair value option has been elected, we do not record loans at fair value on a recurring basis. From time to time, we record impairments to loans. The write-downs can be based on observable market price of the loan, the underlying collateral value or a discounted cash flow analysis. In addition, fair value estimates are determined based on the product type, financial characteristics, pricing features and maturity.

- Loans held for sale – Consumer and commercial loans held for sale (that are not designated under FVO as discussed below) are recorded at the lower of amortized cost or fair value. The fair value estimates of consumer and commercial loans held for sale are determined primarily using the discounted cash flow method using assumptions consistent with those which would be used by market participants in valuing such loans. Valuation inputs include estimates of prepayment rates, default rates, loss severities, collateral values and market rates of return. Where available, such inputs are derived from or corroborated by observable market data. Since some loan pools may have features which are unique, the fair value measurement processes use

significant unobservable inputs which are specific to the performance characteristics of the various loan portfolios. Where available, we measure residential mortgage whole loans held for sale based on transaction prices of loan portfolios of similar characteristics observed in the whole loan market. Adjustments are made to reflect differences in collateral location, loan-to-value ratio, FICO scores, vintage year, default rates, the completeness of the loan documentation and other risk characteristics.

- Commercial loans held for sale designated under FVO – We record certain commercial loans held for sale at fair value. Where available, fair value is based on observable market consensus pricing obtained from independent sources, relevant broker quotes or observed market prices of instruments with similar characteristics. Where observable market parameters are not available, fair value is determined based on contractual cash flows adjusted for estimates of prepayment rates, expected default rates and loss severity discounted at management's estimate of the expected rate of return required by market participants. We also consider loan specific risk mitigating factors such as collateral arrangements in determining the fair value estimate.
- Commercial loans – Commercial loans and commercial real estate loans are valued by discounting the contractual cash flows, adjusted for prepayments and the borrower's credit risk, using a discount rate that reflects the current rates offered to borrowers of similar credit standing for the remaining term to maturity and, when applicable, our own estimate of liquidity premium.
- Commercial impaired loans – Generally represents collateral dependent commercial loans with fair value determined based on pricing quotes obtained from an independent third party appraisal.
- Consumer loans – The estimated fair value of our consumer loans were determined by developing an approximate range of value from a mix of various sources as appropriate for the respective pool of assets. These sources included estimates from an HSBC affiliate which reflect over-the-counter trading activity; trading input from other market participants which includes observed primary and secondary trades; where appropriate, the impact of current estimated rating agency credit tranching levels with the associated benchmark credit spreads; general discussions held directly with potential investors; and, at December 31, 2015, forward looking discounted cash flow models using assumptions consistent with those which would be used by market participants in valuing such loans. Since some loan pools may have features which are unique, the fair value measurement processes use significant unobservable inputs which are specific to the performance characteristics of the various loan portfolios. For revolving products, the estimated fair value excludes future draws on the available credit line as well as other items and, therefore, does not include the fair value of the entire relationship.

We perform analytical reviews of fair value changes on a quarterly basis and periodically validate our valuation methodologies and assumptions based on the results of actual sales of loans with similar characteristics. In addition, from time to time, we may engage a third party valuation specialist to measure the fair value of a pool of loans. Portfolio risk management personnel provide further validation through discussions with third party brokers and other market participants.

Lending-related commitments - The fair value of commitments to extend credit, standby letters of credit and financial guarantees are not included in the table. The majority of the lending related commitments are not carried at fair value on a recurring basis nor are they actively traded. These instruments generate fees, which approximate those currently charged to originate similar commitments, which are recognized over the term of the commitment period. Deferred fees on commitments and standby letters of credit totaled \$49 million and \$54 million at September 30, 2016 and December 31, 2015, respectively.

Precious metals trading - Precious metals trading primarily includes physical inventory which is valued using spot prices.

Securities - Where available, debt and equity securities are valued based on quoted market prices. If a quoted market price for the identical security is not available, the security is valued based on quotes from similar securities, where possible. For certain securities, internally developed valuation models are used to determine fair values or validate quotes obtained from pricing services. The following summarizes the valuation methodology used for our major security classes:

- U.S. Treasury, U.S. Government agency issued or guaranteed and obligations of U.S. state and political subdivisions – As these securities transact in an active market, fair value measurements are based on quoted prices for the identical security or quoted prices for similar securities with adjustments as necessary made using observable inputs which are market corroborated.
- U.S. Government sponsored enterprises – For government sponsored mortgage-backed securities which transact in an active market, fair value measurements are based on quoted prices for the identical security or quoted prices for similar securities with adjustments as necessary made using observable inputs which are market corroborated. For government sponsored mortgage-backed securities which do not transact in an active market, fair value is determined primarily based on pricing information obtained from pricing services and is verified by internal review processes.
- Asset-backed securities, including collateralized debt obligations – Fair value is primarily determined based on pricing information obtained from independent pricing services adjusted for the characteristics and the performance of the underlying collateral.
- Other domestic debt and foreign debt securities (corporate and government) - For non-callable corporate securities, a credit spread scale is created for each issuer. These spreads are then added to the equivalent maturity U.S. Treasury yield to determine current pricing. Credit spreads are obtained from the new market, secondary trading levels and dealer quotes. For securities with early redemption features, an option adjusted spread model is incorporated to adjust the spreads determined above.

Additionally, we survey the broker/dealer community to obtain relevant trade data including benchmark quotes and updated spreads.

- Equity securities – Except for certain legacy investments in hedge funds, fair value measurements are determined based on quoted prices for the identical security. For hedge fund investments, we receive monthly statements from the investment manager with the estimated fair value.

The following tables provide additional information relating to asset-backed securities as well as certain collateralized debt obligations held at September 30, 2016:

Trading asset-backed securities:

| Rating of Securities: ⁽¹⁾ | Collateral Type: | Level 2 | Level 3 | Total |
|--------------------------------------|--|---------------|---------------|---------------|
| AAA -A..... | Residential mortgages - Alt A..... | \$ 48 | \$ — | \$ 48 |
| | Residential mortgages - Subprime | 40 | — | 40 |
| | Student loans | 84 | — | 84 |
| | Total AAA -A..... | 172 | — | 172 |
| BBB -B | Collateralized debt obligations..... | — | 191 | 191 |
| CCC-Unrated | Residential mortgages - Subprime | 11 | — | 11 |
| | | <u>\$ 183</u> | <u>\$ 191</u> | <u>\$ 374</u> |

Available-for-sale securities backed by collateral:

| Rating of Securities: ⁽¹⁾ | Collateral Type: | Level 2 | Level 3 | Total |
|--------------------------------------|---------------------------|---------------|---------------|---------------|
| | | | (in millions) | |
| AAA -A..... | Commercial mortgages..... | \$ 4 | \$ — | \$ 4 |
| | Home equity - Alt A..... | 65 | — | 65 |
| | Other | 494 | — | 494 |
| | Total AAA -A..... | <u>\$ 563</u> | <u>\$ —</u> | <u>\$ 563</u> |

⁽¹⁾ We utilize S&P as the primary source of credit ratings in the tables above. If S&P ratings are not available, ratings by Moody's and Fitch are used in that order. Ratings for collateralized debt obligations represent the ratings associated with the underlying collateral.

Derivatives – Derivatives are recorded at fair value. Asset and liability positions in individual derivatives that are covered by legally enforceable master netting agreements, including receivables (payables) for cash collateral posted (received), are offset and presented net in accordance with accounting principles which allow the offsetting of amounts.

Derivatives traded on an exchange are valued using quoted prices. OTC derivatives, which comprise a majority of derivative contract positions, are valued using valuation techniques. The fair value for the majority of our derivative instruments are determined based on internally developed models that utilize independently corroborated market parameters, including interest rate yield curves, option volatilities, and currency rates. For complex or long-dated derivative products where market data is not available, fair value may be affected by the underlying assumptions about, among other things, the timing of cash flows, expected exposure, probability of default and recovery rates. The fair values of certain structured derivative products are sensitive to unobservable inputs such as default correlations of the referenced credit and volatilities of embedded options. These estimates are susceptible to significant change in future periods as market conditions change.

We use the OIS curves as inputs to measure the fair value of collateralized derivatives. Historically, we valued uncollateralized derivatives by discounting expected future cash flows at a benchmark interest rate, typically LIBOR or its equivalent. In line with evolving industry practice, we changed this approach during 2014. We now view the OIS curve as the base discounting curve for all derivatives, both collateralized and uncollateralized, and have adopted a FFVA to reflect the estimated present value of the future market funding cost or benefit associated with funding uncollateralized derivative exposure at rates other than the OIS rate. This is an area in which a full industry consensus has not yet emerged. We will continue to monitor industry evolution and refine the calculation methodology as necessary.

Significant inputs related to derivative classes are broken down as follows:

- Credit Derivatives – Use credit default curves and recovery rates which are generally provided by broker quotes and various pricing services. Certain credit derivatives may also use correlation inputs in their model valuation. Correlation is derived using market quotes from brokers and various pricing services.

- Interest Rate Derivatives – Swaps use interest rate curves based on currency that are actively quoted by brokers and other pricing services. Options will also use volatility inputs which are also quoted in the broker market.
- Foreign Exchange ("FX") Derivatives – FX transactions, to the extent possible, use spot and forward FX rates which are quoted in the broker market. Where applicable, we also use implied volatility of currency pairs as inputs.
- Equity Derivatives – Use listed equity security pricing and implied volatilities from equity traded options position.
- Precious Metal Derivatives – Use spot and forward metal rates which are quoted in the broker market.

As discussed earlier, we make fair value adjustments to model valuations in order to ensure that those values represent appropriate estimates of fair value. These adjustments, which are applied consistently over time, are generally required to reflect factors such as bid-ask spreads and counterparty credit risk that can affect prices in arms-length transactions with unrelated third parties. Such adjustments are based on management judgment and may not be observable.

We estimate the counterparty credit risk for financial assets and own credit standing for financial liabilities (the "credit risk adjustments") in determining the fair value measurement. For derivative instruments, we calculate the credit risk adjustment by applying the probability of default of the counterparty to the expected exposure, and multiplying the result by the expected loss given default. We also take into consideration the risk mitigating factors including collateral agreements and master netting agreements in determining credit risk adjustments. We estimate the implied probability of default based on the credit spread of the specific counterparty observed in the credit default swap market. Where credit default spread of the counterparty is not available, we use the credit default spread of a specific proxy (e.g. the credit default swap spread of the counterparty's parent). Where specific proxy credit default swap is not available, we apply a blended approach based on a combination of credit default swaps referencing to credit names of similar credit standing and the historical rating-based probability of default.

Real estate owned - Fair value is determined based on third party appraisals obtained at the time we take title to the property and, if less than the carrying amount of the loan, the carrying amount of the loan is adjusted to the fair value. The carrying amount of the property is further reduced, if necessary, at least every 45 days to reflect observable local market data, including local area sales data.

Mortgage servicing rights - We elected to measure residential mortgage servicing rights at fair value and, prior to March 2016, classified them as intangible assets. In March 2016, we initiated an active program to sell our remaining MSR portfolio and reclassified them to held for sale within other assets. At September 30, 2016, fair value for the residential mortgage servicing rights is determined based upon the sales price formula as defined in the executed sales agreement. Previously, fair value for the residential mortgage servicing rights was determined based on an option adjusted approach which involves discounting servicing cash flows under various interest rate projections at risk-adjusted rates. The valuation model also incorporated our best estimate of the prepayment speed of the mortgage loans, cost to service and discount rates which are unobservable.

Structured notes and deposits – Structured notes and deposits are hybrid instruments containing embedded derivatives and are elected to be measured at fair value in their entirety under fair value option accounting principles. The valuation of hybrid instruments is predominantly driven by the derivative features embedded within the instruments and own credit risk. The valuation of embedded derivatives may include significant unobservable inputs such as correlation of the referenced credit names or volatility of the embedded option. Cash flows of the funded notes and deposits in their entirety, including the embedded derivatives, are discounted at the relevant interest rates for the duration of the instrument adjusted for our own credit spreads. The credit spreads so applied are determined with reference to our own debt issuance rates observed in primary and secondary markets, internal funding rates, and the structured note rates in recent executions.

Long-term debt – We elected to apply fair value option to certain own debt issuances for which fair value hedge accounting otherwise would have been applied. These own debt issuances elected under FVO are traded in secondary markets and, as such, the fair value is determined based on observed prices for the specific instrument. The observed market price of these instruments reflects the effect of our own credit spreads. The credit spreads applied to these instruments were derived from the spreads at the measurement date.

For long-term debt recorded at cost, fair value is determined based on quoted market prices where available. If quoted market prices are not available, fair value is based on dealer quotes, quoted prices of similar instruments, or internally developed valuation models adjusted for own credit risks.

Deposits – For fair value disclosure purposes, the carrying amount of deposits with no stated maturity (e.g., demand, savings, and certain money market deposits), which represents the amount payable upon demand, is considered to generally approximate fair value. For deposits with stated maturities, fair value is estimated by discounting cash flows using market interest rates currently offered on deposits with similar characteristics and maturities.

20. *Litigation and Regulatory Matters*

The following supplements, and should be read together with, the disclosure in Note 27, "Litigation and Regulatory Matters," in our 2015 Form 10-K and in Note 20, "Litigation and Regulatory Matters," in our Form 10-Q for the three month period ended March 31, 2016 (the "2016 First Quarter Form 10-Q") and the six month period ended June 30, 2016 (the "2016 Second Quarter Form 10-Q"). Only those matters with significant updates and new matters since our disclosure in our 2015 Form 10-K, our 2016 First Quarter Form 10-Q and our 2016 Second Quarter Form 10-Q are reported herein.

In addition to the matters described below, and in our 2015 Form 10-K, our 2016 First Quarter Form 10-Q and our 2016 Second Quarter Form 10-Q, in the ordinary course of business, we are routinely named as defendants in, or as parties to, various legal actions and proceedings relating to activities of our current and/or former operations. These legal actions and proceedings may include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief. In the ordinary course of business, we also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In connection with formal and informal inquiries by these regulators, we receive numerous requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of our regulated activities.

In view of the inherent unpredictability of legal matters, including litigation, governmental and regulatory matters, particularly where the damages sought are substantial or indeterminate or when the proceedings or investigations are in the early stages, we cannot determine with any degree of certainty the timing or ultimate resolution of such matters or the eventual loss, fines, penalties or business impact, if any, that may result. We establish reserves for litigation, governmental and regulatory matters when those matters present loss contingencies that are both probable and can be reasonably estimated. Once established, reserves are adjusted from time to time, as appropriate, in light of additional information. The actual costs of resolving litigation and regulatory matters, however, may be substantially higher than the amounts reserved for those matters.

For the legal matters disclosed below, including litigation and governmental and regulatory matters, as well as for the legal matters disclosed in Note 27, "Litigation and Regulatory Matters," in our 2015 Form 10-K and in Note 20, "Litigation and Regulatory Matters," in our 2016 First Quarter Form 10-Q and our 2016 Second Quarter Form 10-Q as to which a loss in excess of accrued liability is reasonably possible in future periods and for which there is sufficient currently available information on the basis of which management believes it can make a reliable estimate, we believe a reasonable estimate could be as much as \$330 million for HUSI. The legal matters underlying this estimate of possible loss will change from time to time and actual results may differ significantly from this current estimate.

Based on the facts currently known, in respect of each of the below investigations as well as for the investigations disclosed in Note 27, "Litigation and Regulatory Matters," in our 2015 Form 10-K and in Note 20, "Litigation and Regulatory Matters," in our 2016 First Quarter Form 10-Q and our 2016 Second Quarter Form 10-Q, it is not practicable at this time for us to determine the terms on which these ongoing investigations will be resolved or the timing of such resolution. As matters progress, it is possible that any fines and/or penalties could be significant.

Given the substantial or indeterminate amounts sought in certain of these matters, and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could have a material adverse effect on our consolidated financial statements in any particular quarterly or annual period.

Salveson v. JP Morgan Chase et al. The U.S. Court of Appeals for the Second Circuit affirmed the district court's dismissal of the action in October 2016.

Checking Account Overdraft Litigation The court issued an order in October 2016 granting final approval of the settlement.

DeKalb County, et al. v. HSBC North America Holdings Inc., et al. This matter has been stayed pending U.S. Supreme Court review of the U.S. Court of Appeals for the Eleventh Circuit decision reversing motions to dismiss two similar cases filed against other lenders in *City of Miami v Bank of America Corp. & Wells Fargo & Co.* Oral argument in *City of Miami* is scheduled for November 2016.

County of Cook v. HSBC North America Holdings Inc., et al. This matter has been stayed pending U.S. Supreme Court review of the U.S. Court of Appeals for the Eleventh Circuit decision reversing motions to dismiss two similar cases filed against other lenders in *City of Miami v Bank of America Corp. & Wells Fargo & Co.* Oral argument in *City of Miami* is scheduled for November 2016.

Lender-Placed Insurance Matters As discussed in our 2015 Form 10-K, in January 2014, HSBC Mortgage Corporation (USA) and various other HSBC entities agreed to a settlement with the Massachusetts Attorney General concerning allegations of conflict of interest in placement of lender placed insurance and the HSBC entities paid approximately \$4 million to be held in escrow until the settlement was finalized. On February 17, 2016, the settlement was finalized by the filing of an Assurance of Discontinuance in the Massachusetts Superior Court. The Massachusetts Attorney General distributed settlement payments to Massachusetts borrowers in July 2016.

Private Mortgage Insurance Matters Following a ruling in a similar matter by the U.S. Court of Appeals for the Third Circuit, the parties agreed to settle the matter on an individual basis. The case was discontinued with prejudice in September 2016.

Foreign Exchange ("FX") Matters

In September 2016, a new lawsuit alleging federal and state antitrust claims was filed in the U.S. District Court for the Southern District of New York by "indirect" FX purchasers who invested in funds that engaged in FX-related transactions. The action purports to assert claims for New York and California sub-classes under state law and has been assigned to the judge overseeing the pending FX class action settlement.

Precious Metals Fix Matters

In re Commodity Exchange Inc., Gold Futures and Options Trading Litigation (Gold Fix Litigation) Defendants' motion to dismiss the second amended consolidated complaint was granted in part and denied in part in October 2016.

In re London Silver Fixing, Ltd. Antitrust Litigation (Silver Fix Litigation) Defendants' motion to dismiss the second amended consolidated complaint was granted in part and denied in part in October 2016.

Madoff Litigation

In September 2016, the U.S. District Court for the Southern District of New York granted the HSBC defendants' motion to dismiss in *Stephen and Leyla Hill, et al. v. HSBC Bank plc, et al.* (Case No. 14-CV-9745(LTS)).

Anti-Money Laundering, Bank Secrecy Act and Office of Foreign Assets Control Matters

Charlotte Freeman, et al. v. HSBC Holdings plc, et al. Defendants moved to dismiss plaintiffs' second amended complaint in September 2016.

Jeffrey Siegel, et al. v. HSBC Holdings plc, et al. HSBC defendants' motion to dismiss is due in December 2016.

Ramiro Giron, et al. v. Hong Kong and Shanghai Bank Company Ltd., et al. In October 2016, the court granted the Hong Kong and Shanghai Banking Company's motion to dismiss, having previously granted in part and denied in part HSBC Bank USA's motion.

21. *New Accounting Pronouncements*

The following new accounting pronouncement was adopted effective January 1, 2016:

- ***Amendments to the Consolidation Analysis*** In February 2015, the Financial Accounting Standards Board ("FASB") issued an Accounting Standards Update ("ASU") which rescinds the deferral of VIE consolidation guidance for reporting entities with interests in certain investment funds and provides a new scope exception to registered money market funds and similar unregistered money market funds. The ASU makes several other amendments including a) the elimination of certain criteria previously used for determining whether fees paid to a decision maker represent a variable interest; b) revising the consolidation model for limited partnerships and similar entities which could be variable interest entities or voting interest entities; c) excluding certain fees paid to a decision maker from the risk and benefit test in the primary beneficiary determination if certain conditions are met; and d) reduces the application of the related party guidance for VIEs. We adopted this guidance on January 1, 2016. The adoption of this guidance did not have any impact on our financial position or results of operations; however, one of our unconsolidated limited partnership investments related to renewable energy became a VIE under the new guidance. Disclosure of this unconsolidated VIE is included under the caption "Limited partnership investments" in Note 17, "Variable Interest Entities."

The following are accounting pronouncements which will be adopted in future periods:

- ***Recognition of Revenue from Contracts with Customers*** In May 2014, the FASB issued an ASU which provides a principles-based framework for revenue recognition that supersedes virtually all previously issued revenue recognition guidance. Additionally, the ASU requires improved disclosures to help users of financial statements better understand the nature, amount, timing, and uncertainty of revenue that is recognized. The core principle of the five-step revenue recognition framework is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. While the ASU as originally issued was scheduled to be effective for all annual and interim periods beginning January 1, 2017, in August 2015, the FASB deferred the effective date by one year, but provided entities the option to adopt it as of the original effective date. The amendments in the ASU may be applied either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of adoption recognized in equity at the date of initial application. The adoption of this guidance is not expected to have a significant impact on our financial position or results of operations.

- **Financial Instruments - Classification and Measurement** In January 2016, the FASB issued an ASU which changes aspects of its guidance on classification and measurement of financial instruments. The ASU requires equity investments (except those accounted for under the equity method or those that result in consolidation) to be measured at fair value with changes in fair value recognized in net income. Under a practicability exception, entities may measure equity investments that do not have readily determinable fair values at cost adjusted for changes in observable prices minus impairment. Under this exception, a qualitative assessment for impairment will be required and, if impairment exists, the carrying amount of the investments must be adjusted to their fair value and an impairment loss recognized in net income. For financial liabilities measured under the fair value option, the ASU requires recognizing the change in fair value attributable to our own credit in other comprehensive income. Additionally, the ASU requires new disclosure related to equity investments and modifies certain disclosure requirements related to the fair value of financial instruments. The ASU is effective for all annual and interim periods beginning January 1, 2018 and the guidance should be applied by recording a cumulative effect adjustment to the balance sheet or, as it relates to equity investments without readily determinable fair values, prospectively. Early adoption of the amendment related to financial liabilities measured under the fair value option is permitted. The adoption of this guidance will have a significant impact on our financial statements and will result in recognizing the change in fair value attributable to our own credit risk in other comprehensive income where previously these amounts were recognized in net income. The adoption of this guidance will also require a cumulative effect adjustment to the consolidated balance sheet, which will result in a reclassification from retained earnings to accumulated other comprehensive loss as of the beginning of the period of adoption. We are currently evaluating the impact of adopting the remaining guidance in this ASU.
- **Leases** In February 2016, the FASB issued an ASU which requires a lessee to recognize a lease liability and a right-of-use asset on its balance sheet for all leases, including operating leases, with a term greater than 12 months. Lease classification will determine whether a lease is reported as a financing transaction in the income statement and statement of cash flows. The ASU does not substantially change lessor accounting, but it does make certain changes related to leases for which collectability of the lease payments is uncertain or there are significant variable payments. Additionally, the ASU makes several other targeted amendments including a) revising the definition of lease payments to include fixed payments by the lessee to cover lessor costs related to ownership of the underlying asset such as for property taxes or insurance; b) narrowing the definition of initial direct costs which an entity is permitted to capitalize to include only those incremental costs of a lease that would not have been incurred if the lease had not been obtained; c) requiring seller-lessees in a sale-leaseback transaction to recognize the entire gain from the sale of the underlying asset at the time of sale rather than over the leaseback term; and d) expanding disclosures to provide quantitative and qualitative information about lease transactions. The ASU is effective for all annual and interim periods beginning January 1, 2019 and is required to be applied retrospectively to the earliest period presented at the date of initial application, with early adoption permitted. We are currently evaluating the impact of adopting this ASU.
- **Compensation - Stock Compensation** In March 2016, the FASB issued an ASU that requires all excess tax benefits and tax deficiencies for share-based payment awards to be recorded as income tax benefit or expense in the income statement and for excess tax benefits to be classified as an operating activity in the statement of cash flows. Under the ASU, entities elect whether to account for forfeitures of awards by either recognizing forfeitures as they occur or by estimating the number of awards expected to be forfeited. Additionally, the ASU allows entities to withhold up to the maximum individual statutory tax rate to cover income taxes on awards and classify the entire awards as equity. Cash paid to satisfy the statutory income tax withholding obligation must be classified as a financing activity in the statement of cash flows. The ASU is effective for all annual and interim periods beginning January 1, 2017, with early adoption permitted. The amendments in the ASU have various transition requirements with certain amendments required to be applied retrospectively. We do not anticipate a significant impact upon adoption of this ASU.
- **Financial Instruments - Credit Impairment** In June 2016, the FASB issued an ASU that significantly changes how entities will measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The ASU requires entities to estimate and recognize an allowance for lifetime expected credit losses for loans (including TDR Loans), held-to-maturity debt securities, off-balance sheet credit exposures and certain other financial assets measured at amortized cost. The ASU also requires entities to recognize an allowance for credit losses on AFS debt securities and revises the accounting model for purchased credit impaired loans and debt securities. Additionally, the ASU requires new disclosures, the more significant of which include a) for financial assets measured at cost, information about how an entity developed its allowance, including changes in the factors that influenced the estimate of expected credit losses and the reasons for those changes; b) for financing receivables, further disaggregation of credit quality indicators by year of origination; and c) for AFS debt securities, a rollforward of the allowance for credit losses and an aging analysis of securities that are past due. The ASU is effective for all annual and interim periods beginning January 1, 2020, with early adoption permitted beginning January 1, 2019, and is required to be applied by recording a cumulative effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. We are currently evaluating the impact of adopting this ASU.

- ***Statement of Cash Flows - Classification of Certain Cash Receipts and Cash Payments*** In August 2016, the FASB issued an ASU that clarifies how certain cash receipts and cash payments should be classified in the statement of cash flows. Under the ASU, the portions of the cash payments attributable to accreted interest for the settlement of zero-coupon bonds should be classified as cash outflows for operating activities. The ASU is effective for all annual and interim periods beginning January 1, 2018 and is required to be applied retrospectively to all periods presented, with early adoption permitted. We are currently evaluating the impact of adopting this ASU.

There have been no additional accounting pronouncements issued during the first nine months of 2016 that are expected to have or could have a significant impact on our financial position or results of operations.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

Certain matters discussed throughout this Form 10-Q are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, we may make or approve certain statements in future filings with the United States Securities and Exchange Commission ("SEC"), in press releases, or oral or written presentations by representatives of HSBC USA Inc. ("HSBC USA" and, together with its subsidiaries, "HUSI") that are not statements of historical fact and may also constitute forward-looking statements. Words such as “may”, “will”, “should”, “would”, “could”, “appears”, “believe”, “intends”, “expects”, “estimates”, “targeted”, “plans”, “anticipates”, “goal”, and similar expressions are intended to identify forward-looking statements but should not be considered as the only means through which these statements may be made. These matters or statements will relate to our future financial condition, economic forecast, results of operations, plans, objectives, performance or business developments and will involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from that which was expressed or implied by such forward-looking statements.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond our control. Our actual future results may differ materially from those set forth in our forward-looking statements. While there is no assurance that any list of risks and uncertainties or risk factors is complete, below are certain factors which could cause actual results to differ materially from those in the forward-looking statements:

- uncertain market and economic conditions, a decline in housing prices, a decline in energy prices, unemployment levels, tighter credit conditions, changes in interest rates or a prolonged period of low or negative interest rates, the availability of liquidity, unexpected geopolitical events including the decision by the United Kingdom to exit the European Union ("EU"), changes in consumer confidence and consumer spending, and consumer perception as to the continuing availability of credit and price competition in the market segments we serve;
- changes in laws and regulatory requirements;
- the ability to deliver on our regulatory priorities;
- extraordinary government actions as a result of market turmoil;
- capital and liquidity requirements under Basel III, the Federal Reserve Board's ("FRB") Comprehensive Capital Analysis and Review ("CCAR"), and the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”) stress testing ("DFAST"), including the U.S. FRB requirements, when finalized, for U.S. global systemically important banks ("G-SIBs") and U.S. intermediate holding companies ("IHCs") owned by non-US G-SIBs to issue Total Loss-Absorbing Capacity ("TLAC") instruments;
- regulatory requirements in the U.S. and in non-U.S. jurisdictions to facilitate the future orderly resolution of large financial institutions;
- changes in central banks' policies with respect to the provision of liquidity support to financial markets;
- the ability of HSBC Holdings plc ("HSBC" and, together with its subsidiaries, "HSBC Group") and HSBC Bank USA, National Association ("HSBC Bank USA") to fulfill the requirements imposed by the deferred prosecution agreements with the U.S. Department of Justice, the U.S. Attorney's Office for the Eastern District of New York, and the U.S. Attorney's Office for the Northern District of West Virginia, our agreement with the Office of the Comptroller of the Currency, our other consent agreements as well as guidance from regulators generally;
- the use of us as a conduit for illegal activities without our knowledge by third parties;
- the ability to successfully manage our risks;
- the financial condition of our clients and counterparties and our ability to manage counterparty risk;
- concentrations of credit and market risk, including exposure to Latin American corporate clients and the oil and gas markets;
- the ability to implement our business strategies;
- the ability to successfully implement changes to our operational practices as needed and/or required from time to time;
- damage to our reputation;
- the ability to attract and retain customers and to attract and retain key employees;
- the effects of competition in the markets where we operate including increased competition for non-bank financial services companies, including securities firms;

- disruption in our operations from the external environment arising from events such as natural disasters, terrorist attacks, global pandemics, or essential utility outages;
- a failure in or a breach of our operation or security systems or infrastructure, or those of third party servicers or vendors, including as a result of cyber attacks;
- third party suppliers' and outsourcing vendors' ability to provide adequate services;
- losses suffered due to the negligence or misconduct of our employees or the negligence or misconduct on the part of employees of third parties;
- a failure in our internal controls;
- our ability to meet our funding requirements;
- adverse changes to our credit ratings;
- financial difficulties or credit downgrades of mortgage bond insurers;
- our ability to cross-sell our products to existing customers;
- increases in our allowance for credit losses and changes in our assessment of our loan portfolios;
- changes in Financial Accounting Standards Board ("FASB") and International Accounting Standards Board ("IASB") accounting standards and their interpretation;
- heightened regulatory and government enforcement scrutiny of financial institutions;
- continued heightened regulatory scrutiny with respect to residential mortgage servicing practices, with particular focus on loss mitigation, foreclosure prevention and outsourcing;
- changes to our mortgage servicing and foreclosure practices;
- changes in the methodology for determining benchmark rates;
- heightened regulatory and government enforcement scrutiny of financial markets, with a particular focus on foreign exchange;
- the possibility of incorrect assumptions or estimates in our financial statements, including reserves related to litigation, deferred tax assets and the fair value of certain assets and liabilities;
- model limitations or failure;
- the possibility of incorrect interpretations or application of tax laws to which we are subject;
- changes in bankruptcy laws to allow for principal reductions or other modifications to mortgage loan terms;
- additional financial contribution requirements to the HSBC North America Holdings Inc. ("HSBC North America") pension plan;
- unexpected and/or increased expenses relating to, among other things, litigation and regulatory matters, remediation efforts, penalties and fines; and
- the other risk factors and uncertainties described under Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2015 ("2015 Form 10-K").

Forward-looking statements are based on our current views and assumptions and speak only as of the date they are made. We undertake no obligation to update any forward-looking statement to reflect subsequent circumstances or events. You should, however, consider any additional disclosures of a forward-looking nature that arise after the date hereof as may be discussed in any of our subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q or Current Reports on Form 8-K.

Executive Overview

HSBC USA is an indirect wholly-owned subsidiary of HSBC North America, which is an indirect wholly-owned subsidiary of HSBC. HUSI may also be referred to in Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") as "we", "us" or "our".

Economic Environment The U.S. economy continued its trend of slow growth during the first nine months of 2016. U.S. Gross Domestic Product ("GDP") is currently forecasted to grow at an annual rate of 1.8 percent in 2016, slightly slower than 2015's GDP growth rate of 2.1 percent, although U.S. manufacturing growth in 2016 is expected to increase faster than GDP. Inflation in 2016 continues to run below the Federal Reserve Board's ("FRB") 2.0 percent target inflation rate. Although there is speculation that the FRB may increase short-term interest rates by 25 basis points in the fourth quarter, the prolonged period of low interest rates continues to put pressure on spreads earned on our deposit base. The U.S. economy added approximately 1.6 million jobs during the first nine months of 2016 although total unemployment remained unchanged at 5.0 percent at September 2016 as compared with December 2015 as the number of job seekers continued to grow. An elevated number of part-time workers continue to seek full-time work and the number of discouraged people who have stopped looking for work remains elevated, as evidenced by the U.S. Bureau of Labor Statistics' U-6 unemployment rate of 9.7 percent at September 2016, as compared with a rate of 9.9 percent at year-end.

Despite the continued improvement of the U.S. economy, economic uncertainty remains high in many economies outside the U.S., including China as well as Latin America and in particular Brazil, where economic activity continues to be slow, with the decision by the United Kingdom in late June to exit the EU further adding to this global uncertainty. In addition, although the price of oil increased during the nine months of 2016, it declined significantly during 2015 and remains depressed compared with historical levels in part due to the strong U.S. dollar, adding pressure to portfolios where the customer base is heavily centered in commodity-based businesses. The sustainability of the economic recovery will be determined by numerous variables including consumer sentiment, energy prices, credit market volatility, employment levels and housing market conditions which will impact corporate earnings and the capital markets. These conditions in combination with global economic conditions, fiscal and monetary policy, geopolitical concerns and the heightened regulatory and government scrutiny of financial institutions will continue to impact our results in 2016 and beyond.

Performance, Developments and Trends The following table sets forth selected financial highlights of HSBC USA for the three and nine months ended September 30, 2016 and 2015 and at September 30, 2016 and December 31, 2015:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|--------|------------------------------------|--------|
| | 2016 | 2015 | 2016 | 2015 |
| | (dollars are in millions) | | | |
| Net income..... | \$ 33 | \$ 204 | \$ 166 | \$ 455 |
| Rate of return on average: | | | | |
| Total assets..... | .1% | .4% | .1% | .3% |
| Total risk weighted assets..... | .1 | .5 | .2 | .4 |
| Total common shareholder's equity..... | .7 | 3.8 | .9 | 2.9 |
| Total shareholders' equity..... | .6 | 3.9 | 1.1 | 3.1 |
| Net interest margin..... | 1.22 | 1.31 | 1.30 | 1.35 |
| Efficiency ratio..... | 86.9 | 68.5 | 79.2 | 74.3 |
| Commercial net charge-off ratio ⁽¹⁾ | .16 | .05 | .31 | .10 |
| Consumer net charge-off ratio ⁽¹⁾ | .81 | .18 | .41 | .34 |

⁽¹⁾ Excludes loans held for sale.

September 30, 2016 December 31, 2015

(dollars are in millions)

Additional Select Ratios:

| | | |
|---|--------------|-------|
| Allowance as a percent of loans ⁽¹⁾ | 1.37% | 1.10% |
| Commercial allowance as a percent of loans ⁽¹⁾ | 1.67 | 1.25 |
| Consumer allowance as a percent of loans ⁽¹⁾ | .45 | .65 |
| Consumer two-months-and-over contractual delinquency | 4.09 | 4.56 |
| Loans to deposits ratios ⁽²⁾ | 77.23 | 93.07 |
| Common equity Tier 1 capital to risk weighted assets..... | 13.5 | 12.0 |
| Tier 1 capital to risk weighted assets..... | 14.3 | 12.6 |
| Total capital to risk weighted assets..... | 18.0 | 16.5 |
| Total shareholders' equity to total assets | 10.1 | 10.9 |

Select Balance Sheet Data:

| | | |
|--|------------------|----------|
| Cash and interest bearing deposits with banks..... | \$ 18,042 | \$ 8,446 |
| Trading assets | 19,586 | 17,085 |
| Securities available-for-sale | 40,800 | 35,773 |
| Loans: | | |
| Commercial loans..... | 58,032 | 62,453 |
| Consumer loans | 19,593 | 20,464 |
| Total loans | 77,625 | 82,917 |
| Deposits | 131,082 | 118,579 |

⁽¹⁾ Excludes loans held for sale.⁽²⁾ Represents period end loans, net of allowance for loan losses, as a percentage of domestic deposits equal to or less than \$100,000.

Net income was \$33 million and \$166 million during the three and nine months ended September 30, 2016, respectively, compared with \$204 million and \$455 million during the three and nine months ended September 30, 2015, respectively. Net income in the prior year-to-date period reflects the impact of New York City tax reform which resulted in an increase in tax expense of \$48 million during the second quarter of 2015.

Income before income tax was \$59 million and \$266 million during the three and nine months ended September 30, 2016, respectively, compared with \$315 million and \$740 million during the three and nine months ended September 30, 2015, respectively. The decrease in income before income tax during the three and nine months ended September 30, 2016 was due primarily to lower other revenues and a higher provision for credit losses which were partially offset in the year-to-date period by lower operating expenses and higher net interest income.

Our reported results in all periods were impacted by certain items management believes to be significant which distorts comparability between periods. Significant items are excluded to arrive at adjusted performance because management would ordinarily identify and consider them separately to better understand underlying business trends. The following table summarizes the impact of these significant items for all periods presented:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|-------------------------------------|--------|------------------------------------|--------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Income before income tax, as reported | \$ 59 | \$ 315 | \$ 266 | \$ 740 |
| Fair value movement on own fair value option debt attributable to credit spread | (5) | (96) | (113) | (214) |
| Costs to achieve ⁽¹⁾ | 54 | 2 | 85 | 6 |
| Adjusted performance ⁽²⁾ | \$ 108 | \$ 221 | \$ 238 | \$ 532 |

⁽¹⁾ Reflects transformation costs to deliver the cost reduction and productivity outcomes outlined in the HSBC Investor Update in June 2015.⁽²⁾ Represents a non-U.S. GAAP financial measure.

Excluding the collective impact of the items in the table above, our adjusted performance during the three and nine months ended September 30, 2016 declined \$113 million and \$294 million, respectively, compared with the prior year periods due primarily to a higher provision for credit losses in our commercial loan portfolio and lower other revenues which were partially offset in the year-to-date period by lower operating expenses and higher net interest income. Lower other revenues in both the three and nine month periods was driven by lower other income and lower fair value option revenue, partially offset by higher trading revenue.

See "Results of Operations" for more detailed discussion of our operating trends. In addition, see "Balance Sheet Review" for further discussion on our asset and liability trends, "Liquidity and Capital Resources" for further discussion on funding and capital and "Credit Quality" for additional discussion on our credit trends.

In addition to the residential mortgage sales program discussed below, during the third quarter of 2016, we decided we no longer have the intent to hold for investment a portfolio of residential mortgage loans that we previously purchased from HSBC Finance Corporation ("HSBC Finance"), along with any home equity mortgage balances associated with these loans. As a result of this decision, during the third quarter of 2016, we transferred residential mortgage and home equity mortgage loans to held for sale with a total unpaid principal balance of approximately \$648 million at the time of transfer. The carrying value of these loans prior to transfer, after considering the fair value of the property less costs to sell, as applicable, was approximately \$628 million, including accrued interest. During the third quarter of 2016, we recorded an initial lower of cost or fair value adjustment of \$11 million associated with the newly transferred loans, all of which was attributed to credit factors and recorded as a component of the provision for credit losses in the consolidated statement of income. As we plan to sell these loans to third party investors, fair value represents the price we believe a third party investor would pay to acquire the loans.

During the first quarter of 2016 we decided we no longer have the intent to hold for investment certain residential mortgage loans and adopted a formal program to initiate sale activities for these residential mortgage loans when a loan meeting pre-determined criteria is written down to the lower of amortized cost or fair value of the collateral less cost to sell (generally 180 days past due) in accordance with our existing charge-off policies. These loans were largely originated by us prior to the implementation of our Premier strategy. Under this program, during the three and nine months ended September 30, 2016, we transferred residential mortgage loans to held for sale with a total unpaid principal balance of approximately \$25 million and \$549 million, respectively, at the time of transfer. The carrying value of these loans prior to transfer, after considering the fair value of the property less costs to sell, was approximately \$23 million and \$456 million, including related escrow advances, during the three and nine months ended September 30, 2016, respectively. During the three and nine months ended September 30, 2016, we recorded an initial lower of amortized cost or fair value adjustment of \$4 million and \$42 million, respectively, associated with newly transferred loans, all of which was attributed to non-credit factors and recorded as a component of other income (loss) in the consolidated statement of income. During the three and nine months ended September 30, 2016, we recorded \$2 million and \$8 million, respectively, of additional lower of amortized cost or fair value adjustment on these loans held for sale as a component of other income (loss) in the consolidated statement of income as a result of a change in the estimated pricing on specific pools of loans. As we plan to sell these loans to third party investors, fair value represents the price we believe a third party investor would pay to acquire the loan portfolios.

In March 2016, we initiated an active program to sell our remaining Mortgage Servicing Rights ("MSRs") portfolio which has been in run-off for several years. As a result, we now consider the MSRs portfolio and related servicing advances, which together totaled \$303 million, to be held for sale at September 30, 2016 and reported them in other assets on the consolidated balance sheet. In August 2016, we entered into an agreement to sell our remaining MSRs portfolio to a third party and expect the sale to be completed during the fourth quarter of 2016. As the MSRs continue to be carried at fair value and we expect to transfer the related servicing advances to the buyer at near cost, the resulting gain or loss on sale, including transaction costs, is not expected to be significant.

In June 2016, voters in the United Kingdom approved a referendum to withdraw its membership from the EU. While we continue to actively monitor our portfolio to ensure that we quickly identify and manage any areas of stress, our United Kingdom and European capital markets exposure is limited, and we currently do not anticipate this decision will have a significant impact on our operations.

As previously reported, as a result of the adoption of the final rules by the U.S. banking regulators implementing the Basel III regulatory capital and liquidity reforms from the Basel Committee, together with the impact of similar implementation by United Kingdom banking regulators, we continue to review the composition of our capital structure. During the second quarter of 2016, HSBC USA redeemed all of its remaining externally issued preferred stock, including its Floating Rate Non-Cumulative Series F Preferred Stock, Floating Rate Non-Cumulative Series G Preferred Stock and 6.50 percent Non-Cumulative Series H Preferred Stock, at their stated values of \$25 per share, \$1,000 per share and \$1,000 per share, respectively, resulting in a total cash payment of \$1,265 million. In connection with these redemptions, HSBC USA issued 1,265 shares of 6.0 percent Non-Cumulative Series I Preferred Stock to HSBC North America in exchange for cash consideration of \$1,265 million.

Our operations are focused on the core activities of our four global businesses and the positioning of our activities towards international connectivity strategies, including what we believe are our unique capabilities to serve clients in the North American Free Trade Agreement trade corridor in order to improve profitability. We also continue to focus on cost optimization efforts to

ensure realization of cost efficiencies. To date, we have identified and implemented various opportunities to reduce costs through organizational structure redesign, vendor spending, discretionary spending and other general efficiency initiatives which have resulted in workforce reductions. Additional cost reduction opportunities have been identified and are in the process of implementation. These efforts continue and, as a result, we may incur restructuring charges in future periods, the amount of which will depend upon the actions that ultimately are implemented. We also continue to evaluate our overall operations as we seek to optimize our risk profile and cost efficiencies as well as our liquidity, capital and funding requirements. This could result in further strategic actions that may include changes to our legal structure, asset levels, cost structure or product offerings in support of HSBC's strategic priorities.

Basis of Reporting

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP").

Group Reporting Basis We report financial information to HSBC in accordance with HSBC Group accounting and reporting policies, which apply International Financial Reporting Standards ("IFRSs") as issued by the IASB and as endorsed by the EU and, as a result, our segment results are prepared and presented using financial information prepared on the basis of HSBC Group's accounting and reporting policies ("Group Reporting Basis"). Because operating results on the Group Reporting Basis are used in managing our businesses and rewarding performance of employees, our management also separately monitors net income under this basis of reporting. The following table reconciles our U.S. GAAP versus Group Reporting Basis net income:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|--------|------------------------------------|--------|
| | 2016 | 2015 | 2016 | 2015 |
| | (in millions) | | | |
| Net income – U.S. GAAP basis | \$ 33 | \$ 204 | \$ 166 | \$ 455 |
| Adjustments, net of tax: | | | | |
| Loan impairment | 14 | 12 | (11) | 29 |
| Loans held for sale..... | 13 | — | 44 | 8 |
| Pension and other postretirement benefit costs | 4 | 2 | 10 | 8 |
| Reclassification of fair value measured financial assets | — | 1 | 5 | 2 |
| Loan origination | — | (1) | 2 | (7) |
| Property | (3) | (3) | (9) | (7) |
| Tax valuation allowances..... | — | — | — | (5) |
| Other | (1) | 6 | (5) | (11) |
| Net income – Group Reporting Basis | 60 | 221 | 202 | 472 |
| Tax expense – Group Reporting Basis..... | 49 | 121 | 140 | 313 |
| Profit before tax – Group Reporting Basis | \$ 109 | \$ 342 | \$ 342 | \$ 785 |

Loan impairment charges under the Group Reporting Basis during the nine months ended September 30, 2016 were greater than under U.S. GAAP due to the default of certain credits where existing loan impairment allowances, prior to default, were lower under the Group Reporting Basis than under U.S. GAAP due to the shorter loss emergence period utilized for computing loan impairment allowances for commercial loans collectively evaluated for impairment under the Group Reporting Basis.

The significant differences between U.S. GAAP and the Group Reporting Basis impacting our results presented in the table above are discussed in more detail within "Basis of Reporting" in our 2015 Form 10-K. There have been no significant changes since December 31, 2015 in the differences between U.S. GAAP and the Group Reporting Basis impacting our results.

Balance Sheet Review

We utilize deposits and borrowings from various sources to provide liquidity, fund balance sheet growth, meet cash and capital needs, and fund investments in subsidiaries. The following table provides balance sheet totals at September 30, 2016 and increases (decreases) since December 31, 2015:

| | September 30, 2016 | Increase (Decrease) From December 31, 2015 | |
|------------------------------|-----------------------|---|--------------|
| | | Amount | % |
| (dollars are in millions) | | | |
| Period end assets: | | | |
| Short-term investments | \$ 48,756 | \$ 20,463 | 72.3% |
| Loans, net | 76,565 | (5,440) | (6.6) |
| Loans held for sale | 1,791 | (394) | (18.0) |
| Trading assets | 19,586 | 2,501 | 14.6 |
| Securities | 54,231 | 4,434 | 8.9 |
| Other assets | 7,381 | (1,532) | (17.2) |
| | <u>\$ 208,310</u> | <u>\$ 20,032</u> | <u>10.6%</u> |
| Funding sources: | | | |
| Total deposits | \$ 131,082 | \$ 12,503 | 10.5% |
| Trading liabilities | 7,537 | 82 | 1.1 |
| Short-term borrowings | 6,062 | 1,067 | 21.4 |
| Long-term debt | 39,500 | 5,991 | 17.9 |
| All other liabilities | 3,152 | (63) | (2.0) |
| Shareholders' equity | 20,977 | 452 | 2.2 |
| | <u>\$ 208,310</u> | <u>\$ 20,032</u> | <u>10.6%</u> |

Short-Term Investments Short-term investments include cash and due from banks, interest bearing deposits with banks and federal funds sold and securities purchased under agreements to resell. Balances may fluctuate from period to period depending upon our liquidity position at the time and our strategy for deploying liquidity. Short-term investments increased since December 31, 2015 driven by our conservative liquidity management practices, where we raise funds in advance of their usage and opportunistically deploy them to maximize returns.

Loans, Net The following summarizes our loan balances at September 30, 2016 and increases (decreases) since December 31, 2015:

| | September 30, 2016 | Increase (Decrease) From December 31, 2015 | |
|--|-----------------------|---|---------------|
| | | Amount | % |
| (dollars are in millions) | | | |
| Commercial loans: | | | |
| Construction and other real estate | \$ 10,958 | \$ 958 | 9.6 % |
| Business and corporate banking | 17,665 | (1,451) | (7.6) |
| Global banking ⁽¹⁾ | 26,414 | (3,555) | (11.9) |
| Other commercial | 2,995 | (373) | (11.1) |
| Total commercial | <u>58,032</u> | <u>(4,421)</u> | <u>(7.1)</u> |
| Consumer loans: | | | |
| Residential mortgages | 17,091 | (667) | (3.8) |
| Home equity mortgages | 1,454 | (146) | (9.1) |
| Credit cards | 668 | (31) | (4.4) |
| Other consumer | 380 | (27) | (6.6) |
| Total consumer | <u>19,593</u> | <u>(871)</u> | <u>(4.3)</u> |
| Total loans | <u>77,625</u> | <u>(5,292)</u> | <u>(6.4)</u> |
| Allowance for credit losses | 1,060 | 148 | 16.2 |
| Loans, net | <u>\$ 76,565</u> | <u>\$ (5,440)</u> | <u>(6.6)%</u> |

⁽¹⁾ Represents large multinational firms including globally focused U.S. corporate and financial institutions and U.S. dollar lending to multinational banking customers managed by HSBC on a global basis. Also includes loans to HSBC affiliates which totaled \$4,463 million and \$4,815 million at September 30, 2016 and December 31, 2015, respectively.

Commercial loans decreased compared with December 31, 2015 largely due to paydowns and maturities exceeding new loan originations as we focused efforts on improving returns through disciplined lending and expanding customer relationships into other products. The decrease also reflects the transfer of certain global banking loans with a carrying value of \$1,088 million to held for sale during the first quarter of 2016, partially offset by the transfer of certain commercial real estate loans with a carrying value of \$612 million back to held for investment from held for sale during the second quarter of 2016. The decline in commercial loans, including the impact of transfers, was primarily in the banking and health care industries.

Consumer loans decreased compared with December 31, 2015 due primarily to the transfers of certain residential mortgage loans with a carrying value of \$1,007 million to held for sale during the first nine months of 2016 (\$638 million of which occurred in the third quarter) as discussed below, partially offset by an increase in residential mortgage loans as we continue to target new residential mortgage loan originations towards our Premier and Advance customer relationships and sell newly originated conforming loans to PHH Mortgage Corporation ("PHH Mortgage"). Home equity mortgages also decreased reflecting net paydowns as our focus continues to shift towards residential mortgage loans. The declines in credit card receivables and other consumer loans reflects paydowns.

We have seen a general improvement in the loan-to-value ("LTV") ratios for our mortgage loan portfolio. The following table presents LTVs for our mortgage loan portfolio, excluding mortgage loans held for sale:

| | LTVs at September 30, 2016 ⁽¹⁾⁽²⁾ | | LTVs at December 31, 2015 ⁽¹⁾⁽²⁾ | |
|---------------------------------|---|-------------|--|-------------|
| | First Lien | Second Lien | First Lien | Second Lien |
| LTV < 80% | 96.4% | 82.1% | 94.9% | 78.7% |
| 80% ≤ LTV < 90% | 2.2 | 10.2 | 2.9 | 11.0 |
| 90% ≤ LTV < 100% | .9 | 5.4 | 1.4 | 6.5 |
| LTV ≥ 100% | .5 | 2.3 | .8 | 3.8 |
| Average LTV for portfolio | 53.3 | 57.4 | 54.9 | 59.1 |

⁽¹⁾ LTVs for first liens are calculated using the loan balance as of the reporting date. LTVs for second liens are calculated using the loan balance as of the reporting date plus the senior lien amount at origination. Current estimated property values are derived from the property's appraised value at the time of

loan origination updated by the change in the Federal Housing Finance Agency's house pricing index ("HPI") at either a Core Based Statistical Area or state level. The estimated value of the homes could differ from actual fair values due to changes in condition of the underlying property, variations in housing price changes within metropolitan statistical areas and other factors. As a result, actual property values associated with loans that end in foreclosure may be significantly lower than the estimates used for purposes of this disclosure.

- (2) Current estimated property values are calculated using the most current HPIs available and applied on an individual loan basis, which results in an approximate three month delay in the production of reportable statistics. Therefore, the information in the table above reflects current estimated property values using HPIs at June 30, 2016 and September 30, 2015, respectively.

Loans Held for Sale The following table summarizes loans held for sale at September 30, 2016 and increases (decreases) since December 31, 2015:

| | September 30, 2016 | Increase (Decrease) From December 31, 2015 | |
|--|-----------------------|---|----------------|
| | | Amount | % |
| (dollars are in millions) | | | |
| Commercial loans: | | | |
| Construction and other real estate | \$ — | \$ (1,895) | (100.0)% |
| Global banking | 741 | 541 | * |
| Total commercial..... | <u>741</u> | <u>(1,354)</u> | <u>(64.6)</u> |
| Consumer loans: | | | |
| Residential mortgages | 971 | 960 | * |
| Home equity mortgages | 4 | 4 | — |
| Other consumer | 75 | (4) | (5.1) |
| Total consumer..... | <u>1,050</u> | <u>960</u> | <u>*</u> |
| Total loans held for sale..... | <u>\$ 1,791</u> | <u>\$ (394)</u> | <u>(18.0)%</u> |

* Not meaningful.

Commercial loans held for sale decreased compared with December 31, 2015. During the second quarter of 2016, we sold \$1,161 million of commercial real estate loans to a third party and recognized a loss on sale of approximately \$3 million, including transaction costs. Upon completion of the sale, the remaining loans that were not sold, which had a carrying value of \$612 million at June 30, 2016, were transferred back to held for investment as we now intend to hold these loans for the foreseeable future.

Global banking loans held for sale includes commercial loans that we originate in connection with our participation in a number of syndicated credit facilities with the intent of selling them to unaffiliated third parties as well as commercial loans that we purchase from the secondary market and hold as hedges against our exposure to certain total return swaps. The fair value of these loans, which we have elected to designate under the fair value option, totaled \$649 million and \$151 million at September 30, 2016 and December 31, 2015, respectively. Balances will fluctuate from period to period depending on the volume and level of activity.

Global banking loans held for sale also includes certain loans that we no longer intend to hold for investment and transferred to held for sale which totaled \$92 million and \$49 million at September 30, 2016 and December 31, 2015, respectively.

We recorded lower of amortized cost or fair value adjustments associated with the write-down of commercial loans held for sale of \$7 million and \$37 million during the three and nine months ended September 30, 2016, respectively, compared with \$2 million and \$16 million during the three and nine months ended September 30, 2015, respectively, as a component of other income (loss) in the consolidated statement of income (loss).

Consumer loans held for sale increased compared with December 31, 2015. As previously disclosed, we continue to evaluate our overall operations as we seek to optimize our risk profile and cost efficiencies, as well as our liquidity, capital and funding requirements. As part of this on-going evaluation, as well as continued market demand for non-performing residential mortgage loans, during the first quarter of 2016 we decided we no longer have the intent to hold for investment certain residential mortgage loans and adopted a formal program to initiate sale activities for these residential mortgage loans when a loan meeting pre-determined criteria is written down to the lower of amortized cost or fair value of the collateral less cost to sell (generally 180 days past due) in accordance with our existing charge-off policies. These loans were largely originated by us prior to the implementation of our Premier strategy.

Under this program, during the three and nine months ended September 30, 2016, we transferred residential mortgage loans to held for sale with a total unpaid principal balance of approximately \$25 million and \$549 million, respectively, at the time of transfer. The carrying value of these loans prior to transfer, after considering the fair value of the property less costs to sell, was approximately \$23 million and \$456 million, respectively, including related escrow advances.

In addition to the residential mortgage sales program discussed above, during the third quarter of 2016, we decided we no longer have the intent to hold for investment a portfolio of residential mortgage loans that we previously purchased from HSBC Finance, along with any home equity mortgage balances associated with these loans. As a result of this decision, during the third quarter of 2016, we transferred residential mortgage and home equity mortgage loans to held for sale with a total unpaid principal balance of approximately \$648 million at the time of transfer. The carrying value of these loans prior to transfer, after considering the fair value of the property less costs to sell, as applicable, was approximately \$628 million, including accrued interest.

We also continue to sell all our agency eligible residential mortgage loan originations servicing released directly to PHH Mortgage. Residential mortgage loans held for sale also includes subprime residential mortgage loans with a fair value of \$3 million at both September 30, 2016 and December 31, 2015 which were previously acquired from unaffiliated third parties and from HSBC Finance with the intent of securitizing or selling the loans to third parties.

Other consumer loans held for sale reflects student loans which we no longer originate.

Excluding the commercial loans designated under fair value option discussed above, loans held for sale are recorded at the lower of amortized cost or fair value, with adjustments to fair value being recorded as a valuation allowance. The valuation allowance on consumer loans held for sale was \$60 million and \$13 million at September 30, 2016 and December 31, 2015, respectively. The valuation allowance on commercial loans held for sale was \$54 million and \$21 million at September 30, 2016 and December 31, 2015, respectively.

Trading Assets and Liabilities The following table summarizes trading assets and liabilities at September 30, 2016 and increases (decreases) since December 31, 2015:

| | September 30, 2016 | Increase (Decrease) From December 31, 2015 | |
|--|-----------------------|---|--------------|
| | | Amount | % |
| (dollars are in millions) | | | |
| Trading assets: | | | |
| Securities ⁽¹⁾ | \$ 13,243 | \$ 2,088 | 18.7% |
| Precious metals | 2,669 | 1,889 | * |
| Derivatives, net ⁽²⁾ | 3,674 | (1,476) | (28.7) |
| | <u>\$ 19,586</u> | <u>\$ 2,501</u> | <u>14.6%</u> |
| Trading liabilities: | | | |
| Securities sold, not yet purchased | \$ 1,030 | \$ 631 | * |
| Payables for precious metals | 49 | (601) | (92.5) |
| Derivatives, net ⁽³⁾ | 6,458 | 52 | .8 |
| | <u>\$ 7,537</u> | <u>\$ 82</u> | <u>1.1%</u> |

* Not meaningful.

⁽¹⁾ See Note 2, "Trading Assets and Liabilities," in the accompanying consolidated financial statements for a breakout of trading securities by category.

⁽²⁾ At September 30, 2016 and December 31, 2015 the fair value of derivatives included in trading assets has been reduced by \$4,463 million and \$4,652 million, respectively, relating to amounts recognized for the obligation to return cash collateral received under master netting agreements with derivative counterparties.

⁽³⁾ At September 30, 2016 and December 31, 2015 the fair value of derivatives included in trading liabilities has been reduced by \$1,305 million and \$1,530 million, respectively, relating to amounts recognized for the right to reclaim cash collateral paid under master netting agreements with derivative counterparties.

Securities balances increased compared with December 31, 2015 due primarily to increases in foreign sovereign and U.S. Treasury positions, including the impact of favorable market valuations. Securities positions are held as economic hedges of interest rate and credit derivative products issued to customers of domestic and emerging markets. Balances of securities sold, not yet purchased increased compared with December 31, 2015 due to an increase in short U.S. Treasury positions related to economic hedges of derivatives in the interest rate trading portfolio.

Precious metals trading assets increased compared with December 31, 2015 driven largely by increases in our own silver and gold inventory positions held as hedges for client activity as well as higher spot prices for these metals. Payables for precious metals were lower reflecting a decrease in borrowing of gold and silver inventory. Precious metal positions may not represent our net underlying exposure as we may use derivatives contracts to reduce our risk associated with these positions, the fair value of which would appear in derivatives in the table above.

Derivative asset balances decreased compared with December 31, 2015 as increased netting associated with an increase in central counterparty clearing was partially offset by market movements. Derivative liability balances were relatively flat compared with December 31, 2015 as the impact of increased netting was offset by market movements. Market movements resulted in higher valuations of interest rate derivatives and, to a lesser extent, equity derivatives which were partially offset by lower valuations of foreign exchange and credit derivatives. Market movements on commodity derivatives were mixed resulting in lower derivative asset valuations, but higher derivative liability valuations.

Securities Securities include securities available-for-sale and securities held-to-maturity. The increase in balances compared with December 31, 2015 largely reflects net purchases of longer term U.S. Treasury and U.S. Government sponsored mortgage-backed securities as well as favorable market valuations, partially offset by net sales of U.S. Government agency mortgage-backed securities as part of a continuing strategy to maximize returns while balancing the securities portfolio for risk management purposes based on the current interest rate environment and liquidity needs.

Other Assets Other assets includes intangibles and goodwill. Other assets decreased compared with December 31, 2015 largely due to lower outstanding settlement balances related to security sales, lower tax assets and lower cash collateral posted. In August 2016, we entered into an agreement to sell our remaining MSRs portfolio to a third party and expect the sale to be completed during the fourth quarter of 2016. See Note 9, "Other Assets Held for Sale," in the accompanying consolidated financial statements for additional details.

During the third quarter of 2016, we completed our annual impairment test of goodwill and determined that the fair value of all of our reporting units exceeded their carrying amounts, with the fair value of each reporting unit being 125 percent or more of book value, including allocated goodwill.

Deposits The following summarizes deposit balances by major depositor categories at September 30, 2016 and increases (decreases) since December 31, 2015:

| | September 30, 2016 | Increase (Decrease) From December 31, 2015 | |
|---|-----------------------|---|--------------|
| | | Amount | % |
| (dollars are in millions) | | | |
| Individuals, partnerships and corporations..... | \$ 113,458 | \$ 10,605 | 10.3% |
| Domestic and foreign banks | 16,161 | 1,995 | 14.1 |
| U.S. government and states and political subdivisions | 675 | (48) | (6.6) |
| Foreign governments and official institutions..... | 788 | (49) | (5.9) |
| Total deposits..... | <u>\$ 131,082</u> | <u>\$ 12,503</u> | <u>10.5%</u> |
| Total core deposits ⁽¹⁾ | <u>\$ 101,452</u> | <u>\$ 10,989</u> | <u>12.1%</u> |

⁽¹⁾ Core deposits, as calculated in accordance with Federal Financial Institutions Examination Council ("FFIEC") guidelines, generally include all domestic demand, money market and other savings accounts, as well as time deposits with balances not exceeding \$100,000.

Deposit balances increased since December 31, 2015 driven by higher deposits from affiliates and growth in commercial savings and demand deposits reflecting a focus on deposit growth through a continuation of executing a key strategy to grow our Global Liquidity and Cash Management business. The strategy for our core retail banking business includes building relationship deposits across multiple markets, channels and segments. This strategy involves various initiatives, such as:

- HSBC Premier, a comprehensive banking and wealth management proposition for the internationally minded mass affluent client with a dedicated premier relationship manager. Total Premier deposits increased to \$23,874 million at September 30, 2016 as compared with \$23,498 million at December 31, 2015; and
- Expanding our existing customer relationships by needs-based sales of wealth, banking and mortgage products.

We continue to actively manage our balance sheet to increase profitability while maintaining adequate liquidity.

Short-Term Borrowings Short-term borrowings increased compared with December 31, 2015 primarily due to a shift in mix which resulted in lower netting associated with securities sold under repurchase agreements.

Long-Term Debt Long-term debt increased compared with December 31, 2015 reflecting the impact of debt issuances, including \$4,000 million of senior debt issued to HSBC North America during the third quarter of 2016 and increased borrowings from the Federal Home Loan Bank of New York ("FHLB"), partially offset by debt retirements. Debt issuances during the three and nine months ended September 30, 2016 totaled \$5,116 million and \$7,675 million, respectively, of which \$4,000 million and \$5,103 million, respectively, was issued by HSBC Bank USA.

Incremental issuances from the HSBC Bank USA Global Bank Note Program totaled \$3 million during the nine months ended September 30, 2016. Total debt outstanding under this program was \$4,442 million and \$4,476 million at September 30, 2016 and December 31, 2015, respectively. We anticipate using the Global Bank Note Program more in the future as part of our efforts designed to minimize overall funding costs while accessing diverse funding channels.

Incremental issuances from our shelf registration statement with the SEC totaled \$2,572 million of senior structured notes during the nine months ended September 30, 2016. Total long-term debt outstanding under this shelf was \$21,967 million and \$21,415 million at September 30, 2016 and December 31, 2015, respectively.

Borrowings from the FHLB totaled \$6,700 million and \$5,600 million at September 30, 2016 and December 31, 2015, respectively.

All Other Liabilities All other liabilities was relatively flat compared with December 31, 2015.

Shareholders Equity During the second quarter of 2016, HSBC USA redeemed all of its remaining externally issued preferred stock, including its Floating Rate Non-Cumulative Series F Preferred Stock, Floating Rate Non-Cumulative Series G Preferred Stock and 6.50 percent Non-Cumulative Series H Preferred Stock, totaling \$1,265 million. In connection with these redemptions, HSBC USA issued \$1,265 million of 6.0 percent Non-Cumulative Series I Preferred Stock to HSBC North America. See Note 16, "Retained Earnings and Regulatory Capital Requirements," for additional details.

Results of Operations

Net Interest Income Net interest income is the total interest income on earning assets less the total interest expense on deposits and borrowed funds. In the discussion that follows, interest income and rates are presented and analyzed on a taxable equivalent basis to permit comparisons of yields on tax-exempt and taxable assets. An analysis of consolidated average balances and interest rates on a taxable equivalent basis is presented in this MD&A under the caption "Consolidated Average Balances and Interest Rates."

The significant components of net interest margin are summarized in the following table:

| Three Months Ended September 30, | 2016 | 2016 Compared to 2015 Increase (Decrease) | | 2015 |
|---|---------------|---|--------------|---------------|
| | | Volume | Rate | |
| (dollars are in millions) | | | | |
| Interest income: | | | | |
| Short-term investments | \$ 100 | \$ 8 | \$ 62 | \$ 30 |
| Trading securities..... | 52 | 6 | (29) | 75 |
| Securities..... | 234 | 18 | (21) | 237 |
| Commercial loans | 383 | (25) | 52 | 356 |
| Consumer loans | 185 | 4 | (2) | 183 |
| Other | 12 | (3) | — | 15 |
| Total interest income..... | <u>966</u> | <u>8</u> | <u>62</u> | <u>896</u> |
| Interest expense: | | | | |
| Deposits | 122 | 7 | 38 | 77 |
| Short-term borrowings..... | 22 | (3) | 12 | 13 |
| Long-term debt | 213 | 29 | — | 184 |
| Tax liabilities and other | 5 | 1 | 2 | 2 |
| Total interest expense | <u>362</u> | <u>34</u> | <u>52</u> | <u>276</u> |
| Net interest income – taxable equivalent basis..... | <u>604</u> | <u>\$ (26)</u> | <u>\$ 10</u> | <u>620</u> |
| Less: tax equivalent adjustment..... | — | | | 3 |
| Net interest income – non taxable equivalent basis..... | <u>\$ 604</u> | | | <u>\$ 617</u> |
| Yield on total interest earning assets | <u>1.96%</u> | | | 1.90% |
| Cost of total interest bearing liabilities..... | <u>.98</u> | | | .81 |
| Interest rate spread..... | <u>.98</u> | | | 1.09 |
| Benefit from net non-interest paying funds ⁽¹⁾ | <u>.24</u> | | | .22 |
| Net interest margin on average earning assets..... | <u>1.22%</u> | | | <u>1.31%</u> |

| Nine Months Ended September 30, | 2016 | 2016 Compared to 2015 Increase (Decrease) | | 2015 |
|---|-----------------------|---|--------------|-----------------------|
| | | Volume | Rate | |
| | | (dollars are in millions) | | |
| Interest income: | | | | |
| Short-term investments | \$ 268 | \$ 21 | \$ 169 | \$ 78 |
| Trading securities | 197 | (21) | (43) | 261 |
| Securities | 722 | 56 | — | 666 |
| Commercial loans..... | 1,148 | 2 | 136 | 1,010 |
| Consumer loans | 561 | 17 | (1) | 545 |
| Other..... | 31 | (7) | (6) | 44 |
| Total interest income..... | <u>2,927</u> | <u>68</u> | <u>255</u> | <u>2,604</u> |
| Interest expense: | | | | |
| Deposits | 344 | 19 | 148 | 177 |
| Short-term borrowings | 61 | (9) | 35 | 35 |
| Long-term debt..... | 613 | 71 | 18 | 524 |
| Tax liabilities and other..... | 12 | 1 | 1 | 10 |
| Total interest expense..... | <u>1,030</u> | <u>82</u> | <u>202</u> | <u>746</u> |
| Net interest income – taxable equivalent basis | <u>1,897</u> | <u>\$ (14)</u> | <u>\$ 53</u> | <u>1,858</u> |
| Less: tax equivalent adjustment | <u>1</u> | | | <u>9</u> |
| Net interest income – non taxable equivalent basis | <u><u>\$1,896</u></u> | | | <u><u>\$1,849</u></u> |
| Yield on total interest earning assets..... | <u>2.01%</u> | | | <u>1.90%</u> |
| Cost of total interest bearing liabilities | <u>.95</u> | | | <u>.74</u> |
| Interest rate spread | <u>1.06</u> | | | <u>1.16</u> |
| Benefit from net non-interest paying funds ⁽¹⁾ | <u>.24</u> | | | <u>.19</u> |
| Net interest margin on average earning assets | <u><u>1.30%</u></u> | | | <u><u>1.35%</u></u> |

⁽¹⁾ Represents the benefit associated with interest earning assets in excess of interest bearing liabilities. Increased percentages reflect growth in this excess, while decreased percentages reflect a reduction in this excess.

Net interest income decreased slightly during the three months ended September 30, 2016 as the favorable impact of higher short-term market rates as discussed below was more than offset by higher interest expense from long-term debt, the impact of lower commercial loan average balances and lower interest income from trading securities. In the year-to-date period, net interest income increased as the favorable impact of higher short-term market rates and higher interest income from securities was partially offset by higher interest expense from wholesale time deposits and long-term debt as well as lower interest income from trading securities. Higher short-term market rates resulted in higher short-term investment and variable loan interest income, partially offset by higher wholesale time deposit and short-term borrowing interest expense in both the three and nine month periods while retail and commercial deposit account pricing was largely unchanged.

Short-term investments Higher interest income during the three and nine months ended September 30, 2016 was due to a shift in mix towards higher yielding securities purchased under agreements to resell, higher yields on interest bearing deposits with banks driven by the impact of the Federal Reserve Bank rate increase in December 2015 and, to a lesser extent, higher average balances.

Trading securities Interest income declined during the three and nine months ended September 30, 2016 driven primarily by increased investments in lower yielding U.S. Treasury securities. The decline was partially offset in the three month period by higher average balances overall due to increases in U.S. Treasury and foreign sovereign positions. In the year-to-date period, lower average balances overall contributed to the decline, as an increase in U.S. Treasury positions was more than offset by a decrease in foreign sovereign positions. Securities in the trading portfolio are managed as economic hedges against the derivative activity of our customers. As a result, interest income associated with trading securities was partially offset within trading revenue by the performance of the associated derivatives as discussed further below.

Securities Interest income was relatively flat during the three months ended September 30, 2016 as higher average balances were offset by lower yields. In the year-to-date period, interest income was higher due to higher average balances driven by net purchases

of U.S. Treasury and U.S. Government sponsored mortgage-backed securities, partially offset by net sales of U.S. Government agency mortgage-backed securities and the sale of certain foreign debt securities.

Commercial loans Interest income increased during the three and nine months ended September 30, 2016 due to higher yields reflecting the impact of rate increases on variable rate products. The increase was partially offset in the three month period by lower average balances largely due to paydowns, maturities and loan sales exceeding new loan originations as we focused efforts on improving returns through disciplined lending and expanding customer relationships into other products.

Consumer loans Interest income was relatively flat during the three months ended September 30, 2016, but was higher in the year-to-date period due to higher average balances driven by growth in residential mortgages.

Other Lower interest income during the three and nine months ended September 30, 2016 reflects lower average balances due to declines in cash collateral posted and a lower dividend rate earned on Federal Reserve Bank stock.

Deposits Interest expense increased during the three and nine months ended September 30, 2016 due primarily to higher rates paid on wholesale time deposits and foreign bank deposits reflecting the impact of rate increases as well as higher average interest-bearing deposit balances overall. Contributing to the increase in the year-to-date period, to a lesser extent, was higher rates paid on savings accounts driven by promotional offers to our retail customers.

Short-term borrowings Higher interest expense during the three and nine months ended September 30, 2016 was driven by higher rates paid on these borrowings, partially offset by lower average borrowings.

Long-term debt Interest expense was higher during the three and nine months ended September 30, 2016 largely due to higher average borrowings and, in the year-to-date period, higher rates paid reflecting the impact of rate increases on variable rate borrowings and new issuances since the third quarter of 2015.

Tax liabilities and other Interest expense was relatively flat during the three and nine months ended September 30, 2016.

Provision for Credit Losses The following table summarizes the provision for credit losses associated with our various loan portfolios:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|--------------|--------------|---------------------|--------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Commercial: | | | | |
| Construction and other real estate | \$ (8) | \$ (3) | \$ (5) | * |
| Business and corporate banking | 7 | 32 | (25) | (78.1) |
| Global banking | 44 | 16 | 28 | * |
| Other commercial | (1) | (1) | — | — |
| Total commercial | <u>\$ 42</u> | <u>\$ 44</u> | <u>\$ (2)</u> | <u>(4.5)</u> |
| Consumer: | | | | |
| Residential mortgages | 11 | (3) | 14 | * |
| Home equity mortgages | 1 | (2) | 3 | * |
| Credit card receivables | 7 | 7 | — | — |
| Other consumer | 1 | 1 | — | — |
| Total consumer | <u>20</u> | <u>3</u> | <u>17</u> | <u>*</u> |
| Total provision for credit losses | <u>\$ 62</u> | <u>\$ 47</u> | <u>\$ 15</u> | <u>31.9%</u> |
| Provision as a percentage of average loans, annualized | <u>.3%</u> | <u>.2%</u> | | |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|---------------|--------------|---------------------|----------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Commercial: | | | | |
| Construction and other real estate..... | \$ (2) | \$ (4) | \$ 2 | 50.0% |
| Business and corporate banking | (35) | 54 | (89) | * |
| Global banking..... | 377 | 39 | 338 | * |
| Other commercial | (5) | (3) | (2) | (66.7) |
| Total commercial..... | <u>335</u> | <u>86</u> | <u>249</u> | <u>*</u> |
| Consumer: | | | | |
| Residential mortgages..... | (5) | (9) | 4 | 44.4 |
| Home equity mortgages..... | (2) | (4) | 2 | 50.0 |
| Credit cards..... | 21 | 14 | 7 | 50.0 |
| Other consumer..... | 4 | 7 | (3) | (42.9) |
| Total consumer..... | <u>18</u> | <u>8</u> | <u>10</u> | <u>*</u> |
| Total provision for credit losses..... | <u>\$ 353</u> | <u>\$ 94</u> | <u>\$ 259</u> | <u>*</u> |
| Provision as a percentage of average loans, annualized..... | <u>.6%</u> | <u>.2%</u> | | |

* Not meaningful.

Our provision for credit losses increased \$15 million and \$259 million during the three and nine months ended September 30, 2016, respectively, due to a higher provision for credit losses in our consumer loan portfolio and, in the year-to-date period, a higher provision for credit losses in our commercial loan portfolio. During the three months ended September 30, 2016, we decreased our allowance for credit losses as the provision for credit losses was lower than net charge-offs by \$3 million. During the nine months ended September 30, 2016, we increased our allowance for credit losses as the provision for credit losses was higher than net charge-offs by \$148 million.

The provision for credit losses in our commercial loan portfolio was relatively flat during the three months ended September 30, 2016 as a higher provision associated with the continued deterioration of a single mining customer relationship was offset by lower provisions associated with oil and gas industry loan exposures and risk factors associated with expansion market loan exposures. In the year-to-date period, the provision for credit losses in our commercial loan portfolio increased \$249 million driven by higher provisions associated with the downgrade of a single mining customer relationship and, to a lesser extent, other downgrades reflecting weaknesses in the financial condition of certain customer relationships, including mining and other industry loan exposures, partially offset by lower provisions associated with oil and gas industry loan exposures and risk factors associated with expansion market loan exposures. We will continue to monitor our exposure with regard to the mining customer relationship discussed above and, as a result, further adjustments to our credit loss reserves may be required in future periods.

As previously discussed, during the third quarter of 2016 we transferred certain mortgages to held for sale and, as a result, recorded a lower of cost or fair value adjustment of \$11 million related to credit factors as a component of the provision for credit losses. Excluding the impact of this item, the provision for credit losses on residential mortgages and home equity mortgages increased \$6 million during the three months ended September 30, 2016 and decreased \$5 million in the year-to-date period. While the positive impacts of continued improvements in economic and credit conditions and the continued origination of higher quality Premier mortgages which are an increasingly larger portion of the portfolio were more pronounced in the year-ago quarter, they remain favorable in the year-to-date period.

The provision for credit losses associated with credit cards was flat during the three months ended September 30, 2016. In the year-to-date period, the provision for credit losses associated with credit cards increased \$7 million as the positive impacts from continued improvements in economic and credit conditions, including improvements in delinquency roll rates, were more pronounced in the prior year period. While the provision for credit losses associated with other consumer loans was flat during the three months ended September 30, 2016, it decreased \$3 million in the year-to-date period as 2015 reflects a lower of cost or fair value adjustment associated with the transfer of a small student loan portfolio to held for sale.

Our methodology and accounting policies related to the allowance for credit losses are presented in our 2015 Form 10-K under the caption "Critical Accounting Policies and Estimates" and in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements." See "Credit Quality" in this MD&A for additional discussion on the allowance for credit losses associated with our various loan portfolios.

Other Revenues The following table summarizes the components of other revenues:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|---------------|---------------|---------------------|----------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Credit card fees | \$ 12 | \$ 11 | \$ 1 | 9.1 % |
| Trust and investment management fees | 40 | 46 | (6) | (13.0) |
| Other fees and commissions | 215 | 188 | 27 | 14.4 |
| Trading revenue (expense)..... | 120 | (34) | 154 | * |
| Other securities gains, net | 16 | 11 | 5 | 45.5 |
| Servicing and other fees from HSBC affiliates..... | 50 | 53 | (3) | (5.7) |
| Residential mortgage banking revenue (expense) | (3) | 16 | (19) | * |
| Gain (loss) on instruments designated at fair value and related derivatives | (88) | 165 | (253) | * |
| Other income (loss): | | | | |
| Valuation of loans held for sale..... | (11) | (6) | (5) | (83.3) |
| Insurance | 5 | 2 | 3 | * |
| Miscellaneous income (loss) | (36) | 79 | (115) | * |
| Total other income (loss)..... | (42) | 75 | (117) | * |
| Total other revenues..... | <u>\$ 320</u> | <u>\$ 531</u> | <u>\$ (211)</u> | <u>(39.7)%</u> |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|-----------------|-----------------|---------------------|----------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Credit card fees | \$ 39 | \$ 32 | \$ 7 | 21.9 % |
| Trust and investment management fees | 118 | 127 | (9) | (7.1) |
| Other fees and commissions | 557 | 560 | (3) | (.5) |
| Trading revenue (expense)..... | 185 | 23 | 162 | * |
| Other securities gains, net | 81 | 69 | 12 | 17.4 |
| Servicing and other fees from HSBC affiliates..... | 155 | 162 | (7) | (4.3) |
| Residential mortgage banking revenue (expense) | 24 | 50 | (26) | (52.0) |
| Gain (loss) on instruments designated at fair value and related derivatives | 90 | 306 | (216) | (70.6) |
| Other income (loss): | | | | |
| Valuation of loans held for sale..... | (82) | (15) | (67) | * |
| Insurance | 15 | 14 | 1 | 7.1 |
| Miscellaneous income (loss) | (107) | 70 | (177) | * |
| Total other income (loss)..... | (174) | 69 | (243) | * |
| Total other revenues..... | <u>\$ 1,075</u> | <u>\$ 1,398</u> | <u>\$ (323)</u> | <u>(23.1)%</u> |

* Not meaningful.

Credit card fees Credit card fees were higher during the three and nine months ended September 30, 2016 due primarily to lower cost estimates associated with our credit card rewards program.

Trust and investment management fees Trust and investment management fees decreased during the three and nine months ended September 30, 2016 driven by lower investment management fees associated with our Private Banking business reflecting a decline in assets under management.

Other fees and commissions The following table summarizes the components of other fees and commissions:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---------------------------------------|---------------|---------------|---------------------|---------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Account services | \$ 69 | \$ 73 | \$ (4) | (5.5)% |
| Credit facilities..... | 116 | 91 | 25 | 27.5 |
| Custodial fees..... | 6 | 8 | (2) | (25.0) |
| Other fees..... | 24 | 16 | 8 | 50.0 |
| Total other fees and commissions..... | <u>\$ 215</u> | <u>\$ 188</u> | <u>\$ 27</u> | <u>14.4 %</u> |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---------------------------------------|---------------|---------------|---------------------|--------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Account services | \$ 210 | \$ 214 | \$ (4) | (1.9)% |
| Credit facilities..... | 273 | 264 | 9 | 3.4 |
| Custodial fees..... | 16 | 16 | — | — |
| Other fees..... | 58 | 66 | (8) | (12.1) |
| Total other fees and commissions..... | <u>\$ 557</u> | <u>\$ 560</u> | <u>\$ (3)</u> | <u>(.5)%</u> |

Other fees and commissions were higher during the three months ended September 30, 2016 primarily due to increased loan syndication and other credit facility related fees, partially offset by lower account service fees. In the year-to-date period, other fees and commissions were relatively flat as higher credit facility fees were offset by lower account service fees and lower other fee based income.

Trading revenue (expense) Trading revenue (expense) is generated by participation in the foreign exchange, rates, credit, equities and precious metals markets. The following table presents trading revenue (expense) by business activity. Not included in the table below is the impact of net interest income related to trading activities which is an integral part of trading activities' overall performance. Net interest income related to trading activities is recorded in net interest income in the consolidated statement of income. Trading revenues related to the mortgage banking business are included in residential mortgage banking revenue (expense).

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---------------------------------------|---------------|----------------|---------------------|----------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Business Activities: | | | | |
| Derivatives ⁽¹⁾ | \$ 38 | \$ (81) | \$ 119 | * |
| Balance Sheet Management..... | 6 | (3) | 9 | * |
| Foreign Exchange | 45 | 44 | 1 | 2.3 |
| Precious Metals..... | 36 | 14 | 22 | * |
| Capital Financing..... | (3) | (8) | 5 | 62.5 |
| Other trading..... | (2) | — | (2) | * |
| Total trading revenue (expense) | <u>\$ 120</u> | <u>\$ (34)</u> | <u>\$ 154</u> | <u>*</u> |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|----------------------------------|---------------|--------------|---------------------|----------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Business Activities: | | | | |
| Derivatives ⁽¹⁾ | \$ (16) | \$ (142) | \$ 126 | 88.7% |
| Balance Sheet Management..... | 7 | (18) | 25 | * |
| Foreign Exchange | 147 | 157 | (10) | (6.4) |
| Precious Metals..... | 56 | 43 | 13 | 30.2 |
| Capital Financing..... | (7) | (14) | 7 | 50.0 |
| Other trading..... | (2) | (3) | 1 | 33.3 |
| Total trading revenue..... | <u>\$ 185</u> | <u>\$ 23</u> | <u>\$ 162</u> | <u>*</u> |

* Not meaningful.

⁽¹⁾ Includes derivative contracts related to credit default and cross-currency swaps, equities, interest rates and structured credit products.

Trading revenue (expense) increased during the three and nine months ended September 30, 2016 largely driven by the improved performance of Derivatives, Balance Sheet Management and Precious Metals, partially offset in the year-to-date period by lower revenue from Foreign Exchange.

Trading revenue from Derivatives improved during the three and nine months ended September 30, 2016 from higher new deal activity in interest rate swaps, an increase in the performance of emerging markets products and higher valuations of legacy structured credit exposures. These improvements were partially offset in both periods by the impact of debit valuation adjustments associated with movements in our own credit spreads. Derivatives trading revenue does not reflect associated net interest income as certain derivatives, such as total return swaps, were economically hedged by holding the underlying interest bearing referenced assets.

Trading revenue related to Balance Sheet Management activities improved during the three and nine months ended September 30, 2016 due to the performance of economic hedge positions used to manage interest rate risk.

Foreign Exchange trading revenue was relatively flat during the three months ended September 30, 2016, while in the year-to-date period, trading revenue declined from reduced client trade activity.

Precious Metals trading revenue increased during the three and nine months ended September 30, 2016 due to increased client trading, especially financing related trading activity.

Capital Financing revenue improved during the three and nine months ended September 30, 2016 reflecting lower losses related to valuation adjustments on credit default swap hedge positions.

Other securities gains, net We maintain securities portfolios as part of our balance sheet diversification and risk management strategies. During the three and nine months ended September 30, 2016, we sold \$1,026 million and \$13,697 million, respectively, of primarily U.S. Treasury and U.S. Government agency mortgage-backed securities compared with sales of \$1,190 million and \$9,882 million during the prior year periods as part of a continuing strategy to maximize returns while balancing the securities portfolio for risk management purposes based on the current interest rate environment and liquidity needs. Other securities gains, net increased in the three and nine months ended September 30, 2016 due to higher gains from the sale of certain U.S. Treasury securities as we rebalanced the portfolio for risk management purposes and, in the year-to-date period, gains from the sale of certain longer term state municipal bonds as we reduced these positions during the first quarter of 2016. The gross realized gains and losses from sales of securities in both periods, which is included as a component of other securities gains, net above, are summarized in Note 3, "Securities," in the accompanying consolidated financial statements.

Servicing and other fees from HSBC affiliates Affiliate income decreased in the three and nine months ended September 30, 2016 reflecting lower fees associated with residential mortgage servicing activities performed on behalf of HSBC Finance and, to a lesser extent, lower fees related to supporting growth initiatives in the Global Liquidity and Cash Management business, partially offset by higher income from certain performance based trading activity booked on the balance sheets of other HSBC affiliates.

Residential mortgage banking revenue (expense) The following table presents the components of residential mortgage banking revenue (expense). Net interest income related to residential mortgage banking is recorded in net interest income in the consolidated statement of income.

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|--------|-------|---------------------|---------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Servicing related income: | | | | |
| Servicing fee income..... | \$ 11 | \$ 13 | \$ (2) | (15.4)% |
| Changes in fair value of MSR's due to: | | | | |
| Changes in valuation inputs or assumptions..... | (4) | (21) | 17 | 81.0 |
| Customer payments | (5) | (7) | 2 | 28.6 |
| Trading – Derivative instruments used to offset changes in value of MSR's | (3) | 28 | (31) | * |
| Total servicing related income (expense)..... | (1) | 13 | (14) | * |
| Originations and sales related loss: | | | | |
| Losses on sales of residential mortgages | (4) | (2) | (2) | (100.0) |
| Recovery for repurchase obligations..... | — | 2 | (2) | (100.0) |
| Total originations and sales related loss..... | (4) | — | (4) | * |
| Other mortgage income..... | 2 | 3 | (1) | (33.3) |
| Total residential mortgage banking revenue (expense) | \$ (3) | \$ 16 | \$ (19) | * |
| (dollars are in millions) | | | | |
| Nine Months Ended September 30, | | | | |
| Increase (Decrease) | | | | |
| Amount % | | | | |
| 2016 2015 | | | | |
| Servicing related income: | | | | |
| Servicing fee income..... | \$ 36 | \$ 43 | \$ (7) | (16.3)% |
| Changes in fair value of MSR's due to: | | | | |
| Changes in valuation inputs or assumptions..... | (28) | (13) | (15) | * |
| Customer payments | (17) | (16) | (1) | (6.3) |
| Trading – Derivative instruments used to offset changes in value of MSR's | 40 | 34 | 6 | 17.6 |
| Total servicing related income (expense)..... | 31 | 48 | (17) | (35.4) |
| Originations and sales related loss: | | | | |
| Losses on sales of residential mortgages | (13) | (11) | (2) | (18.2) |
| Recovery for repurchase obligations..... | 3 | 7 | (4) | (57.1) |
| Total originations and sales related loss..... | (10) | (4) | (6) | * |
| Other mortgage income..... | 3 | 6 | (3) | (50.0) |
| Total residential mortgage banking revenue (expense) | \$ 24 | \$ 50 | \$ (26) | (52.0)% |

* Not meaningful.

Total residential mortgage banking revenue (expense) decreased in the three and nine months ended September 30, 2016 due to lower net hedged MSR's results, lower servicing fees resulting from the planned run-off of our average serviced portfolio and lower recoveries for repurchase obligations associated with loans previously sold. As a result of our strategic relationship with PHH Mortgage, we do not add new volume to our serviced portfolio as all agency eligible loans are sold to PHH Mortgage on a servicing released basis. Net hedged MSR's results were lower in the three and nine months ended September 30, 2016 largely reflecting the impact of entering into an agreement to sell our remaining MSR's portfolio in August 2016. We expect the sale to be completed during the fourth quarter of 2016.

Gain (loss) on instruments designated at fair value and related derivatives We have elected to apply fair value option accounting to certain commercial loans held for sale, certain securities purchased and sold under resale and repurchase agreements, certain own fixed-rate debt issuances and all of our hybrid instruments issued, including structured notes and deposits. We also use derivatives to economically hedge the interest rate risk associated with certain financial instruments for which fair value option

accounting has been elected. Gain (loss) on instruments designated at fair value and related derivatives decreased during the three and nine months ended September 30, 2016 attributable primarily to movements in credit spreads associated with our own debt and structured notes and deposits. This decrease was partially offset in the year-to-date period by the non-recurrence of a net loss recorded in 2015 related to changes in estimates associated with the valuation techniques used to measure the fair value of certain structured notes and deposits. See Note 11, "Fair Value Option," in the accompanying consolidated financial statements for additional information including a breakout of these amounts by individual component.

Other income (loss) Other income (loss) decreased during the three and nine months ended September 30, 2016 due primarily to losses in the current year periods associated with credit default swap protection which largely reflects the hedging of a single client exposure compared with gains in the prior year periods, higher losses from valuation write-downs on loans held for sale and, in the year-to-date period, higher losses associated with fair value hedge ineffectiveness.

Operating Expenses The following table summarizes the components of operating expenses:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|----------|----------|---------------------|---------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Salary and employee benefits | \$ 235 | \$ 254 | \$ (19) | (7.5)% |
| Support services from HSBC affiliates: | | | | |
| Fees paid to HSBC Markets (USA) Inc. ("HMUS") | 42 | 66 | (24) | (36.4) |
| Fees paid to HSBC Technology and Services (USA) ("HTSU") | 252 | 250 | 2 | .8 |
| Fees paid to other HSBC affiliates | 60 | 45 | 15 | 33.3 |
| Total support services from HSBC affiliates | 354 | 361 | (7) | (1.9) |
| Occupancy expense, net | 57 | 57 | — | — |
| Other expenses: | | | | |
| Equipment and software | 10 | 12 | (2) | (16.7) |
| Marketing | 10 | 16 | (6) | (37.5) |
| Outside services | 35 | 23 | 12 | 52.2 |
| Professional fees | 28 | 32 | (4) | (12.5) |
| Off-balance sheet credit reserves | (4) | (2) | (2) | (100.0) |
| Federal Deposit Insurance Corporation ("FDIC") assessment fee | 63 | 29 | 34 | * |
| Miscellaneous | 15 | 4 | 11 | * |
| Total other expenses | 157 | 114 | 43 | 37.7 |
| Total operating expenses | \$ 803 | \$ 786 | \$ 17 | 2.2 % |
| Personnel - average number | 5,706 | 6,097 | | |
| Efficiency ratio | 86.9% | 68.5% | | |
| (dollars are in millions) | | | | |
| Nine Months Ended September 30, | | | | |
| | 2016 | 2015 | Amount | % |
| Salary and employee benefits | \$ 718 | \$ 767 | \$ (49) | (6.4)% |
| Support services from HSBC affiliates: | | | | |
| Fees paid to HMUS | 150 | 199 | (49) | (24.6) |
| Fees paid to HTSU | 734 | 754 | (20) | (2.7) |
| Fees paid to other HSBC affiliates | 145 | 145 | — | — |
| Total support services from HSBC affiliates | 1,029 | 1,098 | (69) | (6.3) |
| Occupancy expense, net | 173 | 172 | 1 | .6 |
| Other expenses: | | | | |
| Equipment and software | 32 | 37 | (5) | (13.5) |
| Marketing | 38 | 48 | (10) | (20.8) |
| Outside services | 80 | 66 | 14 | 21.2 |
| Professional fees | 79 | 84 | (5) | (6.0) |
| Off-balance sheet credit reserves | 26 | 1 | 25 | * |
| FDIC assessment fee | 137 | 88 | 49 | 55.7 |
| Miscellaneous | 40 | 52 | (12) | (23.1) |
| Total other expenses | 432 | 376 | 56 | 14.9 |
| Total operating expenses | \$ 2,352 | \$ 2,413 | \$ (61) | (2.5)% |
| Personnel - average number | 5,706 | 6,074 | | |
| Efficiency ratio | 79.2% | 74.3% | | |

* Not meaningful.

Salaries and employee benefits Salaries and employee benefits were lower during the three and nine months ended September 30, 2016 primarily due to lower incentive compensation expense. Despite a decline in the average number of personnel driven by continued cost management efforts including targeted staff reductions across all of our businesses to optimize staffing and improve efficiency as well as a reduction in staff performing residential mortgage servicing activities on behalf of HSBC Finance, the impact of these decreases were largely offset by the addition of higher cost personnel associated with growth initiatives in certain businesses, strengthening controls and the implementation of the highest and most effective global standards in combating financial crime.

Support services from HSBC affiliates Support services from HSBC affiliates were relatively flat during the three months ended September 30, 2016 as the favorable impact of cost management efforts were largely offset by higher expense associated with certain performance based trading activity booked on our balance sheet by other HSBC affiliates. In the year-to-date period, support services from HSBC affiliates decreased due primarily to the favorable impact of cost management efforts including staff optimization in our technology and corporate support service functions and lower costs associated with business systems reflecting the completion of certain projects. A summary of the activities charged to us from various HSBC affiliates is included in Note 14, "Related Party Transactions," in the accompanying consolidated financial statements.

Occupancy expense, net Occupancy expense was flat during the three and nine months ended September 30, 2016.

Other expenses Other expenses increased during the three and nine months ended September 30, 2016 reflecting higher deposit insurance assessment fees, the non-recurrence of a benefit recorded in the prior year periods associated with a settlement of certain compensatory fee exposures, higher outside services expense and, in the year-to-date period, higher off-balance sheet credit reserves due to downgrades. These increases were partially offset by lower litigation expense, lower losses associated with card fraud and lower marketing and travel expenses.

Efficiency ratio Our efficiency ratio was 86.9 percent and 79.2 percent during the three and nine months ended September 30, 2016, respectively, compared with 68.5 percent and 74.3 percent during the prior year periods. Our efficiency ratio was impacted in each period by the change in the fair value of our own debt attributable to credit spread for which we have elected fair value option accounting which is reported as a component of total other revenues in our consolidated statement of income. Excluding the impact of this item, our efficiency ratio remained higher during the three and nine months ended September 30, 2016 due primarily to lower other revenues. In the year-to-date period, lower other revenues were partially offset by lower operating expenses and higher net interest income.

Income taxes The following table provides an analysis of the difference between effective rates based on the total income tax provision attributable to pretax income and the statutory U.S. Federal income tax rate:

| Three Months Ended September 30, | 2016 | | 2015 | |
|--|---------------------------|--------------|---------------|--------------|
| | (dollars are in millions) | | | |
| Tax expense at the U.S. Federal statutory income tax rate | \$ 21 | 35.0% | \$ 110 | 35.0% |
| Increase (decrease) in rate resulting from: | | | | |
| State and local taxes, net of Federal benefit..... | 2 | 3.4 | 9 | 2.9 |
| Other non-deductible / non-taxable items | 5 | 8.5 | (2) | (.6) |
| Low income housing tax credit investments | (4) | (6.8) | (6) | (1.9) |
| Other..... | 2 | 3.4 | — | — |
| Total income tax expense..... | <u>\$ 26</u> | <u>44.1%</u> | <u>\$ 111</u> | <u>35.2%</u> |
| | | | | |
| Nine Months Ended September 30, | 2016 | | 2015 | |
| | (dollars are in millions) | | | |
| Tax expense at the U.S. Federal statutory income tax rate | \$ 93 | 35.0% | \$ 259 | 35.0% |
| Increase (decrease) in rate resulting from: | | | | |
| State and local taxes, net of Federal benefit..... | 10 | 3.8 | 20 | 2.7 |
| Adjustment of tax rate used to value deferred taxes ⁽¹⁾ | — | — | 49 | 6.6 |
| Other non-deductible / non-taxable items | 5 | 1.9 | (4) | (.5) |
| Low income housing tax credit investments | (12) | (4.5) | (17) | (2.3) |
| Other..... | 4 | 1.5 | (22) | (3.0) |
| Total income tax expense..... | <u>\$ 100</u> | <u>37.6%</u> | <u>\$ 285</u> | <u>38.5%</u> |

⁽¹⁾ For 2015, the amount mainly relates to the effects of revaluing our deferred tax assets for New York City Tax Reform that was enacted on April 13, 2015 which resulted in a decrease to our net deferred tax asset of approximately \$48 million in the second quarter of 2015.

In April 2016, the U.S. Treasury and the Internal Revenue Service released proposed regulations intended to discourage corporate inversions by re-characterizing certain intercompany debt as equity, effectively eliminating the tax deduction for interest paid to related parties under certain circumstances. Final and temporary regulations were released in October 2016 that exempt regulated financial groups such as HSBC and its affiliates from those re-characterization rules. Certain documentation rules included in the regulations will apply to HSBC and its affiliates, and we will analyze the requirements in order to implement on a timely basis in accordance with the rules. We do not anticipate a significant financial accounting impact upon implementation of the regulations.

Segment Results – Group Reporting Basis

We have four distinct business segments that are utilized for management reporting and analysis purposes which are aligned with HSBC's global businesses and business strategy: Retail Banking and Wealth Management ("RBWM"), Commercial Banking ("CMB"), Global Banking and Markets ("GB&M") and Private Banking ("PB"). The segments, which are generally based upon customer groupings and global businesses, are described under Item 1, "Business," in our 2015 Form 10-K.

We previously announced that with effect from January 1, 2016, a portion of our Business Banking client group, generally representing those small business customers with \$3 million or less in annual revenue (now referred to as Retail Business Banking), would be better managed as part of RBWM rather than CMB given the similarities in their banking activities with the RBWM customer base. Therefore, to coincide with the change in our management reporting effective beginning in the first quarter of 2016, we have included the results of Retail Business Banking in the RBWM segment for all periods presented. As a result, loss before tax for the RBWM segment increased \$9 million and \$25 million during the three and nine months ended September 30, 2015, respectively. There have been no other changes in the basis of our segmentation or measurement of segment profit as compared with the presentation in our 2015 Form 10-K.

During the first half of 2016, we determined that a portion of our Large Corporate client group, generally representing those large business customers with more complex banking activities which require the levels of support routinely provided by relationship managers in GB&M, would be better managed as part of GB&M rather than CMB, effective October 1, 2016. Therefore, beginning in the fourth quarter of 2016, we will include the results of the transferred client relationships in the GB&M segment for all periods presented. We currently expect this transfer will result in an increase to loans and deposits for the GB&M segment of approximately \$3.4 billion and \$2.4 billion, respectively. The profit before tax associated with these relationships was approximately \$83 million and \$54 million during the years ended December 31, 2015 and 2014, respectively.

We report financial information to our parent, HSBC, in accordance with HSBC Group accounting and reporting policies, which apply IFRS issued by the IASB and as endorsed by the EU, and, as a result, our segment results are prepared and presented using financial information prepared on the basis of HSBC Group's accounting and reporting policies ("Group Reporting Basis") as operating results are monitored and reviewed, trends are evaluated and decisions about allocating resources, such as employees, are primarily made on this basis. However, we continue to monitor capital adequacy and report to regulatory agencies on a U.S. GAAP basis. The significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results are summarized in Note 22, "Business Segments," and under the caption "Basis of Reporting" in the MD&A section of our 2015 Form 10-K.

We continue to review the financial information used to manage our businesses, including the scope and content of the financial data, including the U.S. GAAP financial data, being reported to our Management and our Board. To the extent we make changes to this reporting in the future, we will evaluate any impact such changes may have on our segment reporting.

Retail Banking and Wealth Management RBWM provides banking and wealth management services for our personal customers, focusing on internationally minded clients in large metropolitan centers on the West and East coasts.

During the first nine months of 2016, we continued to direct resources towards the development and delivery of premium service. Particular focus has been placed on HSBC Premier, HSBC's global banking service which offers customers a seamless international service, and HSBC Advance, a proposition directed towards the emerging affluent client in the initial stages of wealth accumulation.

Consistent with our strategy, the growth of our residential mortgage portfolio is driven primarily by lending to our Premier and Advance customers. Following the conversion of our mortgage processing and servicing operations to PHH Mortgage in 2013, we sell our agency eligible originations directly to PHH Mortgage on a servicing released basis, resulting in no new mortgage servicing rights being recognized. In August 2016, we entered into an agreement to sell our remaining MSRs portfolio and expect the sale to be completed during the fourth quarter of 2016.

The following table summarizes the Group Reporting Basis results for our RBWM segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|---------|---------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 204 | \$ 197 | \$ 7 | 3.6% |
| Other operating income | 72 | 85 | (13) | (15.3) |
| Total operating income ⁽¹⁾ | 276 | 282 | (6) | (2.1) |
| Loan impairment charges | 27 | 15 | 12 | 80.0 |
| Net operating income | 249 | 267 | (18) | (6.7) |
| Operating expenses..... | 283 | 280 | 3 | 1.1 |
| Loss before tax | \$ (34) | \$ (13) | \$ (21) | * |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|---------|---------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 609 | \$ 597 | \$ 12 | 2.0% |
| Other operating income | 229 | 260 | (31) | (11.9) |
| Total operating income ⁽¹⁾ | 838 | 857 | (19) | (2.2) |
| Loan impairment charges | 52 | 52 | — | — |
| Net operating income | 786 | 805 | (19) | (2.4) |
| Operating expenses..... | 810 | 887 | (77) | (8.7) |
| Loss before tax | \$ (24) | \$ (82) | \$ 58 | 70.7% |

* Not meaningful.

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income of the RBWM segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|--------|--------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Current account, savings and deposits | \$ 135 | \$ 125 | \$ 10 | 8.0 % |
| Mortgages, credit cards and other personal lending | 90 | 99 | (9) | (9.1) |
| Wealth and asset management products..... | 29 | 35 | (6) | (17.1) |
| Other ⁽²⁾ | 22 | 23 | (1) | (4.3) |
| Total operating income | \$ 276 | \$ 282 | \$ (6) | (2.1)% |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|--------|--------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Current account, savings and deposits..... | \$ 405 | \$ 389 | \$ 16 | 4.1 % |
| Mortgages, credit cards and other personal lending | 289 | 306 | (17) | (5.6) |
| Wealth and asset management products..... | 89 | 102 | (13) | (12.7) |
| Other ⁽²⁾ | 55 | 60 | (5) | (8.3) |
| Total operating income | \$ 838 | \$ 857 | \$ (19) | (2.2)% |

⁽²⁾ Other primarily includes fees associated with residential mortgage servicing activities performed on behalf of HSBC Finance and revenue associated with certain residential mortgage loans that we previously purchased from HSBC Finance.

Our RBWM segment reported a higher loss before tax during the three months ended September 30, 2016 driven primarily by lower other operating income and higher loan impairment charges, partially offset by higher net interest income. In the year-to-date period, loss before tax improved reflecting higher net interest income and lower operating expenses, partially offset by lower other operating income.

Net interest income increased during the three and nine months ended September 30, 2016 largely driven by higher net interest income from deposits due to higher average balances and improved spreads, partially offset by lower net interest income from

lending. Net interest income from lending declined as the favorable impact of growth in residential mortgage average balances was more than offset by a declining home equity mortgage portfolio and lower spreads.

Other operating income decreased during the three and nine months ended September 30, 2016 due largely to lower servicing fees resulting from the planned run-off of our average serviced portfolio, a lower recovery for repurchase obligations associated with loans previously sold, lower fees associated with residential mortgage servicing activities performed on behalf of HSBC Finance and reduced asset management fees driven by a decline in assets under management principally in our emerging market bond funds. These decreases were partially offset by higher net hedged MSRs results.

Loan impairment charges were higher during the three months ended September 30, 2016 and flat in the year-to-date period. While the positive impacts of continued improvements in economic and credit conditions and the continued origination of higher quality Premier mortgages which are an increasingly larger portion of the portfolio were more pronounced in the year-ago quarter, they were flat in the year-to-date period as lower loss estimates for residential mortgages were offset by higher loss estimates for credit cards.

Operating expenses were relatively flat during the three months ended September 30, 2016 and decreased in the year-to-date period reflecting lower litigation expense and the impact of continued cost management efforts including targeted staff reductions to optimize staffing and improve efficiency. These decreases were offset in the three month period and partially offset in the year-to-date period by the non-recurrence of a benefit recorded in the prior year periods associated with a settlement of certain compensatory fee exposures.

Commercial Banking CMB offers a full range of commercial financial services and tailored solutions to enable customers to grow their businesses, focusing on key markets with high concentrations of international connectivity.

Total quarter-to-date average loans outstanding, including loans held for sale, decreased 9 percent across all CMB client groups as compared with the third quarter of 2015 as we focused efforts on improving returns through disciplined lending and expanding customer relationships into other products. In addition, total quarter-to-date average deposits outstanding increased 8 percent across all CMB client groups as compared with the third quarter of 2015 which reflects executing a key strategy to grow the Global Liquidity and Cash Management business through our international network.

The following table summarizes the Group Reporting Basis results for our CMB segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|--------|--------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 205 | \$ 209 | \$ (4) | (1.9)% |
| Other operating income | 66 | 82 | (16) | (19.5) |
| Total operating income ⁽¹⁾ | 271 | 291 | (20) | (6.9) |
| Loan impairment charges (recoveries) | (19) | 23 | (42) | * |
| Net operating income | 290 | 268 | 22 | 8.2 |
| Operating expenses..... | 167 | 171 | (4) | (2.3) |
| Profit before tax | \$ 123 | \$ 97 | \$ 26 | 26.8 % |
| (dollars are in millions) | | | | |
| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 623 | \$ 613 | \$ 10 | 1.6 % |
| Other operating income | 206 | 228 | (22) | (9.6) |
| Total operating income ⁽¹⁾ | 829 | 841 | (12) | (1.4) |
| Loan impairment charges | 12 | 37 | (25) | (67.6) |
| Net operating income | 817 | 804 | 13 | 1.6 |
| Operating expenses..... | 495 | 499 | (4) | (.8) |
| Profit before tax | \$ 322 | \$ 305 | \$ 17 | 5.6 % |

* Not meaningful.

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income of the CMB segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|---------------|---------------|---------------------|---------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Lending and Transaction Management..... | \$ 141 | \$ 145 | \$ (4) | (2.8)% |
| Global Liquidity and Cash Management, current accounts and savings deposits..... | 101 | 106 | (5) | (4.7) |
| Global Trade and Receivables Finance..... | 14 | 23 | (9) | (39.1) |
| Global Banking & Markets products and other..... | 15 | 17 | (2) | (11.8) |
| Total operating income | <u>\$ 271</u> | <u>\$ 291</u> | <u>\$ (20)</u> | <u>(6.9)%</u> |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|---------------|---------------|---------------------|---------------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Lending and Transaction Management..... | \$ 437 | \$ 424 | \$ 13 | 3.1 % |
| Global Liquidity and Cash Management, current accounts and savings deposits..... | 306 | 313 | (7) | (2.2) |
| Global Trade and Receivables Finance..... | 45 | 65 | (20) | (30.8) |
| Global Banking & Markets products and other..... | 41 | 39 | 2 | 5.1 |
| Total operating income | <u>\$ 829</u> | <u>\$ 841</u> | <u>\$ (12)</u> | <u>(1.4)%</u> |

Our CMB segment reported a higher profit before tax during the three and nine months ended September 30, 2016 primarily due to lower loan impairment charges and, in the year-to-date period, higher net interest income, partially offset by lower other operating income.

Net interest income decreased during the three months ended September 30, 2016 due to lower loan balances in Lending and Transaction Management and higher funding costs. This decrease was partially offset in the three month period and more than offset in the year-to-date period by the favorable impacts of growth in deposit balances in Global Liquidity and Cash Management as well as interest rate increases in December 2015 resulting in improved spreads on both deposits and loans.

Other operating income was lower during the three and nine months ended September 30, 2016 due primarily to lower fee based income reflecting a slowdown in commercial lending activity compared with the prior year periods.

Loan impairment charges were lower during the three and nine months ended September 30, 2016 due primarily to lower provisions for oil and gas industry loan exposures and risk factors associated with expansion market loan exposures. These decreases were partially offset in the year-to-date period by higher loss estimates associated with downgrades reflecting weaknesses in the financial condition of certain customer relationships.

Operating expenses were relatively flat during the three and nine months ended September 30, 2016 as the impact of cost management efforts including targeted staff reductions to optimize staffing and improve efficiency were largely offset by higher deposit insurance assessment fees.

Global Banking and Markets GB&M provides tailored financial solutions to major government, corporate and institutional clients worldwide.

We continue to target U.S. companies with international banking requirements and foreign companies with banking needs in the Americas. Consistent with our global strategy, we are also focused on identifying opportunities to cross-sell our products to CMB and RBWM customers.

The following table summarizes the Group Reporting Basis results for our GB&M segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|--------|--------|---------------------|---------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 156 | \$ 142 | \$ 14 | 9.9 % |
| Other operating income | 188 | 287 | (99) | (34.5) |
| Total operating income ⁽¹⁾ | 344 | 429 | (85) | (19.8) |
| Loan impairment charges | 33 | 5 | 28 | * |
| Net operating income | 311 | 424 | (113) | (26.7) |
| Operating expenses..... | 241 | 247 | (6) | (2.4) |
| Profit before tax | \$ 70 | \$ 177 | \$ (107) | (60.5)% |
| (dollars are in millions) | | | | |
| (dollars are in millions) | | | | |
| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
| | | | Amount | % |
| Net interest income..... | \$ 522 | \$ 392 | \$ 130 | 33.2 % |
| Other operating income | 585 | 772 | (187) | (24.2) |
| Total operating income ⁽¹⁾ | 1,107 | 1,164 | (57) | (4.9) |
| Loan impairment charges | 387 | 17 | 370 | * |
| Net operating income | 720 | 1,147 | (427) | (37.2) |
| Operating expenses..... | 714 | 770 | (56) | (7.3) |
| Profit before tax | \$ 6 | \$ 377 | \$ (371) | (98.4)% |

* Not meaningful.

(1) The following table summarizes the impact of key activities on the total operating income of the GB&M segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|--------|---------|---------------------|---------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Credit ⁽²⁾ | \$ 44 | \$ (32) | \$ 76 | * |
| Rates..... | 19 | 12 | 7 | 58.3 |
| Foreign Exchange and Metals..... | 71 | 50 | 21 | 42.0 |
| Equities | (46) | 53 | (99) | * |
| Total Global Markets | 88 | 83 | 5 | 6.0 |
| Capital Financing | 103 | 166 | (63) | (38.0) |
| Global Liquidity and Cash Management | 106 | 100 | 6 | 6.0 |
| Securities Services | 6 | 3 | 3 | 100.0 |
| Global Trade and Receivables Finance..... | 12 | 13 | (1) | (7.7) |
| Balance Sheet Management ⁽³⁾ | 60 | 58 | 2 | 3.4 |
| Debit Valuation Adjustment..... | (11) | 11 | (22) | * |
| Other ⁽⁴⁾ | (20) | (5) | (15) | * |
| Total operating income | \$ 344 | \$ 429 | \$ (85) | (19.8)% |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|---|----------|----------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Credit ⁽²⁾ | \$ 76 | \$ (13) | \$ 89 | * |
| Rates..... | 87 | 10 | 77 | * |
| Foreign Exchange and Metals..... | 194 | 178 | 16 | 9.0 |
| Equities | (8) | 127 | (135) | * |
| Total Global Markets | 349 | 302 | 47 | 15.6 |
| Capital Financing | 227 | 293 | (66) | (22.5) |
| Global Liquidity and Cash Management | 309 | 291 | 18 | 6.2 |
| Securities Services | 16 | 10 | 6 | 60.0 |
| Global Trade and Receivables Finance..... | 41 | 40 | 1 | 2.5 |
| Balance Sheet Management ⁽³⁾ | 212 | 228 | (16) | (7.0) |
| Debit Valuation Adjustment..... | 1 | 27 | (26) | (96.3) |
| Other ⁽⁴⁾ | (48) | (27) | (21) | (77.8) |
| Total operating income | \$ 1,107 | \$ 1,164 | \$ (57) | (4.9)% |

(2) Credit includes gains of \$22 million and \$20 million in the three and nine months ended September 30, 2016, respectively, compared with losses of \$11 million and \$9 million in the three and nine months ended September 30, 2015, respectively, of operating income related to structured credit products and mortgage loans held for sale which we no longer offer.

(3) Balance Sheet Management includes gains on the sale of securities of \$16 million and \$78 million in the three and nine months ended September 30, 2016, respectively, compared with gains of \$11 million and \$69 million in the three and nine months ended September 30, 2015, respectively.

(4) Other includes corporate funding charges, net interest income on capital held in the business and not assigned to products, and interest rate transfer pricing differences.

Our GB&M segment reported lower profit before tax during the three and nine months ended September 30, 2016 driven by lower other operating income and higher loan impairment charges, partially offset by higher net interest income and lower operating expenses.

Credit revenue improved during the three and nine months ended September 30, 2016 due to higher revenue from collateralized financing related activity and higher valuations of legacy structured credit exposures. Changes in the fair value of legacy structured credit products resulted in gains of \$22 million and \$20 million during the three and nine months ended September 30, 2016, respectively, compared with losses of \$11 million and \$9 million during the prior year periods. Included in the changes in fair value from structured credit products were increases in fair value of \$12 million and \$25 million during the three and nine months ended September 30, 2016, respectively, related to exposures to monoline insurance companies, compared with increases of \$12 million and \$7 million during the prior year periods.

Revenue from Rates improved during the three and nine months ended September 30, 2016 from higher new deal activity in interest rate swaps and, in the year-to-date period, the non-recurrence of a loss recorded in 2015 related to changes in estimates associated with the valuation techniques used to measure the fair value of certain rate linked structured notes. These improvements

in both periods were partially offset by the impact of fair value adjustments on certain rate linked structured notes related to movements in our own credit spreads.

Foreign Exchange and Metals revenue increased during the three and nine months ended September 30, 2016 primarily due to increased Precious Metals client trading activity, especially financing related trading activity.

The decrease in Equities during the three and nine months ended September 30, 2016 was due primarily to fair value adjustments on certain equity linked structured liabilities, including the impact of movements in our own credit spreads and, in the year-to-date period, the non-recurrence of a gain recorded in 2015 related to changes in estimates associated with the valuation techniques used to measure the fair value of these liabilities.

Capital Financing revenue decreased during the three and nine months ended September 30, 2016 due to losses in the current year periods associated with credit default swap protection which largely reflects the hedging of a single client exposure compared with gains in the prior year periods, partially offset by higher net interest income driven by improved loan spreads. While event financing fees were higher and partially offset the decrease in the three month period, they were lower in the year-to-date period.

Global Liquidity and Cash Management revenue increased during the three and nine months ended September 30, 2016 driven by higher net interest income from the benefit of higher deposit balances, partially offset by decreased fee income due to lower volumes.

Balance Sheet Management revenue was relatively flat during the three months ended September 30, 2016. In the year-to-date period, Balance Sheet Management revenue declined due to higher losses related to the performance of economic hedge positions used to manage interest rate risk, partially offset by higher interest income driven by higher yielding investments, higher gains from asset sales and higher income related to bank owned life insurance.

Debit valuation adjustments resulted in lower revenue during the three and nine months ended September 30, 2016 compared with the prior year periods driven by movements of both our own credit spreads and our derivative liability balances.

Loan impairment charges were higher during the three and nine months ended September 30, 2016 due largely to higher loss estimates associated with a single mining customer relationship and, in the year-to-date period, higher loss estimates associated with oil and gas industry loan exposures as well as other downgrades reflecting weaknesses in the financial condition of certain customer relationships, including mining and other industry loan exposures. Higher loss estimates associated with oil and gas industry loan exposures were driven primarily by the downgrade of a large customer relationship and the establishment of specific reserves related to two large loans which became impaired.

Operating expenses were lower during the three and nine months ended September 30, 2016 due primarily to lower corporate function cost allocations from affiliates.

Private Banking PB serves high net worth individuals and families with complex needs domestically and abroad.

Client deposit levels increased \$72 million or 1 percent as compared with September 30, 2015. Total loans decreased \$248 million or 4 percent as compared with September 30, 2015, primarily in the commercial portfolio. Overall period end client assets were \$1,637 million lower than September 30, 2015 as increased client deposits levels were more than offset by lower discretionary and fiduciary portfolios which were negatively impacted by client outflows.

The following table provides additional information regarding client assets during the nine months ended September 30, 2016 and 2015:

| Nine Months Ended September 30, | 2016 | 2015 |
|--|------------------|------------------|
| | (in millions) | |
| Client assets at beginning of period | \$ 42,716 | \$ 44,102 |
| Net new money (outflows) | (2,186) | 917 |
| Value change | 797 | (2,055) |
| Client assets at end of period | <u>\$ 41,327</u> | <u>\$ 42,964</u> |

The following table summarizes the Group Reporting Basis results for our PB segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|-------|-------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 53 | \$ 49 | \$ 4 | 8.2 % |
| Other operating income | 22 | 26 | (4) | (15.4) |
| Total operating income..... | 75 | 75 | — | — |
| Loan impairment charges (recoveries) | 1 | (1) | 2 | * |
| Net operating income | 74 | 76 | (2) | (2.6) |
| Operating expenses..... | 56 | 62 | (6) | (9.7) |
| Profit before tax | \$ 18 | \$ 14 | \$ 4 | 28.6 % |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|--------|--------|---------------------|--------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest income..... | \$ 153 | \$ 148 | \$ 5 | 3.4 % |
| Other operating income | 67 | 77 | (10) | (13.0) |
| Total operating income..... | 220 | 225 | (5) | (2.2) |
| Loan impairment charges (recoveries) | — | (2) | 2 | 100.0 |
| Net operating income | 220 | 227 | (7) | (3.1) |
| Operating expenses..... | 173 | 178 | (5) | (2.8) |
| Profit before tax | \$ 47 | \$ 49 | \$ (2) | (4.1)% |

* Not meaningful.

Our PB segment profit before tax increased during the three months ended September 30, 2016 primarily due to higher net interest income and lower operating expenses, partially offset by lower other operating income. In the year-to-date period, profit before tax was relatively flat as lower other operating income was largely offset by higher net interest income and lower operating expenses.

Net interest income increased during the three and nine months ended September 30, 2016 driven by improved spreads due to market rates and the favorable impact of higher deposit balances.

Other operating income decreased during the three and nine months ended September 30, 2016 due to lower fees and commissions reflecting a decline in managed and investment product balances.

Loan impairment charges (recoveries) were relatively flat during the three and nine months ended September 30, 2016.

Operating expenses decreased during the three and nine months ended September 30, 2016 reflecting lower litigation expense and lower corporate function cost allocations from affiliates.

Other The other segment primarily includes changes in the fair value of certain debt issued for which fair value option accounting was elected and related derivatives, income and expense associated with certain affiliate transactions, certain corporate function costs including costs to achieve, adjustments to the fair value of HSBC shares held for stock plans, interest expense associated with certain tax exposures and income associated with other tax related investments.

The following table summarizes the Group Reporting Basis results for our Other segment:

| Three Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|---------|--------|---------------------|----------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest expense..... | \$ (10) | \$ (5) | \$ (5) | (100.0)% |
| Gain on own fair value option debt attributable to credit spread | 5 | 96 | (91) | (94.8) |
| Other operating income | 4 | 13 | (9) | (69.2) |
| Total operating income..... | (1) | 104 | (105) | * |
| Loan impairment charges | — | — | — | — |
| Net operating income | (1) | 104 | (105) | * |
| Operating expenses..... | 67 | 37 | 30 | 81.1 |
| Profit (loss) before tax | \$ (68) | \$ 67 | \$ (135) | * |

| Nine Months Ended September 30, | 2016 | 2015 | Increase (Decrease) | |
|--|---------|---------|---------------------|---------|
| | | | Amount | % |
| (dollars are in millions) | | | | |
| Net interest expense..... | \$ (20) | \$ (16) | \$ (4) | (25.0)% |
| Gain on own fair value option debt attributable to credit spread | 113 | 214 | (101) | (47.2) |
| Other operating income | 54 | 52 | 2 | 3.8 |
| Total operating income..... | 147 | 250 | (103) | (41.2) |
| Loan impairment charges | — | — | — | — |
| Net operating income | 147 | 250 | (103) | (41.2) |
| Operating expenses..... | 156 | 114 | 42 | 36.8 |
| Profit (loss) before tax | \$ (9) | \$ 136 | \$ (145) | * |

* Not meaningful.

Our Other segment reported loss before tax during the three and nine months ended September 30, 2016 compared with profit before tax during the prior year periods primarily due to lower operating income from changes in the fair value of our own debt and related derivatives for which fair value option accounting was elected as well as higher operating expenses driven by higher costs to achieve charges.

Reconciliation of Segment Results As previously discussed, segment results are reported on a Group Reporting Basis. For segment reporting purposes, inter-segment transactions have not been eliminated, and we generally account for transactions between segments as if they were with third parties. See Note 15, "Business Segments," in the accompanying consolidated financial statements for a reconciliation of our Group Reporting Basis segment results to U.S. GAAP consolidated totals.

Credit Quality

In the normal course of business, we enter into a variety of transactions that involve both on and off-balance sheet credit risk. Principal among these activities is lending to various commercial, institutional, governmental and individual customers. We participate in lending activity throughout the U.S. and, on a limited basis, internationally.

Allowance for Credit Losses Commercial loans are monitored on a continuous basis with a formal assessment completed, at a minimum, annually. As part of this process, a credit grade and loss given default are assigned and an allowance is established for these loans based on a probability of default estimate associated with each credit grade under the allowance for credit losses methodology. Credit Review, a function independent of the business, provides an ongoing assessment of lending activities that includes independently assessing credit grades and loss given default estimates for sampled credits across various portfolios. When it is deemed probable based upon known facts and circumstances that full interest and principal on an individual loan will not be collected in accordance with its contractual terms, the loan is considered impaired. An impairment reserve is then established based on the present value of expected future cash flows, discounted at the loan's original effective interest rate, or as a practical expedient, the loan's observable market price or the fair value of the collateral if the loan is collateral dependent. Updated appraisals for collateral dependent loans are generally obtained only when such loans are considered troubled and the frequency of such updates

are generally based on management judgment under the specific circumstances on a case-by-case basis. In addition, loss reserves on commercial loans are maintained to reflect our judgment of portfolio risk factors which may not be fully reflected in the reserve calculations.

Our probability of default estimates for commercial loans are mapped to our credit grade master scale. These probability of default estimates are validated on an annual basis using back-testing of actual default rates and benchmarking of the internal ratings with external rating agency data like Standard and Poor's ("S&P") ratings and default rates. Substantially all appraisals in connection with commercial real estate loans are ordered by the independent real estate appraisal review unit at HSBC. The appraisal must be reviewed and accepted by this unit. For loans greater than \$250,000, an appraisal is generally ordered when the loan is classified as Substandard as defined by the Office of the Comptroller of the Currency (the "OCC"). On average, it takes approximately four weeks from the time the appraisal is ordered until it is completed and the values accepted by HSBC's independent appraisal review unit. Subsequent provisions or charge-offs are completed shortly thereafter, generally within the quarter in which the appraisal is received.

In situations where an external appraisal is not used to determine the fair value of the underlying collateral of impaired loans, current information such as rent rolls and operating statements of the subject property are reviewed and presented in a standardized format. Operating results such as net operating income and cash flows before and after debt service are established and reported with relevant ratios. Third-party market data is gathered and reviewed for relevance to the subject collateral. Data is also collected from similar properties within the portfolio. Actual sales levels of properties, operating income and expense figures and rental data on a square foot basis are derived from existing loans and, when appropriate, used as comparables for the subject property. Property specific data, augmented by market data research, is used to project a stabilized year of income and expense to create a 10-year cash flow model to be discounted at appropriate rates to present value. These valuations are then used to determine if any impairment on the underlying loans exists and an appropriate allowance is recorded when warranted.

For loans identified as troubled debt restructurings ("TDR loans"), an allowance for credit losses is maintained based on the present value of expected future cash flows discounted at the loans' original effective interest rate or in the case of certain loans which are solely dependent on the collateral for repayment, the estimated fair value of the collateral less costs to sell. The circumstances in which we perform a loan modification involving a TDR Loan at a then current market interest rate for a borrower with similar credit risk would include other changes to the terms of the original loan made as part of the restructuring (e.g. principal reductions, collateral changes, etc.) in order for the loan to be classified as a TDR Loan.

For pools of homogeneous consumer receivables and certain small business loans which do not qualify as TDR Loans, we estimate probable losses using a roll rate migration analysis that estimates the likelihood that a loan will progress through the various stages of delinquency, or buckets, and ultimately charge-off based upon recent historical performance experience of other loans in our portfolio. This migration analysis incorporates estimates of the period of time between a loss occurring and the confirming event of its charge-off. This analysis considers delinquency status, loss experience and severity and takes into account whether borrowers have filed for bankruptcy or have been subject to account management actions, such as the re-age or modification of accounts. We also take into consideration the loss severity expected based on the underlying collateral, if any, for the loan in the event of default based on historical and recent trends which are updated monthly based on a rolling average of several months' data using the most recently available information.

The roll rate methodology is a migration analysis based on contractual delinquency and rolling average historical loss experience which captures the increased likelihood of an account migrating to charge-off as the past due status of such account increases. The roll rate models used were developed by tracking the movement of delinquencies by age of delinquency by "bucket" over a specified time period. Each bucket represents a period of delinquency in 30-day increments. The roll from the last delinquency bucket results in charge-off. Contractual delinquency is a method for determining aging of past due accounts based on the status of payments under the loan. Average roll rates are developed to avoid temporary aberrations caused by seasonal trends in delinquency experienced by some product types. We have determined that a 12-month average roll rate balances the desire to avoid temporary aberrations, while at the same time analyzing recent historical data. The roll rate calculations are performed monthly and are done consistently from period to period. We regularly monitor our portfolio to evaluate the period of time utilized in our roll rate migration analysis and perform a formal review on an annual basis. In addition, loss reserves on consumer receivables are maintained to reflect our judgment of portfolio risk factors which may not be fully reflected in the statistical roll rate calculation.

Our allowance for credit losses methodology and our accounting policies related to the allowance for credit losses are presented in further detail under the caption "Critical Accounting Policies and Estimates" and in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in our 2015 Form 10-K. Our approach toward credit risk management is summarized under the caption "Risk Management" in our 2015 Form 10-K. There have been no significant revisions to our policies or methodologies during the first nine months of 2016.

The following table sets forth the allowance for credit losses for the periods indicated:

| | September 30, 2016 | June 30, 2016 | December 31, 2015 |
|---|---------------------------|------------------|----------------------|
| | (dollars are in millions) | | |
| Allowance for credit losses | \$ 1,060 | \$ 1,063 | \$ 912 |
| Ratio of Allowance for credit losses to: | | | |
| Loans: ⁽¹⁾ | | | |
| Commercial: | | | |
| Non-affiliates..... | 1.81% | 1.75% | 1.35% |
| Affiliates..... | — | — | — |
| Total commercial..... | 1.67 | 1.60 | 1.25 |
| Consumer: | | | |
| Residential mortgages..... | .18 | .28 | .38 |
| Home equity mortgages..... | 1.17 | 1.26 | 1.50 |
| Credit cards..... | 5.09 | 4.94 | 4.58 |
| Other consumer..... | 2.11 | 1.90 | 2.21 |
| Total consumer..... | .45 | .54 | .65 |
| Total..... | 1.37% | 1.33% | 1.10% |
| Net charge-offs: ⁽²⁾ | | | |
| Commercial ⁽³⁾ | 508% | 399% | 1,217% |
| Consumer..... | 107 | 262 | 205 |
| Total..... | 387% | 378% | 707% |
| Nonperforming loans: ⁽¹⁾⁽⁴⁾ | | | |
| Commercial..... | 114% | 102% | 293% |
| Consumer..... | 19 | 21 | 15 |
| Total..... | 80% | 73% | 78% |

⁽¹⁾ Ratios exclude loans held for sale as these loans are carried at the lower of amortized cost or fair value.

⁽²⁾ Ratios at September 30, 2016 and June 30, 2016 reflect year-to-date net charge-offs, annualized. Ratio at December 31, 2015 reflects full year net charge-offs.

⁽³⁾ Our commercial net charge-off coverage ratio for the year-to-date periods ended September 30, 2016, June 30, 2016 and the year ended December 31, 2015 was 61 months, 48 months and 146 months, respectively. The net charge-off coverage ratio represents the commercial allowance for credit losses at period end divided by average monthly commercial net charge-offs during the period.

⁽⁴⁾ Represents our commercial and consumer allowance for credit losses, as appropriate, divided by the corresponding outstanding balance of total nonperforming loans held for investment. Nonperforming loans include accruing loans contractually past due 90 days or more.

See Note 5, "Allowance for Credit Losses," in the accompanying consolidated financial statements for a rollforward of credit losses by general loan categories for the three and nine months ended September 30, 2016 and 2015.

The allowance for credit losses at September 30, 2016 was relatively flat as compared with June 30, 2016 as higher loss estimates in our commercial loan portfolio were offset by lower loss estimates in our consumer loan portfolio. As compared with December 31, 2015, the allowance for credit losses increased \$148 million or 16 percent due to higher loss estimates in our commercial loan portfolio, partially offset by lower loss estimates in our consumer loan portfolio.

Our commercial allowance for credit losses increased \$18 million or 2 percent as compared with June 30, 2016 and increased \$192 million or 25 percent as compared with December 31, 2015 primarily due to higher loss estimates associated with the continued deterioration of a single mining customer relationship and, as compared with December 31, 2016, other downgrades reflecting weaknesses in the financial condition of certain customer relationships, including mining and other industry loan exposures. These increases in both periods were partially offset by charge-offs associated with oil and gas industry loan exposures, including a large impaired oil and gas industry loan that was sold during the second quarter of 2016, as well as lower loss estimates for risk factors associated with expansion market loan exposures.

Our consumer allowance for credit losses decreased \$21 million or 19 percent as compared with June 30, 2016 and decreased \$44 million or 33 percent as compared with December 31, 2015 primarily due to charge-offs associated with the transfers of certain mortgages to held for sale and, as compared with December 31, 2016, continued improvements in economic and credit conditions

and the continued origination of higher quality Premier mortgages which are an increasingly larger portion of the portfolio. The year-to-date period also reflects releases of reserves related to certain residential mortgages serviced by others as a result of updated information regarding the underlying loan characteristics being reported by the servicers and improved loss estimates associated with certain home equity mortgages.

Our residential mortgage loan allowance for credit losses in all periods reflects consideration of certain risk factors relating to trends such as recent portfolio performance as compared with average roll rates and economic uncertainty, including housing market trends as well as second lien exposure.

The allowance for credit losses as a percentage of total loans at September 30, 2016 increased as compared with both June 30, 2016 and December 31, 2015 due to an increase in the commercial loan percentage, partially offset by a decrease in the consumer loan percentage for the reasons discussed above.

The allowance for credit losses as a percentage of net charge-offs was relatively flat as compared with June 30, 2016 as higher dollars of net charge-offs in our consumer loan portfolio driven by the transfer of certain mortgages to held for sale were offset by lower dollars of net charge-offs in our commercial loan portfolio. Lower dollars of net charge-offs in our commercial loan portfolio reflects the non-recurrence of a charge-off recorded during the second quarter of 2016 related to the sale of a large impaired oil and gas industry loan, partially offset by higher charge-offs associated with other oil and gas industry loan exposures. As compared with December 31, 2015, the allowance for credit losses as a percentage of net charge-offs decreased due to higher dollars of net charge-offs in both our commercial and consumer loan portfolios, partially offset by an increase in our overall allowance for credit losses for the reasons discussed above.

The following table presents the allowance for credit losses by major loan categories, excluding loans held for sale:

| | Amount | % of Loans to Total Loans | Amount | % of Loans to Total Loans ⁽¹⁾ | Amount | % of Loans to Total Loans ⁽¹⁾ |
|---------------------------------|--------------------|------------------------------------|---------------|---|-------------------|---|
| | September 30, 2016 | | June 30, 2016 | | December 31, 2015 | |
| (dollars are in millions) | | | | | | |
| Commercial ⁽¹⁾ | \$ 971 | 74.8% | \$ 953 | 74.6% | \$ 779 | 75.3% |
| Consumer: | | | | | | |
| Residential mortgages | 30 | 22.0 | 50 | 22.2 | 68 | 21.5 |
| Home equity mortgages | 17 | 1.9 | 19 | 1.9 | 24 | 1.9 |
| Credit cards | 34 | .8 | 33 | .8 | 32 | .8 |
| Other consumer | 8 | .5 | 8 | .5 | 9 | .5 |
| Total consumer | 89 | 25.2 | 110 | 25.4 | 133 | 24.7 |
| Total | \$ 1,060 | 100.0% | \$ 1,063 | 100.0% | \$ 912 | 100.0% |

⁽¹⁾ See Note 5, "Allowance for Credit Losses," in the accompanying consolidated financial statements for components of the commercial allowance for credit losses.

Reserves for Off-Balance Sheet Credit Risk We also maintain a separate reserve for credit risk associated with certain commercial off-balance sheet exposures, including letters of credit, unused commitments to extend credit and financial guarantees. The following table summarizes this reserve, which is included in other liabilities on the consolidated balance sheet. The related provision is recorded as a component of other expense within operating expenses.

| | September 30, 2016 | June 30, 2016 | December 31, 2015 |
|---|-----------------------|------------------|----------------------|
| (in millions) | | | |
| Off-balance sheet credit risk reserve | \$ 116 | \$ 120 | \$ 99 |

The increase in off-balance sheet reserves at September 30, 2016 as compared with December 31, 2015 reflects the impact of downgrades during the first nine months of 2016. Off-balance sheet exposures are summarized under the caption "Off-Balance Sheet Arrangements, Credit Derivatives and Other Contractual Obligations" in this MD&A.

Delinquency The following table summarizes dollars of two-months-and-over contractual delinquency and two-months-and-over contractual delinquency as a percent of total loans and loans held for sale ("delinquency ratio"):

| | September 30, 2016 | June 30, 2016 | December 31, 2015 |
|---|-----------------------|------------------|----------------------|
| (dollars are in millions) | | | |
| Delinquent loans: | | | |
| Commercial | \$ 124 | \$ 42 | \$ 91 |
| Consumer: | | | |
| Residential mortgages ⁽¹⁾⁽²⁾ | 774 | 801 | 858 |
| Home equity mortgages ⁽¹⁾⁽²⁾ | 47 | 49 | 56 |
| Credit cards | 13 | 12 | 13 |
| Other consumer | 10 | 9 | 11 |
| Total consumer | <u>844</u> | <u>871</u> | <u>938</u> |
| Total | <u>\$ 968</u> | <u>\$ 913</u> | <u>\$ 1,029</u> |
| Delinquency ratio: | | | |
| Commercial | .21% | .07% | .14% |
| Consumer: | | | |
| Residential mortgages ⁽¹⁾⁽²⁾ | 4.28 | 4.44 | 4.83 |
| Home equity mortgages ⁽¹⁾⁽²⁾ | 3.22 | 3.24 | 3.50 |
| Credit cards | 1.95 | 1.80 | 1.86 |
| Other consumer | 2.20 | 1.81 | 2.26 |
| Total consumer | <u>4.09</u> | <u>4.20</u> | <u>4.56</u> |
| Total | <u>1.22%</u> | <u>1.12%</u> | <u>1.21%</u> |

⁽¹⁾ At September 30, 2016, June 30, 2016 and December 31, 2015, consumer mortgage loan delinquency includes \$699 million, \$735 million and \$793 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less costs to sell, including \$391 million, \$361 million and \$3 million, respectively, relating to loans held for sale.

⁽²⁾ The following table reflects dollars of contractual delinquency and delinquency ratios for interest-only loans and adjustable rate mortgage loans:

| | September 30, 2016 | June 30, 2016 | December 31, 2015 |
|-------------------------------------|-----------------------|------------------|----------------------|
| (dollars are in millions) | | | |
| Dollars of delinquent loans: | | | |
| Interest-only loans | \$ 54 | \$ 58 | \$ 63 |
| ARM loans | 246 | 241 | 253 |
| Delinquency ratio: | | | |
| Interest-only loans | 1.49% | 1.58% | 1.73% |
| ARM loans | 2.00 | 1.96 | 2.08 |

Compared with June 30, 2016 and December 31, 2015, our two-months-and-over contractual delinquency ratio increased 10 basis points and 1 basis point, respectively, as higher dollars of delinquency in our commercial loan portfolio was partially offset compared with June 30, 2016, and largely offset compared with December 31, 2015, by lower dollars of delinquency in our consumer loan portfolio and lower outstanding loan balances primarily in our commercial loan portfolio.

Compared with June 30, 2016 and December 31, 2015, our commercial two-months-and-over contractual delinquency ratio increased 14 basis points and 7 basis points, respectively, largely due to a single mining industry exposure which became greater than 60 days delinquent during the third quarter and lower outstanding loan balances, partially offset by the sale of an impaired real estate exposure and, in the year-to-date period, the charge-off of certain business and corporate banking loans and improved collections.

Our consumer loan two-month-and-over contractual delinquency ratio decreased 11 basis points and 47 basis points from June 30, 2016 and December 31, 2015, respectively, due to lower levels of residential mortgage loan delinquency driven by continued improvements in economic and credit conditions and the continued origination of higher quality Premier mortgages which are an increasingly larger portion of the portfolio. Home equity mortgage loan delinquency was also lower due to improved collections. Residential mortgage loan delinquency levels however continue to be impacted by an elongated foreclosure process which has

resulted in loans which would otherwise have been foreclosed and transferred to Real Estate Owned remaining in the loan account and, consequently, in delinquency.

Residential mortgage delinquency is higher than home equity mortgage delinquency in all periods largely due to the inventory of loans which are held at the lower of amortized cost or fair value of the collateral less cost to sell and are in the foreclosure process. Given the extended foreclosure time lines, particularly in those states where HUSI has a large footprint, the residential mortgage portfolio has a substantial inventory of loans which are greater than 180 days past due and have been written down to the fair value of the collateral less cost to sell. There is a substantially lower volume of home equity mortgage loans where we pursue foreclosure less frequently given the generally subordinate position of the lien. In addition, our legacy business, originated through broker channels and loan transfers from HSBC Finance, is of a lower credit quality and, therefore, contributes to an overall higher weighted average delinquency rate for our residential mortgages. Both of these factors are expected to continue to diminish in future periods as the foreclosure backlog resulting from extended foreclosure time lines is managed down and the portfolio mix continues to shift to higher quality loans as the legacy broker originated business and prior loan transfers run off or sell.

Net Charge-offs of Loans The following table summarizes net charge-off (recovery) dollars as well as the net charge-off (recovery) of loans for the quarter, annualized, as a percentage of average loans, excluding loans held for sale, ("net charge-off ratio"):

| | September 30, 2016 | June 30, 2016 | September 30, 2015 |
|---|-----------------------|------------------|-----------------------|
| (dollars are in millions) | | | |
| Net Charge-off Dollars: | | | |
| Commercial: | | | |
| Construction and other real estate..... | \$ (6) | \$ — | \$ (1) |
| Business and corporate banking..... | 23 | 8 | 9 |
| Global banking..... | 7 | 78 | — |
| Other commercial..... | — | — | — |
| Total commercial | <u>24</u> | <u>86</u> | <u>8</u> |
| Consumer: | | | |
| Residential mortgages..... | 31 | (2) | 1 |
| Home equity mortgages..... | 3 | — | — |
| Credit cards..... | 6 | 7 | 7 |
| Other consumer..... | 1 | 3 | 1 |
| Total consumer..... | <u>41</u> | <u>8</u> | <u>9</u> |
| Total..... | <u>\$ 65</u> | <u>\$ 94</u> | <u>\$ 17</u> |
| Net Charge-off Ratio: | | | |
| Commercial: | | | |
| Construction and other real estate..... | (.22)% | —% | (.03)% |
| Business and corporate banking..... | .50 | .17 | .18 |
| Global banking..... | .10 | 1.12 | — |
| Other commercial..... | — | — | — |
| Total commercial | <u>.16</u> | <u>.57</u> | <u>.05</u> |
| Consumer: | | | |
| Residential mortgages..... | .70 | (.05) | .02 |
| Home equity mortgages..... | .81 | — | — |
| Credit cards..... | 3.59 | 4.23 | 4.11 |
| Other consumer..... | 1.11 | 2.87 | .73 |
| Total consumer..... | <u>.81</u> | <u>.16</u> | <u>.18</u> |
| Total..... | <u>.33 %</u> | <u>.47%</u> | <u>.08 %</u> |

Our net charge-off ratio as a percentage of average loans for the quarter ended September 30, 2016 decreased 14 basis points compared with the quarter ended June 30, 2016 due primarily to lower levels of net charge-offs in our commercial loan portfolio driven by the non-recurrence of a charge-off recorded during the second quarter of 2016 related to the sale of a large impaired oil and gas industry loan which was partially offset by higher charge-offs associated with other oil and gas industry loan exposures and higher levels of net charge-offs in our consumer loan portfolio driven by the transfer of certain mortgages to held for sale.

Compared with the quarter ended September 30, 2015, our net charge-off ratio as a percentage of average loans increased 25 basis points reflecting higher dollars of net charge-offs in our consumer loan portfolio driven by the transfer of certain mortgages to held for sale and in our commercial loan portfolio due to higher charge-offs associated with oil and gas industry loan exposures.

Nonperforming Assets Nonperforming assets consisted of the following:

| | September 30, 2016 | June 30, 2016 | December 31, 2015 |
|--|-----------------------|------------------|----------------------|
| | (in millions) | | |
| Nonaccrual loans: | | | |
| Commercial: | | | |
| Construction and other real estate | \$ 24 | \$ 47 | \$ 53 |
| Business and corporate banking | 202 | 238 | 167 |
| Global banking | 621 | 643 | 44 |
| Other commercial | 1 | 1 | 1 |
| Commercial nonaccrual loans held for sale | — | 57 | 26 |
| Total commercial..... | <u>848</u> | <u>986</u> | <u>291</u> |
| Consumer: | | | |
| Residential mortgages ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ | 389 | 437 | 814 |
| Home equity mortgages ⁽¹⁾⁽²⁾ | 73 | 73 | 71 |
| Consumer nonaccrual loans held for sale ⁽⁴⁾ | 416 | 376 | 3 |
| Total consumer | <u>878</u> | <u>886</u> | <u>888</u> |
| Total nonaccruing loans | <u>1,726</u> | <u>1,872</u> | <u>1,179</u> |
| Accruing loans contractually past due 90 days or more: | | | |
| Commercial: | | | |
| Business and corporate banking | 1 | 1 | 1 |
| Total commercial..... | <u>1</u> | <u>1</u> | <u>1</u> |
| Consumer: | | | |
| Credit cards | 9 | 9 | 9 |
| Other consumer..... | 7 | 7 | 7 |
| Total consumer | <u>16</u> | <u>16</u> | <u>16</u> |
| Total accruing loans contractually past due 90 days or more | <u>17</u> | <u>17</u> | <u>17</u> |
| Total nonperforming loans | <u>1,743</u> | <u>1,889</u> | <u>1,196</u> |
| Other real estate owned ⁽⁵⁾ | 34 | 31 | 29 |
| Total nonperforming assets | <u>\$ 1,777</u> | <u>\$ 1,920</u> | <u>\$ 1,225</u> |

⁽¹⁾ At September 30, 2016, June 30, 2016 and December 31, 2015, nonaccrual consumer mortgage loans held for investment include \$318 million, \$428 million and \$768 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell.

⁽²⁾ Nonaccrual consumer mortgage loans held for investment include all receivables which are 90 or more days contractually delinquent as well as loans discharged under Chapter 7 bankruptcy and not re-affirmed and second lien loans where the first lien loan that we own or service is 90 or more days contractually delinquent.

⁽³⁾ Nonaccrual consumer mortgage loans for all periods does not include guaranteed loans purchased from the Government National Mortgage Association. Repayment of these loans are predominantly insured by the Federal Housing Administration and as such, these loans have different risk characteristics from the rest of our customer loan portfolio.

⁽⁴⁾ The trend in nonaccrual loans reflects the impact of transfers of certain residential mortgage loans to held for sale during the three and nine months ended September 30, 2016.

⁽⁵⁾ Includes less than \$1 million of commercial other real estate owned at September 30, 2016, June 30, 2016 and December 31, 2015.

Nonaccrual loans at September 30, 2016 decreased as compared with June 30, 2016 driven by lower levels of commercial nonaccrual loans largely due to the upgrade of a single oil and gas industry relationship, the sale of an impaired real estate exposure, the paydown of a business banking loan and the impact of charge-offs of certain oil and gas industry loan exposures. These decreases were partially offset by downgrades reflecting weaknesses in the financial condition of certain customer relationships. As compared with December 31, 2015, nonaccrual loans increased due to higher levels of commercial nonaccrual loans due to the downgrade of a single mining customer relationship as well as other downgrades reflecting weaknesses in the financial condition of certain customer relationships, predominantly oil and gas, and mining industry related. Our consumer nonaccrual loans decreased slightly compared with both June 30, 2016 and December 31, 2015 reflecting the impact of continued improvements in economic and credit conditions. Residential mortgage nonaccrual loan levels continue to be impacted by an elongated foreclosure process as previously discussed. Accruing loans past due 90 days or more remained flat compared with both June 30, 2016 and December 31, 2015.

Our policies and practices for problem loan management and placing loans on nonaccrual status are summarized in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in our 2015 Form 10-K.

Impaired Commercial Loans See Note 4, "Loans," in the accompanying consolidated financial statements for information regarding impaired loans, including TDR Loans, as well as certain other commercial credit quality indicators. Commercial impaired loans increased as compared with December 31, 2015 largely due to higher nonaccrual loans for the reasons discussed above and, to a lesser extent, higher TDR Loans reflecting the restructuring of certain customer relationships.

Concentration of Credit Risk A concentration of credit risk is defined as a significant credit exposure with an individual or group engaged in similar activities or affected similarly by economic conditions. We enter into a variety of transactions in the normal course of business that involve both on and off-balance sheet credit risk. Principal among these activities is lending to various commercial, institutional, governmental and individual customers. We participate in lending activity throughout the United States and internationally. In general, we manage the varying degrees of credit risk associated with on and off-balance sheet transactions through specific credit policies. These policies and procedures provide for a strict approval, monitoring and reporting process. It is our policy to require collateral when it is deemed appropriate. Varying degrees and types of collateral are secured depending upon management's credit evaluation. As with any nonconforming and non-prime loan products, we utilize high underwriting standards and price these loans in a manner that is appropriate to compensate for higher risk. We do not offer teaser rate mortgage loans.

Our loan portfolio includes the following types of loans:

- Interest-only loans – A loan which allows a customer to pay the interest-only portion of the monthly payment for a period of time which results in lower payments during the initial loan period.
- Adjustable rate mortgage ("ARM") loans – A loan which allows us to adjust pricing on the loan in line with market movements.

The following table summarizes the balances of interest-only and ARM loans in our loan portfolios, including certain loans held for sale, at September 30, 2016 and December 31, 2015. Each category is not mutually exclusive and loans may appear in more than one category below.

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| | (in millions) | |
| Interest-only residential mortgage loans | \$ 3,623 | \$ 3,645 |
| ARM loans ⁽¹⁾ | 12,299 | 12,180 |

⁽¹⁾ During the remainder of 2016 and during 2017, approximately \$138 million and \$817 million, respectively, of the ARM loans will experience their first interest rate reset.

The following table summarizes the concentrations of first and second liens within the outstanding residential mortgage and home equity mortgage portfolios. Amounts in the table exclude residential mortgage loans held for sale of \$971 million and \$11 million at September 30, 2016 and December 31, 2015, respectively, and home equity mortgage loans held for sale of \$4 million at September 30, 2016.

| | September 30, 2016 | December 31, 2015 |
|--------------------------------|-----------------------|----------------------|
| | (in millions) | |
| Closed end: | | |
| First lien..... | \$ 17,091 | \$ 17,758 |
| Second lien | 75 | 89 |
| Revolving ⁽¹⁾ | 1,379 | 1,511 |
| Total..... | <u>\$ 18,545</u> | <u>\$ 19,358</u> |

⁽¹⁾ A majority of revolving are second lien mortgages.

Geographic Concentrations The following table reflects regional exposure at September 30, 2016 and December 31, 2015 for our real estate secured loan portfolios:

| | Commercial Construction and Other Real Estate Loans | Residential Mortgages and Home Equity Mortgages |
|--|--|--|
| September 30, 2016: | | |
| New York State | 30.2% | 32.2% |
| California | 21.4 | 38.6 |
| North Central United States | 3.2 | 3.7 |
| North Eastern United States, excluding New York State..... | 7.7 | 8.8 |
| Southern United States | 27.2 | 12.2 |
| Western United States, excluding California | 6.2 | 4.5 |
| Mexico | 4.1 | — |
| Total..... | 100.0% | 100.0% |
| December 31, 2015: | | |
| New York State | 27.6 % | 32.8 % |
| California | 20.0 | 36.9 |
| North Central United States | 3.1 | 4.2 |
| North Eastern United States, excluding New York State..... | 8.9 | 8.9 |
| Southern United States | 25.8 | 12.8 |
| Western United States, excluding California | 5.7 | 4.4 |
| Mexico | 8.9 | — |
| Total..... | 100.0 % | 100.0 % |

Credit Risks Associated with Derivative Contracts Credit risk associated with derivatives is measured as the net replacement cost of derivative contracts in a receivable position in the event the counterparties of such contracts fail to perform under the terms of those contracts. In managing derivative credit risk, both the current exposure, which is the replacement cost of contracts on the measurement date, as well as an estimate of the potential change in value of contracts over their remaining lives are considered. Counterparties to our derivative activities include financial institutions, central clearing parties, foreign and domestic government agencies, corporations, funds (mutual funds, hedge funds, etc.), insurance companies and private clients as well as other HSBC entities. These counterparties are subject to regular credit review by the credit risk management department. To minimize credit risk, we enter into legally enforceable master netting agreements which reduce risk by permitting the closeout and netting of transactions with the same counterparty upon occurrence of certain events. In addition, we reduce credit risk by obtaining collateral from counterparties. The determination of the need for and the levels of collateral will differ based on an assessment of the credit risk of the counterparty.

The total risk in a derivative contract is a function of a number of variables, such as:

- volatility of interest rates, currencies, equity or corporate reference entity used as the basis for determining contract payments;
- current market events or trends;
- country risk;
- maturity and liquidity of contracts;
- credit worthiness of the counterparties in the transaction;
- the existence of a master netting agreement among the counterparties; and
- existence and value of collateral received from counterparties to secure exposures.

The table below presents total credit risk exposure calculated using the Basel III Standardized Approach regulatory capital rules published by U.S. banking regulatory agencies which includes the net positive mark-to-market of the derivative contracts plus any adjusted potential future exposure as measured in reference to the notional amount. The regulatory capital rules recognize that bilateral netting agreements reduce credit risk and, therefore, allow for reductions of risk weighted assets when netting requirements have been met. As a result, risk weighted amounts for regulatory capital purposes are a portion of the original gross exposures.

The total credit risk exposure presented in the table below potentially overstates actual credit exposure because it ignores collateral that may have been received from counterparties to secure exposures; and the regulatory capital rules compute exposures over the life of derivative contracts. However, many contracts contain provisions that allow us to close out the transaction if the counterparty fails to post required collateral. In addition, many contracts give us the right to break the transactions earlier than the final maturity date. As a result, these contracts have potential future exposures that are often much smaller than the future exposures derived from the regulatory capital rules.

| | September 30, 2016 | December 31, 2015 |
|---|-----------------------|----------------------|
| | (in millions) | |
| Risk associated with derivative contracts: | | |
| Total credit risk exposure..... | \$ 30,661 | \$ 33,890 |
| Less: collateral held against exposure..... | 6,797 | 6,564 |
| Net credit risk exposure | <u>\$ 23,864</u> | <u>\$ 27,326</u> |

Liquidity and Capital Resources

Effective liquidity management is defined as ensuring we can meet customer loan requests, customer deposit maturities/withdrawals and other cash commitments efficiently under both normal operating conditions and under unpredictable circumstances of industry or market stress. To achieve this objective, we have guidelines that require sufficient liquidity to cover potential funding requirements and to avoid over-dependence on volatile, less reliable funding markets. Guidelines are set for the consolidated balance sheet of HSBC USA to ensure that it is a source of strength for our regulated, deposit-taking banking subsidiary, as well as to address the more limited sources of liquidity available to it as a holding company. Similar guidelines are set for HSBC Bank USA to ensure that it can meet its liquidity needs in various stress scenarios. Cash flow analysis, including stress testing scenarios, forms the basis for liquidity management and contingency funding plans.

During the nine months ended September 30, 2016, marketplace liquidity continued to remain available for most sources of funding. The prolonged period of low interest rates continues to put pressure on spreads earned on our deposit base.

In December 2015, HSBC submitted its full resolution plan to the FRB and the FDIC as required under the Dodd-Frank Act (the Systemically Important Financial Institution Plan or "SIFI Plan") and HSBC Bank USA submitted its full resolution plan as required under the Federal Deposit Insurance Act (the Insured Depository Institution Plan or "IDI Plan"). As of the date of this report, HSBC had not received formal feedback on the 2015 plans from the agencies. During the third quarter of 2016, the next annual submission date for both the HSBC SIFI Plan and the HSBC Bank USA IDI Plan were extended to December 31, 2017.

As previously reported, as a result of the adoption of the final rules by the U.S. banking regulators implementing the Basel III regulatory capital and liquidity reforms from the Basel Committee on Banking Supervision ("Basel Committee"), together with the impact of similar implementation by United Kingdom banking regulators, we continue to review the composition of our capital structure. As discussed below, during the second quarter of 2016, we replaced certain preferred equity instruments that receive less favorable treatment under the rules with new Basel III compliant instruments.

Interest Bearing Deposits with Banks totaled \$17,139 million and \$7,478 million at September 30, 2016 and December 31, 2015, respectively, of which \$16,514 million and \$6,708 million, respectively, were held with the Federal Reserve Bank. Balances may fluctuate from period to period depending upon our liquidity position at the time and our strategy for deploying liquidity. Surplus interest bearing deposits with the Federal Reserve Bank may be deployed into securities purchased under agreements to resell depending on market conditions and the opportunity to maximize returns.

Federal Funds Sold and Securities Purchased under Agreements to Resell totaled \$30,714 million and \$19,847 million at September 30, 2016 and December 31, 2015, respectively. Balances may fluctuate from period to period depending upon our liquidity position at the time and our strategy for deploying liquidity.

Trading Assets includes securities totaling \$13,243 million and \$11,155 million at September 30, 2016 and December 31, 2015, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on trends.

Securities includes securities available-for-sale and securities held-to-maturity totaling \$54,231 million and \$49,797 million at September 30, 2016 and December 31, 2015, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on trends.

Short-Term Borrowings totaled \$6,062 million and \$4,995 million at September 30, 2016 and December 31, 2015, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on short-term borrowing trends.

Deposits totaled \$131,082 million and \$118,579 million at September 30, 2016 and December 31, 2015, respectively, which included \$101,452 million and \$90,463 million, respectively, of core deposits as calculated in accordance with FFIEC guidelines. See "Balance Sheet Review" in this MD&A for further analysis and discussion on deposit trends.

Long-Term Debt increased to \$39,500 million at September 30, 2016 from \$33,509 million at December 31, 2015. The following table presents the maturities of long-term debt at September 30, 2016:

| | (in millions) |
|-----------------|------------------|
| 2016 | \$ 1,338 |
| 2017 | 5,814 |
| 2018 | 9,227 |
| 2019 | 4,406 |
| 2020 | 6,517 |
| Thereafter..... | 12,198 |
| Total..... | <u>\$ 39,500</u> |

The following table summarizes issuances and retirements of long-term debt during the nine months ended September 30, 2016 and 2015:

| Nine Months Ended September 30, | 2016 | 2015 |
|---------------------------------|-----------------|-----------------|
| | (in millions) | |
| Long-term debt issued..... | \$ 7,675 | \$ 15,798 |
| Long-term debt repaid..... | (2,122) | (9,383) |
| Net long-term debt issued | <u>\$ 5,553</u> | <u>\$ 6,415</u> |

See "Balance Sheet Review" in this MD&A for further analysis and discussion on long-term debt trends, including additional information on debt issued and repaid during the nine months ended September 30, 2016.

Under our shelf registration statement on file with the SEC, we may issue certain securities including debt securities and preferred stock. The shelf has no dollar limit, but the amount of debt outstanding is limited by the authority granted by the Board of Directors. At September 30, 2016, we were authorized to issue up to \$36,000 million, of which \$14,033 million was available. HSBC Bank USA has a \$40,000 million Global Bank Note Program of which \$15,736 million was available at September 30, 2016.

As a member of the FHLB and the Federal Reserve Bank of New York, we have secured borrowing facilities which are collateralized by loans and investment securities. At September 30, 2016, long-term debt included \$6,700 million of borrowings from the FHLB facility. Based upon the amounts pledged as collateral under these facilities, we were allowed access to further overnight borrowings of up to \$8,922 million.

Preferred Equity During the second quarter of 2016, HSBC USA redeemed all of its remaining externally issued preferred stock, including its Floating Rate Non-Cumulative Series F Preferred Stock, Floating Rate Non-Cumulative Series G Preferred Stock and 6.50 percent Non-Cumulative Series H Preferred Stock, totaling \$1,265 million. In connection with these redemptions, HSBC USA issued \$1,265 million of 6.0 percent Non-Cumulative Series I Preferred Stock to HSBC North America. See Note 16, "Retained Earnings and Regulatory Capital Requirements," for additional details.

Common Equity During the nine months ended September 30, 2016, we did not receive any cash capital contributions from HSBC North America Inc. and we did not make any capital contributions to our subsidiary, HSBC Bank USA.

Selected Capital Ratios Capital amounts and ratios are calculated in accordance with banking regulations in effect at September 30, 2016 and December 31, 2015. In managing capital, we develop targets for common equity Tier 1 capital to risk weighted assets, Tier 1 capital to risk weighted assets, total capital to risk weighted assets and Tier 1 capital to average consolidated assets (this latter ratio, also known as the "Tier 1 leverage ratio"). Capital targets are reviewed at least semi-annually to ensure they reflect our business mix and risk profile, as well as real-time conditions and circumstances. The following table summarizes selected capital ratios for HSBC USA:

| | September 30, 2016 | December 31, 2015 |
|---|-----------------------|----------------------|
| Common equity Tier 1 capital to risk weighted assets..... | 13.5% | 12.0% |
| Tier 1 capital to risk weighted assets | 14.3 | 12.6 |
| Total capital to risk weighted assets..... | 18.0 | 16.5 |
| Tier 1 capital to average consolidated assets (Tier 1 leverage ratio) | 9.1 | 9.5 |
| Total equity to total assets..... | 10.1 | 10.9 |

HSBC USA manages capital in accordance with HSBC Group policy. The HSBC North America Internal Capital Adequacy Assessment Process ("ICAAP") works in conjunction with the HSBC Group's ICAAP. The HSBC North America ICAAP applies to HSBC Bank USA and evaluates regulatory capital adequacy, economic capital adequacy and capital adequacy under various stress scenarios. Our initial approach is to meet our capital needs for these stress scenarios locally through activities which reduce risk. To the extent that local alternatives are insufficient or unavailable, we will rely on capital support from our parent in accordance with HSBC's capital management policy. HSBC has indicated that they are fully committed and have the capacity to provide capital as needed to run operations and maintain sufficient regulatory capital ratios.

Regulatory capital requirements are based on the amount of capital required to be held, as defined by regulations, and the amount of risk weighted assets, also calculated based on regulatory definitions. Economic Capital is a proprietary measure to estimate unexpected loss at the 99.95 percent confidence level over a 1-year time horizon. Economic Capital is compared to a calculation of available capital resources to assess capital adequacy as part of the ICAAP.

In 2013, U.S. banking regulators issued a final rule implementing the Basel III capital framework in the United States which, for banking organizations such as HSBC North America and HSBC Bank USA, became effective in 2014 with certain provisions being phased in over time through the beginning of 2019. The Basel III final rule established an integrated regulatory capital framework to improve the quality and quantity of regulatory capital. As a result, the capital ratios in the table above are reported in accordance with the Basel III transition rules within the final rule. The Basel III final rule also introduced a supplementary leverage ratio ("SLR") with full implementation and compliance required by January 1, 2018. For additional discussion of the Basel III final rule requirements, including fully phased in required minimum risk-based capital ratios and the SLR, see Part I, "Regulation and Competition - Regulatory Capital and Liquidity Requirements," in our 2015 Form 10-K.

In 2014, the FRB adopted a final rule requiring enhanced supervision of the U.S. operations of non-U.S. banks such as HSBC. The rule requires certain large non-U.S. banks with significant operations in the United States, such as HSBC, to establish a single IHC to hold all of their U.S. bank and non-bank subsidiaries. The HSBC Group currently operates in the United States through such an IHC structure (i.e., HSBC North America), and therefore, the implementation of this requirement did not have a significant impact on our U.S. operations. As previously disclosed, in accordance with the final rule HSBC North America and HSBC Bank USA received regulatory approval in 2015 to opt out of the "Advanced Approaches" (which include an advanced internal ratings based approach for credit risk and an advanced measurement approach for operational risk) and are calculating their risk-based and leverage capital requirements solely under the general risk-based capital rules of the Standardized Approach. In March 2016, HSBC Bank USA submitted a request to the OCC to renew the opt out. HSBC North America and HSBC Bank USA, however, remain subject to the other capital requirements applicable to Advanced Approaches banking organizations such as: the SLR, the countercyclical capital buffer, stress testing requirements, enhanced risk management standards, enhanced governance and stress testing requirements for liquidity management, and other applicable prudential standards. Under the final rule, most of these requirements became effective July 1, 2016.

In November 2015, the Financial Stability Board issued its final standards for TLAC requirements for G-SIBs. In October 2015, the FRB issued its proposal to impose TLAC requirements on U.S. G-SIBs and the U.S. IHCs owned by non-U.S. G-SIBs ("TLAC Proposal"). The TLAC Proposal represents an extension of the current regulatory capital framework, which is aimed at ensuring that a banking organization can absorb losses without falling into resolution. The TLAC Proposal would require the U.S. IHCs of G-SIBs ("Covered IHCs"), including HSBC North America, to maintain minimum amounts of internal TLAC, which would include minimum levels of TLAC and long-term debt satisfying certain eligibility criteria, and a related TLAC buffer commencing January 1, 2019. Additionally, the TLAC Proposal would include "clean holding company" requirements that impose stringent limitations on the ability of Covered IHCs to incur common types of non-TLAC-related liabilities. The FRB requested comments on all aspects of the proposal by February 19, 2016. We provided a comment letter to the FRB in February and a supplementary letter in June.

Capital Planning and Stress Testing U.S. bank holding companies with \$50 billion or more in total consolidated assets, including HSBC North America, are required to comply with the FRB's capital plan rule and Comprehensive Capital Analysis and Review ("CCAR") program, as well as the annual supervisory stress tests conducted by the FRB, and the semi-annual company-run stress tests as required under DFAST. Under the rules, the FRB evaluates bank holding companies annually on their capital adequacy, internal capital adequacy assessment process and plans for capital distributions, and will provide a non-objection in relation to capital distributions only for companies that can demonstrate sufficient capital strength after making the capital distributions. HSBC North America participates in the CCAR and DFAST programs of the FRB and submitted its latest CCAR capital plan and annual company-run DFAST results in April 2016. HSBC Bank USA is subject to the OCC's DFAST requirements, which require certain banks to conduct annual company-run stress tests, and submitted its latest annual DFAST results in April 2016, and its latest semi-annual DFAST results in October 2016. The company-run stress tests are forward looking exercises to assess the impact of hypothetical macroeconomic baseline, adverse and severely adverse scenarios provided by the FRB and the OCC for the annual exercise, and internally developed scenarios for both the annual and mid-cycle exercises, on the financial condition and capital adequacy of a bank-holding company or bank over a nine quarter planning horizon.

HSBC North America and HSBC Bank USA are required to disclose the results of their annual DFAST under the FRB and OCC's severely adverse stress scenario and HSBC North America is required to disclose the results of its mid-cycle DFAST under its

internally developed severely adverse stress scenario. In July 2016, HSBC North America and HSBC Bank USA publicly disclosed their most recent annual DFAST results and the FRB also publicly disclosed its own DFAST and CCAR results. In October 2016, HSBC North America publicly disclosed the results of its mid-cycle DFAST results.

In June 2016, the FRB informed HSBC North America, our indirect parent company, that it did not object to HSBC North America's capital plan or the planned capital distributions included in its 2016 CCAR submission. Stress testing results are based solely on hypothetical adverse scenarios and should not be viewed or interpreted as forecasts of expected outcomes or capital adequacy or of the actual financial condition of HSBC North America. Capital planning and stress testing for HSBC North America may impact our future capital and liquidity.

HSBC USA and HSBC Bank USA are required to meet minimum capital requirements by our principal regulators. Risk-based capital amounts and ratios are presented in Note 16, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statements.

2016 Funding Strategy Our current estimate for funding needs and sources for 2016 are summarized in the following table:

| | Actual January 1 through September 30, 2016 | Estimated October 1 through December 31, 2016 | Estimated Full Year 2016 |
|---|---|---|--------------------------------|
| | (in billions) | | |
| Funding needs: | | | |
| Net loan growth..... | \$ (6) | \$ — | \$ (6) |
| Net change in short term investments and securities | 25 | (5) | 20 |
| Trading and other assets..... | 1 | 1 | 2 |
| Total funding needs | <u>\$ 20</u> | <u>\$ (4)</u> | <u>\$ 16</u> |
| Funding sources: | | | |
| Net change in deposits | \$ 13 | \$ (4) | \$ 9 |
| Trading and other short term liabilities..... | 1 | — | 1 |
| Net change in long-term debt..... | 6 | — | 6 |
| Total funding sources | <u>\$ 20</u> | <u>\$ (4)</u> | <u>\$ 16</u> |

The above table reflects a long-term funding strategy. Daily balances fluctuate as we accommodate customer needs, while ensuring that we have liquidity in place to support the balance sheet maturity funding profile. Should market conditions deteriorate, we have contingency plans to generate additional liquidity through the sales of assets or financing transactions. Our prospects for growth continue to be dependent upon our ability to attract and retain deposits and, to a lesser extent, access to the global capital markets. We remain confident in our ability to access the market for long-term debt funding needs in the current market environment. We continue to seek well-priced and stable customer deposits. We will continue to sell a portion of new mortgage loan originations to PHH Mortgage.

HSBC Finance relies on its affiliates, including HSBC USA, to satisfy its funding needs which are not met by cash generated from its loan sales and operations.

HSBC Bank USA is subject to significant restrictions imposed by federal law on extensions of credit to, and certain other "covered transactions" with HSBC USA and other affiliates. Covered transactions include loans and other extensions of credit, investments and asset purchases, and certain other transactions involving the transfer of value from a subsidiary bank to an affiliate or for the benefit of an affiliate. A bank's credit exposure to an affiliate as a result of a derivative, securities lending/borrowing or repurchase transaction is also subject to these restrictions. A bank's transactions with its non-bank affiliates are also required to be on arm's length terms. Certain Edge Act subsidiaries of HSBC Bank USA are limited in the amount of funds they can provide to other affiliates including their parent. Amounts above their level of invested capital have to be secured with U.S. government securities.

For further discussion relating to our sources of liquidity and contingency funding plan, see the caption "Risk Management" in this MD&A.

Off-Balance Sheet Arrangements, Credit Derivatives and Other Contractual Obligations

As part of our normal operations, we enter into credit derivatives and various off-balance sheet arrangements with affiliates and third parties. These arrangements arise principally in connection with our lending and client intermediation activities and involve primarily extensions of credit and, in certain cases, guarantees.

As a financial services provider, we routinely extend credit through loan commitments and lines and letters of credit and provide financial guarantees, including derivative transactions having characteristics of a guarantee. The contractual amounts of these financial instruments represent our maximum possible credit exposure in the event that a counterparty draws down the full commitment amount or we are required to fulfill our maximum obligation under a guarantee.

The following table provides maturity information related to our credit derivatives and off-balance sheet arrangements. Many of these commitments and guarantees expire unused or without default. As a result, we believe that the contractual amount is not representative of the actual future credit exposure or funding requirements.

| | Balance at September 30, 2016 | | | | Balance at December 31, 2015 |
|---|-------------------------------|-----------------------------|-----------------|-------------------|------------------------------|
| | One Year or Less | Over One through Five Years | Over Five Years | Total | |
| | (in millions) | | | | |
| Standby letters of credit, net of participations ⁽¹⁾ | \$ 6,481 | \$ 1,912 | \$ 33 | \$ 8,426 | \$ 8,850 |
| Commercial letters of credit | 263 | — | — | 263 | 413 |
| Credit derivatives ⁽²⁾ | 25,080 | 40,511 | 2,657 | 68,248 | 91,435 |
| Other commitments to extend credit: | | | | | |
| Commercial ⁽³⁾ | 16,528 | 55,721 | 2,638 | 74,887 | 85,551 |
| Consumer | 7,390 | — | — | 7,390 | 7,625 |
| Total | \$ 55,742 | \$ 98,144 | \$ 5,328 | \$ 159,214 | \$ 193,874 |

⁽¹⁾ Includes \$1,204 million and \$910 million issued for the benefit of HSBC affiliates at September 30, 2016 and December 31, 2015, respectively.

⁽²⁾ Includes \$38,642 million and \$44,130 million issued for the benefit of HSBC affiliates at September 30, 2016 and December 31, 2015, respectively.

⁽³⁾ Includes \$500 million and \$4,999 million issued for the benefit of HSBC affiliates at September 30, 2016 and December 31, 2015, respectively.

Other Commitments to Extend Credit Other commitments to extend credit include arrangements whereby we are contractually obligated to extend credit in the form of loans, participations in loans, lease financing receivables, or similar transactions. Consumer commitments are comprised of certain unused MasterCard/Visa credit card lines, where we have the right to change terms or conditions upon notification to the customer, and commitments to extend credit secured by residential properties, where we have the right to change terms or conditions, for cause, upon notification to the customer. Commercial commitments comprise primarily those related to secured and unsecured loans and lines of credit and certain asset purchase commitments.

In connection with our commercial lending activities, prior to the third quarter of 2016, we provided liquidity support to Regency Assets Limited ("Regency"), a multi-seller asset-backed commercial paper ("ABCP") conduit consolidated by an HSBC affiliate. The liquidity support we provided to Regency was in the form of lines of credit or asset purchase agreements. Under the terms of these liquidity agreements, Regency could have called upon us to lend money or to purchase certain assets in the event Regency was unable or unwilling to issue or rollover maturing commercial paper. At December 31, 2015, we had issued \$3,362 million of liquidity facilities to provide liquidity support to Regency. We received fees for providing these liquidity facilities. Credit risk on these obligations was managed by subjecting them to our normal underwriting and risk management processes. During the third quarter of 2016, Regency was restructured and these liquidity facilities were terminated. See Note 17, "Variable Interest Entities, for additional discussion.

We also previously provided credit facilities to certain Canadian multi-seller ABCP conduits that had been subject to restructuring agreements as part of the Montreal Accord. As part of the enhanced collateral pool established for the restructuring, we provided a Margin Funding Facility to a Master Asset Vehicle which was undrawn. The undrawn facility totaled CAD \$77 million at both September 30, 2016 and December 31, 2015. In October 2016, this facility was terminated.

In addition to the above, we have established and manage a number of constant net asset value ("CNAV") money market funds that invest in shorter-dated highly-rated money market securities to provide investors with a highly liquid and secure investment. These funds price the assets in their portfolio on an amortized cost basis, which enables them to create and liquidate shares at a constant price. The funds, however, are not permitted to price their portfolios at amortized cost if that amount varies by more than 50 basis points from the portfolio's market value. In that case, the fund would be required to price its portfolio at market value and

consequently would no longer be able to create or liquidate shares at a constant price. We do not consolidate the CNAV funds because we do not absorb the majority of the expected future risk associated with the fund's assets, including interest rate, liquidity, credit and other relevant risks that are expected to affect the value of the assets.

Fair Value

Fair value measurement accounting principles require a reporting entity to take into consideration its own credit risk in determining the fair value of financial liabilities. The incorporation of our own credit risk accounted for an increase of \$60 million and a decrease of \$94 million in the fair value of financial liabilities during the three and nine months ended September 30, 2016, respectively, compared with a decrease of \$157 million and a decrease of \$232 million during the prior year periods.

Net income volatility arising from changes in either interest rate or credit components of the mark-to-market on debt designated at fair value and related derivatives affects the comparability of reported results between periods. Accordingly, the gain (loss) on debt designated at fair value and related derivatives during the nine months ended September 30, 2016 should not be considered indicative of the results for any future period.

Control Over Valuation Process and Procedures We have established a control framework which is designed to ensure that fair values are either determined or validated by a function independent of the risk-taker. See Note 19, "Fair Value Measurements," in the accompanying consolidated financial statements for further details on our valuation control framework.

Fair Value Hierarchy Fair value measurement accounting principles establish a fair value hierarchy structure that prioritizes the inputs to determine the fair value of an asset or liability (the "Fair Value Framework"). The Fair Value Framework distinguishes between inputs that are based on observed market data and unobservable inputs that reflect market participants' assumptions. It emphasizes the use of valuation methodologies that maximize observable market inputs. For financial instruments carried at fair value, the best evidence of fair value is a quoted price in an actively traded market (Level 1). Where the market for a financial instrument is not active, valuation techniques are used. The majority of our valuation techniques use market inputs that are either observable or indirectly derived from and corroborated by observable market data for substantially the full term of the financial instrument (Level 2). Because Level 1 and Level 2 instruments are determined by observable inputs, less judgment is applied in determining their fair values. In the absence of observable market inputs, the financial instrument is valued based on valuation techniques that feature one or more significant unobservable inputs (Level 3). The determination of the level of fair value hierarchy within which the fair value measurement of an asset or a liability is classified often requires judgment and may change over time as market conditions evolve. We consider the following factors in developing the fair value hierarchy:

- whether the asset or liability is transacted in an active market with a quoted market price;
- the level of bid-ask spreads;
- a lack of pricing transparency due to, among other things, complexity of the product and market liquidity;
- whether only a few transactions are observed over a significant period of time;
- whether the pricing quotations differ substantially among independent pricing services;
- whether inputs to the valuation techniques can be derived from or corroborated with market data; and
- whether significant adjustments are made to the observed pricing information or model output to determine the fair value.

Level 1 inputs are unadjusted quoted prices in active markets that the reporting entity has the ability to access for identical assets or liabilities. A financial instrument is classified as a Level 1 measurement if it is listed on an exchange or is an instrument actively traded in the over-the-counter ("OTC") market where transactions occur with sufficient frequency and volume. We regard financial instruments such as equity securities and derivative contracts listed on the primary exchanges of a country to be actively traded. Non-exchange-traded instruments classified as Level 1 assets include securities issued by the U.S. Treasury or by other foreign governments, to-be-announced securities and non-callable securities issued by U.S. government sponsored entities.

Level 2 inputs are those that are observable either directly or indirectly but do not qualify as Level 1 inputs. We classify mortgage pass-through securities, agency and certain non-agency mortgage collateralized obligations, certain derivative contracts, asset-backed securities, corporate debt, foreign government-backed debt, preferred securities, securities purchased and sold under resale and repurchase agreements, precious metals, certain commercial loans held for sale, residential mortgage loans whose carrying amount was reduced based on the fair value of the underlying collateral and real estate owned as Level 2 measurements. Where possible, at least two quotations from independent sources are obtained based on transactions involving comparable assets and liabilities to validate the fair value of these instruments. We have established a process to understand the methodologies and inputs used by the third party pricing services to ensure that pricing information met the fair value objective. Where significant differences arise among the independent pricing quotes and the internally determined fair value, we investigate and reconcile the differences. If the investigation results in a significant adjustment to the fair value, the instrument will be classified as Level 3 within the fair

value hierarchy. In general, we have observed that there is a correlation between the credit standing and the market liquidity of a non-derivative instrument.

Level 2 derivative instruments are generally valued based on discounted future cash flows or an option pricing model adjusted for counterparty credit risk and market liquidity. The fair value of certain structured derivative products is determined using valuation techniques based on inputs derived from observable benchmark index tranches traded in the OTC market. Appropriate control processes and procedures have been applied to ensure that the derived inputs are applied to value only those instruments that share similar risks to the relevant benchmark indices and therefore demonstrate a similar response to market factors. In addition, a validation process has been established, which includes participation in peer group consensus pricing surveys, to ensure that valuation inputs incorporate market participants' risk expectations and risk premium.

Level 3 inputs are unobservable estimates that management expects market participants would use to determine the fair value of the asset or liability. That is, Level 3 inputs incorporate market participants' assumptions about risk and the risk premium required by market participants in order to bear that risk. We develop Level 3 inputs based on the best information available in the circumstances. At September 30, 2016 and December 31, 2015, our Level 3 instruments included the following: collateralized debt obligations ("CDOs") for which there is a lack of pricing transparency due to market illiquidity, certain structured deposits and structured notes for which the embedded credit, foreign exchange or equity derivatives have significant unobservable inputs (e.g., volatility or default correlations), credit default swaps ("CDS") with certain monoline insurers where the deterioration in the creditworthiness of the counterparty, which is unobservable, has resulted in significant adjustments to fair value, credit derivatives executed against certain insurers where there is uncertainty in determining fair value, certain residential mortgage and subprime mortgage loans held for sale, certain corporate debt securities, impaired commercial loans, derivatives referenced to illiquid assets of less desirable credit quality and, at December 31, 2015, mortgage servicing rights.

See Note 19, "Fair Value Measurements," in the accompanying consolidated financial statements for additional information on Level 3 inputs as well as a discussion of transfers between Level 1 and Level 2 measurements during the three and nine months ended September 30, 2016 and 2015.

Level 3 Measurements The following table provides information about Level 3 assets/liabilities in relation to total assets/liabilities measured at fair value at September 30, 2016 and December 31, 2015:

| | September 30, 2016 | December 31, 2015 |
|--|---------------------------|----------------------|
| | (dollars are in millions) | |
| Level 3 assets ⁽¹⁾⁽²⁾ | \$ 4,788 | \$ 3,696 |
| Total assets measured at fair value ⁽³⁾ | 131,492 | 114,396 |
| Level 3 liabilities | 2,039 | 2,862 |
| Total liabilities measured at fair value ⁽¹⁾ | 91,838 | 83,148 |
| Level 3 assets as a percent of total assets measured at fair value | 3.6% | 3.2% |
| Level 3 liabilities as a percent of total liabilities measured at fair value | 2.2% | 3.4% |

⁽¹⁾ Presented without netting which allows the offsetting of amounts relating to certain contracts if certain conditions are met.

⁽²⁾ Includes \$3,410 million of recurring Level 3 assets and \$1,378 million of non-recurring Level 3 assets at September 30, 2016. Includes \$3,577 million of recurring Level 3 assets and \$119 million of non-recurring Level 3 assets at December 31, 2015.

⁽³⁾ Includes \$130,036 million of assets measured on a recurring basis and \$1,456 million of assets measured on a non-recurring basis at September 30, 2016. Includes \$114,065 million of assets measured on a recurring basis and \$331 million of assets measured on a non-recurring basis at December 31, 2015.

Significant Changes in Fair Value for Level 3 Assets and Liabilities We have entered into credit default swaps with monoline insurers to hedge our credit exposure in certain asset-backed securities and synthetic CDOs. We made \$12 million and \$25 million positive credit risk adjustments to the fair value of our credit default swap contracts during the three and nine months ended September 30, 2016, respectively, compared with positive adjustments of \$12 million and \$7 million during the three and nine months ended September 30, 2015, respectively. These adjustments to fair value are recorded in trading revenue (expense) in the consolidated statement of income. We have recorded a cumulative credit adjustment reserve of \$25 million and \$50 million against our monoline exposure at September 30, 2016 and December 31, 2015, respectively. The fair value of our monoline exposure net of cumulative credit adjustment reserves equaled \$200 million and \$173 million at September 30, 2016 and December 31, 2015, respectively.

See Note 19, "Fair Value Measurements," in the accompanying consolidated financial statements for information on additions to and transfers into (out of) Level 3 measurements during the three and nine months ended September 30, 2016 and 2015 as well as for further details including the classification hierarchy associated with assets and liabilities measured at fair value.

Effect of Changes in Significant Unobservable Inputs The fair value of certain financial instruments is measured using valuation techniques that incorporate pricing assumptions not supported by, derived from or corroborated by observable market data. The resultant fair value measurements are dependent on unobservable input parameters which can be selected from a range of estimates and may be interdependent. Changes in one or more of the significant unobservable input parameters may change the fair value measurements of these financial instruments. For the purpose of preparing the financial statements, the final valuation inputs selected are based on management's best judgment that reflect the assumptions market participants would use in pricing similar assets or liabilities.

The unobservable input parameters selected are subject to the internal valuation control processes and procedures. When we perform a test of all the significant input parameters to the extreme values within the range at the same time, it could result in an increase of the overall fair value measurement of approximately \$26 million or a decrease of the overall fair value measurement of approximately \$13 million at September 30, 2016. The effect of changes in significant unobservable input parameters are primarily driven by the uncertainty in determining the fair value of credit derivatives executed against certain insurers as well as credit default swaps with certain monoline insurers and certain asset-backed securities including CDOs.

Assets Underlying Asset-backed Securities The following tables summarize the types of assets underlying our asset-backed securities as well as certain collateralized debt obligations held at September 30, 2016:

| | | Total |
|--------------------------------------|---------------------------------------|---------------|
| | | (in millions) |
| Rating of securities: ⁽¹⁾ | Collateral type: | |
| AAA..... | Commercial mortgages..... | \$ 4 |
| | Residential mortgages - Alt A..... | 48 |
| | Residential mortgages - Subprime..... | 1 |
| | Total AAA..... | <u>53</u> |
| AA..... | Other | <u>41</u> |
| A..... | Residential mortgages - Alt A..... | 5 |
| | Residential mortgages - Subprime..... | 39 |
| | Home equity - Alt A..... | 65 |
| | Student loans | 84 |
| | Other | 453 |
| | Total A..... | <u>646</u> |
| BBB | Residential mortgages - Alt A..... | 2 |
| | Collateralized debt obligations | 191 |
| | Total BBB..... | <u>193</u> |
| CCC | Residential mortgages - Subprime..... | 11 |
| | | <u>\$ 944</u> |

⁽¹⁾ We utilize S&P as the primary source of credit ratings in the tables above. If S&P ratings are not available, ratings by Moody's and Fitch are used, in that order. Ratings for collateralized debt obligations represent the ratings associated with the underlying collateral.

Risk Management

Overview Managing risk effectively is fundamental to the delivery of our strategic priorities. To do so, we employ a risk management framework at all levels and across all risk types. It fosters the continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions. It is designed to ensure that we have a robust and consistent approach to risk management across all of our activities. While we are subject to a number of legal and regulatory actions and investigations, our risk management framework has been designed to provide robust controls and ongoing monitoring of our principal risks. We strive to continuously improve our risk management processes through ongoing employee training and development.

The principal risks associated with our operations include the following:

- *Credit risk* is the potential that a borrower or counterparty will default on a credit obligation, as well as the impact on the value of credit instruments due to changes in the probability of borrower default. Credit risk includes risk associated with cross-border exposures;

- *Liquidity risk* is the potential that an institution will be unable to meet its obligations as they become due or fund its customers because of inadequate cash flow or the inability to liquidate assets or obtain funding itself;
- *Interest rate risk* is the potential impairment of net interest income due to mismatched pricing between assets and liabilities as well as losses in value due to interest rate movements;
- *Market risk* is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spreads, equity prices and commodity prices, will reduce our income or the value of our portfolios;
- *Operational risk* is the risk of loss resulting from inadequate or failed internal processes, people, or systems, or from external events (including legal risk);
- *Compliance risk* is the risk that we fail to observe the letter and spirit of all relevant laws, codes, rules, regulations and standards of good market practice causing us to incur fines, penalties and damage to our business and reputation;
- *Fiduciary risk* is the risk of breaching fiduciary duties where we act in a fiduciary capacity as trustee, investment manager or as mandated by law or regulation;
- *Reputational risk* is the risk arising from failure to meet stakeholder expectations as a result of any event, behavior, action or inaction, either by us, our employees, the HSBC Group or those with whom it is associated, that may cause stakeholders to form a negative view of us. This might also result in financial or non-financial impacts, loss of confidence or other consequences;
- *Strategic risk* is the risk that the business will fail to identify, execute, and react appropriately to opportunities and/or threats arising from changes in the market, some of which may emerge over a number of years such as changing economic and political circumstances, customer requirements, demographic trends, regulatory developments or competitor action;
- *Security and Fraud risk* is the risk to the business from terrorism, crime, fraud, information security, incidents/disasters, cyber-attacks and groups hostile to HSBC interests;
- *Model risk* is the potential for adverse consequences from decisions based on incorrect or misused model outputs and reports. This occurs primarily for two reasons: 1) the model may produce inaccurate outputs when compared with the intended business use and design objective; and 2) the model could be used incorrectly;
- *Pension risk* is the risk that the cash flows associated with pension assets will not be enough to cover the pension benefit obligations required to be paid and includes the risk that assumptions used by our actuaries may differ from actual experience; and
- *Sustainability risk* is the risk that financial services provided to customers indirectly result in unacceptable impacts on people or on the environment.

See "Risk Management" in MD&A in our 2015 Form 10-K for a more complete discussion of the objectives of our risk management system as well as our risk management policies and practices. Our risk management process involves the use of various simulation models. We believe that the assumptions used in these models are reasonable, but actual events may unfold differently than what is assumed in the models. Consequently, model results may be considered reasonable estimates, with the understanding that actual results may differ significantly from model projections.

Credit Risk Management Credit risk is the potential that a borrower or counterparty will default on a credit obligation, as well as the impact on the value of credit instruments due to changes in the probability of borrower default. Credit risk includes risk associated with cross-border exposures. There have been no material changes to our approach towards credit risk management since December 31, 2015. See "Risk Management" in MD&A in our 2015 Form 10-K for a more complete discussion of our approach to credit risk.

Credit risk is inherent in various on- and off-balance sheet instruments and arrangements, such as:

- loan portfolios;
- investment portfolios;
- unfunded commitments such as letters of credit, lines of credit, and unutilized credit card lines that customers can draw upon; and
- derivative financial instruments, such as interest rate swaps which, if more valuable today than when originally contracted, may represent an exposure to the counterparty to the contract.

While credit risk exists widely in our operations, diversification among various commercial and consumer portfolios helps to lessen risk exposure. Day-to-day management of credit and market risk is performed by the Chief Credit Officer/Head of Wholesale Credit and Market Risk North America and the HSBC North America Chief Retail Credit Officer, who report directly to the HSBC North America Chief Risk Officer and maintain independent risk functions. The credit risk associated with commercial portfolios is managed by the Chief Credit Officer, while credit risk associated with retail consumer loan portfolios, such as credit cards, installment loans and residential mortgages, is managed by the HSBC North America Chief Retail Credit Officer. Further discussion of credit risk can be found under the "Credit Quality" caption in this MD&A.

Liquidity Risk Management Prior to 2016, we employed two key measures to define, monitor and control our liquidity and funding risk in accordance with HSBC policy. The advances to core funding ratio was used to monitor our structural long-term funding position. In addition, stressed coverage ratios, incorporating HSBC-specific stress scenarios, were used to monitor the resilience to severe liquidity stresses. Beginning in 2016, HSBC replaced these measures with the Basel Committee based Liquidity Coverage Ratio ("LCR") and Net Stable Funding Ratio ("NSFR") as discussed further below. As a result, we now employ these ratios as part of our approach to liquidity risk management. There have been no other material changes to our approach towards liquidity risk management since December 31, 2015. See "Risk Management" in MD&A in our 2015 Form 10-K for a more complete discussion of our approach to liquidity risk. Although certain measures used in our overall approach to liquidity management have changed, we continuously monitor the impact of market events on our liquidity positions and continue to adapt our liquidity framework to reflect market events and the evolving regulatory landscape and view as to best practices. Current regulatory initiatives encourage banks to retain a portfolio of extremely high quality liquid assets. As such, we are maintaining a large portfolio of high quality sovereign and sovereign guaranteed securities.

Our liquidity management approach includes increased deposits, supplemented by wholesale borrowing to fund our business growth, and using security sales or secured borrowings for liquidity stress situations in our liquidity contingency plans. As previously discussed, HSBC Finance relies on its affiliates, including HSBC USA, to satisfy its funding needs outside of cash generated from its loan sales and operations.

In addition, the Asset and Liability Management Committee monitors the overall mix of deposit and funding concentrations to avoid undue reliance on individual funding sources and large deposit relationships.

The Basel Committee based LCR is designed to be a short-term liquidity measure to ensure banks have sufficient High Quality Liquid Assets ("HQLA") to cover net stressed cash outflows over the next 30 days. Under European Commission Delegated Regulation 2015/61, the Basel Committee based LCR became a minimum regulatory standard beginning in 2015. At September 30, 2016 and December 31, 2015, HSBC USA's LCR under the EU LCR rule was 135 percent and 121 percent, respectively. A LCR of 100 percent or higher reflects an unencumbered HQLA balance that is equal to or exceeds liquidity needs for a 30 calendar day liquidity stress scenario. HQLA consists of cash or assets that can be converted into cash at little or no loss of value in private markets.

The European calibration of the Basel Committee based NSFR, which is a longer term liquidity measure with a 12-month time horizon to ensure a sustainable maturity structure of assets and liabilities, is still pending. Therefore, our calculation of NSFR is based on our current interpretation and understanding of the Basel Committee final NSFR rule, which may differ in future periods depending on completion of the European calibration and further implementation guidance from regulators. At September 30, 2016, HSBC USA's NSFR was 122 percent. A NSFR of 100 percent or more reflects an available stable funding balance from liabilities and capital over the next 12 months that is equal to or exceeds the required amount of funding for assets and off-balance sheet exposures.

In 2014, the FRB, the OCC and the FDIC issued final regulations to implement the LCR in the United States, applicable to certain large banking institutions, including HSBC North America and HSBC Bank USA. The LCR final rule is generally consistent with the Basel Committee guidelines, but is more stringent in several areas including the range of assets that will qualify as HQLA and the assumed rate of outflows of certain kinds of funding. Under the final rule, U.S. institutions began the LCR transition period on January 1, 2015 and are required to maintain a minimum LCR of 100 percent by January 1, 2017, two years ahead of the Basel Committee's timeframe for compliance by January 1, 2019. As a result, HSBC North America and HSBC Bank USA, are required to maintain an LCR of 80 percent, starting on January 1, 2015 increasing annually by 10 percent increments and reaching 100 percent on January 1, 2017. The current requirement to report LCR to U.S. regulators on a monthly basis moved to a daily requirement beginning July 1, 2016. At September 30, 2016 and December 31, 2015, HSBC Bank USA's LCR under the U.S. LCR final rule was 127 percent and 114 percent, respectively. The LCR final rule does not address the NSFR requirement, which is currently in an international observation period. Based on the results of the observation period, the Basel Committee and U.S. banking regulators may make further changes to the NSFR. In April 2016, U.S. regulators issued for public comment a proposal to implement the NSFR in the United States, applicable to certain large banking organizations, including HSBC North America and HSBC Bank USA. The NSFR proposal is generally consistent with the Basel Committee guidelines, but similar to the U.S. LCR final rule, is more stringent in several areas including the required stable funding factors applied to certain assets such as mortgage-backed securities. Under the proposal, U.S. institutions would be required to comply with the NSFR rule by January 1, 2018, consistent with the scheduled global implementation of the Basel Committee based NSFR.

Enhanced prudential standard rules issued pursuant to Section 165 of the Dodd-Frank Act complement the LCR, capital planning, resolution planning, and stress testing requirements for U.S. bank holding companies and foreign banking organizations with total global consolidated assets of \$50 billion or more ("Covered Companies"). The rules require Covered Companies, such as HSBC North America, to comply with various liquidity risk management standards and to maintain a liquidity buffer of unencumbered highly liquid assets based on the results of internal liquidity stress testing. Covered companies are also required to meet heightened liquidity requirements, which include qualitative liquidity standards, cash flow projections, internal liquidity stress tests, and liquidity buffer requirements. HSBC North America has implemented the standard and it does not have a significant impact to our

business model. Beginning July 1, 2016, HSBC North America is treated as an IHC owned by a foreign banking organization. This transition did not have a significant impact on our U.S. operations or change our liquidity management policies.

HSBC North America and HSBC Bank USA have adjusted their liquidity profiles to support compliance with these rules. HSBC North America and HSBC Bank USA may need to make further changes to their liquidity profiles to support compliance with any future final rules.

Our ability to regularly attract wholesale funds at a competitive cost is enhanced by strong ratings from the major credit ratings agencies. The following table reflects the short and long-term credit ratings of HSBC USA and HSBC Bank USA at September 30, 2016:

| | Moody's | S&P | Fitch |
|----------------------------|--------------------------|-------------|------------|
| HSBC USA: | | | |
| Short-term borrowings..... | P-1 | A-1 | F1+ |
| Long-term/senior debt..... | A2 | A | AA- |
| HSBC Bank USA: | | | |
| Short-term borrowings..... | P-1 | A-1+ | F1+ |
| Long-term/senior debt..... | Aa3⁽¹⁾ | AA- | AA- |

⁽¹⁾ Moody's long-term deposit rating for HSBC Bank USA was Aa2 at September 30, 2016.

Rating agencies continue to evaluate economic and geopolitical trends, regulatory developments, future profitability, risk management practices and litigation matters, all of which could lead to adverse ratings actions.

In March 2016, Moody's changed the rating outlook for HSBC USA and HSBC Bank USA to negative from stable following a similar change in outlook to negative from stable for HSBC. The outlook change for HSBC signifies Moody's concerns about a weakening in its intrinsic financial strength due to deteriorating operating conditions in Hong Kong, one of the HSBC's key markets. In spite of their concerns, Moody's stated that HSBC's willingness to provide support to its U.S. subsidiaries remains very high. While the outlook changed, Moody's affirmed its long- and short-term supported debt and deposit ratings for HSBC USA and HSBC Bank USA.

In July 2016, S&P took various rating agency actions on U.K. banks, including HSBC, to reflect rising economic risks for the U.K. domestic banking industry, including potential pressures arising from the U.K. vote to leave the EU. As a result, S&P changed the rating outlook for HSBC USA and HSBC Bank USA to negative from stable. While the outlook changed, S&P affirmed its long- and short-term counterparty credit ratings for HSBC USA and HSBC Bank USA.

Although we closely monitor and strive to manage factors influencing our credit ratings, there is no assurance that our credit ratings will not change in the future. At September 30, 2016, there were no pending actions in terms of changes to ratings on the debt of HSBC USA or HSBC Bank USA from any of the rating agencies.

Interest Rate Risk Management Various techniques are utilized to quantify and monitor risks associated with the repricing characteristics of our assets, liabilities and derivative contracts. Our approach to managing interest rate risk is summarized in MD&A in our 2015 Form 10-K under the caption "Risk Management". There have been no material changes to our approach towards interest rate risk management since December 31, 2015.

Present value of a basis point ("PVBP") is the change in value of the balance sheet for a one basis point upward movement in all interest rates. The following table reflects the PVBP position at September 30, 2016 and December 31, 2015:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| | (in millions) | |
| Institutional PVBP movement limit..... | \$ 8.0 | \$ 8.0 |
| PVBP position at period end..... | 1.0 | 1.8 |

Net interest income simulation modeling techniques are utilized to monitor a number of interest rate scenarios for their impact on projected net interest income. These techniques simulate the impact on projected net interest income under various scenarios, such as rate shock scenarios, which assume immediate market rate movements by as much as 200 basis points, as well as scenarios in which rates rise by as much as 200 basis point or fall by as much as 100 basis points over a twelve month period. The following table reflects the impact on projected net interest income of the scenarios utilized by these modeling techniques:

| | September 30, 2016 | | December 31, 2015 | |
|--|--------------------|------|-------------------|------|
| | Amount | % | Amount | % |
| (dollars are in millions) | | | | |
| Estimated increase (decrease) in projected net interest income (reflects projected rate movements on October 1, 2016 and January 1, 2016, respectively): | | | | |
| Resulting from a gradual 100 basis point increase in the yield curve..... | \$ 255 | 10% | \$ 179 | 7% |
| Resulting from a gradual 100 basis point decrease in the yield curve..... | (341) | (14) | (180) | (7) |
| Resulting from a gradual 200 basis point increase in the yield curve..... | 458 | 19 | 349 | 13 |
| Other significant scenarios monitored (reflects projected rate movements on October 1, 2016 and January 1, 2016, respectively): | | | | |
| Resulting from an immediate 50 basis point decrease in the yield curve..... | (285) | (12) | (187) | (7) |
| Resulting from an immediate 100 basis point increase in the yield curve..... | 405 | 16 | 274 | 10 |
| Resulting from an immediate 100 basis point decrease in the yield curve..... | (493) | (20) | (346) | (13) |
| Resulting from an immediate 200 basis point increase in the yield curve..... | 739 | 30 | 525 | 19 |

The projections do not take into consideration possible complicating factors such as the effect of changes in interest rates on the credit quality, size and composition of the balance sheet. Therefore, although this provides a reasonable estimate of interest rate sensitivity, actual results will differ from these estimates, possibly by significant amounts.

Capital Risk/Sensitivity of Other Comprehensive Loss Large movements of interest rates could directly affect some reported capital balances and ratios. The mark-to-market valuation of available-for-sale securities is recorded on a tax effected basis to accumulated other comprehensive loss. This valuation mark is included in two important accounting based capital ratios: common equity Tier 1 capital to risk weighted assets and total shareholders' equity to total assets. Under the final rule adopting the Basel III regulatory capital reforms, the valuation mark is being phased into common equity Tier 1 capital over five years beginning in 2014. At September 30, 2016, we had an available-for-sale securities portfolio of approximately \$40,800 million with a positive mark-to-market adjustment of \$381 million. An increase of 25 basis points in interest rates of all maturities would lower the mark-to-market by approximately \$353 million to a net gain of \$28 million with the following results on our capital ratios:

| | September 30, 2016 | | December 31, 2015 | |
|---|--------------------|-------------------------|-------------------|-------------------------|
| | Actual | Proforma ⁽¹⁾ | Actual | Proforma ⁽¹⁾ |
| Common equity Tier 1 capital to risk weighted assets..... | 13.5% | 13.4% | 12.0% | 11.9% |
| Total shareholders' equity to total assets..... | 10.1 | 10.0 | 10.9 | 10.8 |

⁽¹⁾ Proforma percentages reflect a 25 basis point increase in interest rates.

Market Risk Management Market risk is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spreads, equity prices and commodity prices, will reduce our income or the value of our portfolios. Exposure to market risk is separated into two portfolios:

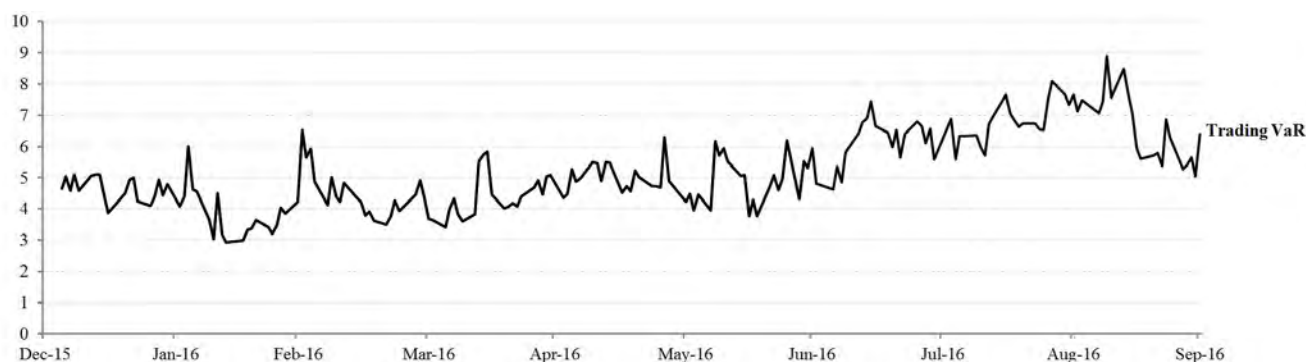
- *Trading portfolios* comprise positions arising from market-making and warehousing of customer-derived positions.
- *Non-trading portfolios* comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities and financial investments classified as available-for-sale and held-to-maturity.

There have been no material changes to our approach towards market risk management since December 31, 2015. See "Risk Management" in MD&A in our 2015 Form 10-K for a more complete discussion of our approach to market risk.

Value at Risk ("VaR") VaR is a technique that estimates the potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. VaR is calculated for all trading positions and non-trading positions which are equally sensitive to market moves regardless of how we capitalize those exposures. VaR is calculated at a 99 percent confidence level for a one-day holding period.

Trading Portfolios Trading VaR generates from the Global Markets unit of the GB&M business segment. Portfolios are mainly comprised of foreign exchange products, interest rate swaps, credit derivatives, precious metals (i.e. gold, silver, platinum) in both North America and emerging markets.

Daily VaR (trading portfolios), 99 percent 1 day (in millions) :



The following table summarizes our trading VaR for the nine months ended September 30, 2016:

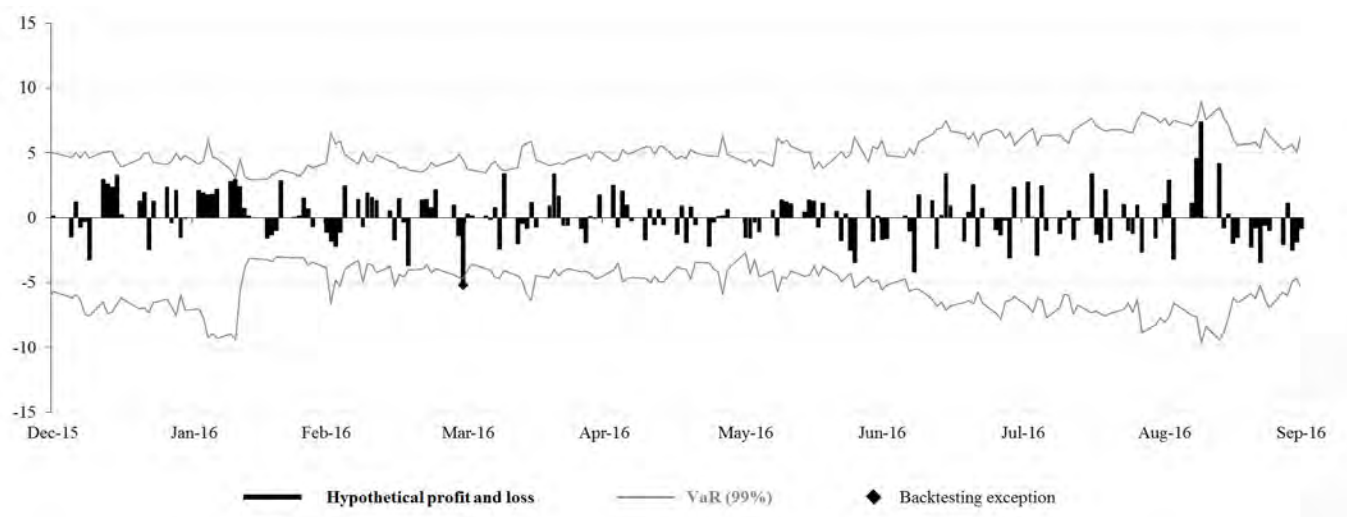
| | Foreign exchange and commodity | Interest rate | Credit Spread | Portfolio diversification ⁽¹⁾ | Total ⁽²⁾ |
|---|--------------------------------------|---------------|---------------|---|----------------------|
| (in millions) | | | | | |
| At September 30, 2016 | \$ 1 | \$ 6 | \$ 1 | (2) | \$ 6 |
| Nine Months Ended September 30, 2016 | | | | | |
| Average..... | 2 | 5 | 2 | (3) | 5 |
| Maximum..... | 3 | 10 | 11 | | 9 |
| Minimum..... | 1 | 2 | 1 | | 3 |
| At December 31, 2015 | \$ 1 | \$ 3 | \$ 1 | — | \$ 5 |

⁽¹⁾ Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types, for example, foreign exchange, interest rate and credit spread, together in one portfolio. It is measured as the difference between the sum of the VaR by individual risk type and the combined total VaR. A negative number represents the benefit of portfolio diversification. As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures.

⁽²⁾ The total VaR is non-additive across risk types due to diversification effects. For presentation purposes, portfolio diversification of the VaR for trading portfolios includes VaR-based risk-not-in-VaR.

Backtesting In the nine months ended September 30, 2016, we experienced one backtesting exception. The profit exception occurred in March due to a gain from independent price verification on Venezuela single-name CDS positions. Independent price verification is not captured in the single day VaR model.

We daily validate the accuracy of our VaR models by back-testing them against hypothetical profit and loss that excludes non-modeled items such as fees, commissions and revenues of intra-day transactions from the actual reported profit and loss. We would expect on average to see two to three profits, and two to three losses, in excess of VaR at the 99 percent confident level over a one-year period. The actual number of profits or losses in excess of VaR over this period can therefore be used to gauge how well the models are performing. To ensure a conservative approach to calculating our risk exposures, it is important to note that profits in excess of VaR are only considered when backtesting the accuracy of models and are not used to calculate the VaR numbers used for risk management or capital purposes.

Backtesting of trading VaR against our hypothetical profit and loss (in millions) :

Non-trading Portfolios Non-trading VaR predominantly relates to Balance Sheet Management ("BSM") and represents the potential negative changes in the investment portfolio market value (which includes available for sale and held to maturity assets) and associated hedges. Our investment portfolio holdings are mainly comprised of U.S. Treasuries and U.S. agency mortgage backed securities. Our non-trading VaR exposure is driven by interest rates, mortgage spreads, and asset swap spreads.

The following table summarizes our non-trading VaR for the nine months ended September 30, 2016:

| | Interest rate | Credit Spread | Portfolio diversification ⁽¹⁾ | Total ⁽¹⁾ |
|---|---------------|---------------|--|----------------------|
| | (in millions) | | | |
| At September 30, 2016 | \$ 52 | \$ 24 | (1) | \$ 77 |
| Nine Months Ended September 30, 2016 | | | | |
| Average | 58 | 25 | (7) | 77 |
| Maximum | 66 | 29 | | 88 |
| Minimum | 35 | 21 | | 46 |
| At December 31, 2015 | \$ 35 | \$ 26 | (16) | \$ 47 |

⁽¹⁾ Refer to the Trading VaR table above for additional information.

Non-trading VaR also includes the interest rate risk of non-trading financial assets and liabilities held by the global businesses and transferred priced into BSM which has the mandate to centrally manage and hedge it. For a broader discussion on how interest rate risk is managed, please refer to the "Risk Management - Interest Rate Risk Management" in MD&A in our 2015 Form 10-K.

Trading Portfolio MSRs Trading occurs in mortgage banking operations as a result of an economic hedging program intended to offset changes in the value of mortgage servicing rights. Economic hedging may include, for example, forward contracts to sell residential mortgages and derivative instruments used to protect the value of MSRs.

MSRs are assets that represent the present value of net servicing income (servicing fees, ancillary income, escrow and deposit float, net of servicing costs). MSRs are separately recognized upon the sale of the underlying loans or at the time that servicing rights are purchased. MSRs are subject to interest rate risk, in that their value will decline as a result of actual and expected acceleration of prepayment of the underlying loans in a falling interest rate environment.

Interest rate risk is mitigated through an active hedging program that uses trading securities and derivative instruments to offset changes in value of MSRs. Since the hedging program involves trading activity, risk is quantified and managed using a number of risk assessment techniques.

The following table reflects the modeling techniques, primarily rate shock analyses, used to monitor certain interest rate scenarios for their impact on the economic value of net hedged MSR:

| | September 30, 2016 | December 31, 2015 |
|--|-----------------------|----------------------|
| | (in millions) | |
| Projected change in net market value of hedged MSR portfolio (reflects projected rate movements on October 1, 2016 and January 1, 2016, respectively): | | |
| Value of hedged MSR portfolio..... | \$ 95 | \$ 140 |
| Change resulting from an immediate 50 basis point decrease in the yield curve: | | |
| Change limit (no worse than)..... | (10) | (10) |
| Calculated change in net market value | 1 | (2) |
| Change resulting from an immediate 50 basis point increase in the yield curve: | | |
| Change limit (no worse than)..... | (4) | (4) |
| Calculated change in net market value | 1 | (1) |
| Change resulting from an immediate 100 basis point increase in the yield curve: | | |
| Change limit (no worse than)..... | (6) | (6) |
| Calculated change in net market value | 1 | (1) |

The economic value of the net hedged MSR portfolio is monitored on a daily basis for interest rate sensitivity. If the economic value declines by more than established limits for one day or one month, various levels of management review, intervention and/or corrective actions are required.

The following table summarizes the frequency distribution of the weekly economic value of the MSR asset during the nine months ended September 30, 2016. This includes the change in the market value of the MSR asset net of changes in the market value of the underlying hedging positions used to hedge the asset. The changes in economic value are adjusted for changes in MSR valuation inputs or assumptions that were made during the course of the year.

| Ranges of mortgage economic value from market risk-related activities | Below \$(2) | \$(2) to \$0 | \$0 to \$2 | \$2 to \$4 | Over \$4 |
|--|---------------------------|-----------------|---------------|---------------|-------------|
| | (dollars are in millions) | | | | |
| Number of trading weeks market risk-related revenue was within the stated range..... | — | 16 | 23 | — | — |

Operational Risk Management There have been no material changes to our approach toward operational risk since December 31, 2015.

Compliance Risk Management There have been no material changes to our approach toward compliance risk since December 31, 2015.

Fiduciary Risk Management There have been no material changes to our approach toward fiduciary risk since December 31, 2015.

Reputational Risk Management There have been no material changes to our approach toward reputational risk since December 31, 2015.

Strategic Risk Management There have been no material changes to our approach toward strategic risk since December 31, 2015.

Security and Fraud Risk Management There have been no material changes to our approach toward security and fraud risk since December 31, 2015.

Model Risk Management There have been no material changes to our approach to model risk since December 31, 2015.

Pension Risk Management There have been no material changes to our approach toward pension risk since December 31, 2015.

Sustainability Risk Management There have been no material changes to our approach toward sustainability risk since December 31, 2015.

CONSOLIDATED AVERAGE BALANCES AND INTEREST RATES

The following table summarizes the quarter-to-date and year-to-date average daily balances of the principal components of assets, liabilities and shareholders' equity together with their respective interest amounts and rates earned or paid, presented on a taxable equivalent basis, which resulted in increases to interest income on securities of less than a million and \$1 million during the three and nine months ended September 30, 2016, respectively, and increases to interest income on securities of \$3 million and \$9 million during the three and nine months ended September 30, 2015, respectively. Net interest margin is calculated by dividing net interest income by the average interest earning assets from which interest income is earned. Loan interest for the three and nine months ended September 30, 2016 included fees of \$24 million and \$57 million, respectively, compared with fees of \$18 million and \$51 million during the three and nine months ended September 30, 2015, respectively.

| Three Months Ended September 30, | 2016 | | | 2015 | | |
|---|---------------------------|----------|-------|-------------------|----------|-------|
| | Average Balance | Interest | Rate | Average Balance | Interest | Rate |
| | (dollars are in millions) | | | | | |
| Assets | | | | | | |
| Interest bearing deposits with banks | \$ 35,633 | \$ 46 | .51% | \$ 35,035 | \$ 23 | .26% |
| Federal funds sold and securities purchased under resale agreements | 13,829 | 54 | 1.55 | 5,781 | 7 | .45 |
| Trading securities | 11,276 | 52 | 1.83 | 10,340 | 75 | 2.87 |
| Securities | 52,627 | 234 | 1.77 | 48,743 | 237 | 1.94 |
| Loans: | | | | | | |
| Commercial | 60,063 | 383 | 2.54 | 64,318 | 356 | 2.20 |
| Consumer: | | | | | | |
| Residential mortgages | 18,080 | 148 | 3.26 | 17,382 | 143 | 3.28 |
| Home equity mortgages..... | 1,484 | 13 | 3.49 | 1,660 | 14 | 3.22 |
| Credit cards..... | 669 | 17 | 10.11 | 681 | 18 | 10.73 |
| Other consumer | 467 | 7 | 5.96 | 496 | 8 | 5.83 |
| Total consumer | 20,700 | 185 | 3.56 | 20,219 | 183 | 3.59 |
| Total loans | 80,763 | 568 | 2.80 | 84,537 | 539 | 2.53 |
| Other | 2,072 | 12 | 2.30 | 2,563 | 15 | 2.33 |
| Total interest earning assets..... | \$ 196,200 | \$ 966 | 1.96% | \$ 186,999 | \$ 896 | 1.90% |
| Allowance for credit losses | (1,062) | | | (644) | | |
| Cash and due from banks | 922 | | | 843 | | |
| Other assets..... | 15,201 | | | 13,719 | | |
| Total assets | \$ 211,261 | | | \$ 200,917 | | |
| Liabilities and Shareholders' Equity | | | | | | |
| Domestic deposits: | | | | | | |
| Savings deposits | \$ 50,976 | \$ 32 | .25% | \$ 49,079 | \$ 31 | .25% |
| Time deposits..... | 26,338 | 72 | 1.09 | 28,619 | 43 | .61 |
| Other interest bearing deposits | 9,468 | 2 | .08 | 4,263 | — | — |
| Foreign deposits: | | | | | | |
| Foreign banks deposits | 8,846 | 12 | .54 | 7,056 | 2 | .09 |
| Other interest bearing deposits | 4,367 | 4 | .36 | 3,218 | 1 | .14 |
| Total interest bearing deposits..... | 99,995 | 122 | .49 | 92,235 | 77 | .33 |
| Short-term borrowings | 8,793 | 22 | 1.00 | 10,750 | 13 | .43 |
| Long-term debt | 37,359 | 213 | 2.27 | 32,332 | 184 | 2.26 |
| Total interest bearing deposits and debt..... | 146,147 | 357 | .97 | 135,317 | 274 | .80 |
| Tax liabilities and other..... | 843 | 5 | 2.36 | 631 | 2 | 2.06 |
| Total interest bearing liabilities..... | \$ 146,990 | \$ 362 | .98% | \$ 135,948 | \$ 276 | .81% |
| Net interest income/Interest rate spread | | \$ 604 | .98% | | \$ 620 | 1.09% |
| Noninterest bearing deposits | 32,052 | | | 33,485 | | |
| Other liabilities | 11,166 | | | 10,709 | | |
| Total shareholders' equity..... | 21,053 | | | 20,775 | | |
| Total liabilities and shareholders' equity..... | \$ 211,261 | | | \$ 200,917 | | |
| Net interest margin on average earning assets | | | 1.22% | | | 1.31% |
| Net interest income to average total assets..... | | | 1.13% | | | 1.22% |

Nine Months Ended September 30,

| | 2016 | | | 2015 | | |
|--|---------------------------|----------|-------|-------------------|----------|-------|
| | Average Balance | Interest | Rate | Average Balance | Interest | Rate |
| | (dollars are in millions) | | | | | |
| <i>Assets</i> | | | | | | |
| Interest bearing deposits with banks | \$ 33,995 | \$ 128 | .50% | \$ 33,689 | \$ 65 | .26% |
| Federal funds sold and securities purchased under resale agreements..... | 11,613 | 140 | 1.61 | 3,626 | 13 | .46 |
| Trading securities | 11,313 | 197 | 2.33 | 12,390 | 261 | 2.81 |
| Securities | 52,314 | 722 | 1.84 | 48,318 | 666 | 1.84 |
| Loans: | | | | | | |
| Commercial | 62,650 | 1,148 | 2.45 | 62,507 | 1,010 | 2.16 |
| Consumer: | | | | | | |
| Residential mortgages | 17,983 | 447 | 3.32 | 17,137 | 426 | 3.33 |
| Home equity mortgages..... | 1,530 | 40 | 3.49 | 1,703 | 42 | 3.29 |
| Credit cards..... | 667 | 53 | 10.61 | 678 | 55 | 10.88 |
| Other consumer | 482 | 21 | 5.82 | 512 | 22 | 5.69 |
| Total consumer | 20,662 | 561 | 3.63 | 20,030 | 545 | 3.64 |
| Total loans | 83,312 | 1,709 | 2.74 | 82,537 | 1,555 | 2.52 |
| Other | 2,329 | 31 | 1.78 | 2,840 | 44 | 2.05 |
| Total interest earning assets..... | \$ 194,876 | \$ 2,927 | 2.01% | \$ 183,400 | \$ 2,604 | 1.90% |
| Allowance for credit losses | (1,001) | | | (674) | | |
| Cash and due from banks | 973 | | | 864 | | |
| Other assets..... | 13,091 | | | 15,290 | | |
| Total assets | \$ 207,939 | | | \$ 198,880 | | |
| <i>Liabilities and Shareholders' Equity</i> | | | | | | |
| Domestic deposits: | | | | | | |
| Savings deposits | \$ 50,622 | \$ 93 | .25% | \$ 45,567 | \$ 66 | .19% |
| Time deposits..... | 26,528 | 201 | 1.01 | 27,506 | 101 | .49 |
| Other interest bearing deposits | 6,314 | 6 | .13 | 4,421 | 3 | .10 |
| Foreign deposits: | | | | | | |
| Foreign banks deposits | 8,871 | 32 | .48 | 6,894 | 3 | .05 |
| Other interest bearing deposits | 4,500 | 12 | .36 | 3,890 | 4 | .13 |
| Total interest bearing deposits..... | 96,835 | 344 | .47 | 88,278 | 177 | .27 |
| Short-term borrowings | 11,517 | 61 | .71 | 14,861 | 35 | .30 |
| Long-term debt | 35,103 | 613 | 2.33 | 31,036 | 524 | 2.26 |
| Total interest bearing deposits and debt..... | 143,455 | 1,018 | .95 | 134,175 | 736 | .73 |
| Tax liabilities and other | 814 | 12 | 1.97 | 718 | 10 | 1.88 |
| Total interest bearing liabilities | \$ 144,269 | \$ 1,030 | .95% | \$ 134,893 | \$ 746 | .74% |
| Net interest income/Interest rate spread | | \$ 1,897 | 1.06% | | \$ 1,858 | 1.16% |
| Noninterest bearing deposits | 31,742 | | | 31,907 | | |
| Other liabilities | 10,897 | | | 12,371 | | |
| Total shareholders' equity..... | 21,031 | | | 19,709 | | |
| Total liabilities and shareholders' equity..... | \$ 207,939 | | | \$ 198,880 | | |
| Net interest margin on average earning assets | | | 1.30% | | | 1.35% |
| Net interest income to average total assets..... | | | 1.22% | | | 1.25% |

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Information required by this Item is included within Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations in the Risk Management section under the captions "Interest Rate Risk Management" and "Market Risk Management".

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures We maintain a system of internal and disclosure controls and procedures designed to ensure that information required to be disclosed by HSBC USA in the reports we file or submit under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported on a timely basis. Our Board of Directors, operating through its Audit Committee, which is composed entirely of independent non-executive directors, provides oversight to our financial reporting process.

We conducted an evaluation, with the participation of the Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report so as to alert them in a timely fashion to material information required to be disclosed in reports we file under the Exchange Act.

Changes in Internal Control over Financial Reporting There has been no change in our internal control over financial reporting that occurred during the quarter ended September 30, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II

Item 1. Legal Proceedings

See Note 20, "Litigation and Regulatory Matters," in the accompanying consolidated financial statements for our legal proceedings disclosure, which is incorporated herein by reference.

Item 5. Other Information

Disclosures pursuant to Section 13(r) of the Securities Exchange Act Section 13(r) of the Securities Exchange Act requires each issuer registered with the SEC to disclose in its annual or quarterly reports whether it or any of its affiliates have knowingly engaged in specified activities or transactions with persons or entities targeted by U.S. sanctions programs relating to Iran, terrorism, or the proliferation of weapons of mass destruction, even if those activities are not prohibited by U.S. law and are conducted outside the U.S. by non-U.S. affiliates in compliance with local laws and regulations.

To comply with this requirement, HSBC has requested relevant information from its affiliates globally. During the period covered by this Form 10-Q, HSBC USA Inc. did not engage in any activities or transactions requiring disclosure pursuant to Section 13(r) other than those activities related to frozen accounts and transactions permitted under relevant U.S. sanction programs described under "Frozen Accounts and Transactions" below. The following activities conducted by our affiliates are disclosed in response to Section 13(r):

Loans in repayment Between 2001 and 2005, the Project and Export Finance division of the HSBC Group arranged or participated in a portfolio of loans to Iranian energy companies and banks. All of these loans were guaranteed by European and Asian export credit agencies and have varied maturity dates with final maturity in 2018. For those loans that remain outstanding, the HSBC Group continues to seek repayment in accordance with its obligations to the supporting export credit agencies. Details of these loans follow.

At September 30, 2016, the HSBC Group had 5 loans outstanding to an Iranian petrochemical company. These loans are supported by the official export credit agencies of the following countries: the United Kingdom, South Korea and Japan. The HSBC Group continues to seek repayments from the Iranian company under the outstanding loans in accordance with their original maturity profiles.

Two loans to the same company which were supported by the German and South Korean Export Credit Agencies matured during the third quarter of 2016 following receipt of the final repayments.

Estimated gross revenue to the HSBC Group generated by the loans in repayment for the third quarter of 2016, which includes interest and fees, was approximately \$112,000, and net estimated profit was approximately \$111,000. While the HSBC Group intends to continue to seek repayment under the existing loans, all of which were entered into before the petrochemical sector of Iran became a target of U.S. sanctions, it does not currently intend to extend any new loans.

Legacy contractual obligations related to guarantees Between 1996 and 2007, the HSBC Group provided guarantees to a number of its non-Iranian customers in Europe and the Middle East for various business activities in Iran. In a number of cases, the HSBC Group issued counter indemnities in support of guarantees issued by Iranian banks as the Iranian beneficiaries of the guarantees required that they be backed directly by Iranian banks. The Iranian banks to which the HSBC Group provided counter indemnities included Bank Tejarat, Bank Melli, and the Bank of Industry and Mine.

There was no measurable gross revenue in the third quarter of 2016 under those guarantees and counter indemnities. The HSBC Group does not allocate direct costs to fees and commissions and, therefore, has not disclosed a separate net profit measure. The HSBC Group is seeking to cancel all relevant guarantees and counter indemnities and does not currently intend to provide any new guarantees or counter indemnities involving Iran. None were canceled in the third quarter of 2016 and approximately 20 remain outstanding.

Other relationships with Iranian banks Activity related to U.S.-sanctioned Iranian banks not covered elsewhere in this disclosure includes the following:

- The HSBC Group maintains several frozen accounts in the United Kingdom for an Iranian-owned, U.K.-regulated financial institution. Transactions relating to these accounts have been carried out under U.K. government license (or, particularly following Implementation Day under the Joint Comprehensive Plan of Action relating to the Iranian nuclear program, are generally permissible under applicable law). Estimated gross revenue in the third quarter of 2016 for these transactions, which includes fees and/or commissions, was approximately \$32,700.
- The HSBC Group acts as the trustee and administrator for a pension scheme involving five employees of a U.S.-sanctioned Iranian bank in Hong Kong, one of whom joined the scheme during the third quarter of 2016. Under the rules of this scheme, the HSBC Group accepts contributions from the Iranian bank each month and allocates the funds into the pension accounts of the Iranian bank's employees. The HSBC Group runs and operates this pension scheme in accordance with Hong Kong laws and regulations. Estimated gross revenue, which includes fees and/or commissions, generated by this pension scheme in the third quarter of 2016 was approximately \$2,340.

For the Iranian bank related-activity discussed in this section, the HSBC Group does not allocate direct costs to fees and commissions and, therefore, has not disclosed a separate net profit measure. The HSBC Group currently intends to continue to wind down this activity, to the extent legally permissible, and not enter into any new such activity.

Activity related to U.S. Executive Order 13224 The HSBC Group maintained a credit card account for an individual sanctioned under U.S. Executive Order 13224 during the third quarter of 2016. The credit card has now been canceled. During the third quarter of 2016, the credit card was used for one minor debit transaction, and the HSBC Group received a payment relative to the credit card.

For activity related to U. S. Executive Order 13224, there was no measurable gross revenue or net profit generated to the HSBC Group in the third quarter of 2016.

Other activity The HSBC Group held a lease of branch premises in London which it entered into in 2005 and was due to expire in 2010. The landlord of the premises is owned by the Iranian government. The HSBC Group exercised the break clause in the lease and exited the property during 2015. During the third quarter of 2016, the HSBC Group paid all outstanding rent and service charges to the landlord, and also made a payment to a third party company that dealt with refurbishment to the property.

For the activity in this section, there was no measurable gross revenue or net profit to HSBC in the third quarter of 2016.

Frozen accounts and transactions The HSBC Group and HSBC Bank USA (a subsidiary of HUSI) maintain several accounts that are frozen under relevant sanctions programs and on which no activity, except as licensed or otherwise authorized, took place during the third quarter of 2016. There was no measurable gross revenue or net profit to the HSBC Group and HSBC Bank USA in the third quarter of 2016 relating to these frozen accounts.

Item 6. Exhibits

- 3(i) Articles of Incorporation and amendments and supplements thereto (incorporated by reference to Exhibit 3 (a) to HSBC USA Inc.'s Annual Report on Form 10-K for the year ended December 31, 1999, Exhibit 3 to HSBC USA Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2000, Exhibits 3.2 and 3.3 to HSBC USA Inc.'s Current Report on Form 8-K filed April 4, 2005; Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed October 14, 2005, Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed May 22, 2006 and Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed on May 31, 2016).
- 3(ii) Bylaws of HSBC USA Inc., as Amended and Restated effective April 28, 2016 (incorporated by reference to Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed May 2, 2016).
- 12 Computation of Ratio of Earnings to Fixed Charges and Earnings to Combined Fixed Charges and Preferred Stock Dividends.
- 31 Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32 Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS XBRL Instance Document⁽¹⁾
- 101.SCH XBRL Taxonomy Extension Schema Document⁽¹⁾
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document⁽¹⁾
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document⁽¹⁾
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document⁽¹⁾
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document⁽¹⁾

⁽¹⁾ Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, formatted in eXtensible Business Reporting Language ("XBRL") interactive data files: (i) the Consolidated Statement of Income for the three and nine months ended September 30, 2016 and 2015, (ii) the Consolidated Statement of Comprehensive Income (Loss) for the three and nine months ended September 30, 2016 and 2015, (iii) the Consolidated Balance Sheet at September 30, 2016 and December 31, 2015, (iv) the Consolidated Statement of Changes in Shareholders' Equity for the nine months ended September 30, 2016 and 2015, (v) the Consolidated Statement of Cash Flows for the nine months ended September 30, 2016 and 2015, and (vi) the Notes to Consolidated Financial Statements.

Index

- Assets:
 - by business segment 47
 - consolidated average balances 135
 - fair value measurements 60
 - nonperforming 18, 23, 25, 117
 - trading 10, 89
- Asset-backed commercial paper conduits 51
- Asset-backed securities 11, 62, 74, 127
- Balance sheet:
 - consolidated 5
 - consolidated average balances 135
 - review 86
- Basel III 49, 120, 122, 131
- Basis of reporting 85
- Business:
 - consolidated performance review 82
- Capital:
 - 2016 funding strategy 123
 - common equity movements 121
 - consolidated statement of changes 7
 - regulatory capital 48
 - selected capital ratios 49, 82, 121, 131
- Cash flow (consolidated) 8
- Cautionary statement regarding forward-looking statements 80
- Collateral — pledged assets 56
- Collateralized debt obligations 74, 127
- Commercial banking segment results (IFRSs) 47, 105
- Compliance risk 128, 134
- Controls and procedures 137
- Credit card fees 96
- Credit quality 111
- Credit risk:
 - adjustment 58
 - component of fair value option 39
 - concentration 25, 118
 - exposure 128
 - management 127, 128
 - related arrangements 52
 - related contingent features 36
- Deposits 90, 121
- Derivatives:
 - cash flow hedges 34
 - fair value hedges 33
 - notional value 37
 - trading and other 35
- Economic environment 82
- Equity:
 - consolidated statement of changes 7
 - ratios 49, 82, 121, 131
- Equity securities available-for-sale 11
- Estimates and assumptions 9
- Executive overview 82
- Fair value measurements:
 - assets and liabilities recorded at fair value on a non-recurring basis 71
 - assets and liabilities recorded at fair value on a recurring basis 62
 - control over valuation process 125
 - financial instruments 60
 - hierarchy 58, 125
 - transfers into/out of level one and two 64
 - transfers into/out of level two and three 64
 - valuation techniques 68
- Fiduciary risk 128, 134
- Financial assets:
 - designated at fair value 39
 - reclassification under IFRSs 47, 85
- Financial highlights metrics 82
- Financial liabilities:
 - designated at fair value 39
 - fair value of financial liabilities 60
- Forward looking statements 80
- Funding 123
- Gain (loss) on instruments designated at fair value and related derivatives 40
- Gains (losses) from securities 3, 15
- Geographic concentration of loans 119
- Global Banking and Markets 47, 106
- Goodwill 5, 30
- Guarantee arrangements 52
- Impairment:
 - available-for-sale securities 14
 - credit losses 26, 94
 - impaired loans 19, 22
 - nonperforming loans 18, 23, 25, 117
- Income (loss) from financial instruments designated at fair value, net 40
- Income tax expenses 3, 102
- Intangible assets 5, 29
- Interest rate risk 128, 130
- Internal control 137
- Key performance indicators 82
- Legal proceedings 137
- Liabilities:
 - commitments, lines of credit 53, 124
 - deposits 90, 121
 - financial liabilities designated at fair value 39
 - liquidity and capital resources 120
 - long-term debt 43, 60, 90, 121
 - short-term borrowings 43, 60, 90, 120
 - trading 10, 89
- Liquidity risk 128, 129
- Litigation and regulatory matters 76
- Loans:
 - by category 16, 87
 - by charge-off (net) 26, 116

- by delinquency 24, 115
- criticized assets 23
- geographic concentration 119
- held for sale 28, 88
- impaired 19
- nonperforming 18, 23, 25, 117
- overall review 87
- risk concentration 25, 118
- troubled debt restructures 19
- Loan impairment charges — *see Provision for credit losses*
- Loan-to-deposits ratio 83
- Loan to value (LTV) 87
- Market risk 128, 131
- Market turmoil:
 - exposures 131
 - impact on liquidity risk 129
- Monoline insurers 14, 126
- Mortgage lending products 16, 87
- Mortgage servicing rights 29, 30
- Net interest income 92
- New accounting pronouncements 77
- Off balance sheet arrangements 124
- Operating expenses 101
- Operational risk 128, 134
- Other assets held for sale 30
- Other revenue 96
- Other segment results (IFRSs) 47, 110
- Pension and other postretirement benefits 42
- Performance, developments and trends 82
- Pledged assets 56
- Private banking segment results (IFRSs) 47, 109
- Profit (loss) before tax:
 - by segment — IFRSs 47
 - consolidated 3
- Provision for credit losses 26, 94
- Ratios:
 - capital 49, 82, 121, 131
 - charge-off (net) 82, 113, 116
 - credit loss reserve related 113
 - delinquency 24, 83, 115
 - earnings to fixed charges — Exhibit 12
 - efficiency 82, 101
- Reconciliation of U.S. GAAP results to IFRSs 85
- Refreshed loan-to-value 87
- Regulation 120, 137
- Related party transactions 43
- Reputational risk 128, 134
- Residential Mortgage Revenue 96, 99
- Results of Operations 92
- Retail banking and wealth management segment results (IFRSs) 47, 103
- Risk elements in the loan portfolio 118
- Risk management:
 - compliance 128, 134
 - credit 127, 128
 - fiduciary 128, 134
 - interest rate 128, 130
 - liquidity 128, 129
 - market 128, 131
 - model 128, 134
 - operational 128, 134
 - pension 128, 134
 - reputational 128, 134
 - security and fraud risk 128, 134
 - strategic 128, 134
- Securities:
 - amortized cost 11
 - fair value 11
 - impairment 14
 - maturity analysis 15
- Segment results - IFRSs basis:
 - commercial banking 47, 105
 - global banking and markets 47, 106
 - other 47, 110
 - overall summary 47, 103
 - private banking 47, 109
 - retail banking and wealth management 47, 103
- Selected financial data 82
- Sensitivity:
 - projected net interest income 130
- Statement of changes in comprehensive income 4
- Statement of changes in shareholders' equity 7
- Statement of income 3
- Strategic risk 128, 134
- Stress testing 122
- Table of contents 2
- Tax expense 3, 102
- Trading:
 - assets 10, 89
 - derivatives 10, 89
 - liabilities 10, 89
 - portfolios 10, 89
- Trading revenue (net) 97
- Troubled debt restructures 19
- Value at risk 131
- Variable interest entities 50

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, HSBC USA Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: November 7, 2016

HSBC USA INC.

By: /s/ MARK A. ZAESKE

Mark A. Zaeske

Senior Executive Vice President and
Chief Financial Officer

Exhibit Index

| | |
|---------|--|
| 3(i) | Articles of Incorporation and amendments and supplements thereto (incorporated by reference to Exhibit 3(a) to HSBC USA Inc.'s Annual Report on Form 10-K for the year ended December 31, 1999, Exhibit 3 to HSBC USA Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2000, Exhibits 3.2 and 3.3 to HSBC USA Inc.'s Current Report on Form 8-K filed April 4, 2005; Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed October 14, 2005, Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed May 22, 2006 and Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed May 31, 2016). |
| 3(ii) | Bylaws of HSBC USA Inc., as Amended and Restated effective April 28, 2016 (incorporated by reference to Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed May 2, 2016). |
| 12 | Computation of Ratio of Earnings to Fixed Charges and Earnings to Combined Fixed Charges and Preferred Stock Dividends. |
| 31 | Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32 | Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101.INS | XBRL Instance Document ⁽¹⁾ |
| 101.SCH | XBRL Taxonomy Extension Schema Document ⁽¹⁾ |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document ⁽¹⁾ |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document ⁽¹⁾ |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document ⁽¹⁾ |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document ⁽¹⁾ |

⁽¹⁾ Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, formatted in eXtensible Business Reporting Language ("XBRL") interactive data files: (i) the Consolidated Statement of Income for the three and nine months ended September 30, 2016 and 2015, (ii) the Consolidated Statement of Comprehensive Income (Loss) for the three and nine months ended September 30, 2016 and 2015, (iii) the Consolidated Balance Sheet at September 30, 2016 and December 31, 2015, (iv) the Consolidated Statement of Changes in Shareholders' Equity for the nine months ended September 30, 2016 and 2015, (v) the Consolidated Statement of Cash Flows for the nine months ended September 30, 2016 and 2015, and (vi) the Notes to Consolidated Financial Statements.

HSBC USA INC.
COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES AND
EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

| | Nine Months Ended September 30, | |
|--|---------------------------------|-----------------|
| | 2016 | 2015 |
| | (dollars are in millions) | |
| Ratios excluding interest on deposits: | | |
| Income from continuing operations..... | \$ 166 | \$ 455 |
| Income tax expense..... | 100 | 285 |
| Fixed charges: | | |
| Interest on: | | |
| Short-term borrowings | 61 | 35 |
| Long-term debt..... | 613 | 524 |
| Others | 12 | 10 |
| One third of rents, net of income from subleases | 19 | 22 |
| Total fixed charges, excluding interest on deposits..... | <u>705</u> | <u>591</u> |
| Earnings from continuing operations before taxes and fixed charges..... | \$ 971 | \$ 1,331 |
| Ratio of earnings to fixed charges | <u>1.38</u> | <u>2.25</u> |
| Preferred stock dividends ⁽¹⁾ | \$ 45 | \$ 81 |
| Fixed charges, including preferred stock dividends | <u>\$ 750</u> | <u>\$ 672</u> |
| Ratio of earnings to fixed charges, including preferred stock dividends..... | <u>1.29</u> | <u>1.98</u> |
| Ratios including interest on deposits: | | |
| Total fixed charges, excluding interest on deposits..... | \$ 705 | \$ 591 |
| Add: Interest on deposits | 344 | 177 |
| Total fixed charges, including interest on deposits..... | <u>\$ 1,049</u> | <u>\$ 768</u> |
| Earnings from continuing operations before taxes and fixed charges..... | \$ 971 | \$ 1,331 |
| Add: Interest on deposits | 344 | 177 |
| Earnings from continuing operations before taxes and fixed charges, including interest on deposits | <u>\$ 1,315</u> | <u>\$ 1,508</u> |
| Ratio of earnings to fixed charges, including interest on deposits | <u>1.25</u> | <u>1.96</u> |
| Fixed charges, including preferred stock dividends | \$ 750 | \$ 672 |
| Add: Interest on deposits | 344 | 177 |
| Fixed charges, including interest on deposits and the preferred stock dividend factor..... | <u>\$ 1,094</u> | <u>\$ 849</u> |
| Ratio of earnings to fixed charges, including interest on deposits and preferred stock dividends..... | <u>1.20</u> | <u>1.78</u> |

⁽¹⁾ Preferred stock dividends are grossed up to their pretax equivalents.

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

Certification of Chief Executive Officer

I, Patrick J. Burke, certify that:

1. I have reviewed this report on Form 10-Q of HSBC USA Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2016

/s/ PATRICK J. BURKE

Patrick J. Burke

Chairman of the Board, President
and Chief Executive Officer

Certification of Chief Financial Officer

I, Mark A. Zaeske, certify that:

1. I have reviewed this report on Form 10-Q of HSBC USA Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2016

/s/ MARK A. ZAESKE

Mark A. Zaeske
Senior Executive Vice President and
Chief Financial Officer

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

**Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

The certification set forth below is being submitted in connection with the HSBC USA Inc. (the “Company”) Quarterly Report on Form 10-Q for the period ending September 30, 2016 as filed with the Securities and Exchange Commission on the date hereof (the “Report”) for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code.

I, Patrick J. Burke, certify that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of HSBC USA Inc.

Date: November 7, 2016

/s/ PATRICK J. BURKE

Patrick J. Burke

Chairman of the Board, President
and Chief Executive Officer

This certification accompanies each Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by HSBC USA Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

The signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to HSBC USA Inc. and will be retained by HSBC USA Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

**Certification pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

The certification set forth below is being submitted in connection with the HSBC USA Inc. (the "Company") Quarterly Report on Form 10-Q for the period ending September 30, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

I, Mark A. Zaeske, certify that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of HSBC USA Inc.

Date: November 7, 2016

/s/ MARK A. ZAESKE

Mark A. Zaeske

Senior Executive Vice President and
Chief Financial Officer

This certification accompanies each Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by HSBC USA Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

The signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to HSBC USA Inc. and will be retained by HSBC USA Inc. and furnished to the Securities and Exchange Commission or its staff upon request.