

JPMORGAN CHASE & CO  
Form 10-Q  
August 03, 2016

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-Q  
Quarterly report pursuant to Section 13 or 15(d) of  
the Securities Exchange Act of 1934  
For the quarterly period ended Commission file  
June 30, 2016 number 1-5805

JPMorgan Chase & Co.  
(Exact name of registrant as specified in its charter)  
Delaware 13-2624428  
(State or other jurisdiction of (I.R.S. employer  
incorporation or organization) identification no.)

270 Park Avenue, New York, New York 10017  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (212) 270-6000

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 (§232.405 of this chapter) 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.

Large accelerated filer  Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)  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

Number of shares of common stock outstanding as of June 30, 2016: 3,611,982,360

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JPMorgan Chase & Co.  
 Consolidated financial highlights  
 (unaudited)

Six months ended  
 June 30,

As of or for the period ended, (in millions, except share, ratio, headcount data and where otherwise noted)	1Q16	4Q15	3Q15	2Q15	2016	2015
Selected income statement data						
Total revenue	\$24,380	\$23,239	\$22,885	\$22,780	\$23,812	\$47,619
Total interest expense	13,618	13,837	14,263	15,368	14,500	27,475
Pre-provision profit	10,742	9,402	8,622	7,412	9,312	20,144
Provision for credit losses	1,402	1,824	1,251	682	935	3,226
Income before income tax expense	9,340	7,578	7,371	6,730	8,377	16,918
Income tax expense/(benefit)	1,140	2,058	1,937	(74)	2,087	5,198
Net income	\$6,200	\$5,520	\$5,434	\$6,804	\$6,290	\$11,720
Earnings per						

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share data							
Net Income:	\$1.36	\$1.34	\$1.70	\$1.56	\$2.92	\$3.02	
Basic Diluted	1.35	1.32	1.68	1.54	2.89	2.99	
Average Shares	3,669.9	3,674.2	3,694.4	3,707.8	3,652.9	3,716.6	
Basic Diluted	3,696.9	3,704.6	3,725.6	3,743.6	3,681.7	3,750.5	
Market and per common share data							
Market capitalization	216,547	241,899	224,438	250,581	224,449	250,581	
Common shares at period-end	3,612.0	3,663.5	3,681.1	3,698.1	3,612.0	3,698.1	
Share price <sup>(a)</sup> :							
Book value per share	\$64.13	\$69.03	\$70.61	\$69.82	\$66.20	\$69.82	
Tangible book value per share	52.50	58.53	50.07	59.65	52.50	54.27	
Book value per share	59.22	66.03	60.97	67.76	62.14	67.76	
Tangible book value per share	61.28	60.46	59.67	58.49	62.67	58.49	
Tangible book value per share	48.96	48.13	47.36	46.13	50.21	46.13	
Cash dividends declared per share	0.44	0.44	0.44	0.44	0.92	0.84	
Selected ratios and metrics							
Return on common equity ("ROE")	%9	%9	%12	%11	%10	%11	%

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Return on tangible common equity ("ROTCE <sup>(b)</sup> ")	12	11	15	14	12	14	
Return on assets ("ROA")	0.93	0.90	1.11	1.01	0.97	0.97	
Overhead ratio	60	62	67	61	58	61	
Loans-to-deposits ratio	64	65	64	61	66	61	
High quality liquid assets ("HQLA") (in billions) <sup>(c)</sup>	\$505	\$496	\$505	\$532	\$516	\$532	
Common equity Tier 1 capital ratio <sup>(d)</sup>	11.9	% 11.8%	11.5	% 11.2	% 12.0	% 11.2	%
Tier 1 capital ratio <sup>(d)</sup>	13.5	13.5	13.3	12.8	13.6	12.8	
Total capital ratio <sup>(d)</sup>	15.1	15.1	14.9	14.4	15.2	14.4	
Tier 1 leverage ratio <sup>(d)</sup>	8.6	8.5	8.4	8.0	8.5	8.0	
Selected balance sheet data (period-end)							
Trading assets	\$380,793	\$366,153	\$343,839	\$361,708	\$377,870	\$380,793	\$377,870
Other assets	\$78,610	\$78,610	\$78,610	\$78,610	\$78,610	\$78,610	\$78,610
Loans	\$721,804	\$847,313	\$837,299	\$809,457	\$791,247	\$872,804	\$791,247
Core loans	\$775,813	\$746,196	\$732,093	\$698,988	\$674,767	\$775,813	\$674,767
	\$760,721	\$737,297	\$715,282	\$680,224	\$654,551	\$749,009	\$643,315



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Average core loans						
Total assets	2,466,096	2,423,808	2,351,698	2,416,635	2,449,098	2,466,096
Deposits	1,330,958	1,321,816	1,279,715	1,273,106	1,287,332	1,330,958
Long-term debt <sup>(e)</sup>	295,627	290,754	288,651	292,503	286,240	295,627
Common stockholders' equity	226,355	224,089	221,505	219,660	216,287	226,355
Total stockholders' equity	252,423	250,157	247,573	245,728	241,205	252,423
Headline	237,420	237,420	234,598	235,678	237,459	240,046
Credit quality metrics						
Allowance for credit losses	\$15,187	\$15,008	\$14,341	\$14,201	\$14,535	\$15,187
Allowance for loan losses to total retained loans	1.64%	1.66%	1.63%	1.67%	1.78%	1.64%
Allowance for loan losses to retained loans excluding purchased credit-impaired loans <sup>(f)</sup>	1.40	1.40	1.37	1.40	1.45	1.40
Nonperforming assets	\$7,757	\$8,023	\$7,034	\$7,294	\$7,588	\$7,757
Net charge-offs	1,181	1,110	1,064	963	1,007	2,291
Net charge-off rate	0.56%	0.53%	0.52%	0.49%	0.53%	0.54%

Note: Effective January 1, 2016, the Firm adopted new accounting guidance related to (1) the recognition and measurement of debit valuation adjustments (“DVA”) on financial liabilities where the fair value option has been elected, and (2) the accounting for employee stock-based incentive payments. For additional information, see

Accounting and Reporting Developments on pages 78–79 and Notes 3, 4, and 19.

- (a) Share prices shown for JPMorgan Chase’s common stock are from the New York Stock Exchange. TBVPS and ROTCE are considered key financial performance measures. For further discussion of these measures, see Explanation and Reconciliation of the Firm’s Use of Non-GAAP Financial Measures and Key Financial Performance Measures on pages 16–17.
- (b) HQLA represents the amount of assets that qualify for inclusion in the liquidity coverage ratio under the final U.S. rule (“U.S. LCR”). For additional information, see HQLA on page 70.
- (c) Ratios presented are calculated under the Basel III Transitional capital rules and represent the Collins Floor. See Capital Management on pages 63–69 for additional information on Basel III.
- (d) Included unsecured long-term debt of \$220.6 billion, \$216.1 billion, \$211.8 billion, \$214.6 billion and \$209.1 billion at June 30, 2016, March 31, 2016, December 31, 2015, September 30, 2015 and June 30, 2015, respectively. Excluded the impact of residential real estate purchased credit-impaired (“PCI”) loans, a non-GAAP financial measure. For further discussion of these measures, see Explanation and Reconciliation of the Firm’s Use of Non-GAAP Financial Measures and Key Performance Measures on pages 16–17. For further discussion, see Allowance for credit losses on pages 55–57.
- (e)
- (f)

## INTRODUCTION

The following is management's discussion and analysis ("MD&A") of the financial condition and results of operations of JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") for the second quarter of 2016.

This Form 10-Q should be read in conjunction with JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the U.S. Securities and Exchange Commission ("2015 Annual Report or 2015 Form 10-K"), to which reference is hereby made. See the Glossary of terms and acronyms on pages 169–176 for definitions of terms and acronyms used throughout this Form 10-Q.

The MD&A included in this Form 10-Q contains statements that are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on the current beliefs and expectations of JPMorgan Chase's management and are subject to significant risks and uncertainties. Actual results may differ from those set forth in the forward-looking statements. For a discussion of certain of those risks and uncertainties and the factors that could cause JPMorgan Chase's actual results to differ materially because of those risks and uncertainties, see Forward-looking Statements on page 80 of this Form 10-Q and Part I, Item 1A, Risk Factors, on pages 8–18 of JPMorgan Chase's 2015 Annual Report.

JPMorgan Chase & Co., a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America ("U.S."), with operations worldwide; the Firm had \$2.5 trillion in assets and \$252.4 billion in stockholders' equity as of June 30, 2016. The Firm is a leader in investment banking, financial

services for consumers and small businesses, commercial banking, financial transaction processing and asset management. Under the J.P. Morgan and Chase brands, the Firm serves millions of customers in the U.S. and many of the world's most prominent corporate, institutional and government clients.

JPMorgan Chase's principal bank subsidiaries are JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), a national banking association with U.S. branches in 23 states, and Chase Bank USA, National Association ("Chase Bank USA, N.A."), a national banking association that is the Firm's credit card-issuing bank. JPMorgan Chase's principal nonbank subsidiary is JPMorgan Securities LLC ("JPMorgan Securities"), the Firm's U.S. investment banking firm. The bank and nonbank subsidiaries of JPMorgan Chase operate nationally as well as through overseas branches and subsidiaries, representative offices and subsidiary foreign banks. One of the Firm's principal operating subsidiaries in the United Kingdom ("U.K.") is J.P. Morgan Securities plc, a subsidiary of JPMorgan Chase Bank, N.A.

For management reporting purposes, the Firm's activities are organized into four major reportable business segments, as well as a Corporate segment. The Firm's consumer business is the Consumer & Community Banking ("CCB") segment. The Firm's wholesale business segments are Corporate & Investment Bank ("CIB"), Commercial Banking ("CB"), and Asset Management ("AM"). For a description of the Firm's business segments, and the products and services they provide to their respective client bases, refer to Note 33 of JPMorgan Chase's 2015 Annual Report.

EXECUTIVE  
OVERVIEW

This executive overview of the MD&A highlights selected information and may not contain all of the information that is important to readers of this Form 10-Q. For a complete description of the trends and uncertainties, as well as the risks and critical accounting estimates affecting the Firm and its various lines of business, this Form 10-Q should be read in its entirety.

Financial performance of JPMorgan Chase  
(unaudited)

As of or for the period ended, (in millions, except per share data and ratios)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Selected income statement data						
Total net revenue	\$24,380	\$23,812	2 %	\$47,619	\$47,878	(1)%
Total noninterest expense	13,638	14,500	(6 )	27,475	29,383	(6 )
Pre-provision profit	10,742	9,312	15	20,144	18,495	9
Provision for credit losses	1,402	935	50	3,226	1,894	70
Net income	6,200	6,290	(1 )	11,720	12,204	(4 )
Diluted earnings per share	\$1.55	\$1.54	1 %	\$2.89	\$2.99	(3 )%
Return on common equity	10	% 11	%	10	% 11	%
Capital ratios <sup>(a)</sup>						
CET1	12.0	11.2		12.0	11.2	
Tier 1 capital	13.6	12.8		13.6	12.8	

(a) Ratios presented are calculated under the transitional Basel III rules and represent the Collins Floor. See Capital Management on pages 63–69 for additional information on Basel III.

## Business Overview

JPMorgan Chase reported second-quarter 2016 net income of \$6.2 billion, or \$1.55 per share, on net revenue of \$24.4 billion. Net income was relatively flat compared with the second quarter of 2015. The Firm reported a ROE of 10% and a ROTCE of 13%.

Total net revenue was \$24.4 billion, up 2% compared with the prior year. Net interest income increased primarily driven by loan growth across businesses and the impact of higher rates, partially offset by lower investment securities balances. Noninterest revenue of \$13.0 billion was flat, with an increase in CIB Markets revenue offset by lower revenue in AM, lower CIB Investment Banking revenue and the impact of renegotiated Card co-brand partnership agreements.

Noninterest expense was \$13.6 billion, down 6% compared with the prior year, driven by a net legal benefit in the current quarter and continued expense reduction initiatives.

The provision for credit losses was \$1.4 billion, up from \$935 million, reflecting an increase in the allowance for credit losses in the current quarter versus decreases in the allowance for credit losses in the prior-year quarter. The current quarter reflected higher net charge-offs in wholesale, primarily driven by the Oil & Gas and Metals & Mining portfolios.

The total allowance for credit losses was \$15.2 billion at June 30, 2016. At the end of the second quarter of 2016, the Firm had a loan loss coverage ratio, excluding the PCI portfolio, of 1.40%, compared with 1.45% in the prior-year quarter. The Firm's allowance for loan losses to retained nonaccrual loans, excluding the PCI and credit card portfolios, was 110%, compared with 109% in the prior-year quarter. The Firm's nonperforming assets totaled \$7.8

billion, down from the prior-quarter level of \$8.0 billion and up from the prior-year level of \$7.6 billion.

Firmwide average core loans increased 16% compared with the prior-year quarter and 3% compared with the first quarter of 2016. Within CCB, average core loans were up 23% over the prior-year quarter. CCB had record growth in average deposits, up \$54 billion, or 10%, over the prior-year quarter. Credit card sales volume was up 8% and merchant processing volume was up 13% from the prior-year quarter. CCB had nearly 25 million active mobile customers in the second quarter of 2016, up 18% over the prior-year quarter.

CIB maintained its #1 ranking for Global Investment Banking fees with a 7.9% wallet share for the second quarter of 2016. Within CB, average loans were up 13% from the prior-year quarter. AM had record average loans, up 4% over the prior-year quarter and 81% of AM's mutual fund assets under management ranked in the 1st or 2nd quartiles over the past 5 years.

For a detailed discussion of results by line of business, refer to the Business Segment Results on pages 18–39.

The Firm maintained its fortress balance sheet and added to its capital, ending the second quarter of 2016 with a TBVPS of \$50.21, up 9% over the prior-year quarter. The Firm's estimated Basel III Advanced Fully Phased-In CET1 capital and ratio were \$179 billion and 11.9%, respectively. The Fully Phased-In supplementary leverage ratio ("SLR") for the Firm and for JPMorgan Chase Bank, N.A. was each 6.6% at June 30, 2016. The Firm also was compliant with the Fully Phased-In U.S. LCR and had \$516 billion of HQLA as of June 30, 2016. For further discussion of the liquidity coverage ratio ("LCR") and HQLA, see Liquidity Risk Management on pages 70–74.

Key performance measures: ROTCE and TBVPS are considered key financial performance measures. Each of the Fully Phased-In capital and leverage measures is considered a key regulatory capital measure.

For further discussion of Basel III Advanced Fully Phased-In measures and the SLR under the U.S. final SLR rule, see Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures and Key Performance Measures on pages 16–17, and Capital Management on pages 63–69.

JPMorgan Chase continues to support consumers, businesses and communities around the globe. The Firm provided credit and raised capital of \$1.2 trillion for commercial and consumer clients during the first six months of 2016. This included providing \$369 billion of credit to corporations, \$123 billion to consumers, and \$12 billion to U.S. small businesses. During the first six months of 2016, the Firm also raised \$599 billion of capital for corporate clients and non-U.S. government entities and provided credit and raised capital of \$47 billion for nonprofit and U.S. government entities, including U.S. states, municipalities, hospitals and universities.

#### Regulatory and business developments

In March 2016, the Basel Committee proposed revisions to the operational and credit risk capital frameworks of Basel III and in April 2016, proposed a recalibration of the leverage ratio, changes to the definition of defaulted assets and finalized the treatment of interest rate risk in the banking book. As these proposals are finalized by the Basel Committee, U.S. banking regulators will propose requirements applicable to U.S. financial institutions. In March 2016, the Federal Reserve Board released a revised proposal to establish single-counterparty credit limits for large U.S. bank holding companies and foreign banking organizations. The Firm continues to assess the impacts as the proposed rules are finalized and will make appropriate adjustments to its businesses in response to these and other ongoing developments in regulatory requirements.

On April 6, 2016, the U.S. Department of Labor (“DOL”) issued its final “fiduciary” rule. The rule will deem many of the investment, rollover and asset management recommendations from broker-dealers, banks and other financial institutions to clients regarding their individual retirement accounts and other retirement accounts fiduciary “investment advice” under the Employee Retirement Income Security Act of 1974 (“ERISA”), as amended. Among the most significant impacts of the rule and related prohibited transaction exemptions will be the impact on the fee and compensation practices at financial institutions and on certain fee and revenue sharing arrangements among funds, fund sponsors and the financial institutions that offer investment advice to retail retirement clients. The related exemptions may require new client contracts, adherence to “impartial conduct” standards (including a requirement to act in the “best interest” of retirement clients) the adoption of related policies and procedures, as well as website and other disclosures to both investors and the DOL. The Firm believes it will be able to

conform its business practices to meet the requirements of the new rule and exemptions within the prescribed time periods.

On April 13, 2016, the Federal Deposit Insurance Corporation (“FDIC”) and the Board of Governors of the Federal Reserve System (the “Federal Reserve”) jointly announced determinations and provided firm-specific feedback on the 2015 resolution plans of eight systemically important domestic banking institutions, including the Firm. The FDIC and the Federal Reserve jointly determined that the 2015 resolution plan of the Firm, along with the 2015 resolution plans of four other U.S. banking institutions, was not credible or would not facilitate an orderly resolution under the U.S. Bankruptcy Code, as provided under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”), because the plan contained certain deficiencies identified by the two agencies. If the Firm does not adequately remediate the identified deficiencies in its plan by October 1, 2016, the FDIC and the Federal Reserve may impose more stringent prudential requirements on the Firm, including more stringent capital, leverage, or liquidity requirements, as well as restrictions on the growth, activities, or operations of the Firm, or its subsidiaries. The FDIC and the Federal Reserve also identified certain shortcomings in the Firm's 2015 resolution plan which must be satisfactorily addressed in the Firm's resolution plan due on July 1, 2017. The Firm is committed to meeting the regulators' expectations and fully remediating the identified deficiencies and shortcomings within the prescribed deadlines.

On June 23, 2016, the U.K. conducted a referendum and voted to leave the European Union. Many international banks, including the Firm, operate substantial parts of their European Union business from entities based in the U.K. Upon the U.K. leaving the European Union, the regulatory and legal environment that would then exist, and to which

the Firm's U.K. operations would then be subject, will depend on, in certain respects, the nature of the arrangements agreed with the European Union and other trading partners.

These arrangements cannot be predicted, but currently the Firm does not believe any of the likely identified scenarios would threaten the viability of the Firm's business units or the Firm's ability to serve clients across the European Union and in the U.K. However, it is possible that under some scenarios, changes to the Firm's legal entity structure and operations would be required, which might result in a less efficient operating model across the Firm's European legal entities.

On June 29, 2016, the Federal Reserve informed the Firm that it did not object, on either a quantitative or qualitative basis, to the Firm's 2016 capital plan, submitted under the Comprehensive Capital Analysis and Review ("CCAR"). For additional information see Capital Management on pages 63–69.

## 2016 Business outlook

These current expectations are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on the current beliefs and expectations of JPMorgan Chase's management and are subject to significant risks and uncertainties. These risks and uncertainties could cause the Firm's actual results to differ materially from those set forth in such forward-looking statements. See Forward-Looking Statements on page 80 of this Form 10-Q and Risk Factors on pages 8–18 of JPMorgan Chase's 2015 Annual Report. There is no assurance that actual results for the full year of 2016 will be in line with the outlook set forth below, and the Firm does not undertake to update any of these forward-looking statements to reflect the impact of circumstances or events that arise after the date hereof.

JPMorgan Chase's outlook for the remainder of 2016 should be viewed against the backdrop of the global and U.S. economies, financial markets activity, the geopolitical environment, the competitive environment, client activity levels, and regulatory and legislative developments in the U.S. and other countries where the Firm does business. Each of these interrelated factors will affect the performance of the Firm and its lines of business. The Firm expects it will continue to make appropriate adjustments to its businesses and operations in response to ongoing developments in the legal and regulatory, as well as business and economic, environment in which it operates.

Assuming there are no changes in interest rates during the remainder of 2016, management expects full-year 2016 net interest income could be over \$2 billion higher compared to 2015 levels, reflecting the Federal Reserve's rate increase in December 2015 and anticipated loan growth.

Management also expects managed noninterest revenue of approximately \$50 billion in 2016, although actual results will depend on market conditions. The anticipated decline from 2015 levels is expected to be driven primarily by lower Card revenue, reflecting renegotiated co-brand partnership agreements, lower Investment Banking fees and lower Asset Management revenue.

Management expects core loan growth of approximately 10%-15% in 2016 as well as continued growth in consumer deposits; as a result of these two factors, the Firm's average balance sheet is anticipated to reach approximately \$2.45 trillion in 2016.

The Firm continues to experience charge-offs at levels lower than its through-the-cycle expectations reflecting favorable credit trends across the consumer and wholesale portfolios (excluding the Oil & Gas and Metals & Mining portfolios). Management expects total net charge-offs of up to approximately \$4.75 billion in 2016, with the increase from 2015 levels driven by loan growth as well as higher charge-offs in the Oil & Gas portfolio.

The Firm continues to take a disciplined approach to managing its expenses, while investing in growth and innovation. The Firm intends to leverage its scale and improve its operating efficiencies, in order to reinvest its expense savings in additional technology and marketing investments and fund other growth initiatives. As a result, Firmwide adjusted expense in 2016 is expected to be approximately \$56 billion (excluding Firmwide legal expense).



CONSOLIDATED  
RESULTS OF  
OPERATIONS

This section provides a comparative discussion of JPMorgan Chase's Consolidated Results of Operations on a reported basis for the three and six months ended June 30, 2016 and 2015, unless otherwise specified. Factors that relate primarily to a single business segment are discussed in more detail within that business segment. For a discussion of the Critical Accounting Estimates Used by the Firm that affect the Consolidated Results of Operations, see pages 76–77 of this Form 10-Q and pages 165–169 of JPMorgan Chase's 2015 Annual Report.

Revenue

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Investment banking fees	\$1,644	\$1,833	(10 )%	\$2,977	\$3,627	(18 )%
Principal transactions	2,976	2,834	5	5,655	6,489	(13 )
Lending- and deposit-related fees	1,403	1,418	(1 )	2,806	2,781	1
Asset management, administration and commissions	3,681	4,015	(8 )	7,305	7,822	(7 )
Securities gains	21	44	(52 )	72	96	(25 )
Mortgage fees and related income	689	783	(12 )	1,356	1,488	(9 )
Card income	1,358	1,615	(16 )	2,659	3,046	(13 )
Other income <sup>(a)</sup>	1,261	586	115	2,062	1,168	77
Noninterest revenue	13,033	13,128	(1 )	24,892	26,517	(6 )
Net interest income	11,347	10,684	6	22,727	21,361	6
Total net revenue	\$24,380	\$23,812	2%	\$47,619	\$47,878	(1)%

Included operating lease income of \$651 million and \$504 million for the three months ended June 30, 2016 and (a) 2015, respectively, and \$1.3 billion and \$973 million for the six months ended June 30, 2016 and 2015, respectively.

Quarterly results

Total net revenue was up by 2% primarily reflecting higher net interest income. Noninterest revenue was flat, with the increase in Markets revenue in CIB and higher other income, which included a gain in CCB on the sale of Visa Europe interests offset by lower revenue in AM, lower CIB Investment Banking revenue and the impact of renegotiated Card co-brand partnership agreements.

Investment banking fees decreased predominantly driven by lower equity underwriting fees compared to a strong quarter in the prior year, reflecting lower industry-wide fee levels. For additional information on investment banking fees, see CIB segment results on pages 25–29, CB segment results on pages 30–33 and Note 6.

Principal transactions revenue increased largely reflecting higher Fixed Income Markets revenue in CIB as a result of strong performance in Rates and Currencies & Emerging Markets on higher client flows driven by increased issuance-related activity, improved global emerging market sentiment and increased volumes in foreign exchange markets. Performance in Credit Products also improved as client risk appetite recovered in a less volatile environment driving higher primary and secondary market activity. The increase was partially offset by a net reduction in Credit Adjustments & Other in CIB, and fair value losses on the investment in Square in CCB. For additional information on principal transactions revenue, see CIB segment results on pages 25–29 and Note 6.

Lending- and deposit-related fees were flat. For information on lending- and deposit-related fees, see the segment results for CCB on pages 19–24, CIB on pages 25–29, and CB on pages 30–33.

Asset management, administration and commissions revenue decreased largely reflecting the impact of weaker markets (including generally lower average equity market values compared with the prior year), lower performance fees and lower brokerage activity, particularly in AM. For additional information on these fees and commissions, see the segment discussions of CCB on pages 19–24, AM on pages 34–37, and Note 6.

Mortgage fees and related income decreased due to lower servicing revenue, largely as a result of a lower level of third-party loans serviced, partially offset by higher net production revenue. For further information on mortgage fees and related income, see the segment discussion of CCB on pages 19–24 and Note 16.

Card income decreased due to the impact of renegotiated co-brand partnership agreements and higher amortization of new account origination costs. For further information, see CCB segment results on pages 19–24.

Other income increased predominantly reflecting a gain on the sale of Visa Europe interests and higher operating lease income reflecting growth in auto operating leased assets, both in CCB.

Net interest income increased primarily driven by loan growth across businesses and the impact of higher rates, partially offset by lower investment securities balances and higher interest expense on long-term debt primarily associated with hedging activity. The Firm's average interest-earning assets and net interest yield, on a fully taxable equivalent ("FTE") basis, were \$2.1 trillion and 2.25% (an increase of 16 basis points), respectively.

Year-to-date results

Total net revenue was flat, with the decrease in noninterest revenue offset by the increase in net interest income. The decrease in noninterest revenue was primarily driven by lower revenue in CIB and AM, and the impact of renegotiated Card co-brand partnership agreements, partially offset by higher other income, which included a gain in CCB on the sale of Visa Europe interests.

Investment banking fees decreased driven by lower equity and debt underwriting fees reflecting a decline in industry-wide fee levels. Debt underwriting fees were also impacted by fewer large acquisition finance deals.

Principal transactions revenue decreased largely reflecting the following in CIB: a net reduction in Credit Adjustments & Other on widening credit spreads, and lower Equity Markets revenue compared with a strong prior year, particularly in Asia.

Lending- and deposit-related fees were flat. For information on lending- and deposit-related fees, see the segment results for CCB on pages 19–24, CIB on pages 25–29, and CB on pages 30–33.

Asset management, administration and commissions revenue decreased largely reflecting the impact of the challenging market environment, particularly in AM.

Mortgage fees and related income decreased due to lower servicing revenue, largely as a result of a lower level of third-party loans serviced, and lower net production revenue, largely offset by higher mortgage servicing rights (“MSR”) risk management results.

Card income decreased due to the impact of renegotiated co-brand partnership agreements and higher amortization of new account origination costs, partially offset by higher card sales volume. For further information, see CCB segment results on pages 19–24.

Other income increased predominantly reflecting a gain on the sale of Visa Europe interests in CCB, a gain on sale of an asset in AM, higher operating lease income reflecting growth in auto operating leased assets in CCB, and the impact of a loss recorded in the prior year related to the accelerated amortization of cash flow hedges associated with the exit of certain non-operating deposits.

Net interest income increased primarily driven by loan growth across businesses and the impact of higher rates, partially offset by lower investment securities balances and higher interest expense on long-term debt primarily associated with hedging activity. The Firm’s average interest-earning assets and net interest yield, on a FTE basis, were \$2.1 trillion and 2.28% (an increase of 20 basis points), respectively.

Provision for credit losses

(in millions)	Three months ended			Six months ended June		
	June 30,		Change	30,		Change
2016	2015	2016		2015		
Consumer, excluding credit card	\$95	\$(98)	NM	\$316	\$44	NM
Credit card	1,110	800	39 %	1,940	1,589	22 %
Total consumer	1,205	702	72 %	2,256	1,633	38 %
Wholesale	197	233	(15) %	970	261	272 %
Total provision for credit losses	\$1,402	\$935	50 %	\$3,226	\$1,894	70 %

Quarterly results

The provision for credit losses increased due to additions to the allowance for credit losses compared with reductions in the prior year, and higher net charge-offs. The Consumer provision reflected an increase in the allowance for credit losses primarily driven by higher loss rates in newer credit card vintages, as well as growth in the credit card and auto loan portfolios, partially offset by reductions in the allowance due to continued improvement in home prices and delinquencies in the residential real estate portfolio, as well as runoff in the student loan portfolio. The Wholesale provision reflected higher net charge-offs primarily driven by Oil & Gas and Metals & Mining and a net addition to the allowance for credit losses of approximately \$50 million; the allowance reflected an increase of approximately \$200 million, driven by a single Oil & Gas name in the CIB, which was largely offset by releases in the allowance across the remainder of the portfolio.

For a more detailed discussion of the credit portfolio and the allowance for credit losses, see the segment discussions of CCB on pages 19–24, CIB on pages 25–29, CB on pages 30–33, and the Allowance for credit losses on pages 55–57. Year-to-date results

The provision for credit losses increased due to additions to the allowance for credit losses compared with reductions in the prior year, and higher net charge-offs. The Consumer provision reflected an increase in the allowance for credit losses primarily driven by higher loss rates in newer credit card vintages, as well as growth in the credit card and auto loan portfolios, partially offset by reductions in the allowance due to continued improvement in home prices and delinquencies in the residential real estate portfolio, as well as runoff in the student loan portfolio. The Wholesale provision reflected higher net charge-offs primarily driven by Oil & Gas and Metals & Mining and an addition to the allowance for credit losses of approximately \$750 million, reflecting an increase of approximately \$700 million related to the Oil & Gas and Natural Gas Pipelines portfolios.

## Noninterest expense

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Compensation expense	\$7,778	\$7,694	1 %	\$15,438	\$15,737	(2 )%
Noncompensation expense:						
Occupancy	899	923	(3 )	1,782	1,856	(4 )
Technology, communications and equipment	1,665	1,499	11	3,283	2,990	10
Professional and outside services	1,700	1,768	(4 )	3,248	3,402	(5 )
Marketing	672	642	5	1,375	1,233	12
Other expense <sup>(a)(b)</sup>	924	1,974	(53 )	2,349	4,165	(44 )
Total noncompensation expense	5,860	6,806	(14 )	12,037	13,646	(12 )
Total noninterest expense	\$13,638	\$14,500	(6 )%	\$27,475	\$29,383	(6 )%

Included firmwide legal expense of \$(430) million and \$291 million for the three months ended June 30, 2016 and (a)2015, respectively, and \$(476) million and \$978 million for the six months ended June 30, 2016 and 2015, respectively

Included FDIC-related expense of \$283 million and \$300 million for the three months ended June 30, 2016 and (b)2015, respectively, and \$552 million and \$618 million for the six months ended June 30, 2016 and 2015, respectively.

## Quarterly results

Total noninterest expense decreased by 6% driven by a net legal benefit in the current quarter compared with a legal expense in the prior year, and the impact of continued expense reduction initiatives.

Compensation expense increased predominantly driven by higher performance-based compensation expense in CIB, partially offset by the impact of continued expense reduction initiatives, including lower headcount in certain businesses (offset by higher headcount in Corporate).

Noncompensation expense decreased as a result of a net legal benefit in the current quarter (compared with a legal expense in the prior year), and lower professional services expense, including lower legal services expense; the prior year included a loss on an asset held for sale in AM. These factors were partially offset by higher depreciation expense reflecting growth in auto operating leased assets in CCB. For a further discussion of legal matters, see Note 23.

## Year-to-date results

Total noninterest expense decreased by 6% driven by a net legal benefit in the current year compared with a legal expense in the prior year, lower performance-based compensation expense, and the impact of continued expense reduction initiatives, partially offset by incremental investments and growth in the businesses.

Compensation expense decreased predominantly driven by lower performance-based compensation expense in CIB and AM, and the impact of continued expense reduction initiatives, including lower headcount in certain businesses (offset by higher headcount in Corporate).

Noncompensation expense decreased as a result of a net legal benefit in the current year (compared with a legal expense in the prior year); lower professional services expense, including lower legal services and contractors; lower regulatory-related expense; and the impact of the disposal of assets recorded in AM, partially offset by higher depreciation expense from growth in auto operating leased assets and higher investments in marketing, both in CCB; and the impact of a benefit recorded in the prior year from a franchise tax settlement. For a further discussion of legal matters, see Note 23.

## Income tax expense

(in millions, except rate)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Income before income tax expense	\$9,340	\$8,377	11 %	\$16,918	\$16,601	2 %
Income tax expense	3,140	2,087	50	5,198	4,397	18
Effective tax rate	33.6 %	24.9 %		30.7 %	26.5 %	

## Quarterly results

The effective tax rate increased due to higher income tax expense in the current period from tax audits, compared with higher income tax benefits in the prior year from tax audits. The increase was partially offset by changes in the mix of income and expense subject to U.S. federal and state and local taxes.

## Year-to-date results

The effective tax rate increased due to higher income tax expense in the current period from tax audits, compared with higher income tax benefits in the prior year from tax audits. The increase was partially offset by tax benefits from the adoption of new accounting guidance related to employee stock-based incentive payments, and changes in the mix of income and expense subject to U.S. federal and state and local taxes. For additional details on the impact of the new accounting guidance, see Accounting and Reporting Developments on pages 78–79.

CONSOLIDATED  
BALANCE  
SHEETS  
ANALYSIS

Consolidated balance sheets overview

The following is a discussion of the significant changes between June 30, 2016, and December 31, 2015.

Selected Consolidated balance sheets data

(in millions)	Jun 30, 2016	Dec 31, 2015	Change
Assets			
Cash and due from banks	\$19,710	\$20,490	(4 )%
Deposits with banks	345,595	340,015	2
Federal funds sold and securities purchased under resale agreements	237,267	212,575	12
Securities borrowed	103,225	98,721	5
Trading assets:			
Debt and equity instruments	302,347	284,162	6
Derivative receivables	78,446	59,677	31
Securities	278,610	290,827	(4 )
Loans	872,804	837,299	4
Allowance for loan losses	(14,227 )	(13,555 )	5
Loans, net of allowance for loan losses	858,577	823,744	4
Accrued interest and accounts receivable	64,911	46,605	39
Premises and equipment	14,262	14,362	(1 )
Goodwill	47,303	47,325	—
Mortgage servicing rights	5,072	6,608	(23 )
Other intangible assets	917	1,015	(10 )
Other assets	109,854	105,572	4
Total assets	\$2,466,096	\$2,351,698	5

Federal funds sold and securities purchased under resale agreements

The increase was due to higher demand for securities to cover short positions related to client-driven market-making activities in CIB, and the deployment of excess cash by Treasury. For additional information on the Firm's Liquidity Risk Management, see pages 70–74.

Trading assets and liabilities—debt and equity instruments

The increase in trading assets and liabilities was predominantly related to client-driven market-making activities in CIB. The increase in trading assets reflected higher debt instruments, partially offset by lower equity instruments. The increase in trading liabilities reflected higher levels of short positions in debt and equity instruments. For additional information, refer to Note 3.

Trading assets and liabilities—derivative receivables and payables

The increase in derivative receivables and payables was predominantly related to client-driven market-making activities in CIB, which resulted in higher interest rate and foreign exchange derivative receivables and payables, driven by market movements. For additional information, refer to Derivative contracts on pages 53–54, and Notes 3 and 5.

Securities

The decrease was predominantly due to net sales, maturities and paydowns in corporate debt securities and non-U.S. residential mortgage-backed securities reflecting a shift to loans. For additional information, see Notes 3 and 11.

Loans and allowance for loan losses

The increase in loans was driven by higher wholesale and consumer loans. The increase in wholesale loans was driven by strong originations of commercial and industrial loans in CB and CIB, and commercial real estate loans in CB. The

increase in consumer loans reflects retention of originated high-quality prime mortgages and growth in auto loans. The increase in the allowance for loan losses was attributable to additions to both the wholesale and consumer allowances. The increase in the wholesale allowance reflects downgrades in the Oil & Gas, Natural Gas Pipelines, and Metals & Mining portfolios. The increase in the consumer allowance was primarily driven by higher loss rates in newer credit card vintages, as well as growth in the credit card and auto loan portfolios, partially offset by reductions in the allowance due to continued improvement in home prices and delinquencies in the residential real estate portfolio, as well as runoff in the student loan portfolio. For a more detailed discussion of loans and the allowance for loan losses, refer to Credit Risk Management on pages 41–57, and Notes 3, 4, 13 and 14.

Accrued interest and accounts receivable

The increase was driven by higher client receivables related to client-driven market-making activities in CIB.

Mortgage servicing rights

For additional information on MSRs, see Note 16.



## Selected Consolidated balance sheets data (continued)

(in millions)	Jun 30, 2016	Dec 31, 2015	Change
<b>Liabilities</b>			
Deposits	\$1,330,958	\$1,279,7154	
Federal funds purchased and securities loaned or sold under repurchase agreements	166,044	152,678	9
Commercial paper	17,279	15,562	11
Other borrowed funds	19,945	21,105	(5 )
Trading liabilities:			
Debt and equity instruments	101,194	74,107	37
Derivative payables	57,764	52,790	9
Accounts payable and other liabilities	184,635	177,638	4
Beneficial interests issued by consolidated variable interest entities (“VIEs”)	40,227	41,879	(4 )
Long-term debt	295,627	288,651	2
Total liabilities	2,213,673	2,104,125	5
Stockholders’ equity	252,423	247,573	2
Total liabilities and stockholders’ equity	\$2,466,096	\$2,351,6985	%
Deposits			

The increase was attributable to higher consumer and wholesale deposits. The increase in consumer deposits was due to continued growth from new and existing customers, as well as the impact of low attrition rates. The increase in wholesale deposits was mainly driven by growth in client activity in CIB’s Treasury Services business. For more information on deposits, refer to the Liquidity Risk Management discussion on pages 70–74; and Notes 3 and 17.

## Federal funds purchased and securities loaned or sold under repurchase agreements

The increase was due to higher secured financing of investment securities in the Chief Investment Office (“CIO”), and higher client-driven market-making activities in CIB. For additional information on the Firm’s Liquidity Risk Management, see pages 70–74.

## Stockholders’ equity

The increase was due to net income and higher accumulated other comprehensive income (“AOCI”), partially offset by cash dividends on common and preferred stock and repurchases of common stock. For additional information on changes in stockholders’ equity, see page 84, and on the Firm’s capital actions, see Capital actions on page 68.

OFF-BALANCE  
SHEET  
ARRANGEMENTS

In the normal course of business, the Firm enters into various contractual obligations that may require future cash payments. Certain obligations are recognized on-balance sheet, while others are off-balance sheet under accounting principles generally accepted in the U.S. (“U.S. GAAP”). The Firm is involved with several types of off-balance sheet arrangements, including through nonconsolidated special-purpose entities (“SPEs”), which are a type of VIE, and through lending-related financial instruments (e.g., commitments and guarantees). For further discussion, see Note 21 of this Form 10-Q and Off-Balance Sheet Arrangements and Contractual Cash Obligations on pages 77–78 and Note 29 of JPMorgan Chase’s 2015 Annual Report.

Special-purpose entities

The most common type of VIE is an SPE. SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. SPEs are an important part of the financial markets, including the mortgage- and asset-backed securities and commercial paper markets, as they provide market liquidity by facilitating investors’ access to specific portfolios of assets and risks. The Firm holds capital, as deemed appropriate, against all SPE-related transactions and related exposures, such as derivative transactions and lending-related commitments and guarantees. For further information on the types of SPEs, see Note 15 of this Form 10-Q, and Note 1 and Note 16 of JPMorgan Chase’s 2015 Annual Report.

Implications of a credit rating downgrade to JPMorgan Chase Bank, N.A.

For certain liquidity commitments to SPEs, JPMorgan Chase Bank, N.A., could be required to provide funding if its short-term credit rating were downgraded below specific levels, primarily “P-1,” “A-1” and “F1” for Moody’s Investor Service (“Moody’s”), Standard & Poor’s and Fitch, respectively. These liquidity commitments support the issuance of asset-backed commercial paper by Firm-administered consolidated SPEs. In the event of a short-term credit rating downgrade, JPMorgan Chase Bank, N.A., absent other solutions, would be required to provide funding to the SPE if the commercial paper could not be reissued as it matured. The aggregate amounts of

commercial paper outstanding held by third parties as of June 30, 2016, and December 31, 2015, was \$5.4 billion and \$8.7 billion, respectively. The aggregate amounts of commercial paper issued by these SPEs could increase in future periods should clients of the Firm-administered consolidated SPEs draw down on certain unfunded lending-related commitments. These unfunded lending-related commitments were \$9.0 billion and \$5.6 billion at June 30, 2016, and December 31, 2015, respectively. The Firm could facilitate the refinancing of some of the clients’ assets in order to reduce the funding obligation. For further information, see the discussion of Firm-administered multiseller conduits in Note 15.

The Firm also acts as liquidity provider for certain municipal bond vehicles. The Firm’s obligation to perform as liquidity provider is conditional and is limited by certain termination events, which include bankruptcy or failure to pay by the municipal bond issuer and any credit enhancement provider, an event of taxability on the municipal bonds or the immediate downgrade of the municipal bond to below investment grade. See Note 15 for additional information.

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

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the counterparty draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm’s view, representative of its actual future credit exposure or funding requirements. For further discussion of lending-related financial instruments, guarantees and other commitments, and the Firm’s accounting for them, see Lending-related commitments on page 53 and Note 21 (including the table that presents the related amounts by contractual maturity as of June 30, 2016). For a discussion of liabilities associated with loan sales- and securitization-related indemnifications, see Note 21.



CONSOLIDATED  
CASH FLOWS  
ANALYSIS

Consolidated cash flows overview

The following is a discussion of cash flow activities during the six months ended June 30, 2016 and 2015.

(in millions)	Six months ended	
	June 30, 2016	2015
Net cash provided by/(used in)		
Operating activities	\$(22,907)	\$32,175
Investing activities	(52,064 )	77,471
Financing activities	74,159	(113,429)
Effect of exchange rate changes on cash	32	47
Net decrease in cash and due from banks	\$(780 )	\$(3,736 )

Operating activities

Operating assets and liabilities can vary significantly in the normal course of business due to the amount and timing of cash flows, which are affected by client-driven and risk management activities and market conditions. The Firm believes cash flows from operations, available cash balances and its capacity to generate cash through secured and unsecured sources are sufficient to meet the Firm's operating liquidity needs.

Cash used in operating activities in 2016 resulted from an increase in accrued interest and accounts receivables driven by higher client receivables related to client-driven market-making activities in CIB. Additionally, in 2016, cash used reflected an increase in trading assets, which was predominantly offset by an increase in trading liabilities, reflecting client-driven market-making activities in CIB. In 2016 and 2015, cash was provided by net income after noncash operating adjustments; partially offset by higher net originations and purchases of loans held-for-sale. In 2015, cash was provided by a decrease in trading assets which more than offset cash used by a decrease in trading liabilities predominantly due to client-driven market-making activities in CIB; and a decrease in securities borrowed resulting from lower demand for securities to cover customer short positions in CIB.

Investing activities

Cash used in investing activities during 2016 resulted from net originations of consumer and wholesale loans. The increase in wholesale loans was driven by strong originations of commercial and industrial loans in CB and CIB, and commercial real estate loans in CB. The increase in consumer loans reflects retention of originated high-quality prime mortgages and growth in auto loans. Additionally, in 2016, cash outflows reflected an increase in securities purchased under resale agreements due to higher demand for securities to cover short positions related to client-driven market-making activities in CIB, and the deployment of excess cash by Treasury. Partially offsetting these cash outflows were net proceeds from paydowns, maturities, sales and purchases of investment securities. Cash provided by investing activities during 2015 predominantly resulted from a net decrease in deposits with banks which was attributable to lower wholesale non-operating deposits; and net proceeds from paydowns, maturities, sales and purchases of investment securities. Partially offsetting these inflows was cash used for net originations of consumer and wholesale loans.

Financing activities

Cash provided by financing activities in 2016 resulted from higher consumer and wholesale deposits. Consumer deposits increased due to the continued growth from new and existing customers, as well as the impact of low attrition rates. Wholesale deposits increased reflecting growth in client activity in Treasury Services. Cash was also provided in 2016 by an increase in securities loaned or sold under repurchase agreements due to higher secured financing of investment securities in CIO, and higher client-driven market-making activities in CIB; and net proceeds from long-term borrowings. Cash used in financing activities in 2015 resulted from lower wholesale deposits, reflecting the Firm's actions to reduce non-operating deposits, partially offset by higher consumer deposits. Partially offsetting these outflows were net proceeds from long-term borrowings. For both periods, cash was used for repurchases of common stock and dividends on common and preferred stock. In 2015 cash was provided by the issuance of preferred stock.

\* \* \*

For a further discussion of the activities affecting the Firm's cash flows, see Consolidated Balance Sheets Analysis on pages 12–13, Capital Management on pages 63–69, and Liquidity Risk Management on pages 70–74 of this Form 10-Q, and page 75 of JPMorgan Chase's 2015 Annual Report.

## EXPLANATION AND RECONCILIATION OF THE FIRM'S USE OF NON-GAAP FINANCIAL MEASURES AND KEY PERFORMANCE MEASURES

### Non-GAAP financial measures

The Firm prepares its Consolidated Financial Statements using U.S. GAAP; these financial statements appear on pages 81–85. That presentation, which is referred to as “reported” basis, provides the reader with an understanding of the Firm’s results that can be tracked consistently from year-to-year and enables a comparison of the Firm’s performance with other companies’ U.S. GAAP financial statements.

In addition to analyzing the Firm’s results on a reported basis, management reviews the Firm’s results, including the overhead ratio and the results of the lines of business, on a “managed” basis, which are non-GAAP financial measures. The Firm’s definition of managed basis starts with the reported U.S. GAAP results and includes certain reclassifications to present total net revenue for the Firm (and each of the reportable business segments) on an FTE basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the

managed results on a basis comparable to taxable investments and securities. This non-GAAP financial measure allows management to assess the comparability of revenue from year-to-year arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense. These adjustments have no impact on net income as reported by the Firm as a whole or by the lines of business.

Management also uses certain non-GAAP financial measures at the business-segment level, because it believes these other non-GAAP financial measures provide information to investors about the underlying operational performance and trends of the particular business segment and, therefore, facilitate a comparison of the business segment with the performance of its competitors. Non-GAAP financial measures used by the Firm may not be comparable to similarly named non-GAAP financial measures used by other companies.

The following summary table provides a reconciliation from the Firm’s reported U.S. GAAP results to managed basis.

(in millions, except ratios)	Three months ended June 30, 2016			2015			
	Reported results	Fully taxable-equivalent adjustments <sup>(a)</sup>	Managed basis	Reported results	Fully taxable-equivalent adjustments <sup>(a)</sup>	Managed basis	
Other income	\$ 1,261	\$ 529	\$ 1,790	\$ 586	\$ 447	\$ 1,033	
Total noninterest revenue	13,033	529	13,562	13,128	447	13,575	
Net interest income	11,347	305	11,652	10,684	272	10,956	
Total net revenue	24,380	834	25,214	23,812	719	24,531	
Pre-provision profit	10,742	834	11,576	9,312	719	10,031	
Income before income tax expense	9,340	834	10,174	8,377	719	9,096	
Income tax expense	\$ 3,140	\$ 834	\$ 3,974	\$ 2,087	\$ 719	\$ 2,806	
Overhead ratio	56	% NM	54	% 61	% NM	59	%

(in millions, except ratios)	Six months ended June 30, 2016			2015		
	Reported results	Fully taxable-equivalent adjustments <sup>(a)</sup>	Managed basis	Reported results	Fully taxable-equivalent adjustments <sup>(a)</sup>	Managed basis
Other income	\$ 2,062	\$ 1,080	\$ 3,142	\$ 1,168	\$ 928	\$ 2,096
Total noninterest revenue	24,892	1,080	25,972	26,517	928	27,445
Net interest income	22,727	598	23,325	21,361	545	21,906
Total net revenue	47,619	1,678	49,297	47,878	1,473	49,351
Pre-provision profit	20,144	1,678	21,822	18,495	1,473	19,968
Income before income tax expense	16,918	1,678	18,596	16,601	1,473	18,074

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Income tax expense	\$5,198	\$ 1,678	\$6,876	\$4,397	\$ 1,473	\$5,870
Overhead ratio	58	% NM	56	% 61	% NM	60 %

(a) Predominantly recognized in CIB and CB business segments and Corporate.

Additionally, certain credit metrics and ratios disclosed by the Firm are non-GAAP measures. For additional information on these non-GAAP measures, see Credit Risk Management on pages 41–57.

Net interest income excluding markets-based activities

In addition to reviewing net interest income on a managed basis, management also reviews net interest income excluding CIB's markets-based activities to assess the performance of the Firm's lending, investing (including asset-liability management) and deposit-raising activities.

The data presented below are non-GAAP financial measures due to the exclusion of CIB's markets-based net interest income and related assets. Management believes this exclusion provides investors and analysts with another measure by which to analyze the non-markets-related business trends of the Firm and provides a comparable measure to other financial institutions that are primarily focused on lending, investing and deposit-raising activities.

Net interest income excluding CIB markets-based activities data

(in millions, except rates)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Net interest income – managed basis <sup>(a)(b)</sup>	\$11,652	\$10,956	6 %	\$23,325	\$21,906	6 %
Less: Markets-based net interest income	1,420	1,238	15	2,798	2,497	12
Net interest income excluding markets <sup>(a)</sup>	\$10,232	\$9,718	5	\$20,527	\$19,409	6
Average interest-earning assets	\$2,079,525	\$2,097,637	(1 )	\$2,061,754	\$2,123,078	(3 )
Less: Average markets-based interest-earning assets	494,303	500,915	(1 )	491,068	505,290	(3 )
Average interest-earning assets excluding markets	\$1,585,222	\$1,596,722	(1 )%	\$1,570,686	\$1,617,788	(3 )%
Net interest yield on average interest-earning assets – managed basis	2.25	%2.09	%	2.28	%2.08	%
Net interest yield on average markets-based interest-earning assets	1.16	0.99		1.15	1.00	
Net interest yield on average interest-earning assets excluding markets	2.60	%2.44	%	2.63	%2.42	%

(a) Interest includes the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable.

(b) For a reconciliation of net interest income on a reported and managed basis, see reconciliation from the Firm's reported U.S. GAAP results to managed basis on page 16

Key performance measures

Tangible common equity ("TCE"), ROTCE and TBVPS are considered key financial performance measures. TCE represents the Firm's common stockholders' equity (i.e., total stockholders' equity less preferred stock) less goodwill and identifiable intangible assets (other than MSRs), net of related deferred tax liabilities. ROTCE measures the Firm's net income applicable to common equity as a percentage of average TCE. TBVPS represents the Firm's TCE at period-end divided by common shares at period-end. TCE, ROTCE, and TBVPS are meaningful to the Firm, as well as investors and analysts, in assessing the Firm's use of equity.

The following summary table provides a reconciliation from the Firm's common stockholders' equity to TCE.

(in millions, except per share and ratio data)	Period-end		Average		Six months ended June	
	Jun 30, 2016	Dec 31, 2015	Three months ended June 30, 2016	2015	30, 2016	2015
Common stockholders' equity	\$226,355	\$221,505	\$224,429	\$213,738	\$222,995	\$213,049
Less: Goodwill	47,303	47,325	47,309	47,485	47,320	47,488
Less: Certain identifiable intangible assets	917	1,015	928	1,113	957	1,138
Add: Deferred tax liabilities <sup>(a)</sup>	3,220	3,148	3,213	2,873	3,195	2,868



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Tangible common equity	\$181,355	\$176,313	\$179,405	\$168,013	\$177,913	\$167,291
Return on tangible common equity	NA	NA	13	% 14	% 12	% 14
Tangible book value per share	\$50.21	\$48.13	NA	NA	NA	NA

(a) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating TCE.

The Firm's capital, RWA and capital ratios that are presented under Basel III Standardized and Advanced Fully Phased-In rules and the Firm's and JPMorgan Chase Bank, N.A.'s and Chase Bank USA, N.A.'s SLRs calculated under the Basel III Advanced Fully Phased-In rules are considered key regulatory capital measures. Such measures are used by banking regulators, investors and analysts to assess the Firm's capital position and to compare the Firm's capital to that of other financial services companies. For additional information on these measures, see Capital Management on pages 63–69.

BUSINESS  
SEGMENT  
RESULTS

The Firm is managed on a line of business basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset Management. In addition, there is a Corporate segment.

The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by management. Results of these lines of business are presented on a managed basis. For a definition of managed basis, see Explanation and Reconciliation of the Firm's use of Non-GAAP Financial Measures and Key Performance Measures, on pages 16–17. Description of business segment reporting methodology

Results of the business segments are intended to reflect each segment as if it were a stand-alone business. The management reporting process that derives business segment results allocates income and expense using

market-based methodologies. The Firm also assesses the level of capital required for each line of business on at least an annual basis. For further information about line of business capital, see Line of business equity on page 67.

The Firm periodically assesses the assumptions, methodologies and reporting classifications used for segment reporting, and further refinements may be implemented in future periods.

For a further discussion of those methodologies, see Business Segment Results – Description of business segment reporting methodology on pages 83–84 of JPMorgan Chase's 2015 Annual Report.

The following discussions of the business segment results are based on a comparison of the three and six months ended June 30, 2016 versus the corresponding period in the prior year, unless otherwise specified.

Segment Results – Managed basis

The following tables summarize the business segment results for the periods indicated.

Three months ended June 30, (in millions)	Total net revenue			Total noninterest expense			Pre-provision profit/(loss)		
	2016	2015	Change	2016	2015	Change	2016	2015	Change
Consumer & Community Banking	\$11,451	\$11,015	4%	\$6,004	\$6,210	(3)%	\$5,447	\$4,805	13%
Corporate & Investment Bank	9,165	8,723	5	5,078	5,137	(1)	4,087	3,586	14
Commercial Banking	1,817	1,739	4	731	703	4	1,086	1,036	5
Asset Management	2,939	3,175	(7)	2,098	2,406	(13)	841	769	9
Corporate	(158)	(121)	(31)	(273)	44	NM	115	(165)	NM
Total	\$25,214	\$24,531	3%	\$13,638	\$14,500	(6)%	\$11,576	\$10,031	15%

Three months ended June 30, (in millions, except ratios)	Provision for credit losses			Net income/(loss)			Return on common equity	
	2016	2015	Change	2016	2015	Change	2016	2015
Consumer & Community Banking	\$1,201	\$702	71%	\$2,656	\$2,533	5%	20%	19%
Corporate & Investment Bank	235	50	370	2,493	2,341	6	15	14
Commercial Banking	(25)	182	NM	696	525	33	16	14
Asset Management	(8)	—	NM	521	451	16	22	19
Corporate	(1)	1	NM	(166)	440	NM	NM	NM
Total	\$1,402	\$935	50%	\$6,200	\$6,290	(1)%	10%	11%

Six months ended June 30, (in millions)	Total net revenue			Total noninterest expense			Pre-provision profit/(loss)		
	2016	2015	Change	2016	2015	Change	2016	2015	Change
Consumer & Community Banking	\$22,568	\$21,719	4%	\$12,092	\$12,400	(2)%	\$10,476	\$9,319	12%
Corporate & Investment Bank	17,300	18,305	(5)	9,886	10,794	(8)	7,414	7,511	(1)
Commercial Banking	3,620	3,481	4	1,444	1,412	2	2,176	2,069	5
Asset Management	5,911	6,180	(4)	4,173	4,581	(9)	1,738	1,599	9

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Corporate	(102	)	(334	)	69	(120	)	196	NM	18	(530	)	NM		
Total	\$49,297		\$49,351		—	\$27,475		\$29,383	(6	)%	\$21,822		\$19,968	9	%
Six months ended June 30,	Provision for credit losses			Net income/(loss)			Return on common equity								
(in millions, except ratios)	2016	2015	Change	2016	2015	Change	2016	2015							
Consumer & Community Banking	\$2,251	\$1,632	38%	\$5,146	\$4,752	8%	19	%	18	%					
Corporate & Investment Bank	694	19	NM	4,472	4,878	(8	)	13	15						
Commercial Banking	279	243	15	1,192	1,123	6	14	15							
Asset Management	5	4	25	1,108	953	16	24	21							
Corporate	(3	)	(4	)	25	(198	)	498	NM	NM	NM				
Total	\$3,226	\$1,894	70%	\$11,720	\$12,204	(4)	%	10%	11	%					

CONSUMER &  
COMMUNITY  
BANKING

For a discussion of the business profile of CCB, see pages 85–93 of JPMorgan Chase’s 2015 Annual Report and Line of Business Metrics on page 174.

Selected income statement data

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Revenue						
Lending- and deposit-related fees	\$780	\$766	2 %	\$1,549	\$1,484	4 %
Asset management, administration and commissions	535	553	(3 )	1,065	1,083	(2 )
Mortgage fees and related income	689	782	(12 )	1,356	1,486	(9 )
Card income	1,253	1,506	(17 )	2,444	2,830	(14 )
All other income	881	482	83	1,530	942	62
Noninterest revenue	4,138	4,089	1	7,944	7,825	2
Net interest income	7,313	6,926	6	14,624	13,894	5
Total net revenue	11,451	11,015	4	22,568	21,719	4
Provision for credit losses	1,201	702	71	2,251	1,632	38
Noninterest expense						
Compensation expense	2,420	2,478	(2 )	4,802	5,008	(4 )
Noncompensation expense	3,584	3,732	(4 )	7,290	7,392	(1 )
Total noninterest expense <sup>(a)</sup>	6,004	6,210	(3 )	12,092	12,400	(2 )
Income before income tax expense	4,246	4,103	3	8,225	7,687	7
Income tax expense	1,590	1,570	1	3,079	2,935	5
Net income	\$2,656	\$2,533	5	\$5,146	\$4,752	8
Revenue by line of business						
Consumer & Business Banking	\$4,616	\$4,483	3	\$9,166	\$8,841	4
Mortgage Banking	1,921	1,833	5	3,797	3,582	6
Card, Commerce Solutions & Auto	4,914	4,699	5	9,605	9,296	3
Mortgage fees and related income details:						
Net production revenue	261	233	12	423	470	(10 )
Net mortgage servicing revenue <sup>(b)</sup>	428	549	(22 )	933	1,016	(8 )
Mortgage fees and related income	\$689	\$782	(12 )%	\$1,356	\$1,486	(9 )%
Financial ratios						
Return on common equity	20	% 19	%	19	% 18	%
Overhead ratio	52	56		54	57	

Note: In the discussion and the tables which follow, CCB presents certain financial measures which exclude the impact of PCI loans; these are non-GAAP financial measures. For additional information, see Explanation and Reconciliation of the Firm’s Use of Non-GAAP Financial Measures and Key Performance Measures on pages 16–17.

Included operating lease depreciation expense of \$460 million and \$348 million for the three months ended June (a) 30, 2016 and 2015, respectively, and \$892 million and \$674 million for the six months ended June 30, 2016 and 2015, respectively.

(b) Included MSR risk management of \$73 million and \$70 million for the three months ended June 30, 2016 and 2015, respectively, and \$202 million and \$2 million for the six months ended June 30, 2016 and 2015, respectively.

#### Quarterly results

Consumer & Community Banking net income was \$2.7 billion, an increase of 5%, driven by higher net revenue and lower noninterest expense, predominantly offset by higher provision for credit losses.

Net revenue was \$11.5 billion, an increase of 4%. Net interest income was \$7.3 billion, up 6%, driven by higher deposit balances and higher loan balances largely resulting from originations of prime mortgage loans that have been retained, partially offset by deposit spread compression. Noninterest revenue was \$4.1 billion, up 1%, driven by a gain on the sale of Visa Europe interests, higher auto lease and card sales volume and higher deposit-related fees, predominantly offset by the impact of renegotiated co-brand partnership agreements in Credit Card, lower mortgage servicing revenue largely as a result of a lower level of third-party loans serviced, and higher amortization of new account origination costs in Credit Card. Noninterest revenue also included fair value losses on the investment in Square, Inc.

The provision for credit losses was \$1.2 billion, an increase of 71%, reflecting increases in the allowance for loan losses. The current-quarter provision included a \$175 million increase in the allowance for loan losses, reflecting increases in the credit card and auto loan portfolios, primarily driven by higher loss rates in newer card vintages, as well as growth in the card and auto loan portfolios, partially offset by reductions in the allowance for loan losses due to continued improvement in home prices and delinquencies in the residential real estate portfolio as well as runoff in the student loan portfolio. The prior-year provision reflected a \$326 million reduction in the allowance for loan losses due to continued improvement in home prices and delinquencies in the residential real estate portfolio as well as runoff in the student loan portfolio.

Noninterest expense was \$6.0 billion, a decrease of 3%, driven by lower legal expense, branch efficiencies and lower headcount-related expense, largely offset by higher auto lease depreciation.

#### Year-to-date results

Consumer & Community Banking net income was \$5.1 billion, an increase of 8%, driven by higher net revenue and lower noninterest expense, largely offset by higher provision for credit losses.

Net revenue was \$22.6 billion, an increase of 4%. Net interest income was \$14.6 billion, up 5%, driven by higher deposit balances and higher loan balances largely resulting from originations of prime mortgage loans that have been retained, partially offset by deposit spread compression. Noninterest revenue was \$7.9 billion, up 2%, driven by a gain on the sale of Visa Europe interests, higher auto lease and card sales volume, higher MSR risk management results and higher deposit-related fees, predominantly offset by the impact of renegotiated co-brand partnership agreements in Credit Card, lower mortgage servicing revenue largely as a result of a lower level of third-party loans serviced, and higher amortization of new account origination costs in Credit Card. See Note 16 for further information regarding changes in value of the MSR asset and related hedges, and mortgage fees and related income. Noninterest revenue also included fair-value losses on the investment in Square, Inc.

The provision for credit losses was \$2.3 billion, an increase of 38%, reflecting increases in the allowance for loan losses. The current-year provision included a \$175 million increase in the allowance for loan losses, reflecting increases in the credit card and auto loan portfolios, primarily driven by higher loss rates in newer card vintages, as well as growth in the card and auto loan portfolios, partially offset by reductions in the allowance for loan losses due to continued improvement in home prices and delinquencies in the residential real estate portfolio as well as runoff in the student loan portfolio. The prior-year provision reflected a \$451 million reduction in the allowance for loan losses due to continued improvement in home prices and delinquencies in the residential real estate portfolio as well as runoff in the student loan portfolio.

Noninterest expense was \$12.1 billion, a decrease of 2%, driven by lower legal expense, branch efficiencies and lower headcount-related expense, largely offset by higher auto lease depreciation and higher investment in marketing.

## Selected metrics

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Selected balance sheet data (period-end)						
Total assets	\$519,187	\$472,181	10 %	\$519,187	\$472,181	10 %
Loans:						
Consumer & Business Banking	23,588	21,940	8	23,588	21,940	8
Home equity	54,569	63,316	(14 )	54,569	63,316	(14 )
Residential mortgage and other	178,670	139,814	28	178,670	139,814	28
Mortgage Banking	233,239	203,130	15	233,239	203,130	15
Credit Card	131,591	126,025	4	131,591	126,025	4
Auto	64,056	56,330	14	64,056	56,330	14
Student	7,614	8,763	(13 )	7,614	8,763	(13 )
Total loans	460,088	416,188	11	460,088	416,188	11
Core loans	364,007	301,154	21	364,007	301,154	21
Deposits	586,074	530,767	10	586,074	530,767	10
Common equity	51,000	51,000	—	51,000	51,000	—
Selected balance sheet data (average)						
Total assets	\$512,434	\$463,404	11	507,833	\$459,108	11
Loans:						
Consumer & Business Banking	23,223	21,732	7	22,998	21,526	7
Home equity	55,615	64,502	(14 )	56,666	65,671	(14 )
Residential mortgage and other	175,753	132,649	32	172,224	126,687	36
Mortgage Banking	231,368	197,151	17	228,890	192,358	19
Credit Card	128,396	124,539	3	127,848	124,780	2
Auto	63,661	55,800	14	62,456	55,405	13
Student	7,757	8,907	(13 )	7,896	9,057	(13 )
Total loans	454,405	408,129	11	450,088	403,126	12
Core loans	356,380	290,330	23	350,042	282,498	24
Deposits	583,115	529,448	10	572,699	520,850	10
Common equity	51,000	51,000	—	51,000	51,000	—
Headcount	131,815	132,302	—	131,815	132,302	— %

Selected metrics

(in millions, except ratio data)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Credit data and quality statistics						
Nonaccrual loans <sup>(a)(b)</sup>	\$4,980	\$5,876	(15 )%	\$4,980	\$5,876	(15 )%
Net charge-offs <sup>(c)</sup>						
Consumer & Business Banking	53	68	(22 )	109	127	(14 )
Home equity	35	69	(49 )	94	156	(40 )
Residential mortgage and other	3	12	(75 )	4	29	(86 )
Mortgage Banking	38	81	(53 )	98	185	(47 )
Credit Card	860	800	8	1,690	1,589	6
Auto	46	32	44	113	83	36
Student	29	46	(37 )	66	97	(32 )
Total net charge-offs	\$1,026	\$1,027	—	2,076	\$2,081	—
Net charge-off rate <sup>(c)</sup>						
Consumer & Business Banking	0.92	% 1.26	%	0.95	% 1.19	
Home equity <sup>(d)</sup>	0.34	0.57		0.45	0.64	
Residential mortgage and other <sup>(d)</sup>	0.01	0.05		0.01	0.06	
Mortgage Banking <sup>(d)</sup>	0.08	0.21		0.10	0.25	
Credit Card <sup>(e)</sup>	2.70	2.61		2.66	2.61	
Auto	0.29	0.23		0.36	0.30	
Student	1.50	2.07		1.68	2.16	
Total net charge-off rate <sup>(d)</sup>	0.99	1.14		1.02	1.18	
30+ day delinquency rate						
Mortgage Banking <sup>(f)(g)</sup>	1.33	% 1.95	%	1.33	1.95	
Credit Card <sup>(h)</sup>	1.40	1.29		1.40	1.29	
Auto	1.16	0.95		1.16	0.95	
Student <sup>(i)</sup>	1.43	2.00		1.43	2.00	
90+ day delinquency rate — Credit Card	0.70	0.63		0.70	0.63	
Allowance for loan losses						
Consumer & Business Banking	\$703	\$703	—	\$703	\$703	—
Mortgage Banking excluding PCI loans	1,488	1,788	(17 )	1,488	1,788	(17 )
Mortgage Banking — PCI loans	2,654	3,215	(17 )	2,654	3,215	(17 )
Credit Card	3,684	3,434	7	3,684	3,434	7
Auto	449	349	29	449	349	29
Student	274	349	(21 )	274	349	(21 )
Total allowance for loan losses <sup>(c)</sup>	\$9,252	\$9,838	(6)%	\$9,252	\$9,838	(6)%

(a) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.

At June 30, 2016 and 2015, nonaccrual loans excluded loans 90 or more days past due as follows: (1) mortgage loans insured by U.S. government agencies of \$5.2 billion and \$7.0 billion, respectively; and (2) student loans insured by U.S. government agencies under the Federal Family Education Loan Program (“FFELP”) of \$252 million and \$282 million, respectively. These amounts have been excluded based upon the government guarantee.

(c)



Net charge-offs and the net charge-off rates for the three months ended June 30, 2016 and 2015, excluded \$41 million and \$55 million, respectively, and for the six months ended June 30, 2016 and 2015, excluded \$88 million and \$110 million, respectively, of write-offs in the PCI portfolio. These write-offs decreased the allowance for loan losses for PCI loans. For further information on PCI write-offs, see summary of changes in the allowances on page 56.

Excludes the impact of PCI loans. For the three months ended June 30, 2016 and 2015, the net charge-off rates including the impact of PCI loans were as follows: (1) home equity of 0.25% and 0.43%, respectively; (2) residential mortgage and other of 0.01% and 0.04%, respectively; (3) Mortgage Banking of 0.07% and 0.17%, respectively; and (4) total CCB of 0.91% and 1.01%, respectively. For the six months ended June 30, 2016 and 2015, the net charge-off rates including the impact of PCI loans were as follows: (1) home equity of 0.33% and 0.48%, respectively; (2) residential mortgage and other of –% and 0.05%, respectively; (3) Mortgage Banking of 0.09% and 0.19%, respectively; and (4) total CCB of 0.93% and 1.05%, respectively.

Average credit card loans included loans held-for-sale of \$82 million and \$1.8 billion for the three months ended June 30, 2016 and 2015, respectively, and \$77 million and \$2.2 billion for the six months ended June 30, 2016 and 2015, respectively. These amounts are excluded when calculating the net charge-off rate.

At June 30, 2016 and 2015, excluded mortgage loans insured by U.S. government agencies of \$7.2 billion and \$8.8 billion, respectively, that are 30 or more days past due. These amounts have been excluded based upon the government guarantee.

Excludes PCI loans. The 30+ day delinquency rate for PCI loans was 10.09% and 11.65% at June 30, 2016 and 2015, respectively.

Period-end credit card loans included loans held-for-sale of \$84 million and \$1.3 billion at June 30, 2016 and 2015, respectively. These amounts are excluded when calculating delinquency rates.

Excluded student loans insured by U.S. government agencies under FFELP of \$458 million and \$546 million at June 30, 2016 and 2015, respectively, that are 30 or more days past due. These amounts have been excluded based upon the government guarantee.

## Selected metrics

(in billions, except ratios and where otherwise noted)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
<b>Business Metrics</b>						
CCB households (in millions)	59.2	57.8	2 %	59.2	57.8	2 %
Number of branches	5,366	5,504	(3 )	5,366	5,504	(3 )
Active digital customers (in thousands) <sup>(a)</sup>	42,833	37,878	13	42,833	37,878	13
Active mobile customers (in thousands) <sup>(b)</sup>	24,817	21,001	18	24,817	21,001	18
<b>Consumer &amp; Business Banking</b>						
Average deposits	\$567.4	\$512.8	11	\$557.9	\$505.3	10
Deposit margin	1.80 %	1.92 %		1.83 %	1.95 %	
Business banking origination volume	\$2.2	\$1.9	14	\$3.9	\$3.5	12
Client investment assets	224.7	221.5	1	224.7	221.5	1
<b>Mortgage Banking</b>						
Mortgage origination volume by channel						
Retail	\$11.2	\$9.8	14	\$19.9	\$17.9	11
Correspondent	13.8	19.5	(29 )	27.5	36.1	(24 )
Total mortgage origination volume <sup>(c)</sup>	\$25.0	\$29.3	(15 )	\$47.4	\$54.0	(12 )
Total loans serviced (period-end)	\$880.3	\$917.0	(4 )	\$880.3	\$917.0	(4 )
Third-party mortgage loans serviced (period-end)	629.9	723.4	(13 )	629.9	723.4	(13 )
MSR carrying value (period-end)	5.1	7.6	(33 )	5.1	7.6	(33 )
Ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period-end)	0.81 %	1.05 %		0.81 %	1.05 %	
MSR revenue multiple <sup>(d)</sup>	2.31 x	3.00 x		2.31 x	3.00 x	
<b>Credit Card, excluding Commercial Card</b>						
Sales volume	\$136.0	\$125.7	8	\$257.7	\$238.5	8
New accounts opened (in millions)	2.7	2.1	29	5.0	4.2	19
<b>Card Services</b>						
Net revenue rate	12.28 %	12.35 %		12.04 %	12.27 %	
<b>Commerce Solutions</b>						
Merchant processing volume	\$263.8	\$234.1	13	\$511.3	\$455.3	12
<b>Auto</b>						
Loan and lease origination volume	\$8.5	\$7.8	9	\$18.1	\$15.1	20
Average Auto operating lease assets	10.4	7.4	40%	10.0	7.2	40%

(a) Users of all web and/or mobile platforms who have logged in within the past 90 days.

(b) Users of all mobile platforms who have logged in within the past 90 days.

Firmwide mortgage origination volume was \$28.6 billion and \$31.7 billion for the three months ended June 30,

(c) 2016 and 2015, respectively, and \$53.0 billion and \$58.3 billion for the six months ended June 30, 2016 and 2015, respectively.

(d) Represents the ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period-end) divided by the ratio of annualized loan servicing-related revenue to third-party mortgage loans serviced (average).

Mortgage servicing-related matters

The Firm entered into various Consent Orders and settlements with federal and state governmental agencies and private parties related to mortgage servicing, origination, and residential mortgage-backed securities activities. The majority of these Consent Orders and settlements have subsequently been resolved and/or terminated; however, among those obligations, the mortgage servicing-related Consent Order entered into with the Federal Reserve on April 13, 2011, as amended on February 28, 2013 remains outstanding. The Audit Committee of the Board of Directors provides governance and oversight of the Federal Reserve Consent Order.

The Federal Reserve Consent Order and certain other obligations under mortgage-related settlements are the subject of ongoing reporting to various regulators and independent overseers. The Firm's compliance with certain of these settlements is detailed in periodic reports published by the independent overseers. The Firm is committed to fulfilling these commitments with appropriate due diligence and oversight.

CORPORATE  
&  
INVESTMENT  
BANK

For a discussion of the business profile of CIB, see pages 94–98 of JPMorgan Chase’s 2015 Annual Report and Line of Business Metrics on page 174.

Selected income statement data

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Revenue						
Investment banking fees	\$1,636	\$1,825	(10 )%	\$2,957	\$3,586	(18 )%
Principal transactions	2,965	2,657	12	5,435	6,139	(11 )
Lending- and deposit-related fees	385	400	(4 )	779	797	(2 )
Asset management, administration and commissions	1,025	1,181	(13 )	2,094	2,335	(10 )
All other income	464	170	173	744	450	65
Noninterest revenue	6,475	6,233	4	12,009	13,307	(10 )
Net interest income	2,690	2,490	8	5,291	4,998	6
Total net revenue <sup>(a)</sup>	9,165	8,723	5	17,300	18,305	(5 )
Provision for credit losses	235	50	370	694	19	NM
Noninterest expense						
Compensation expense	2,737	2,656	3	5,337	5,679	(6 )
Noncompensation expense	2,341	2,481	(6 )	4,549	5,115	(11 )
Total noninterest expense	5,078	5,137	(1 )	9,886	10,794	(8 )
Income before income tax expense	3,852	3,536	9	6,720	7,492	(10 )
Income tax expense	1,359	1,195	14	2,248	2,614	(14 )
Net income	\$2,493	\$2,341	6%	\$4,472	\$4,878	(8 )%
Financial ratios						
Return on common equity	15	% 14	%	13	% 15	%
Overhead ratio	55	59		57	59	%
Compensation expense as a percentage of total net revenue	30	30		31	31	

Included tax-equivalent adjustments, predominantly due to income tax credits related to alternative energy investments; income tax credits and amortization of the cost of investments in affordable housing projects; as well (a) as tax-exempt income from municipal bonds of \$476 million and \$396 million for the three months ended June 30, 2016 and 2015, respectively and \$974 million and \$828 million for the six months ended June 30, 2016 and 2015, respectively.

Selected income statement data

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Revenue by business						
Investment Banking	\$1,492	\$1,746	(15 )%	\$2,723	\$3,376	(19 )%
Treasury Services	892	901	(1 )	1,776	1,831	(3 )
Lending	277	302	(8 )	579	737	(21 )
Total Banking	2,661	2,949	(10 )	5,078	5,944	(15 )
Fixed Income Markets	3,959	2,931	35	7,556	7,085	7
Equity Markets	1,600	1,576	2	3,176	3,227	(2 )
Securities Services	907	995	(9 )	1,788	1,929	(7 )

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Credit Adjustments & Other <sup>(a)</sup>	38	272	(86)	(298)	120	NM
Total Markets & Investor Services	6,504	5,774	13	12,222	12,361	(1)
Total net revenue	\$9,165	\$8,723	5%	\$17,300	\$18,305	(5)%

Effective January 1, 2016, consists primarily of credit valuation adjustments (“CVA”) managed by the Credit Portfolio Group, funding valuation adjustments (“FVA”) and DVA on derivatives. Prior periods also include DVA on fair value option elected liabilities. Results are presented net of associated hedging activities and net of CVA and FVA amounts allocated to Fixed Income Markets and Equity Markets. Effective January 1, 2016, changes in DVA on fair value option elected liabilities is recognized in other comprehensive income. For additional information, see Notes 3, 4 and 19.

#### Quarterly results

Net income was \$2.5 billion, up 6%, reflecting higher net revenue, partially offset by higher provisions for credit losses.

Banking revenue was \$2.7 billion, down 10%. Investment banking revenue was \$1.5 billion, down 15%, largely driven by lower equity underwriting fees. The Firm maintained its #1 ranking for Global Investment Banking fees, according to Dealogic. Equity underwriting fees were down 37% compared to a strong quarter in the prior year, on lower industry-wide fee levels. Debt underwriting fees were down 2% driven by declines in industry-wide fee levels. Lending revenue was \$277 million, down 8%, reflecting fair value losses on hedges of accrual loans.

Markets & Investor Services revenue was \$6.5 billion, up 13%. Fixed Income Markets revenue was \$4.0 billion, up 35% reflecting strong performance in Rates and Currencies & Emerging Markets on higher client flows driven by increased issuance-related activity, improved global emerging market sentiment and increased volumes in foreign exchange markets. Performance in Credit and Securitized Products also improved as client risk appetite recovered in a less volatile environment driving higher primary and secondary market activity. Securities Services revenue was \$907 million, down 9%, driven by lower fees and commissions. Credit Adjustments & Other was a gain of \$38 million, compared with a gain of \$272 million in the prior year. The prior year quarter included gains on wider funding spreads.

The provision for credit losses was \$235 million, compared with \$50 million in the prior year, primarily reflecting an increase in the allowance for credit losses in the Oil & Gas portfolio driven by a single name.

Noninterest expense was \$5.1 billion, down 1%.

#### Year-to-date results

Net income was \$4.5 billion, down 8%, reflecting lower net revenue and higher provisions for credit losses, largely offset by lower noninterest expense.

Banking revenue was \$5.1 billion, down 15%. Investment banking revenue was \$2.7 billion, down 19%. The decrease was primarily driven by lower equity and debt underwriting fees. Equity underwriting fees were \$490 million, down 42% driven by declines in industry-wide fee levels. Debt underwriting fees were \$1.4 billion, down 18%, primarily driven by declines in industry-wide fee levels and fewer large acquisition financing deals. Advisory fees were \$1.1 billion, up 4%, driven by a greater share of fees for completed transactions. Treasury Services revenue was \$1.8 billion, down 3%, primarily driven by business simplification. Lending revenue was \$579 million, down 21%, reflecting fair value losses on hedges of accrual loans.

Markets & Investor Services revenue was \$12.2 billion, down 1%. Fixed Income Markets revenue of \$7.6 billion was up 7% reflecting strong performance in Rates on higher client flows driven by increased issuance-related activity as well as continued demand in Japan driven by ongoing monetary easing. Performance in Credit and Securitized Products also improved as client risk appetite recovered in a less volatile environment driving higher primary and secondary market activity. Equity Markets revenue of \$3.2 billion was down 2% compared to a strong prior year, particularly in Asia. Securities Services revenue was \$1.8 billion, down 7%, largely driven by lower fees and commissions. Credit Adjustments & Other was a loss of \$298 million on widening credit spreads compared with a gain of \$120 million in the prior year.

The provision for credit losses was \$694 million, compared with \$19 million in the prior year, primarily reflecting increases in the allowance for credit losses in the Oil & Gas portfolio and, to a lesser extent, the Metals & Mining portfolio.

Noninterest expense was \$9.9 billion, down 8%, primarily driven by lower compensation and lower legal expense.

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Selected metrics

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Selected balance sheet data (period-end)						
Assets	\$826,019	\$819,745	1 %	\$826,019	\$819,745	1 %
Loans:						
Loans retained <sup>(a)</sup>	112,637	96,579	17	112,637	96,579	17
Loans held-for-sale and loans at fair value	5,600	7,211	(22 )	5,600	7,211	(22 )
Total loans	118,237	103,790	14	118,237	103,790	14
Core loans	117,821	103,235	14	117,821	103,235	14
Common equity	64,000	62,000	3	64,000	62,000	3
Selected balance sheet data (average)						
Assets	\$815,886	\$845,225	(3 )	\$806,717	\$855,220	(6 )
Trading assets-debt and equity instruments	306,418	317,385	(3 )	295,770	314,837	(6 )
Trading assets-derivative receivables	61,457	68,949	(11 )	62,007	73,128	(15 )
Loans:						
Loans retained <sup>(a)</sup>	111,668	94,711	18	110,190	96,900	14
Loans held-for-sale and loans at fair value	3,169	5,504	(42 )	3,187	4,786	(33 )
Total loans	114,837	100,215	15	113,377	101,686	11
Core loans	114,421	99,343	15	112,919	100,690	12
Common equity	64,000	62,000	3	64,000	62,000	3
Headcount	48,805	49,367	(1 )%	48,805	49,367	(1 )%

<sup>(a)</sup> Loans retained includes credit portfolio loans, loans held by consolidated Firm-administered multi-seller conduits, trade finance loans, other held-for-investment loans and overdrafts.

Selected metrics

(in millions, except ratios)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Credit data and quality statistics						
Net charge-offs/(recoveries)	\$90	\$(15)	NM	\$136	\$(26)	NM
Nonperforming assets:						
Nonaccrual loans:						
Nonaccrual loans retained <sup>(a)</sup>	623	324	92%	623	324	92
Nonaccrual loans held-for-sale and loans at fair value	7	12	(42 )	7	12	(42 )
Total nonaccrual loans	630	336	88	630	336	88
Derivative receivables	220	256	(14 )	220	256	(14 )
Assets acquired in loan satisfactions	75	60	25	75	60	25
Total nonperforming assets	925	652	42	925	652	42
Allowance for credit losses:						
Allowance for loan losses	1,669	1,086	54	1,669	1,086	54
Allowance for lending-related commitments	715	437	64	715	437	64
Total allowance for credit losses	2,384	1,523	57%	2,384	1,523	57%
Net charge-off/(recovery) rate	0.32%	(0.06)%		0.25%	(0.05)%	
Allowance for loan losses to period-end loans retained	1.48	1.12		1.48	1.12	
Allowance for loan losses to period-end loans retained, excluding trade finance and conduits <sup>(b)</sup>	2.23	1.73		2.23	1.73	
Allowance for loan losses to nonaccrual loans retained <sup>(a)</sup>	268	335		268	335	
Nonaccrual loans to total period-end loans	0.53%	0.32 %		0.53 %	0.32 %	



- (a) Allowance for loan losses of \$211 million and \$64 million were held against these nonaccrual loans at June 30, 2016 and 2015, respectively.
- (b) Management uses allowance for loan losses to period-end loans retained, excluding trade finance and conduits, a non-GAAP financial measure, to provide a more meaningful assessment of CIB's allowance coverage ratio.

## Business metrics

(in millions)	Three months ended			Six months ended June		
	June 30,	2015	Change	2016	2015	Change
Advisory	\$466	\$466	—	\$1,051	\$1,008	4%
Equity underwriting	285	452	(37 )	490	851	(42 )
Debt underwriting	885	907	(2 )	1,416	1,727	(18 )
Total investment banking fees	\$1,636	\$1,825	(10)%	\$2,957	\$3,586	(18)%

## League table results – wallet share

	Six months ended		Full-year	
	June 30,	Rank	2015	Rank
	Share	Rank	Share	Rank
Based on fees <sup>(a)</sup>				
Debt, equity and equity-related				
Global	7.1 %	# 1	7.7 %	# 1
U.S.	11.7	1	11.7	1
Long-term debt <sup>(b)</sup>				
Global	7.0	1	8.3	1
U.S.	11.1	2	12.0	1
Equity and equity-related				
Global <sup>(c)</sup>	7.3	1	7.0	1
U.S.	13.0	1	11.2	1
M&A <sup>(d)</sup>				
Global	9.9	2	8.4	2
U.S.	11.7	2	9.9	2
Loan syndications				
Global	7.3	2	7.5	1
U.S.	9.1	2	10.7	2
Global investment banking fees <sup>(e)</sup>	8.0 %	# 1	7.9 %	# 1

(a) Source: Dealogic. Reflects the ranking of revenue wallet and market share.

Long-term debt rankings include investment-grade, high-yield, supranationals, sovereigns, agencies, covered

(b) bonds, asset-backed securities (“ABS”) and mortgage-backed securities (“MBS”); and exclude money market, short-term debt, and U.S. municipal securities.

(c) Global equity and equity-related ranking includes rights offerings and Chinese A-Shares.

(d) Global M&A reflects the removal of any withdrawn transactions. U.S. M&A revenue wallet represents wallet from client parents based in the U.S.

(e) Global investment banking fees exclude money market, short-term debt and shelf deals

## Business metrics

(in millions, except where otherwise noted)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Assets under custody (“AUC”) by asset class (period-end)(in billions):						
Fixed Income	\$12,539	\$12,134	3%	\$12,539	\$12,134	3%
Equity	6,138	6,652	(8 )	6,138	6,652	(8 )
Other <sup>(a)</sup>	1,793	1,711	5	1,793	1,711	5
Total AUC	\$20,470	\$20,497	—	\$20,470	\$20,497	—

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Client deposits and other third party liabilities (average) <sup>(b)</sup>	\$373,671	\$401,280	(7 )	\$366,299	\$422,607	(13 )
Trade finance loans (period-end)	17,362	21,195	(18 )%	17,362	21,195	(18 )%

(a) Consists of mutual funds, unit investment trusts, currencies, annuities, insurance contracts, options and other contracts.

(b) Client deposits and other third party liabilities pertain to the Treasury Services and Securities Services businesses.

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## International metrics

(in millions, except where otherwise noted)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Total net revenue <sup>(a)</sup>						
Europe/Middle East/Africa	\$2,823	\$2,685	5 %	\$5,280	\$6,181	(15 )%
Asia/Pacific	1,210	1,358	(11 )	2,512	2,621	(4 )
Latin America/Caribbean	403	220	83	724	551	31
Total international net revenue	4,436	4,263	4	8,516	9,353	(9 )
North America	4,729	4,460	6	8,784	8,952	(2 )
Total net revenue	\$9,165	\$8,723	5	\$17,300	\$18,305	(5 )
Loans retained (period-end) <sup>(a)</sup>						
Europe/Middle East/Africa	\$29,770	\$25,874	15	\$29,770	\$25,874	15
Asia/Pacific	15,198	17,430	(13 )	15,198	17,430	(13 )
Latin America/Caribbean	9,048	8,768	3	9,048	8,768	3
Total international loans	54,016	52,072	4	54,016	52,072	4
North America	58,621	44,507	32	58,621	44,507	32
Total loans retained	\$112,637	\$96,579	17	\$112,637	\$96,579	17
Client deposits and other third-party liabilities (average) <sup>(a)(b)</sup>						
Europe/Middle East/Africa	\$135,213	\$149,055	(9 )	\$131,655	\$154,217	(15 )
Asia/Pacific	68,423	64,860	5	65,569	67,872	(3 )
Latin America/Caribbean	22,334	23,518	(5 )	22,431	23,480	(4 )
Total international	\$225,970	\$237,433	(5 )	\$219,655	\$245,569	(11 )
North America	147,701	163,847	(10 )	146,644	177,038	(17 )
Total client deposits and other third-party liabilities	\$373,671	\$401,280	(7 )	\$366,299	\$422,607	(13 )
AUC (period-end) (in billions) <sup>(a)</sup>						
North America	\$12,310	\$12,068	2	\$12,310	\$12,068	2
All other regions	8,160	8,429	(3 )	8,160	8,429	(3 )
Total AUC	\$20,470	\$20,497	—	\$20,470	\$20,497	—

Total net revenue is based predominantly on the domicile of the client or location of the trading desk, as applicable.

(a) Loans outstanding (excluding loans held-for-sale and loans at fair value), client deposits and other third-party liabilities, and AUC are based predominantly on the domicile of the client.

(b) Client deposits and other third party liabilities pertain to the Treasury Services and Securities Services businesses.

COMMERCIAL  
BANKING

For a discussion of the business profile of CB, see pages 99–101 of JPMorgan Chase’s 2015 Annual Report and Line of Business Metrics on page 175.

Selected income statement data

(in millions)	Three months ended			Six months ended June		
	June 30,	2015	Change	2016	2015	Change
Revenue						
Lending- and deposit-related fees	\$227	\$242	(6 )%	\$459	\$479	(4 )%
Asset management, administration and commissions	18	22	(18 )	40	46	(13 )
All other income <sup>(a)</sup>	341	345	(1 )	643	720	(11 )
Noninterest revenue	586	609	(4 )	1,142	1,245	(8 )
Net interest income	1,231	1,130	9	2,478	2,236	11
Total net revenue <sup>(b)</sup>	1,817	1,739	4	3,620	3,481	4
Provision for credit losses	(25 )	182	NM	279	243	15
Noninterest expense						
Compensation expense	322	308	5	656	617	6
Noncompensation expense	409	395	4	788	795	(1 )
Total noninterest expense	731	703	4	1,444	1,412	2
Income before income tax expense	1,111	854	30	1,897	1,826	4
Income tax expense	415	329	26	705	703	—
Net income	\$696	\$525	33%	\$1,192	\$1,123	6%

(a) Includes revenue from investment banking products and commercial card transactions.

Total net revenue included tax-equivalent adjustments from income tax credits related to equity investments in designated community development entities that provide loans to qualified businesses in low-income communities, (b) as well as tax-exempt income related to municipal financing activity of \$124 million and \$115 million for the three months ended June 30, 2016 and 2015, respectively and \$244 million and \$228 million for the six months ended June 30, 2016 and 2015, respectively.

Quarterly results

Net income was \$696 million, an increase of 33%, driven by higher net revenue and a lower provision for credit losses, partially offset by higher noninterest expense.

Net revenue was \$1.8 billion, an increase of 4%. Net interest income was \$1.2 billion, up 9%, driven by higher average loan balances and deposit spreads.

Noninterest expense was \$731 million, up 4%, driven by continued investments in technology and increased hiring of bankers.

The provision for credit losses was a benefit of \$25 million, compared to an expense of \$182 million in the prior-year. The current quarter benefit reflects continued strong overall credit performance in the portfolio and somewhat more stable market conditions in Oil & Gas while the prior year reflected select downgrades.

Year-to-date results

Net income was \$1.2 billion, an increase of 6%, driven by higher net revenue, partially offset by a higher provision for credit losses and higher noninterest expense.

Net revenue was \$3.6 billion, up 4%. Net interest income was \$2.5 billion, up 11%, reflecting higher average loan balances and deposit spreads. Noninterest revenue was \$1.1 billion, down 8%, driven by lower investment banking revenue compared to a record first half last year.

Noninterest expense was \$1.4 billion, up 2%, driven by investments in technology, increased hiring of bankers, and prior year additions to oversight- and control-related personnel.

The provision for credit losses was \$279 million reflecting downgrades in the Oil & Gas and Natural Gas Pipeline portfolios; the prior year provision for credit losses was \$243 million.

## Selected income statement data (continued)

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Revenue by product						
Lending	\$917	\$867	6 %	\$1,845	\$1,692	9 %
Treasury services	680	646	5	1,374	1,293	6
Investment banking <sup>(a)</sup>	207	196	6	362	444	(18 )
Other	13	30	(57 )	39	52	(25 )
Total Commercial Banking net revenue	\$1,817	\$1,739	4	\$3,620	\$3,481	4
Investment banking revenue, gross <sup>(b)</sup>	\$595	\$589	1	\$1,078	\$1,342	(20 )
Revenue by client segment						
Middle Market Banking <sup>(c)</sup>	\$698	\$679	3	\$1,405	\$1,344	5
Corporate Client Banking <sup>(c)</sup>	562	541	4	1,073	1,117	(4 )
Commercial Term Lending	342	318	8	703	626	12
Real Estate Banking	144	117	23	284	233	22
Other	71	84	(15 )	155	161	(4 )
Total Commercial Banking net revenue	\$1,817	\$1,739	4 %	\$3,620	\$3,481	4 %

## Financial ratios

Return on common equity	16%	14 %		14 %	15 %	
Overhead ratio	40	40		40	41	

(a) Revenue by product includes total Firm revenue from investment banking products sold to CB clients, net of revenue sharing with the CIB.

(b) Total Firm revenue from investment banking products sold to CB clients.

(c) Effective in the second quarter of 2016, certain clients were transferred from Middle Market Banking to Corporate Client Banking. Prior period amounts were revised to conform with the current period presentation.

## Selected metrics

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Selected balance sheet data (period-end)						
Total assets	\$208,151	\$201,377	3 %	\$208,151	\$201,377	3 %
Loans:						
Loans retained	179,164	157,947	13	179,164	157,947	13
Loans held-for-sale and loans at fair value	134	1,506	(91 )	134	1,506	(91 )
Total loans	\$179,298	\$159,453	12	\$179,298	\$159,453	12
Core loans	178,809	158,568	13	178,809	158,568	13
Common equity	16,000	14,000	14	16,000	14,000	14
Period-end loans by client segment						
Middle Market Banking <sup>(a)</sup>	\$51,951	\$50,735	2	\$51,951	\$50,735	2
Corporate Client Banking <sup>(a)</sup>	36,011	31,149	16	36,011	31,149	16
Commercial Term Lending	66,499	58,314	14	66,499	58,314	14
Real Estate Banking	19,233	14,231	35	19,233	14,231	35
Other	5,604	5,024	12	5,604	5,024	12
Total Commercial Banking loans	\$179,298	\$159,453	12	\$179,298	\$159,453	12
Selected balance sheet data (average)						
Total assets	\$205,953	\$198,740		\$204,222	\$197,341	3
Loans:						
Loans retained	176,229	155,110	14	173,033	152,435	14
Loans held-for-sale and loans at fair value	583	870	(33 )	516	715	(28 )
Total loans	\$176,812	\$155,980	13	\$173,549	\$153,150	13
Core loans	176,251	155,016	14	172,939	152,143	14
Average loans by client segment						
Middle Market Banking <sup>(a)</sup>	\$51,939	\$50,438	3	\$51,248	\$49,983	3
Corporate Client Banking <sup>(a)</sup>	35,664	29,988	19	34,728	28,834	20
Commercial Term Lending	65,262	56,814	15	64,369	55,790	15
Real Estate Banking	18,381	13,732	34	17,701	13,603	30
Other	5,566	5,008	11	5,503	4,940	11
Total Commercial Banking loans	\$176,812	\$155,980	13 %	\$173,549	\$153,150	13 %
Client deposits and other third-party liabilities	170,717	197,004	(13 )	171,898	203,489	(16 )
Common equity	16,000	14,000	14	16,000	14,000	14
Headcount	8,127	7,568	7 %	8,127	7,568	7 %

<sup>(a)</sup> Effective in the second quarter of 2016, certain clients were transferred from Middle Market Banking to Corporate Client Banking. Prior period amounts were revised to conform with the current period presentation.



Selected metrics (continued)	As of or for the three months ended June 30, 2016			As of or for the six months ended June 30, 2016		
	2016	2015	Change	2016	2015	Change
(in millions, except ratios)						
Credit data and quality statistics						
Net charge-offs/(recoveries)	\$60	\$(4)	NM	\$66	\$7	NM
Nonperforming assets						
Nonaccrual loans:						
Nonaccrual loans retained <sup>(a)</sup>	1,258	384	228	1,258	384	228
Nonaccrual loans held-for-sale and loans at fair value	—	14	(100)	—	14	(100)
Total nonaccrual loans	1,258	398	216	1,258	398	216
Assets acquired in loan satisfactions	1	5	(80)	1	5	(80)
Total nonperforming assets	1,259	403	212	1,259	403	212
Allowance for credit losses:						
Allowance for loan losses	3,041	2,705	12	3,041	2,705	12
Allowance for lending-related commitments	226	163	39	226	163	39
Total allowance for credit losses	3,267	2,868	14	3,267	2,868	14
Net charge-off/(recovery) rate <sup>(b)</sup>	0.14%	(0.0)%	%	0.08%	0.0%	%
Allowance for loan losses to period-end loans retained	1.70	1.71		1.70	1.71	
Allowance for loan losses to nonaccrual loans retained <sup>(a)</sup>	242	704		242	704	
Nonaccrual loans to period-end total loans	0.70	0.25		0.70	0.25	

(a) Allowance for loan losses of \$292 million and \$42 million was held against nonaccrual loans retained at June 30, 2016 and 2015, respectively.

(b) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off/(recovery) rate.

**ASSET  
MANAGEMENT**

For a discussion of the business profile of AM, see pages 102–104 of JPMorgan Chase’s 2015 Annual Report and Line of Business Metrics on pages 175–176.

Selected income statement data

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
<b>Revenue</b>						
Asset management, administration and commissions	\$2,102	\$2,381	(12 )%	\$4,118	\$4,610	(11 )%
All other income	90	163	(45 )	319	318	—
Noninterest revenue	2,192	2,544	(14 )	4,437	4,928	(10 )
Net interest income	747	631	18	1,474	1,252	18
Total net revenue	2,939	3,175	(7 )	5,911	6,180	(4 )
Provision for credit losses	(8 )	—	NM	5	4	25
<b>Noninterest expense</b>						
Compensation expense	1,249	1,299	(4 )	2,490	2,588	(4 )
Noncompensation expense	849	1,107	(23 )	1,683	1,993	(16 )
Total noninterest expense	2,098	2,406	(13 )	4,173	4,581	(9 )
Income before income tax expense	849	769	10	1,733	1,595	9
Income tax expense	328	318	3	625	642	(3 )
Net income	\$521	\$451	16	\$1,108	\$953	16
<b>Revenue by line of business</b>						
Global Investment Management	\$1,424	\$1,670	(15 )	\$2,923	\$3,203	(9 )
Global Wealth Management	1,515	1,505	1	2,988	2,977	—
Total net revenue	\$2,939	\$3,175	(7 )%	\$5,911	\$6,180	(4 )
<b>Financial ratios</b>						
Return on common equity	22	% 19	%	24	% 21	%
Overhead ratio	71	76		71	74	
Pre-tax margin ratio:						
Global Investment Management	30	26		31	28	
Global Wealth Management	28	22		27	24	
Asset Management	29	24		29	26	

**Quarterly results**

Net income was \$521 million, an increase of 16%, reflecting lower noninterest expense predominantly offset by lower net revenue.

Net revenue was \$2.9 billion, a decrease of 7%, driven by weaker markets, lower performance fees and lower brokerage activity.

Noninterest expense was \$2.1 billion, a decrease of 13%, primarily driven by lower legal expense. The prior-year quarter also included a loss on an asset held-for-sale.

**Year-to-date results**

Net income was \$1.1 billion, an increase of 16%, reflecting lower noninterest expense, largely offset by lower revenue.

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Net revenue was \$5.9 billion, a decrease of 4%. Net interest income was \$1.5 billion, up 18%, driven by higher deposit spreads and loan growth. Noninterest revenue was \$4.4 billion, down 10%, driven by weaker markets and lower brokerage activity.

Noninterest expense was \$4.2 billion, a decrease of 9%, due to lower legal expense as well as a reduction of expense related to the disposal of assets.

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Selected metrics (in millions, except ranking data, headcount and ratios)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
% of JPM mutual fund assets rated as 4- or 5-star <sup>(a)</sup>	52	%54	%	52	%54	%
% of JPM mutual fund assets ranked in 1 <sup>st</sup> or 2 <sup>nd</sup> quartile: <sup>(b)</sup>						
1 year	54	78		54	78	
3 years	76	64		76	64	
5 years	81	78		81	78	
Selected balance sheet data (period-end)						
Total assets	\$134,380	\$134,059	— %	\$134,380	\$134,059	— %
Loans <sup>(c)</sup>	113,319	109,336	4	113,319	109,336	4
Core loans	113,319	109,336	4	113,319	109,336	4
Deposits	148,967	141,179	6	148,967	141,179	6
Common equity	9,000	9,000	—	9,000	9,000	—
Selected balance sheet data (average)						
Total assets	\$131,529	\$130,548	1	\$130,659	\$128,424	2
Loans	111,704	107,250	4	111,101	105,279	6
Core loans	111,704	107,250	4	111,101	105,279	6
Deposits	151,214	152,563	(1 )	150,915	155,386	(3 )
Common equity	9,000	9,000	—	9,000	9,000	—
Headcount	20,897	20,237	3	20,897	20,237	3
Number of client advisors	2,622	2,746	(5 )	2,622	2,746	(5 )
Credit data and quality statistics						
Net charge-offs	\$2	\$(1 )	NM	\$11	\$2	450
Nonaccrual loans	254	209	22	254	209	22
Allowance for credit losses:						
Allowance for loan losses	258	273	(5 )	258	273	(5 )
Allowance for lending-related commitments	4	5	(20 )	4	5	(20 )
Total allowance for credit losses	262	278	(6 )%	262	278	(6 )%
Net charge-off rate	0.01	%—		0.02	%—	
Allowance for loan losses to period-end loans	0.23	0.25		0.23	0.25	
Allowance for loan losses to nonaccrual loans	102	131		102	131	
Nonaccrual loans to period-end loans	0.22	0.19		0.22	0.19	

Represents the “overall star rating” derived from Morningstar for the U.S., the U.K., Luxembourg, Hong Kong and Taiwan domiciled funds; and Nomura “star rating” for Japan domiciled funds. Includes only Global Investment Management retail open ended mutual funds that have a rating. Excludes money market funds, Undiscovered Managers Fund, and Brazil and India domiciled funds.

Quartile ranking sourced from: Lipper for the U.S. and Taiwan domiciled funds; Morningstar for the U.K., Luxembourg and Hong Kong domiciled funds; Nomura for Japan domiciled funds and Fund Doctor for South Korea domiciled funds. Includes only Global Investment Management retail open ended mutual funds that are ranked by the aforementioned sources. Excludes money market funds, Undiscovered Managers Fund, and Brazil and India domiciled funds.

(c)

Included \$29.2 billion and \$24.0 billion of prime mortgage loans reported in the Consumer, excluding credit card, loan portfolio at June 30, 2016 and 2015, respectively.

## Client assets

Client assets of \$2.3 trillion and assets under management of \$1.7 trillion were down 3% and 5%, respectively, due to the effect of lower market levels, outflows from liquidity products and asset sales.

Client assets (in billions)	June 30,		
	2016	2015	Change
Assets by asset class			
Liquidity	\$426	\$466	(9 )%
Fixed income	383	357	7
Equity	342	380	(10 )
Multi-asset and alternatives	542	578	(6 )
Total assets under management	1,693	1,781	(5 )
Custody/brokerage/administration/deposits	651	642	1
Total client assets	\$2,344	\$2,423	(3 )

## Memo:

Alternatives client assets <sup>(a)</sup>	\$151	\$173	(13 )
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## Assets by client segment

Private Banking	\$425	\$452	(6 )
Institutional	811	830	(2 )
Retail	457	499	(8 )
Total assets under management	\$1,693	\$1,781	(5 )

Private Banking	\$1,058	\$1,080	(2 )
Institutional	827	838	(1 )
Retail	459	505	(9 )
Total client assets	\$2,344	\$2,423	(3 )%

(a) Represents assets under management, as well as client balances in brokerage accounts.

Client assets (continued)	Three months		Six months	
(in billions)	ended June 30,		ended June 30,	
	2016	2015	2016	2015
Assets under management rollforward				
Beginning balance	\$1,676	\$1,759	\$1,723	\$1,744
Net asset flows:				
Liquidity	4	6	(23 )	5
Fixed income	10	3	21	5
Equity	(5 )	(1 )	(10 )	3
Multi-asset and alternatives	(2 )	11	4	21
Market/performance/other impacts	10	3	(22 )	3
Ending balance, June 30	\$1,693	\$1,781	\$1,693	\$1,781

## Client assets rollforward

Beginning balance	\$2,323	\$2,405	\$2,350	\$2,387
Net asset flows	2	16	(5 )	33
Market/performance/other impacts	19	2	(1 )	3
Ending balance, June 30	\$2,344	\$2,423	\$2,344	\$2,423

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International metrics (in billions, except where otherwise noted) (in millions) <sup>(a)</sup>	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Total net revenue						
Europe/Middle East/Africa	\$463	\$524	(12 )%	\$894	\$995	(10 )%
Asia/Pacific	267	302	(12 )	522	588	(11 )
Latin America/Caribbean	186	211	(12 )	358	408	(12 )
Total international net revenue	916	1,037	(12 )	1,774	1,991	(11 )
North America	2,023	2,138	(5 )	4,137	4,189	(1 )
Total net revenue	\$2,939	\$3,175	(7 )	\$5,911	\$6,180	(4 )
Assets under management						
Europe/Middle East/Africa	\$293	\$315	(7 )	\$293	\$315	(7 )
Asia/Pacific	124	132	(6 )	124	132	(6 )
Latin America/Caribbean	46	47	(2 )	46	47	(2 )
Total international assets under management	463	494	(6 )	463	494	(6 )
North America	1,230	1,287	(4 )	1,230	1,287	(4 )
Total assets under management	\$1,693	\$1,781	(5 )	\$1,693	\$1,781	(5 )
Client assets						
Europe/Middle East/Africa	\$342	\$366	(7 )	\$342	\$366	(7 )
Asia/Pacific	176	183	(4 )	176	183	(4 )
Latin America/Caribbean	115	114	1	115	114	1
Total international client assets	633	663	(5 )	633	663	(5 )
North America	1,711	1,760	(3 )	1,711	1,760	(3 )
Total client assets	\$2,344	\$2,423	(3 )%	\$2,344	\$2,423	(3 )%

(a) Regional revenue is based on the domicile of the client.

## CORPORATE

For a discussion of Corporate, see pages 105–106 of JPMorgan Chase’s 2015 Annual Report.

## Selected income statement data

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Revenue						
Principal transactions	\$29	\$67	(57 )%	\$126	\$167	(25 )%
Securities gains	20	40	(50 )	71	93	(24 )
All other income/(loss)	122	(7 )	NM	243	(120 )	NM
Noninterest revenue	171	100	71	440	140	214
Net interest income	(329 )	(221 )	(49 )	(542 )	(474 )	(14 )
Total net revenue <sup>(a)</sup>	(158 )	(121 )	(31 )	(102 )	(334 )	69
Provision for credit losses	(1 )	1	NM	(3 )	(4 )	25
Noninterest expense <sup>(b)</sup>	(273 )	44	NM	(120 )	196	NM
Income/(loss) before income tax expense/(benefit)	116	(166 )	NM	21	(526 )	NM
Income tax expense/(benefit)	282	(606 )	NM	219	(1,024 )	NM
Net income/(loss)	\$(166 )	\$440	NM	\$(198 )	\$498	NM
Total net revenue						
Treasury and CIO	(226 )	(163 )	(39 )	(320 )	(541 )	41
Other Corporate	68	42	62	218	207	5
Total net revenue	\$(158 )	\$(121 )	(31 )	\$(102 )	\$(334 )	69
Net income/(loss)						
Treasury and CIO	(199 )	(112 )	(78 )	(310 )	(333 )	7
Other Corporate	33	552	(94 )	112	831	(87 )
Total net income/(loss)	\$(166 )	\$440	NM	\$(198 )	\$498	NM
Selected balance sheet data (period-end)						
Total assets	\$778,359	\$821,736	(5 )	\$778,359	\$821,736	(5 )
Loans	1,862	2,480	(25 )	1,862	2,480	(25 )
Core loans <sup>(c)</sup>	1,857	2,474	(25 )	1,857	2,474	(25 )
Headcount	30,402	27,985	9 %	30,402	27,985	9 %

(a) Included tax-equivalent adjustments, predominantly due to tax-exempt income from municipal bond investments of \$227 million and \$202 million for the three months ended June 30, 2016 and 2015, respectively, and \$445 million and \$405 million for the six months ended June 30, 2016 and 2015, respectively.

(b) Included legal expense/(benefit) of \$(467) million and \$18 million for the three months ended June 30, 2016 and 2015, respectively, and \$(465) million and \$323 million for the six months ended June 30, 2016 and 2015, respectively.

(c) Average core loans were \$2.0 billion and \$2.6 billion for the three months ended June 30, 2016 and 2015, respectively, and \$2.0 billion and \$2.8 billion for the six months ended June 30, 2016 and 2015, respectively.

## Quarterly results

Net loss was \$166 million, compared with net income of \$440 million in the prior year. The current quarter included a net legal benefit substantially offset by higher income tax expense in the current period from tax audits, compared with higher income tax benefits in the prior year from tax audits. Net revenue was a loss of \$158 million, compared to a loss of \$121 million in the prior year. Noninterest expense was a benefit of \$273 million, down \$317 million, driven by a net legal benefit in the current quarter.

## Year-to-date results



Net loss was \$198 million, compared with net income of \$498 million in the prior year. The higher income tax expense in the current period from tax audits, compared with higher income tax benefits in the prior year from tax audits, was partially offset by lower expense resulting from a net legal benefit. Net revenue was a loss of \$102 million, compared to a loss of \$334 million in the prior year which included a \$173 million pre-tax loss in Treasury & CIO, primarily related to the accelerated amortization of cash flow hedges associated with the exit of certain non-operational deposits. Noninterest expense was a benefit of \$120 million, a decrease of \$316 million, largely due to a net legal benefit in the current year.

## Treasury and CIO overview

For a discussion of Treasury and CIO, see page 106 of the Firm's 2015 Annual Report.

At June 30, 2016, the average credit rating of the Treasury and CIO investment securities comprising the portfolio in the table below was AA+ (based upon external ratings where available and, where not available, based primarily upon internal ratings that correspond to ratings as defined by S&P and Moody's). During the second quarter of 2016, the Firm transferred commercial mortgage-backed securities and obligations of U.S. states and municipalities with a fair value of \$7.5 billion from available-for-sale ("AFS") to held-to-maturity ("HTM"). These securities were transferred at fair

value. The transfers reflect the Firm's intent to hold the securities to maturity in order to reduce the impact of price volatility on AOCI.

See Note 11 for further information on the Firm's investment securities portfolio.

For further information on liquidity and funding risk, see Liquidity Risk Management on pages 70–74. For information on interest rate, foreign exchange and other risks, Treasury and CIO value-at-risk ("VaR") and the Firm's earnings-at-risk, see Market Risk Management on pages 58–61.

## Selected income statement and balance sheet data

(in millions)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Securities gains	\$20	\$40	(50)%	\$71	\$93	(24)%
Investment securities portfolio (average) <sup>(a)</sup>	278,962	22,954	(14)	281,202	28,293	(14)
Investment securities portfolio (period-end) <sup>(b)</sup>	275,562	24,048	(12)	275,562	24,048	(12)
Mortgage loans (average)	1,858	2,599	(29)	1,932	2,694	(28)
Mortgage loans (period-end)	1,798	2,455	(27)	1,798	2,455	(27)

Average investment securities included HTM balances of \$53.4 billion and \$50.7 billion for the three months (a) ended June 30, 2016 and 2015, respectively, and \$50.9 billion and \$50.0 billion for the six months ended June 30, 2016 and 2015, respectively.

(b) Period-end investment securities included HTM balances of \$53.8 billion and \$51.6 billion at June 30, 2016 and 2015, respectively.

Private equity portfolio information<sup>(a)</sup>

(in millions)	June 30, 2016	December 31, 2015	Change
Carrying value	\$1,879	\$2,103	(11)%
Cost	2,941	3,798	(23)

(a) For more information on the Firm's methodologies regarding the valuation of the private equity portfolio, see Note 3 of JPMorgan Chase's 2015 Annual Report.

ENTERPRISE-WIDE  
RISK  
MANAGEMENT

Risk is an inherent part of JPMorgan Chase’s business activities. When the Firm extends a consumer or wholesale loan, advises customers on their investment decisions, makes markets in securities, or offers other products or services, the Firm takes on some degree of risk. The Firm’s overall objective is to manage its businesses, and the associated risks, in a manner that balances serving the interests of its clients, customers and investors and protects the safety and soundness of the Firm.

Firmwide Risk Management is overseen and managed on an enterprise-wide basis. The Firm’s approach to risk management covers a broad spectrum of risk areas, such as credit, market, liquidity, model, structural interest rate, principal, country, operational, compliance, legal, capital and reputation risk, with controls and governance established for each area, as appropriate.

The Firm believes that effective risk management requires:

- Acceptance of responsibility, including identification and escalation of risk issues, by all individuals within the Firm;
- Ownership of risk management within each of the lines of business and corporate functions; and
- Firmwide structures for risk governance.

The Firm’s Operating Committee, which consists of the Firm’s Chief Executive Officer (“CEO”), Chief Risk Officer (“CRO”) and other senior executives, is responsible for developing and executing the Firm’s risk management framework. The framework is intended to provide controls and ongoing management of key risks inherent in the Firm’s business activities and create a culture of transparency, awareness and personal responsibility through reporting, collaboration, discussion, escalation and sharing of information. The Operating Committee is responsible and accountable to the Firm’s Board of Directors.

The Firm strives for continual improvement through efforts to enhance controls, ongoing employee training and development, talent retention, and other measures. The Firm follows a disciplined and balanced compensation framework with strong internal governance and independent Board oversight. The impact of risk and control issues are carefully considered in the Firm’s performance evaluation and incentive compensation processes. The Firm is also engaged in a number of activities focused on conduct risk and in regularly evaluating its culture with respect to its business principles.

The following provides an index of key risk management disclosures. For further information on these disclosures, refer to the page references noted below in both this Form 10-Q and JPMorgan Chase’s 2015 Annual Report.

Risk disclosure	Form 10-Q page reference	Annual Report page reference
Enterprise-Wide Risk Management	40-74	107–164
Risk governance		108–111
Credit Risk Management	41-57	112–132
Credit Portfolio		114
Consumer Credit Portfolio	42-47	115–121
Wholesale Credit Portfolio	48-54	122–129
Allowance For Credit Losses	55-57	130–132
Market Risk Management	58-61	133–139
Risk identification and classification		133
Value-at-risk	58-60	135–137
Economic-value stress testing		137–138
Earnings-at-risk	61	138–139
Country Risk Management	62	140–141
Model Risk Management		142
Principal Risk Management		143
Operational Risk Management		144–146

Operational Risk Measurement		145
Cybersecurity		145
Business and technology resiliency		145–146
Legal Risk Management		146
Compliance Risk Management		147
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Liquidity Risk Management	70-74	159–164
HQLA	70	160
Funding	71-73	160–163
Credit ratings	73-74	164

## CREDIT RISK MANAGEMENT

Credit risk is the risk of loss arising from the default of a customer, client or counterparty. The Firm provides credit to a variety of customers, ranging from large corporate and institutional clients to individual consumers and small businesses. For a further discussion of the Firm's Credit Risk Management framework and organization, and the identification, monitoring and management of credit risks, see Credit Risk Management on pages 112–132 of JPMorgan Chase's 2015 Annual Report.

In the following tables, reported loans include loans retained (i.e., held-for-investment); loans held-for-sale (which are carried at the lower of cost or fair value, with valuation changes recorded in noninterest revenue); and certain loans accounted for at fair value. In addition, the Firm records certain loans accounted for at fair value in trading assets. For further information regarding these loans, see Notes 3 and 4. For additional information on the Firm's loans, lending-related commitments and derivative receivables, including the Firm's accounting policies, see Notes 13, 21, and 5, respectively.

For further information regarding the credit risk inherent in the Firm's cash placed with banks, see Wholesale credit exposure – industry exposures on pages 50–52; for information regarding the credit risk inherent in the Firm's investment securities portfolio, see Note 11 of this Form 10-Q, and Note 12 of JPMorgan Chase's 2015 Annual Report; and for information regarding the credit risk inherent in the securities financing portfolio, see Note 12 of this Form 10-Q, and Note 13 of JPMorgan Chase's 2015 Annual Report.

### Total credit portfolio

(in millions)	Credit exposure		Nonperforming <sup>(b)(c)</sup>	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Loans retained	\$866,731	\$832,792	\$ 7,178	\$ 6,303
Loans held-for-sale	4,221	1,646	—	101
Loans at fair value	1,852	2,861	7	25
Total loans – reported	872,804	837,299	7,185	6,429
Derivative receivables	78,446	59,677	220	204
Receivables from customers and other	14,426	13,497	—	—
Total credit-related assets	965,676	910,473	7,405	6,633
Assets acquired in loan satisfactions				
Real estate owned	NA	NA	305	347
Other	NA	NA	47	54
Total assets acquired in loan satisfactions	NA	NA	352	401
Total assets	965,676	910,473	7,757	7,034
Lending-related commitments	955,474	940,395	460	193
Total credit portfolio	\$1,921,150	\$1,850,868	\$ 8,217	\$ 7,227
Credit derivatives used in credit portfolio management activities <sup>(a)</sup>	\$(23,185)	\$(20,681)	\$ —	\$ (9)
Liquid securities and other cash collateral held against derivatives	(23,006)	(16,580)	NA	NA
(in millions, except ratios)	Three months ended June 30, 2016	Six months ended June 30, 2015	Three months ended June 30, 2016	Six months ended June 30, 2015
Net charge-offs	\$1,181	\$1,007	\$2,291	\$2,059
Average retained loans				
Loans – reported	855,622	765,730	846,036	757,926
Loans – reported, excluding residential real estate PCI loans	816,572	721,219	806,314	712,693
Net charge-off rates				
Loans – reported	0.56	%0.53	% 0.54	%0.55

Loans – reported, excluding PCI	0.58	0.56	0.57	0.58
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Represents the net notional amount of protection purchased and sold through credit derivatives used to manage (a) both performing and nonperforming wholesale credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. For additional information, see Credit derivatives on page 54 and Note 5.

(b) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing. At June 30, 2016, and December 31, 2015, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of \$5.2 billion and \$6.3 billion, respectively, that are 90 or more days past due; (2) student loans insured by U.S. government agencies under the FFELP of \$252 million and \$290 million, respectively, that (c) are 90 or more days past due; and (3) real estate owned (“REO”) insured by U.S. government agencies of \$355 million and \$343 million, respectively. These amounts have been excluded based upon the government guarantee. In addition, the Firm’s policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance issued by the Federal Financial Institutions Examination Council (“FFIEC”).

CONSUMER  
CREDIT  
PORTFOLIO

The Firm's consumer portfolio consists primarily of residential real estate loans, credit card loans, auto loans, business banking loans and student loans, and associated lending-related commitments. The Firm's focus is on serving the prime segment of the consumer credit market. For

further information on consumer loans, see Note 13 of this Form 10-Q and Consumer Credit Portfolio on pages 115–121 and Note 14 of JPMorgan Chase's 2015 Annual Report. For further information on lending-related commitments, see note 21 of this Form 10-Q.

The following table presents consumer credit-related information with respect to the credit portfolio held by CCB, prime mortgage and home equity loans held by AM, and prime mortgage loans held by Corporate.

Consumer credit portfolio  (in millions, except ratios)	Credit exposure		Three months ended June 30,				Six months ended June 30,					
	Jun 30, 2016	Dec 31, 2015	Nonaccrual loans <sup>(h)(i)</sup>		Net charge-offs <sup>(j)</sup>		Average annual net charge-off rate <sup>(j)(k)</sup>		Net charge-offs <sup>(j)</sup>		Average annual net charge-off rate <sup>(j)(k)</sup>	
			Jun 30, 2016	Dec 31, 2015	2016	2015	2016	2015	2016	2015	2016	2015
Consumer, excluding credit card Loans, excluding PCI loans and loans held-for-sale												
Home equity	\$42,371	\$45,559	\$2,012	\$2,191	\$36	71	0.34%	0.57%	\$95	\$162	0.43%	0.64%
Residential mortgage	184,704	166,239	2,365	2,503	3	12	0.01	0.04	3	27	—	0.04
Auto <sup>(a)</sup>	64,056	60,255	208	116	46	32	0.29	0.23	113	83	0.36	0.30
Business banking <sup>(b)</sup>	22,047	21,208	290	263	53	68	0.98	1.34	109	127	1.02	1.26
Student and other	9,512	10,096	210	242	29	43	1.21	1.62	67	91	1.38	1.70
Total loans, excluding PCI loans and loans held-for-sale	322,690	303,357	5,085	5,315	167	226	0.21	0.34	387	490	0.25	0.38
Loans – PCI												
Home equity	14,000	14,989	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Prime mortgage	8,240	8,893	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Subprime mortgage	3,089	3,263	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Option ARMs <sup>(c)</sup>	13,031	13,853	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total loans – PCB	8,360	40,998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total loans – retained	361,050	344,355	5,085	5,315	167	226	0.19	0.29	387	490	0.22	0.32
	255	<sup>(g)</sup> 466	<sup>(g)</sup> —	98	—	—	—	—	—	—	—	—

Loans held-for-sale												
Total consumer, excluding credit card loans	361,305	344,821	5,085	5,413	167	226	0.19	0.29	387	490	0.22	0.32
Lending-related commitments <sup>(d)</sup>	59,224	58,478										
Receivables from customers <sup>(e)</sup>	138	125										
Total consumer exposure, excluding credit card	420,667	403,424										
Credit card Loans retained <sup>(f)</sup>	131,507	131,387	—	—	860	800	2.70	2.61	1,690	1,589	2.66	2.61
Loans held-for-sale	84	76	—	—	—	—	—	—	—	—	—	—
Total credit card loans	131,591	131,463	—	—	860	800	2.70	2.61	1,690	1,589	2.66	2.61
Lending-related commitments <sup>(d)</sup>	539,105	515,518										
Total credit card exposure	670,696	646,981										
Total consumer credit portfolio	\$ 1,091,363	\$ 1,050,405	\$ 5,085	\$ 5,413	\$ 1,027	\$ 1,026	0.85%	0.95%	\$ 2,077	\$ 2,079	0.87%	0.98%
Memo: Total consumer credit portfolio, excluding PCI	\$ 1,053,003	\$ 1,009,407	\$ 5,085	\$ 5,413	\$ 1,027	\$ 1,026	0.92%	1.06%	\$ 2,077	\$ 2,079	0.95%	1.10%

(a) At June 30, 2016, and December 31, 2015, excluded operating lease assets of \$10.9 billion and \$9.2 billion, respectively.

(b) Predominantly includes Business Banking loans as well as deposit overdrafts.

(c) At June 30, 2016, and December 31, 2015, approximately 66% and 64% of the PCI option adjustable rate mortgage (“ARMs”) portfolio has been modified into fixed-rate, fully amortizing loans, respectively.

(d) Credit card and home equity lending-related commitments represent the total available lines of credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit would be used at the same time. For credit card and home equity commitments (if certain conditions are met), the Firm can reduce or cancel these lines of credit by providing the borrower notice or, in some cases as permitted by law, without notice.

(e) Receivables from customers represent margin loans to retail brokerage customers, and are included in accrued interest and accounts receivable on the Consolidated balance sheets.

(f) Includes accrued interest and fees net of an allowance for the uncollectible portion of accrued interest and fee income.

(g) Predominantly represents prime mortgage loans held-for-sale.

At June 30, 2016, and December 31, 2015, nonaccrual loans excluded loans 90 or more days past due as follows: (1) mortgage loans insured by U.S. government agencies of \$5.2 billion and \$6.3 billion, respectively; and (2) student loans insured by U.S. government agencies under the FFELP of \$252 million and \$290 million, respectively. These amounts have been excluded from nonaccrual loans based upon the government guarantee. In addition, the Firm’s policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance issued by the FFIEC.

(i) Excludes PCI loans. The Firm is recognizing interest income on each pool of PCI loans as they are all performing.



(j) Net charge-offs and the net charge-off rates excluded write-offs in the PCI portfolio of \$41 million and \$55 million for the three months ended June 30, 2016 and 2015 respectively, and \$88 million and \$110 million for the six months ended June 30, 2016 and 2015, respectively. These write-offs decreased the allowance for loan losses for PCI loans. See Allowance for Credit Losses on pages 55–57 for further details.

(k) Average consumer loans held-for-sale were \$354 million and \$2.1 billion for the three months ended June 30, 2016 and 2015, respectively, and \$389 million and \$2.5 billion for the six months ended June 30, 2016 and 2015, respectively. These amounts were excluded when calculating net charge-off rates.

Consumer, excluding credit card

Portfolio analysis

Consumer loan balances increased during the six months ended June 30, 2016, predominantly due to originations of high-quality prime mortgage and auto loans that have been retained on the balance sheet, partially offset by paydowns and the charge-off or liquidation of delinquent loans. Credit performance has continued to improve across most portfolios as the economy strengthened and home prices increased.

PCI loans are excluded from the following discussions of individual loan products and are addressed separately below. For further information about the Firm's consumer portfolio, including information about delinquencies, loan modifications and other credit quality indicators, see Note 13.

Home equity: The home equity portfolio declined from the 2015 year-end primarily reflecting loan paydowns and charge-offs. Both early-stage and late-stage delinquencies showed improvement from December 31, 2015. Nonaccrual loans decreased from December 31, 2015 primarily as a result of loss mitigation activities. Net charge-offs for the three and six months ended June 30, 2016, declined when compared with the same periods of the prior year as a result of improvement in home prices and delinquencies.

At June 30, 2016, approximately 85% of the Firm's home equity portfolio consists of home equity lines of credit ("HELOCs") and the remainder consists of home equity loans ("HELOANs"). For further information on the Firm's home equity portfolio, see Note 13 of this Form 10-Q and Consumer Credit Portfolio on pages 115–121 of JPMorgan Chase's 2015 Annual Report.

The unpaid principal balance of HELOCs outstanding was \$38 billion at June 30, 2016. Of such amounts, approximately:

\$13 billion have recast from interest-only to fully amortizing payments or have been modified,

\$18 billion are scheduled to recast from interest-only to fully amortizing payments in future periods, and

\$7 billion are interest-only balloon HELOCs, which primarily mature after 2030.

The following chart illustrates the payment recast composition of the approximately \$25 billion of HELOCs scheduled to recast in the future, based upon their current contractual terms.

HELOCs scheduled to recast

(at June 30, 2016)

The Firm has considered this payment recast risk in its allowance for loan losses based upon the estimated amount of payment shock (i.e., the excess of the fully-amortizing payment over the interest-only payment in effect prior to recast) expected to occur at the payment recast date, along with the corresponding estimated probability of default and loss severity assumptions. As part of its allowance estimate, the Firm also expects, based on observed activity in recent years, that approximately 25% of the unpaid principal balance of HELOCs scheduled to recast will voluntarily pre-pay prior to or after the recast. The HELOCs that have previously recast to fully amortizing payments generally have higher delinquency rates than the HELOCs within the revolving period, primarily as a result of the payment shock at the time of recast. Certain other factors, such as future developments in both unemployment rates and home prices, could also have a significant impact on the performance of these loans.

The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are exhibiting a material deterioration in their credit risk profile. The Firm will continue to evaluate both the near-term and longer-term recast risks inherent in its HELOC portfolio to ensure that changes in the Firm's estimate of incurred losses are appropriately considered in the allowance for loan losses and that the Firm's account management practices are appropriate given the portfolio's risk profile.

High-risk seconds are junior lien loans where the borrower has a senior lien loan that is either delinquent or has been modified. Such loans are considered to pose a higher risk of default than junior lien loans for which the senior lien is neither delinquent nor modified. At June 30, 2016, the Firm estimated that the unpaid principal balance of its home equity portfolio contained approximately \$1.3 billion of current junior lien loans that were considered high risk seconds, compared with \$1.4 billion at December 31, 2015. The Firm estimates the balance of its total exposure to high-risk seconds on a quarterly basis using internal data and loan level credit bureau data (which typically provides the delinquency status of the senior lien). The Firm considers the increased probability of default associated with these high-risk seconds in estimating the allowance for loan losses and classifies those loans that are subordinated to a first lien loan that is more than 90 days delinquent as nonaccrual loans. The estimated balance of these high-risk seconds may vary from quarter to quarter for reasons such as the movement of related senior liens into and out of the 30+ day delinquency bucket. The Firm continues to monitor the risks associated with these loans. For further information, see Note 13.

**Residential mortgage:** The residential mortgage portfolio predominantly consists of high-quality prime mortgage loans, with a small component (approximately 2%) of the residential mortgage portfolio in subprime mortgage loans. These subprime mortgage loans continue to run-off and are performing in line with expectations. The residential mortgage portfolio, including loans held-for-sale, increased from December 31, 2015 due to retained originations of high-quality prime mortgage loans partially offset by paydowns and the charge-off or liquidation of delinquent loans. Originations for the three and six months ended June 30, 2016 were primarily high-quality prime mortgage loans with fixed interest rates, and included both jumbo and conforming loans. Both early-stage and late-stage delinquencies showed improvement from December 31, 2015. Nonaccrual loans decreased from December 31, 2015 primarily as a result of loss mitigation activities. Net charge-offs for the three and six months ended June 30, 2016 remain low, reflecting continued improvement in home prices and delinquencies.

At June 30, 2016, and December 31, 2015, the Firm's residential mortgage portfolio included \$10.2 billion and \$11.1 billion, respectively, of mortgage loans insured and/or guaranteed by U.S. government agencies, of which \$7.2 billion and \$8.4 billion, respectively, were 30 days or more past due (of these past due loans, \$5.2 billion and \$6.3 billion, respectively, were 90 days or more past due). The Firm monitors its exposure to any potential unrecoverable claim payments related to government insured loans and considers this exposure in estimating the allowance for loan losses. The financial impact related to exposure for future claims of government guaranteed loans is not expected to be significant.

At both June 30, 2016, and December 31, 2015, the Firm's residential mortgage portfolio included \$17.8 billion of interest-only loans. These loans have an interest-only payment period generally followed by an adjustable-rate or fixed-rate fully amortizing payment period to maturity and are typically originated as higher-balance loans to higher-income borrowers. To date, losses on this portfolio generally have been consistent with the broader residential mortgage portfolio and the Firm's expectations. The Firm continues to monitor the risks associated with these loans.

**Auto:** Auto loans increased compared with December 31, 2015, as new originations outpaced paydowns and payoffs. Nonaccrual loans increased compared with December 31, 2015. Net charge-offs for the three and six months ended June 30, 2016 increased compared with the same periods of the prior year as a result of higher retail auto loan balances and a moderate increase in loss severity. The auto loan portfolio predominantly consists of prime-quality credits.

**Business banking:** Business banking loans increased compared with December 31, 2015 due to growth in loan originations. Nonaccrual loans increased compared with December 31, 2015. Net charge-offs for the three and six months ended June 30, 2016 decreased from prior year due to continued discipline in credit underwriting.

**Student and other:** Student and other loans decreased from December 31, 2015, due primarily to the run-off of the student loan portfolio as the Firm ceased originations of student loans during the fourth quarter of 2013. Nonaccrual loans declined from December 31, 2015 and net charge-offs for the three and six months ended June 30, 2016 declined from prior year as a result of the run-off of the student loan portfolio.

**Purchased credit-impaired loans:** PCI loans decreased as the portfolio continues to run off. As of June 30, 2016, approximately 12% of the option ARM PCI loans were delinquent and approximately 66% of the portfolio has been modified into fixed-rate, fully amortizing loans. Substantially all of the remaining loans are making amortizing

payments, although such payments are not necessarily fully amortizing. This latter group of loans is subject to the risk of payment shock due to future payment recast. Default rates generally increase on option ARM loans when payment recast results in a payment increase. The expected increase in default rates is considered in the Firm's quarterly impairment assessment.

The following table provides a summary of lifetime principal loss estimates included in either the nonaccretable difference or the allowance for loan losses.

Summary of PCI loans lifetime principal loss estimates

(in billions)	Lifetime loss estimates <sup>(a)</sup>		LTD liquidation losses <sup>(b)</sup>	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Home equity	\$14.6	\$14.5	\$12.8	\$12.7
Prime mortgage	4.0	4.0	3.7	3.7
Subprime mortgage	3.2	3.3	3.0	3.0
Option ARMs	10.0	10.0	9.6	9.5
Total	\$31.8	\$31.8	\$29.1	\$28.9

Includes the original nonaccretable difference established in purchase accounting of \$30.5 billion for principal losses plus additional principal losses recognized subsequent to acquisition through the provision and allowance for loan losses. The remaining nonaccretable difference for principal losses was \$1.3 billion and \$1.5 billion at June 30, 2016, and December 31, 2015, respectively.

(a) Life-to-date (“LTD”) liquidation losses represent both realization of loss upon loan resolution and any principal forgiven upon modification.

Current estimated LTVs of residential real estate loans

The current estimated average loan-to-value (“LTV”) ratio for residential real estate loans retained, excluding mortgage loans insured by U.S. government agencies and PCI loans, was 58% at June 30, 2016, compared with 59% at December 31, 2015. The current estimated average LTV ratio for residential real estate PCI loans, based on the unpaid principal balances, was 66% at June 30, 2016, compared with 69% at December 31, 2015.

Average LTV ratios have declined consistent with recent improvements in home prices. For further information on current estimated LTVs on residential real estate loans, see Note 13.

Geographic composition of residential real estate loans

For information on the geographic composition of the Firm’s residential real estate loans, see Note 13.

Loan modification activities – residential real estate loans

The performance of modified loans generally differs by product type due to differences in both the credit quality and the types of modifications provided. The performance of modifications completed under both the U.S. Government’s Home Affordable Modification Program (“HAMP”) and the Firm’s proprietary modification programs (primarily the Firm’s modification program that was modeled after HAMP), as measured through cumulative redefault rates, was not materially different from December 31, 2015. For further information on the Firm’s cumulative redefault rates see Consumer Credit Portfolio on pages 115–121 of JPMorgan Chase’s 2015 Annual Report.

Certain loans that were modified under HAMP and the Firm’s proprietary modification programs have interest rate reset provisions (“step-rate modifications”). Interest rates on these loans generally began to increase commencing in 2014 by 1% per year, and will continue to do so, until the rate reaches a specified cap, typically at a prevailing market interest rate for a fixed-rate loan as of the modification date. The carrying value of non-PCI loans modified in step-rate modifications was \$4 billion at June 30, 2016. The unpaid principal balance of PCI loans modified in step-rate modifications was \$9 billion at June 30, 2016. The Firm continues to monitor this risk exposure and the impact of these potential interest rate increases is considered in the Firm’s allowance for loan losses.

The following table presents information as of June 30, 2016, and December 31, 2015, relating to modified retained residential real estate loans for which concessions have been granted to borrowers experiencing financial difficulty. For further information on modifications for the three and six months ended June 30, 2016 and 2015, see Note 13.

Modified residential real estate loans

(in millions)	June 30, 2016	December 31, 2015
---------------	---------------	-------------------

	Retained loans	Non-accrual retained loans <sup>(d)</sup>	Retained loans	Non-accrual retained loans <sup>(d)</sup>
Modified residential real estate loans, excluding PCI loans <sup>(a)(b)</sup>				
Home equity	\$2,304	1,144	\$2,358	1,220
Residential mortgage	6,377	1,846	6,690	1,957
Total modified residential real estate loans, excluding PCI loans	\$8,681	\$ 2,990	\$9,048	\$ 3,177
Modified PCI loans <sup>(c)</sup>				
Home equity	\$2,493	NA	\$2,526	NA
Prime mortgage	5,372	NA	5,686	NA
Subprime mortgage	3,078	NA	3,242	NA
Option ARMs	9,859	NA	10,427	NA
Total modified PCI loans	\$20,802	NA	\$21,881	NA

(a) Amounts represent the carrying value of modified residential real estate loans.

At June 30, 2016, and December 31, 2015, \$3.7 billion and \$3.8 billion, respectively, of loans modified subsequent to repurchase from Ginnie Mae in accordance with the standards of the appropriate government agency (i.e., FHA, (b) VA, RHS) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure. For additional information about sales of loans in securitization transactions with Ginnie Mae, see Note 15.

(c) Amounts represent the unpaid principal balance of modified PCI loans.

As of June 30, 2016, and December 31, 2015, nonaccrual loans included \$2.4 billion and \$2.5 billion, respectively, (d) of troubled debt restructurings (“TDRs”) for which the borrowers were less than 90 days past due. For additional information about loans modified in a TDR that are on nonaccrual status, see Note 13.

## Nonperforming assets

The following table presents information as of June 30, 2016, and December 31, 2015, about consumer, excluding credit card, nonperforming assets.

Nonperforming assets<sup>(a)</sup>

(in millions)	June 30, December 31,	
	2016	2015
Nonaccrual loans <sup>(b)</sup>		
Residential real estate	\$ 4,377	\$ 4,792
Other consumer	708	621
Total nonaccrual loans	5,085	5,413
Assets acquired in loan satisfactions		
Real estate owned	231	277
Other	45	48
Total assets acquired in loan satisfactions	276	325
Total nonperforming assets	\$ 5,361	\$ 5,738

At June 30, 2016, and December 31, 2015, nonperforming assets excluded: (1) mortgage loans insured by U.S. government agencies of \$5.2 billion and \$6.3 billion, respectively, that are 90 or more days past due; (2) student (a) loans insured by U.S. government agencies under the FFELP of \$252 million and \$290 million, respectively, that are 90 or more days past due; and (3) real estate owned insured by U.S. government agencies of \$355 million and \$343 million, respectively. These amounts have been excluded based upon the government guarantee.

Excludes PCI loans which are accounted for on a pool basis. Since each pool is accounted for as a single asset with (b) a single composite interest rate and an aggregate expectation of cash flows, the past-due status of the pools, or that of individual loans within the pools, is not meaningful. Because the Firm is recognizing interest income on each pool of loans, they are all considered to be performing.

Nonaccrual loans in the residential real estate portfolio decreased to \$4.4 billion at June 30, 2016 from \$4.8 billion at December 31, 2015, of which 30% and 31% were greater than 150 days past due, respectively. In the aggregate, the unpaid principal balance of residential real estate loans greater than 150 days past due was charged down by approximately 43% and 44% to the estimated net realizable value of the collateral at June 30, 2016, and December 31, 2015, respectively.

Active and suspended foreclosure: For information on loans that were in the process of active or suspended foreclosure, see Note 13.

Nonaccrual loans: The following table presents changes in consumer, excluding credit card, nonaccrual loans for the six months ended June 30, 2016 and 2015.

## Nonaccrual loans

## Six months ended June 30,

(in millions)	2016	2015
Beginning balance	\$5,413	\$6,509
Additions	1,802	1,805
Reductions:		
Principal payments and other <sup>(a)</sup>	730	784
Charge-offs	354	395
Returned to performing status	853	872
Foreclosures and other liquidations	193	279
Total reductions	2,130	2,330
Net additions/(reductions)	(328 )	(525 )
Ending balance	\$5,085	\$5,984

(a) Other reductions includes loan sales.





#### Credit Card

Total credit card loans were relatively flat from December 31, 2015. The June 30, 2016 30+ day delinquency rate decreased to 1.40% from 1.43% at December 31, 2015, and remains near record lows. For the three months ended June 30, 2016 and 2015, the net charge-off rates were 2.70% and 2.61%, respectively. For the six months ended June 30, 2016 and 2015, the net charge-off rates were 2.66% and 2.61%, respectively. The credit card portfolio continues to reflect a largely well-seasoned, rewards-based portfolio that has good U.S. geographic diversification. New originations continue to grow as a percentage of the total portfolio, in line with the Firm's credit parameters; these originations are expected to generate loss rates higher than the more seasoned portion of the portfolio, given the higher mix of near-prime accounts being originated. These near-prime accounts have net revenue rates and returns on equity that are higher than the portfolio average. For information on the geographic and FICO composition of the Firm's credit card loans, see Note 13.

#### Modifications of credit card loans

At June 30, 2016, and December 31, 2015, the Firm had \$1.3 billion and \$1.5 billion, respectively, of credit card loans outstanding that have been modified in TDRs. These balances included both credit card loans with modified payment terms and credit card loans that reverted back to their pre-modification payment terms because the cardholder did not comply with the modified payment terms. The decrease in modified credit card loans outstanding from December 31, 2015, was attributable to a reduction in new modifications as well as ongoing payments and charge-offs on previously modified credit card loans.

Consistent with the Firm's policy, all credit card loans typically remain on accrual status until charged-off. However, the Firm establishes an allowance, which is offset against loans and charged to interest income, for the estimated uncollectible portion of accrued interest and fee income.

For additional information about loan modification programs to borrowers, see Note 13.

WHOLESALE  
CREDIT  
PORTFOLIO

The Firm's wholesale businesses are exposed to credit risk through underwriting, lending, market-making, and hedging activities with and for clients and counterparties, as well as through various operating services such as cash management and clearing activities. A portion of the loans originated or acquired by the Firm's wholesale businesses is generally retained on the balance sheet. The Firm distributes a significant percentage of the loans it originates into the market as part of its syndicated loan business and to manage portfolio concentrations and credit risk.

The wholesale credit portfolio, excluding the Oil & Gas, Natural Gas Pipelines and Metals & Mining portfolios, continued to be generally stable for the six months ended June 30, 2016, characterized by low levels of criticized exposure, nonaccrual loans and charge-offs. See industry discussion on pages 50–52 for further information. Growth in loans retained was driven by increased client activity, notably in Commercial Term Lending and Real Estate Banking within commercial real estate. Discipline in underwriting across all areas of lending continues to remain a key point of focus. The wholesale portfolio is actively managed, in part by conducting ongoing, in-depth reviews of client credit quality and transaction structure, inclusive of collateral where applicable; and of industry, product and client concentrations.

Wholesale credit portfolio

(in millions)	Credit exposure		Nonperforming <sup>(c)</sup>	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Loans retained	\$374,174	\$357,050	\$ 2,093	\$ 988
Loans held-for-sale	3,882	1,104	—	3
Loans at fair value	1,852	2,861	7	25
Loans – reported	379,908	361,015	2,100	1,016
Derivative receivables	78,446	59,677	220	204
Receivables from customers and other <sup>(a)</sup>	14,288	13,372	—	—
Total wholesale credit-related assets	472,642	434,064	2,320	1,220
Lending-related commitments	357,145	366,399	460	193
Total wholesale credit exposure	\$829,787	\$800,463	\$ 2,780	\$ 1,413
Credit derivatives used in credit portfolio management activities <sup>(b)</sup>	\$(23,185)	\$(20,681)	\$ —	\$(9 )
Liquid securities and other cash collateral held against derivatives	(23,006 )	(16,580 )	NA	NA

Receivables from customers and other include \$14.0 billion and \$13.3 billion of margin loans at June 30, 2016, and (a) December 31, 2015, respectively, to prime brokerage customers; these are classified in accrued interest and accounts receivable on the Consolidated balance sheets.

Represents the net notional amount of protection purchased and sold through credit derivatives used to manage (b) both performing and nonperforming wholesale credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. For additional information, see Credit derivatives on page 54, and Note 5.

(c) Excludes assets acquired in loan satisfactions.

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The following tables present the maturity and ratings profiles of the wholesale credit portfolio as of June 30, 2016, and December 31, 2015. The ratings scale is based on the Firm's internal risk ratings, which generally correspond to the ratings as defined by S&P and Moody's. For additional information on wholesale loan portfolio risk ratings, see Note 14 of JPMorgan Chase's 2015 Annual Report.

Wholesale credit exposure – maturity and ratings profile

June 30, 2016 (in millions, except ratios)	Maturity profile <sup>(e)</sup>				Ratings profile			Total % of IG
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	Total	Investment-grade AAA/Aaa to BBB-/Baa3	Non-investment-grade BB+/Ba1 & below	Total	
Loans retained	\$ 118,067	\$ 160,076	\$ 96,031	\$ 374,174	\$ 280,084	\$ 94,090	\$ 374,174	75 %
Derivative receivables				78,446			78,446	
Less: Liquid securities and other cash collateral held against derivatives				(23,006 )			(23,006 )	
Total derivative receivables, net of all collateral	17,749	11,578	26,113	55,440	45,221	10,219	55,440	82
Lending-related commitments	92,902	252,253	11,990	357,145	263,740	93,405	357,145	74
Subtotal	228,718	423,907	134,134	786,759	589,045	197,714	786,759	75
Loans held-for-sale and loans at fair value <sup>(a)</sup>				5,734			5,734	
Receivables from customers and other				14,288			14,288	
Total exposure – net of liquid securities and other cash collateral held against derivatives				\$ 806,781			\$ 806,781	
Credit derivatives used in credit portfolio management activities by reference entity ratings profile <sup>(b)(c)(d)</sup>	\$(1,151 )	\$(17,352 )	\$(4,682 )	\$(23,185 )	\$(19,682 )	\$ (3,503 )	\$(23,185 )	85 %

December 31, 2015 (in millions, except ratios)	Maturity profile <sup>(e)</sup>				Ratings profile			Total % of IG
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years	Total	Investment-grade AAA/Aaa to BBB-/Baa3	Non-investment-grade BB+/Ba1 & below	Total	
Loans retained	\$ 110,348	\$ 155,902	\$ 90,800	\$ 357,050	\$ 267,736	\$ 89,314	\$ 357,050	75 %
Derivative receivables				59,677			59,677	
Less: Liquid securities and other cash collateral held against derivatives				(16,580 )			(16,580 )	
Total derivative receivables, net of all collateral	11,399	12,836	18,862	43,097	34,773	8,324	43,097	81
Lending-related commitments	105,514	251,042	9,843	366,399	267,922	98,477	366,399	73
Subtotal	227,261	419,780	119,505	766,546	570,431	196,115	766,546	74
Loans held-for-sale and loans at fair value <sup>(a)</sup>				3,965			3,965	
Receivables from customers and other				13,372			13,372	
				\$ 783,883			\$ 783,883	

Total exposure – net of liquid securities and other cash collateral held against derivatives

Credit derivatives used in credit portfolio management activities by reference entity ratings profile<sup>(b)(c)(d)</sup>

	\$ (808 )	\$ (14,427 )	\$ (5,446 )	\$ (20,681 )	\$ (17,754 )	\$ ( 2,927 )	\$ (20,681 )	86 %
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(a) Represents loans held-for-sale, primarily related to syndicated loans and loans transferred from the retained portfolio, and loans at fair value.

(b) These derivatives do not qualify for hedge accounting under U.S. GAAP.

(c) The notional amounts are presented on a net basis by underlying reference entity and the ratings profile shown is based on the ratings of the reference entity on which protection has been purchased.

(d) Predominantly all of the credit derivatives entered into by the Firm where it has purchased protection, including credit derivatives used in credit portfolio management activities, are executed with investment-grade counterparties.

(e) The maturity profile of retained loans, lending-related commitments and derivative receivables is based on the remaining contractual maturity. Derivative contracts that are in a receivable position at June 30, 2016, may become payable prior to maturity based on their cash flow profile or changes in market conditions.

Wholesale credit exposure – industry exposures

The Firm focuses on the management and diversification of its industry exposures, paying particular attention to industries with actual or potential credit concerns. Exposures deemed criticized align with the U.S. banking regulators' definition of criticized exposures, which consist

of the special mention, substandard and doubtful categories. The total criticized component of the portfolio, excluding loans held-for-sale and loans at fair value, was \$21.0 billion at June 30, 2016, compared with \$14.6 billion at December 31, 2015, driven by downgrades within the Oil & Gas, Natural Gas Pipelines and Metals & Mining portfolios.

Below are summaries of the Firm's exposures as of June 30, 2016, and December 31, 2015. For additional information on industry concentrations, see Note 5 of JPMorgan Chase's 2015 Annual Report.

Wholesale credit exposure – industries<sup>(a)</sup>

As of or for the Six months ended June 30, 2016  (in millions)	Noninvestment-grade					Selected metrics			Liquid securities and other cash collateral held against derivative receivables
	Credit exposure <sup>(c)</sup>	Investment-grade	Noncriticized	Criticized performing	Criticized nonperforming	30 days or more past due accruing loans	Net charge-offs (recoveries)	Credit losses <sup>(f)</sup>	
Real Estate	\$ 125,215	\$ 96,714	\$ 27,331	\$ 947	\$ 223	\$ 60	\$ —	\$(105)	\$(146)
Consumer & Retail	82,682	53,316	27,676	1,461	229	20	18	(594)	(34)
Industrials	56,546	37,678	17,709	1,080	79	34	1	(552)	(21)
Technology, Media & Telecommunications	55,831	32,659	21,749	1,413	10	81	3	(941)	(50)
Healthcare	47,494	36,722	10,251	454	67	49	18	(266)	(330)
Banks & Finance Cos	43,434	35,105	7,698	611	20	19	(1)	(1,405)	(6,007)
Oil & Gas	39,675	18,685	10,234	9,392	1,364	1	137	(1,270)	(34)
Utilities	31,930	26,591	4,815	387	137	3	—	(279)	(30)
Asset Managers	31,655	27,061	4,554	40	—	55	—	(5)	(5,974)
State & Municipal Govt <sup>(b)</sup>	28,417	27,707	664	6	40	17	—	(130)	(126)
Central Govt	24,519	24,095	392	32	—	2	—	(11,226)	(4,342)
Chemicals/Plastics	18,117	13,344	4,585	158	30	1	—	(54)	(3)
Transportation	17,773	12,224	5,229	281	39	34	—	(96)	(229)
Automotive	15,015	9,169	5,637	208	1	2	—	(496)	(6)
Metals & Mining	13,816	5,102	7,020	1,506	188	—	27	(484)	(7)
Insurance	11,655	9,882	1,646	—	127	22	—	(307)	(1,843)
Financial Markets	11,466	10,552	914	—	—	—	—	—	(1,686)
Infrastructure	5,117	1,633	3,484	—	—	—	—	(232)	(501)
Securities Firms	149,408	131,202	17,760	227	219	924	11	(4,743)	(1,637)
All other <sup>(c)</sup>	149,408	131,202	17,760	227	219	924	11	(4,743)	(1,637)
Subtotal	\$ 809,765	\$ 609,441	\$ 179,348	\$ 18,203	\$ 2,773	\$ 1,324	\$ 214	\$(23,185)	\$(23,006)
Loans held-for-sale and loans at fair value	5,734								
Receivables from customers and interests in purchased receivables	14,288								
Total <sup>(d)</sup>	\$ 829,787								



As of or for the year ended December 31, 2015  (in millions)	Noninvestment-grade					Selected metrics			Liquid securities and other cash collateral held against derivative receivables
	Credit exposure <sup>(e)</sup>	Investment-grade	Noncriticized	Criticized performing	Criticized nonperforming	30 days or more past due accruing loans	Net charge-offs (recoveries)	Credit losses <sup>(f)</sup>	
Real Estate	\$ 116,857	\$ 88,076	\$ 27,087	\$ 1,463	\$ 231	\$ 208	\$ (14 )	\$(54 )	\$(47 )
Consumer & Retail	85,460	53,647	29,659	1,947	207	18	13	(288 )	(94 )
Industrials	54,386	36,519	16,663	1,164	40	59	8	(386 )	(39 )
Technology, Media & Telecommunications	57,382	29,205	26,925	1,208	44	5	(1 )	(806 )	(21 )
Healthcare	46,053	37,858	7,755	394	46	129	(7 )	(24 )	(245 )
Banks & Finance Cos	43,398	35,071	7,654	610	63	17	(5 )	(974 )	(5,509 )
Oil & Gas	42,077	24,379	13,158	4,263	277	22	13	(530 )	(37 )
Utilities	30,853	24,983	5,655	168	47	3	—	(190 )	(289 )
Asset Managers	23,815	20,214	3,570	31	—	18	—	(6 )	(4,453 )
State & Municipal Govt <sup>(b)</sup>	29,114	28,307	745	7	55	55	(8 )	(146 )	(81 )
Central Govt	17,968	17,871	97	—	—	7	—	(9,359 )	(2,393 )
Chemicals/Plastics	15,232	10,910	4,017	274	31	9	—	(17 )	—
Transportation	19,227	13,258	5,801	167	1	15	3	(51 )	(243 )
Automotive	13,864	9,182	4,580	101	1	4	(2 )	(487 )	(1 )
Metals & Mining	14,049	6,522	6,434	1,008	85	1	—	(449 )	(4 )
Insurance	11,889	9,812	1,958	26	93	23	—	(157 )	(1,410 )
Financial Markets	7,973	7,304	669	—	—	—	—	—	(167 )
Infrastructure	4,412	1,505	2,907	—	—	3	—	(102 )	(256 )
Securities Firms	149,117	130,488	18,095	370	164	1,015	10	(6,655 )	(1,291 )
All other <sup>(c)</sup>	149,117	130,488	18,095	370	164	1,015	10	(6,655 )	(1,291 )
Subtotal	\$ 783,126	\$ 585,111	\$ 183,429	\$ 13,201	\$ 1,385	\$ 1,611	\$ 10	\$(20,681 )	\$(16,580 )
Loans held-for-sale and loans at fair value	3,965								
Receivables from customers and interests in purchased receivables	13,372								
Total <sup>(d)</sup>	\$ 800,463								

(a) The industry rankings presented in the table as of December 31, 2015, are based on the industry rankings of the corresponding exposures at June 30, 2016, not actual rankings of such exposures at December 31, 2015.

(b)

In addition to the credit risk exposure to states and municipal governments (both U.S. and non-U.S.) at June 30, 2016, and December 31, 2015, noted above, the Firm held: \$9.2 billion and \$7.6 billion, respectively, of trading securities; \$32.1 billion and \$33.6 billion, respectively, of AFS securities; and \$14.5 billion and \$12.8 billion, respectively, of HTM securities, issued by U.S. state and municipal governments. For further information, see Note 3 and Note 11.

All other includes: individuals; SPEs; holding companies; and private education and civic organizations,

(c) representing approximately 54%, 37%, 5% and 4%, respectively, at June 30, 2016, and 54%, 37%, 5% and 4%, respectively, at December 31, 2015.

(d) Excludes cash placed with banks of \$355.8 billion and \$351.0 billion, at June 30, 2016, and December 31, 2015, respectively, placed with various central banks, predominantly Federal Reserve Banks.

Credit exposure is net of risk participations and excludes the benefit of credit derivatives used in credit portfolio

(e) management activities held against derivative receivables or loans and liquid securities and other cash collateral held against derivative receivables.

Represents the net notional amounts of protection purchased and sold through credit derivatives used to manage the

(f) credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. The All other category includes purchased credit protection on certain credit indices.



Presented below is a discussion of certain industries to which the Firm has significant exposures and which present actual or potential credit concerns.

#### Oil & Gas and Natural Gas Pipelines

The following table presents Oil & Gas and Natural Gas Pipeline exposures as of June 30, 2016, and December 31, 2015.

(in millions, except ratios)	June 30, 2016					
	Loans and Lending-Related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn	
Exploration & Production (“E&P”) and Oilfield Services <sup>(a)</sup>	\$21,060	\$ 813	\$ 21,873	26 %	40 %	
Other Oil & Gas <sup>(b)</sup>	16,888	913	17,801	73	30	
Total Oil & Gas	37,948	1,726	39,674	47	35	
Natural Gas Pipelines <sup>(c)</sup>	4,552	192	4,744	67	37	
Total Oil & Gas and Natural Gas Pipelines	\$42,500	\$ 1,918	\$ 44,418	49	35	

  

(in millions, except ratios)	December 31, 2015					
	Loans and Lending-Related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn	
E&P and Oilfield Services <sup>(a)</sup>	\$23,055	\$ 400	\$ 23,455	44 %	36 %	
Other Oil & Gas <sup>(b)</sup>	17,120	1,502	18,622	76	27	
Total Oil & Gas	40,175	1,902	42,077	58	32	
Natural Gas Pipelines <sup>(c)</sup>	4,093	158	4,251	64	21	
Total Oil & Gas and Natural Gas Pipelines	\$44,268	\$ 2,060	\$ 46,328	59	31	

(a) Noninvestment-grade exposure to E&P and Oilfield Services is largely secured.

(b) Other Oil & Gas includes Integrated Oil & Gas companies, Midstream/Oil Pipeline companies and refineries.

(c) Natural Gas Pipelines is reported within the Utilities industry.

Exposure to the Oil & Gas and Natural Gas Pipelines portfolios was approximately 5.4% of the Firm’s total wholesale exposure as of June 30, 2016 and 5.8% as of December 31, 2015. Exposure to these industries decreased by \$1.9 billion during the six months ended June 30, 2016 to \$44.4 billion; of the \$44.4 billion, \$15.7 billion was drawn. As of June 30, 2016, approximately \$21.9 billion of the exposure was investment grade, of which \$5.7 billion was drawn, and approximately \$22.5 billion of the exposure was noninvestment-grade, of which \$10.0 billion was drawn; 25% of the exposure to the Oil & Gas and Natural Gas Pipelines industries was criticized. Secured lending, of which approximately half is reserve-based lending to the Exploration & Production sub-sector of the Oil & Gas industry, was \$13.8 billion as of June 30, 2016; 48% of the secured lending exposure was drawn. Exposure to commercial real estate, which is reported within the Real Estate industry, in certain areas of Texas, California and Colorado, that are deemed sensitive to the Oil & Gas industry, was approximately \$4 billion as of June 30, 2016. While the overall trends and sentiment have been improving, the Firm continues to actively monitor and manage its exposure to these portfolios. The Firm is also actively monitoring potential contagion effects to other related or dependent industries and geographies; however, to date, the Firm has not observed any material deterioration in these related or dependent industries and geographies in the wholesale portfolio.

**Metals & Mining:** Exposure to the Metals & Mining industry was approximately 1.7% and 1.8% of the Firm’s total wholesale exposure as of June 30, 2016, and December 31, 2015, respectively. Exposure to the Metals & Mining industry decreased by \$233 million during the six months ended June 30, 2016 to \$13.8 billion, of which \$4.6 billion was drawn. The portfolio largely consisted of exposure in North America, and was concentrated in the Steel and

Diversified Mining sub-sectors. Approximately 37% and 46% of the exposure in the Metals & Mining portfolio was investment-grade as of June 30, 2016, and December 31, 2015, respectively.

## Loans

In the normal course of its wholesale business, the Firm provides loans to a variety of customers, ranging from large corporate and institutional clients to high-net-worth individuals. The Firm actively manages its wholesale credit exposure. One way of managing credit risk is through secondary market sales of loans and lending-related commitments. For further discussion on loans, including information on credit quality indicators and sales of loans, see Note 13.

The following table presents the change in the nonaccrual loan portfolio for the six months ended June 30, 2016 and 2015.

Wholesale nonaccrual loan activity<sup>(a)</sup>

Six months ended June 30, (in millions)	2016	2015
Beginning balance	\$1,016	\$624
Additions	1,902	792
Reductions:		
Paydowns and other	419	284
Gross charge-offs	226	31
Returned to performing status	149	199
Sales	24	3
Total reductions	818	517
Net changes	1,084	275
Ending balance	\$2,100	\$899

Loans are placed on nonaccrual status when management believes full payment of principal or interest is not (a) expected, regardless of delinquency status, or when principal or interest have been in default for a period of 90 days or more, unless the loan is both well-secured and in the process of collection.

The following table presents net charge-offs/recoveries, which are defined as gross charge-offs less recoveries, for the three and six months ended June 30, 2016 and 2015. The amounts in the table below do not include gains or losses from sales of nonaccrual loans.

## Wholesale net charge-offs/(recoveries)

(in millions, except ratios)	Three months ended		Six months ended	
	June 30, 2016	2015	June 30, 2016	2015
Loans – reported				
Average loans retained	\$369,706	\$331,924	\$365,006	\$329,921
Gross charge-offs	159	4	228	33
Gross recoveries	(5 )	(23 )	(14 )	(53 )
Net charge-offs/(recoveries)	154	(19 )	214	(20 )
Net charge-off/(recovery) rate	0.17	%(0.02 )%	0.12	%(0.01 )%

## Lending-related commitments

The Firm uses lending-related financial instruments, such as commitments (including revolving credit facilities) and guarantees, to meet the financing needs of its customers. The contractual amounts of these financial instruments represent the maximum possible credit risk should the counterparties draw down on these commitments or the Firm fulfills its obligations under these guarantees, and the counterparties subsequently fail to perform according to the terms of these contracts.

In the Firm's view, the total contractual amount of these wholesale lending-related commitments is not representative of the Firm's likely actual future credit exposure or funding requirements. In determining the amount of credit risk exposure the Firm has to wholesale lending-related commitments, which is used as the basis for allocating credit risk capital to these commitments, the Firm has established a "loan-equivalent" amount for each commitment; this amount

represents the portion of the unused commitment or other contingent exposure that is expected, based on average portfolio historical experience, to become drawn upon in an event of a default by an obligor. The loan-equivalent amount of the Firm's wholesale lending-related commitments was \$212.7 billion and \$212.4 billion as of June 30, 2016, and December 31, 2015, respectively.

#### Derivative contracts

In the normal course of business, the Firm uses derivative instruments predominantly for market-making activities. Derivatives enable clients to manage exposures to fluctuations in interest rates, currencies and other markets. The Firm also uses derivative instruments to manage its own credit and other market risk exposure. For further discussion of derivative contracts, see Note 5.

The following table summarizes the net derivative receivables for the periods presented.

#### Derivative receivables

(in millions)	Derivative receivables	
	June 30, 2016	December 31, 2015
Interest rate	\$37,885	\$ 26,363
Credit derivatives	1,794	1,423
Foreign exchange	24,083	17,177
Equity	7,127	5,529
Commodity	7,557	9,185
Total, net of cash collateral	78,446	59,677
Liquid securities and other cash collateral held against derivative receivables <sup>(a)</sup>	(23,006)	(16,580)
Total, net of collateral	\$55,440	\$ 43,097

(a) Includes collateral related to derivative instruments where an appropriate legal opinion has not been either sought or obtained.

Derivative receivables reported on the Consolidated balance sheets were \$78.4 billion and \$59.7 billion at June 30, 2016, and December 31, 2015, respectively. These amounts represent the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and cash collateral held by the Firm. However, in management's view, the appropriate measure of current credit risk should also take into consideration additional liquid securities (primarily U.S. government and agency securities and other group of seven nations ("G7") government bonds) and other cash collateral held by the Firm aggregating \$23.0 billion and \$16.6 billion at June 30, 2016, and December 31, 2015, respectively, that may be used as security when the fair value of the client's exposure is in the Firm's favor. The increase in derivative receivables at June 30, 2016 from December 31, 2015, was predominantly related to client-driven market-making activities in CIB, which resulted in higher interest rate and foreign exchange derivative receivables, driven by market movements.

In addition to the collateral described in the preceding paragraph, the Firm also holds additional collateral (primarily cash, G7 government securities, other liquid government-agency and guaranteed securities, and corporate debt and equity securities) delivered by clients at the initiation of transactions, as well as collateral related to contracts that have a non-daily call frequency and collateral that the Firm has agreed to return but has not yet settled as of the reporting date. Although this collateral does not reduce the balances and is not included in the table above, it is available as security against potential exposure that could arise should the fair value of the client's derivative transactions move in the Firm's favor.

The derivative receivables fair value, net of all collateral, also does not include other credit enhancements, such as letters of credit. For additional information on the Firm's use of collateral agreements, see Note 5.

The following table summarizes the ratings profile by derivative counterparty of the Firm's derivative receivables, including credit derivatives, net of other liquid securities collateral, at the dates indicated. The ratings scale is based on the Firm's internal ratings, which generally correspond to the ratings as defined by S&P and Moody's.

#### Ratings profile of derivative receivables

Rating equivalent  (in millions, except ratios)	June 30, 2016		December 31, 2015	
	Exposure net of collateral	% of exposure net of collateral	Exposure net of collateral	% of exposure net of collateral
AAA/Aaa to AA-/Aa3	\$13,921	25 %	\$10,371	24 %
A+/A1 to A-/A3	13,382	24	10,595	25
BBB+/Baa1 to BBB-/Baa3	17,918	32	13,807	32
BB+/Ba1 to B-/B3	9,160	17	7,500	17
CCC+/Caa1 and below	1,059	2	824	2
Total	\$55,440	100 %	\$43,097	100 %

As previously noted, the Firm uses collateral agreements to mitigate counterparty credit risk. The percentage of the Firm's derivatives transactions subject to collateral agreements — excluding foreign exchange spot trades, which are not typically covered by collateral agreements due to their short maturity — was 87% at each of June 30, 2016, and December 31, 2015, respectively.

#### Credit derivatives

The Firm uses credit derivatives for two primary purposes: first, in its capacity as a market-maker, and second, as an end-user, to manage the Firm's own credit risk associated with various exposures. For a detailed description of credit derivatives, see Credit derivatives in Note 5 of this Form

10-Q, and Note 6 of JPMorgan Chase's 2015 Annual Report.

#### Credit portfolio management activities

Included in the Firm's end-user activities are credit derivatives used to mitigate the credit risk associated with traditional lending activities (loans and unfunded commitments) and derivatives counterparty exposure in the Firm's

wholesale businesses (collectively, “credit portfolio

management” activities). Information on credit portfolio management activities is provided in the table below. For further information on derivatives used in credit portfolio management activities, see Credit derivatives in Note 5 of this Form 10-Q, and Note 6 of JPMorgan Chase’s 2015 Annual Report.

Credit derivatives used in credit portfolio management activities

(in millions)	Notional amount of protection purchased and sold <sup>(a)</sup>	
	June 30, 2016	December 31, 2015
Credit derivatives used to manage:		
Loans and lending-related commitments	\$2,755	\$ 2,289
Derivative receivables	20,430	18,392
Credit derivatives used in credit portfolio management activities	\$23,185	\$ 20,681

<sup>(a)</sup> Amounts are presented net, considering the Firm’s net protection purchased or sold with respect to each underlying reference entity or index.

ALLOWANCE  
FOR CREDIT  
LOSSES

JPMorgan Chase's allowance for loan losses covers both the consumer (primarily scored) portfolio and wholesale (risk-rated) portfolio. The allowance represents management's estimate of probable credit losses inherent in the Firm's loan portfolio. Management also determines an allowance for wholesale and certain consumer lending-related commitments.

For a further discussion of the components of the allowance for credit losses and related management judgments, see Critical Accounting Estimates Used by the Firm on pages 76–77 and Note 14 of this Form 10-Q, and Critical Accounting Estimates Used by the Firm on pages 165–169 and Note 15 of JPMorgan Chase's 2015 Annual Report. At least quarterly, the allowance for credit losses is reviewed by the CRO, the Chief Financial Officer and the Controller of the Firm, and discussed with the Board of Directors Risk Policy Committee and the Audit Committee of the Board of Directors. As of June 30, 2016, JPMorgan Chase deemed the allowance for credit losses to be appropriate and sufficient to absorb probable credit losses inherent in the portfolio.

The consumer allowance for loan losses increased from December 31, 2015, due to higher loss rates in newer credit card vintages, as well as growth in the credit card and auto loan portfolios, partially offset by a reduction in the allowance primarily due to improved credit quality of the residential real estate loan portfolio, reflecting originations of high-quality mortgages and the run-off of lower-quality legacy portfolios. For additional information about delinquencies and nonaccrual loans in the consumer, excluding credit card, loan portfolio, see Consumer Credit Portfolio on pages 42–47 and Note 13.

The wholesale allowance for credit losses increased from December 31, 2015, primarily driven by downgrades in the Oil & Gas, Natural Gas Pipelines, and Metals & Mining portfolios. Excluding these portfolios, the wholesale portfolio continued to experience generally stable credit quality trends and low charge-off rates.

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Summary of changes in the allowance for credit losses

Six months ended June 30, (in millions, except ratios)	2016				2015			
	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Allowance for loan losses								
Beginning balance at January 1,	\$5,806	\$3,434	\$4,315	\$13,555	\$7,050	\$3,439	\$3,696	\$14,185
Gross charge-offs	688	1,874	228	2,790	827	1,776	33	2,636
Gross recoveries	(301)	(184)	(14)	(499)	(337)	(187)	(53)	(577)
Net charge-offs/(recoveries)	387	1,690	214	2,291	490	1,589	(20)	2,059
Write-offs of PCI loans <sup>(a)</sup>	88	—	—	88	110	—	—	110
Provision for loan losses	316	1,940	796	3,052	42	1,589	265	1,896
Other	(1)	—	—	(1)	—	(5)	8	3
Ending balance at June 30,	\$5,646	\$3,684	\$4,897	\$14,227	\$6,492	\$3,434	\$3,989	\$13,915
Impairment methodology								
Asset-specific <sup>(b)</sup>	\$365	\$361	\$525	\$1,251	\$436	\$518	\$147	\$1,101
Formula-based	2,627	3,323	4,372	10,322	2,841	2,916	3,842	9,599
PCI	2,654	—	—	2,654	3,215	—	—	3,215
Total allowance for loan losses	\$5,646	\$3,684	\$4,897	\$14,227	\$6,492	\$3,434	\$3,989	\$13,915
Allowance for lending-related commitments								
Beginning balance at January 1,	\$14	\$—	\$772	\$786	\$13	\$—	\$609	\$622
Provision for lending-related commitments	—	—	174	174	2	—	(4)	(2)
Ending balance at June 30,	\$14	\$—	\$946	\$960	\$15	\$—	\$605	\$620
Impairment methodology								
Asset-specific	\$—	\$—	\$143	\$143	\$—	\$—	\$55	\$55
Formula-based	14	—	803	817	15	—	550	565
Total allowance for lending-related commitments <sup>(c)</sup>	\$14	\$—	\$946	\$960	\$15	\$—	\$605	\$620
Total allowance for credit losses	\$5,660	\$3,684	\$5,843	\$15,187	\$6,507	\$3,434	\$4,594	\$14,535
Memo:								
Retained loans, end of period	\$361,050	\$131,507	\$374,174	\$866,731	\$316,781	\$124,705	\$338,219	\$779,705
Retained loans, average	353,259	127,771	365,006	846,036	305,463	122,542	329,921	757,926



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PCI loans, end of period	38,360	—	4	38,364	43,806	—	4	43,810	
Credit ratios									
Allowance for loan losses to retained loans	1.56	%2.80	%1.31	%1.64	% 2.05	%2.75	%1.18	% 1.78	%
Allowance for loan losses to retained nonaccrual loans <sup>(d)</sup>	111	NM	234	198	112	NM	457	209	
Allowance for loan losses to retained nonaccrual loans excluding credit card	111	NM	234	147	112	NM	457	158	
Net charge-off/(recovery) rates	0.22	2.66	0.12	0.54	0.32	2.61	(0.01 )	0.55	
Credit ratios, excluding residential real estate PCI loans									
Allowance for loan losses to retained loans	0.93	2.80	1.31	1.40	1.20	2.75	1.18	1.45	
Allowance for loan losses to retained nonaccrual loans <sup>(d)</sup>	59	NM	234	161	57	NM	457	161	
Allowance for loan losses to retained nonaccrual loans excluding credit card	59	NM	234	110	57	NM	457	109	
Net charge-off/(recovery) rates	0.25	%2.66	%0.12	%0.57	% 0.38	%2.61	%(0.01 )	%0.58	%

Note: In the table above, the financial measures which exclude the impact of PCI loans are non-GAAP financial measures. For additional information, see Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures and Key Performance Measures on pages 16–17.

Write-offs of PCI loans are recorded against the allowance for loan losses when actual losses for a pool exceed (a) estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. A write-off of a PCI loan is recognized when the underlying loan is removed from a pool (e.g., upon liquidation).

Includes risk-rated loans that have been placed on nonaccrual status and loans that have been modified in a TDR. (b) The asset-specific credit card allowance for loan losses modified in a TDR is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.

(c) The allowance for lending-related commitments is reported in accounts payable and other liabilities on the Consolidated balance sheets.

(d) The Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

## Provision for credit losses

For the three and six months ended June 30, 2016, the provision for credit losses was \$1.4 billion and \$3.2 billion, respectively, compared with \$935 million and \$1.9 billion, respectively, in the prior year periods.

The total consumer provision for credit losses for the three and six months ended June 30, 2016 increased when compared with the prior year, as the prior year included a reduction in the allowance for loan losses and the current year included an increase. The current year increase in the allowance for loan losses was a result of higher loss rates in

newer credit card vintages, as well as growth in the credit card and auto loan portfolios, partially offset by reductions in the allowance due to continued improvement in home prices and delinquencies in the residential real estate portfolio as well as runoff in the student loan portfolio.

The wholesale provision for credit losses for the six months ended June 30, 2016 reflected higher net charge-offs and the impact of downgrades in the Oil & Gas, Natural Gas Pipelines, and Metals & Mining portfolios.

(in millions)	Three months ended June 30,						Six months ended June 30,					
	Provision for loan losses		Provision for lending-related commitments		Total provision for credit losses		Provision for loan losses		Provision for lending-related commitments		Total provision for credit losses	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Consumer, excluding credit card	\$95	\$(99)	\$—	\$1	\$95	\$(98)	\$316	\$42	\$—	\$2	\$316	\$44
Credit card	1,110	800	—	—	1,110	800	1,940	1,589	—	—	1,940	1,589
Total consumer	1,205	701	—	1	1,205	702	2,256	1,631	—	2	2,256	1,633
Wholesale	251	207	(54)	26	197	233	796	265	174	(4)	970	261
Total	\$1,456	\$908	\$(54)	\$27	\$1,402	\$935	\$3,052	\$1,896	\$174	\$(2)	\$3,226	\$1,894

## MARKET RISK MANAGEMENT

Market risk is the potential for adverse changes in the value of the Firm's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices, implied volatilities or credit spreads. For a discussion of the Firm's market risk management organization, risk identification and classification, tools used to measure risk, and risk monitoring and control, see Market Risk Management on pages 133–139 of JPMorgan Chase's 2015 Annual Report.

### Value-at-risk

JPMorgan Chase utilizes VaR, a statistical risk measure, to estimate the potential loss from adverse market moves in a normal market environment. The Firm has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

Since VaR is based on historical data, it is an imperfect measure of market risk exposure and potential losses, and it is not used to estimate the impact of stressed market conditions or to manage any impact from potential stress events. In addition, based on their reliance on available historical data, limited time horizons, and other factors, VaR measures are inherently limited in their ability to measure certain risks and to predict losses, particularly those associated with market illiquidity and sudden or severe shifts in market conditions. The Firm therefore considers other measures in addition to VaR, such as stress testing, to capture and manage its market risk positions.

In addition, for certain products, specific risk parameters are not captured in VaR due to the lack of inherent liquidity and availability of appropriate historical data. The Firm uses proxies to estimate the VaR for these and other products when daily time series are not available. It is likely that using an actual price-based time series for these products, if available, would affect the VaR results presented.

The Firm uses alternative methods to capture and measure those risk parameters that are not otherwise captured in VaR, including economic-value stress testing and nonstatistical measures. For further information, see Market Risk Management on pages 133–139 of the 2015 Annual Report.

The Firm's VaR model calculations are periodically evaluated and enhanced in response to changes in the composition of the Firm's portfolios, changes in market conditions, improvements in the Firm's modeling techniques and other factors. Such changes may affect historical comparisons to current VaR results. For information regarding model reviews and approvals, see Model Risk Management on page 142 of the 2015 Annual Report.

The Firm's Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. For risk management purposes, the Firm believes this methodology provides a stable measure of VaR that closely aligns to the day-to-day risk management decisions made by the lines of business, and provides the necessary and appropriate information to respond to risk events on a daily basis. The Firm calculates separately a daily aggregated VaR in accordance with regulatory rules ("Regulatory VaR"), which is used to derive the Firm's regulatory VaR-based capital requirements under Basel III. For further information regarding the key differences between Risk Management VaR and Regulatory VaR, see page 135 of the 2015 Annual Report. For additional information on Regulatory VaR and the other components of market risk regulatory capital for the Firm (e.g. VaR-based measure, stressed VaR-based measure and the respective backtesting), see JPMorgan Chase's Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website at: (<http://investor.shareholder.com/jpmorganchase/basel.cfm>).

The table below shows the results of the Firm's Risk Management VaR measure using a 95% confidence level.

Total VaR  (in millions)	Three months ended June 30,						Six months ended June 30,			
	2016			2015			At June 30,		Average	
	Avg.	Min	Max	Avg.	Min	Max	2016	2015	2016	2015
CIB trading VaR by risk type										
Fixed income	\$46	\$37	\$62	\$41	\$31	\$52	\$60	\$45	\$46	\$38
Foreign exchange	12	7	17	9	6	13	16	9	11	9
Equities	14	10	20	16	11	25	11	23	18	17
Commodities and other	9	7	10	9	8	13	10	9	9	9
Diversification benefit to CIB trading VaR	(37 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(37 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(48 ) <sup>(a)</sup>	(35 ) <sup>(a)</sup>	(35 ) <sup>(a)</sup>	(37 ) <sup>(a)</sup>
CIB trading VaR	44	35	59	38	28	51	49	51	49	36
Credit portfolio VaR	12	11	13	15	12	19	13	13	12	16
Diversification benefit to CIB VaR	(12 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(10 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(12 ) <sup>(a)</sup>	(11 ) <sup>(a)</sup>	(11 ) <sup>(a)</sup>	(9 ) <sup>(a)</sup>
CIB VaR	44	34	59	43	35	53	50	53	50	43
Mortgage Banking VaR	3	1	5	4	3	7	2	5	4	4
Treasury and CIO VaR	11	7	13	4	3	4	13	4	9	4
Asset Management VaR	4	3	4	3	2	3	4	3	3	3
Diversification benefit to other VaR	(5 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(4 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(4 ) <sup>(a)</sup>	(3 ) <sup>(a)</sup>	(5 ) <sup>(a)</sup>	(4 ) <sup>(a)</sup>
Other VaR	13	10	16	7	6	10	15	9	11	7
Diversification benefit to CIB and other VaR	(12 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(8 ) <sup>(a)</sup>	NM <sup>(b)</sup>	NM <sup>(b)</sup>	(12 ) <sup>(a)</sup>	(11 ) <sup>(a)</sup>	(12 ) <sup>(a)</sup>	(7 ) <sup>(a)</sup>
Total VaR	\$45	\$36	\$56	\$42	\$35	\$51	\$53	\$51	\$49	\$43

Average portfolio VaR and period-end portfolio VaR were less than the sum of the VaR of the components (a)described above, which is due to portfolio diversification. The diversification effect reflects the fact that the risks are not perfectly correlated.

(b) Designated as NM, because the minimum and maximum may occur on different days for different risk components, and hence it is not meaningful to compute a portfolio-diversification effect.

As presented in the table above, average Total VaR increased for the three months ended June 30, 2016 as compared with the respective prior year period. The increase is due to changes in the profile of the fixed income and foreign exchange risk exposures for CIB Trading VaR. This was offset by a lower risk profile in equities and lower exposures arising from select positions in Credit Portfolio VaR. Treasury and CIO VaR increased due to hedging activities in relation to the Firm's non-U.S. dollar long term debt issuance program.

The average total VaR for the six months ended June 30, 2016 increased from the prior year largely for the reasons described above relating to VaR for the three months ended June 30, 2016.

The Firm continues to enhance its VaR model calculations and the time series inputs related to certain asset-backed products.

The Firm's average total VaR diversification benefit was \$12 million, or 27% of the sum, for the three months ended June 30, 2016 compared with \$8 million, or 19% of the sum, for the comparable 2015 period.

VaR exposure can vary significantly as positions change, market volatility fluctuates and diversification benefits change.

#### VaR back-testing

The Firm evaluates the effectiveness of its VaR methodology by back-testing, which compares the daily Risk Management VaR results with the daily gains and losses recognized on market-risk related revenue.

The Firm's definition of market risk-related gains and losses is consistent with the definition used by the banking regulators under Basel III. Under this definition market risk-related gains and losses are defined as: gains and losses on the positions included in the Firm's Risk Management VaR excluding fees, commissions, certain valuation adjustments (e.g., liquidity and DVA), net interest income, and gains and losses arising from intraday trading.

The following chart compares the daily market risk-related gains and losses with the Firm's Risk Management VaR for the six months ended June 30, 2016. As the chart presents market risk-related gains and losses related to those positions included in the Firm's Risk Management VaR, the results in the table below differ from the results of back-testing disclosed in the Market Risk section of the Firm's Basel III Pillar 3 Regulatory Capital Disclosures reports, which are based on Regulatory VaR applied to covered positions. The chart shows that for the six months ended June 30, 2016, the Firm observed 3 VaR back-testing exceptions and posted gains on 82 of the 129 days. The Firm observed 2 VaR back-testing exceptions and posted gains on 43 of the 65 days for the three months ended June 30, 2016.

Daily Market Risk-Related Gains and Losses  
vs. Risk Management VaR (1-day, 95% Confidence level)  
Six months ended June 30, 2016

#### Market Risk-Related Gains and Losses

##### Risk Management VaR

January February March April May June

For the three months ended June 30, 2016 there were 2 back-testing exceptions. These exceptions occurred towards the end of June 2016 subsequent to the U.K. referendum on membership in the European Union and reflect the elevated market volatility observed across multiple asset classes following the outcome of the vote.

Spread sensitivity on derivatives and fair value option elected liabilities

VaR excludes the impact of changes in the spread related to derivatives FVA/DVA and fair value option elected liabilities DVA. At June 30, 2016, the sensitivity of FVA/DVA

expressed as a one basis point parallel increase in the spread was a net gain of approximately \$11 million. This sensitivity may not be representative of the actual gain or loss realized within a period, as the movement in spreads across various maturities may vary.

### Earnings-at-risk

The VaR and sensitivity measures described above illustrate the economic sensitivity of the Firm's Consolidated balance sheets to changes in market variables. The effect of interest rate exposure on the Firm's reported net income is also important as interest rate risk represents one of the Firm's significant market risks. Interest rate risk arises not only from trading activities but also from the Firm's traditional banking activities, which include extension of loans and credit facilities, taking deposits and issuing debt. The Firm evaluates its structural interest rate risk exposure through earnings-at-risk, which measures the extent to which changes in interest rates will affect the Firm's net interest income and interest rate-sensitive fees. Earnings-at-risk excludes the impact of CIB's markets-based activities and CCB's MSRs, as these sensitivities are captured under VaR.

The Firm generates a net interest income baseline, and then conducts simulations of changes for interest rate-sensitive assets and liabilities denominated in U.S. dollars and other currencies ("non-U.S. dollar" currencies). Earnings-at-risk scenarios estimate the potential change in this net interest income baseline, excluding CIB's markets-based activities and MSRs, over the following 12 months utilizing multiple assumptions. These scenarios consider the impact on exposures as a result of changes in interest rates from baseline rates, as well as the pricing sensitivities of deposits, optionality and changes in product mix. The scenarios include forecasted balance sheet changes, as well as modeled prepayment and reinvestment behavior, but do not include assumptions about actions that could be taken by the Firm in response to any such instantaneous rate changes. Mortgage prepayment assumptions are based on current interest rates compared with underlying contractual rates, the time since origination, and other factors which are updated periodically based on historical experience. The Firm's earnings-at-risk scenarios are periodically evaluated and enhanced in response to changes in the composition of the Firm's balance sheet, changes in market conditions, improvements in the Firm's simulation and other factors.

The Firm's U.S. dollar sensitivities are presented in the table below. The non-U.S. dollar sensitivities are not material to the Firm's earnings-at-risk at June 30, 2016.

JPMorgan Chase's 12-month pre-tax net interest income sensitivity profiles  
(Excludes the impact of CIB's markets-based activities and MSRs)

(in billions)	Instantaneous change in rates		
June 30, 2016	+200bps	-100bps	-200bps
U.S. dollar	\$4.9	\$ 3.0	NM <sup>(a)</sup> NM <sup>(a)</sup>

<sup>(a)</sup> Given the current level of market interest rates, downward parallel 100 and 200 basis point earnings-at-risk scenarios are not considered to be meaningful.

The Firm's benefit to rising rates on U.S. dollar assets and liabilities is largely a result of reinvesting at higher yields and assets re-pricing at a faster pace than deposits. The Firm's U.S. dollar sensitivity profile at June 30, 2016 was not materially different than at December 31, 2015.

Separately, another U.S. dollar interest rate scenario used by the Firm — involving a steeper yield curve with long-term rates rising by 100 basis points and short-term rates staying at current levels — results in a 12-month pre-tax benefit to net interest income, excluding CIB's markets-based activities and MSRs, of approximately \$700 million. The increase in net interest income under this scenario reflects the Firm reinvesting at the higher long-term rates, with funding costs remaining unchanged. The result of the comparable non-U.S. dollar analysis was not material to the Firm.

## COUNTRY RISK MANAGEMENT

Country risk is the risk that a sovereign event or action alters the value or terms of contractual obligations of obligors, counterparties and issuers or adversely affects markets related to a particular country. The Firm has a comprehensive country risk management framework for assessing country risks, determining risk tolerance, and measuring and monitoring direct country exposures in the Firm. The Country Risk Management group is responsible for developing guidelines and policies for managing country risk in both emerging and developed countries. The Country Risk Management group actively monitors the various portfolios giving rise to country risk to ensure the Firm's country risk exposures are diversified and that exposure levels are appropriate given the Firm's strategy and risk tolerance relative to a country.

For information on the June 23, 2016 U.K. referendum on membership in the European Union, see Executive Overview on pages 5–7.

For a discussion of the Firm's Country Risk Management organization, and country risk identification, measurement, monitoring and control, see pages 140–141 of JPMorgan Chase's 2015 Annual Report.

The following table presents the Firm's top 20 exposures by country (excluding the U.S.) as of June 30, 2016. The selection of countries is based solely on the Firm's largest total exposures by country, based on the Firm's internal country risk management approach, and does not represent the Firm's view of any actual or potentially adverse credit conditions. Country exposures may fluctuate from period to period due to client activity and market flows.

In the table below, the increase in the Germany exposure since March 31, 2016, largely reflects an increase in the balance of Euros placed with the German central bank, driven by changing client positions and prevailing market and liquidity conditions.

### Top 20 country exposures

(in billions)	June 30, 2016			Total exposure
	Lending <sup>(a)</sup>	Trading and investing <sup>(b)(c)</sup>	Other <sup>(d)</sup>	
United Kingdom	\$34.5	\$ 19.4	\$ 0.8	\$ 54.7
Germany	35.4	17.1	0.3	52.8
Japan	19.9	6.1	0.3	26.3
France	12.9	8.9	0.1	21.9
China	8.5	6.6	1.2	16.3
Canada	11.8	2.9	0.1	14.8
Switzerland	9.3	0.3	5.1	14.7
Australia	7.2	4.7	—	11.9
Brazil	5.1	5.8	—	10.9
Netherlands	6.0	3.7	1.1	10.8
India	3.5	5.1	0.3	8.9
Hong Kong	2.2	2.3	4.0	8.5
Korea	5.2	2.4	0.5	8.1
Luxembourg	7.2	0.3	—	7.5
Italy	4.1	3.1	0.1	7.3
Singapore	2.2	1.3	1.4	4.9
Mexico	3.5	1.1	—	4.6
Saudi Arabia	3.4	0.9	—	4.3
Spain	3.3	0.8	—	4.1
Belgium	2.1	1.4	—	3.5

Lending includes loans and accrued interest receivable (net of collateral and the allowance for loan losses), deposits with banks, acceptances, other monetary assets, issued letters of credit net of participations, and unused commitments to extend credit. Excludes intra-day and operating exposures, such as from settlement and clearing activities.

- (b) Includes market-making inventory, AFS securities, counterparty exposure on derivative and securities financings net of collateral and hedging.
- (c) Includes single reference entity (“single-name”), index and tranching credit derivatives for which one or more of the underlying reference entities is in a country listed in the above table.
- (d) Includes capital invested in local entities and physical commodity inventory.



**CAPITAL  
MANAGEMENT**

Capital risk is the risk the Firm has an insufficient level and composition of capital to support the Firm's business activities and associated risks during both normal economic environments and under stressed conditions. For a discussion on the Firm's Capital Management see pages 149–158 of JPMorgan Chase's 2015 Annual Report. A strong capital position is essential to the Firm's business strategy and competitive position. Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative by the Firm's Board of Directors, CEO and Operating Committee. The Firm's capital management strategy focuses on maintaining long-term stability to enable the Firm to build and invest in market-

leading businesses, even in a highly stressed environment. The Firm executes its capital management strategy through the establishment of minimum capital targets and a strong capital governance framework. The Firm's minimum capital targets are set based on the most binding of three pillars: an internal assessment of the Firm's capital needs; an estimation of required capital under the CCAR and Dodd Frank Act stress testing requirements; and current regulatory minimums. The capital governance framework includes regular monitoring of the Firm's capital positions, stress testing and defining escalation protocols, both at the Firm and line of business level.

The following tables present the Firm's Transitional and Fully Phased-In risk-based and leverage-based capital metrics under both the Basel III Standardized and Advanced Approaches. The Firm's Basel III CET1 ratios exceed the regulatory minimum as of June 30, 2016, and December 31, 2015.

June 30, 2016 (in millions, except ratios)	Transitional		Fully Phased-In		Minimum capital ratios <sup>(b)</sup>	Fully Phased-In		Minimum capital ratios <sup>(c)</sup>
	Standardized	Advanced	Standardized	Advanced				
Risk-based capital metrics:								
CET1 capital	\$ 179,593	\$ 179,593	\$ 178,916	\$ 178,916				
Tier 1 capital	204,390	204,390	204,717	204,717				
Total capital	238,999	227,865	236,940	225,806				
Risk-weighted assets	1,469,430	1,497,509	1,477,165	1,505,708				
CET1 capital ratio	12.2	% 12.0	% 6.25	% 12.1	% 11.9	% 10.5	%	
Tier 1 capital ratio	13.9	13.6	7.75	13.9	13.6	12.0		
Total capital ratio	16.3	15.2	9.75	16.0	15.0	14.0		
Leverage-based capital metrics								
Adjusted average assets	2,391,819	2,391,819	2,393,644	2,393,644				
Tier 1 leverage ratio <sup>(a)</sup>	8.5	% 8.5	% 4.0	8.6	% 8.6	% 4.0		
SLR leverage exposure	NA	\$3,094,545	NA	\$3,096,370				
SLR	NA	6.6	% NA	NA	6.6	% 5.0		<sup>(d)</sup>
December 31, 2015 (in millions, except ratios)	Transitional		Fully Phased-In		Minimum capital ratios <sup>(b)</sup>	Fully Phased-In		Minimum capital ratios <sup>(c)</sup>
	Standardized	Advanced	Standardized	Advanced				
Risk-based capital metrics:								
CET1 capital	\$ 175,398	\$ 175,398	\$ 173,189	\$ 173,189				
Tier 1 capital	200,482	200,482	199,047	199,047				
Total capital	234,413	224,616	229,976	220,179				
Risk-weighted assets	1,465,262	1,485,336	1,474,870	1,495,520				
CET1 capital ratio	12.0	% 11.8	% 4.5	% 11.7	% 11.6	% 10.5	%	
Tier 1 capital ratio	13.7	13.5	6.0	13.5	13.3	12.0		
Total capital ratio	16.0	15.1	8.0	15.6	14.7	14.0		
Leverage-based capital metrics								

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Adjusted average assets	2,358,471	2,358,471		2,360,499	2,360,499		
Tier 1 leverage ratio <sup>(a)</sup>	8.5	% 8.5	% 4.0	8.4	% 8.4	% 4.0	
SLR leverage exposure	NA	\$3,079,797		NA	\$3,079,119		
SLR	NA	6.5	NA	NA	6.5	% 5.0	<sup>(d)</sup>

Note: As of June 30, 2016, and December 31, 2015, the lower of the Standardized or Advanced capital ratios under each of the Transitional and Fully Phased-In approaches in the table above represents the Firm's Collins Floor.

(a) The Tier 1 leverage ratio is not a risk-based measure of capital. This ratio is calculated by dividing Tier 1 capital by adjusted average assets.

Represents the transitional minimum capital ratios applicable to the Firm under Basel III as of June 30, 2016, and December 31, 2015. At June 30, 2016, the CET1 minimum capital ratio includes 0.625% resulting from the phase in of the Firm's 2.5% capital conservation buffer and 1.125%, resulting from the phase in of the Firm's estimated 4.5% globally systematically important banks ("GSIB") surcharge, as of December 31, 2014, published by the Federal Reserve on July 20, 2015.

(b) Represents the minimum capital ratios applicable to the Firm on a fully phased-in Basel III basis. At June 30, 2016, and December 31, 2015, the ratios include the Firm's estimate of its Fully Phased-In U.S. GSIB surcharge of 3.5%, based on the final U.S. GSIB rule published by the Federal Reserve on July 20, 2015. The minimum capital ratios will be fully phased-in effective January 1, 2019. For additional information on the GSIB surcharge, see page 65.

(c) In the case of the SLR, the fully phased-in minimum ratio is effective beginning January 1, 2018.

#### Basel III overview

Basel III capital rules, for large and internationally active U.S. bank holding companies and banks, including the Firm and its insured depository institution (“IDI”) subsidiaries, revised, among other things, the definition of capital and introduced a new CET1 capital requirement. Basel III presents two comprehensive methodologies for calculating risk weighted assets (“RWA”). A general (Standardized) approach (“Basel III Standardized”), and an advanced approach (“Basel III Advanced”); and sets out minimum capital ratios and overall capital adequacy standards. Certain of the requirements of Basel III are subject to phase-in periods that began on January 1, 2014 and continue through the end of 2018 (“transitional period”).

The capital adequacy of the Firm and its national bank subsidiaries is evaluated against the Basel III approach (Standardized or Advanced) which results in the lower ratio (the “Collins Floor”), as required by the Collins Amendment of the Dodd-Frank Act.

Basel III establishes capital requirements for calculating credit risk and market risk RWA, and in the case of Basel III Advanced, operational risk RWA. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized and Basel III Advanced. In addition to the RWA calculated under these methodologies, the Firm may supplement such amounts to incorporate management judgment and feedback from its bank regulators.

Basel III also includes a requirement for Advanced Approach banking organizations, including the Firm, to calculate SLR. For additional information on SLR, see page 67.

#### Basel III Fully Phased-In

Basel III capital rules will become fully phased-in on January 1, 2019, at which point the Firm will continue to calculate its capital ratios under both the Basel III Standardized and Advanced Approaches. While the Firm has imposed Basel III Standardized Fully Phased-In RWA limits on its lines of business, the Firm continues to manage each of the businesses (including line of business equity allocations), as well as the corporate functions, primarily on a Basel III Advanced Fully Phased-In basis.

For additional information on the Firm’s capital, RWA and capital ratios that are presented under Basel III Standardized and Advanced Fully Phased-In rules and the Firm’s and JPMorgan Chase Bank, N.A.’s and Chase Bank USA, N.A.’s SLRs calculated under the Basel III Advanced Fully Phased-In rules, which are considered key regulatory capital measures, see Explanation and Reconciliation of the Firm’s Use of Non-GAAP Financial Measures and Key Performance Measures on pages 16–17.

The Firm’s estimates of its Basel III Standardized and Advanced Fully Phased-In capital, RWA and capital ratios and of the Firm’s, JPMorgan Chase Bank, N.A.’s, and Chase Bank USA, N.A.’s SLRs reflect management’s current understanding of the U.S. Basel III rules based on the current published rules and on the application of such rules to the Firm’s businesses as currently conducted. The actual impact on the Firm’s capital ratios and SLR as of the effective date of the rules may differ from the Firm’s current estimates depending on changes the Firm may make to its businesses in the future, further implementation guidance from the regulators, and regulatory approval of certain of the Firm’s internal risk models (or, alternatively, regulatory disapproval of the Firm’s internal risk models that have previously been conditionally approved).

#### Risk-based capital regulatory minimums

The Basel III rules include minimum capital ratio requirements that are subject to phase-in periods through the end of 2018. The capital adequacy of the Firm and its national bank subsidiaries, both during the transitional period and upon full phase-in, is evaluated against the Basel III approach (Standardized or Advanced) which results, for each quarter, in the lower ratio, the Collins Floor.

Certain banking organizations, including the Firm, will be required to hold additional amounts of capital to serve as a “capital conservation buffer.” The capital conservation buffer is intended to be used to absorb potential losses in times of financial or economic stress. If not maintained, the Firm could be limited in the amount of capital that may be

distributed, including dividends and common equity repurchases. The capital conservation buffer is to be phased-in over time, beginning January 1, 2016 through January 1, 2019.

Further, the Firm will be required to hold additional levels of capital in the form of a GSIB surcharge and as an expansion of the capital conservation buffer, any countercyclical capital buffer requirement that may be imposed. On July 20, 2015, the Federal Reserve issued a final rule requiring GSIBs to calculate their GSIB surcharge, on an annual basis, under two separately prescribed methods, and to be subject to the higher of the two. The first method (“Method 1”) reflects the GSIB surcharge as prescribed by Basel rules, and is calculated across five criteria: size, cross-jurisdictional activity, interconnectedness, complexity and substitutability. The second method (“Method 2”) modifies the requirements to include a measure of short-term wholesale funding in place of substitutability, and introduces a GSIB score “multiplication factor.”

On July 20, 2015, the date of the last published estimate, the Federal Reserve had estimated the Firm’s GSIB surcharge to be 2.5% under Method 1 and 4.5% under Method 2 as of December 31, 2014. Accordingly, the Firm’s minimum capital ratios applicable in 2016 include 1.125%, resulting from the phase-in of the 4.5% GSIB surcharge estimated at the date. Based upon data as of December 31, 2015, the Firm estimates its fully phased-in GSIB surcharge would be 2.5% of CET1 capital under Method 1 and 3.5% under Method 2. The reduction in the estimated GSIB surcharge to 3.5% is expected to be phased into the Firm’s minimum CET1 capital ratio commencing January 1, 2017.

The countercyclical capital buffer takes into account the macro financial environment in which large, internationally active banks function. As of December 31, 2015 the Federal Reserve reaffirmed setting the U.S. countercyclical capital buffer at 0%, and stated that it will review the amount at least annually. The countercyclical capital buffer can be increased if the Federal Reserve, FDIC and OCC determine that credit growth in the economy has become excessive and can be set at up to an additional 2.5% of RWA subject to a 12 month implementation period.

Based on the Firm’s most recent estimate of its GSIB surcharge and the current countercyclical buffer being set at 0%, the Firm estimates its fully phased-in CET1 capital requirement would be 10.5% (reflecting the 4.5% CET1 capital requirement, the fully phased in 2.5% capital conservation buffer and the GSIB surcharge of 3.5%).

As well as meeting the capital ratio requirements of Basel III, the Firm must, in order to be “well-capitalized”, maintain a minimum 6% Tier 1 and 10% Total capital requirement. Each of the Firm’s IDI subsidiaries must maintain a minimum 5% Tier 1 leverage, 6.5% CET1, 8% Tier 1 and 10% Total capital requirement to meet the definition of “well-capitalized” under the Prompt Correction Action (“PCA”) requirements of the FDIC Improvement Act for IDI subsidiaries. The PCA standards for IDI subsidiaries were effective January 1, 2015.

## Capital

A reconciliation of total stockholders’ equity to Basel III Fully Phased-In CET1 capital, Tier 1 capital and Basel III Advanced and Standardized Fully Phased-In Total capital is presented in the table below.

For additional information on the components of regulatory capital, see Note 20.

### Capital components

(in millions)	June 30, 2016
Total stockholders’ equity	\$252,423
Less: Preferred stock	26,068
Common stockholders’ equity	226,355
Less:	
Goodwill	47,303
Other intangible assets	917
Add:	
Deferred tax liabilities <sup>(a)</sup>	3,220
Less: Other CET1 capital adjustments	2,439
Standardized/Advanced CET1 capital	178,916
Preferred stock	26,068
Less:	
Other Tier 1 adjustments <sup>(b)</sup>	267
Standardized/Advanced Tier 1 capital	\$204,717

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Long-term debt and other instruments qualifying as Tier 2 capital	\$17,088
Qualifying allowance for credit losses	15,187
Other	(52 )
Standardized Fully Phased-In Tier 2 capital	\$32,223
Standardized Fully Phased-in Total capital	\$236,940
Adjustment in qualifying allowance for credit losses for Advanced Tier 2 capital	(11,134 )
Advanced Fully Phased-In Tier 2 capital	\$21,089
Advanced Fully Phased-In Total capital	\$225,806

- (a) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating TCE.
- (b) Includes the deduction associated with the permissible holdings of covered funds (as defined by the Volcker Rule) acquired after December 31, 2013. The deduction was not material as of June 30, 2016.

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The following table presents a reconciliation of the Firm's Basel III Transitional CET1 capital to the Firm's estimated Basel III Fully Phased-In CET1 capital as of June 30, 2016.

(in millions)	June 30, 2016
Transitional CET1 capital	\$179,593
AOCI phase-in <sup>(a)</sup>	823
CET1 capital deduction phase-in <sup>(b)</sup>	(1,117 )
Intangibles deduction phase-in <sup>(c)</sup>	(329 )
Other adjustments to CET1 capital <sup>(d)</sup>	(54 )
Fully Phased-In CET1 capital	\$178,916

(a) Includes the remaining balance of AOCI related to AFS debt securities and defined benefit pension and other postretirement employee benefit ("OPEB") plans that will qualify as Basel III CET1 capital upon full phase-in.

(b) Predominantly includes regulatory adjustments related to changes in DVA, as well as CET1 deductions for defined benefit pension plan assets and deferred tax assets related to net operating loss and tax credit carryforwards.

(c) Relates to intangible assets, other than goodwill and MSRs, that are required to be deducted from CET1 capital upon full phase-in.

(d) Includes minority interest and the Firm's investments in its own CET1 capital instruments.

#### Capital rollforward

The following table presents the changes in Basel III Fully Phased-In CET1 capital, Tier 1 capital and Tier 2 capital for the six months ended June 30, 2016.

Six months ended June 30, (in millions)	2016
Standardized/Advanced CET1 capital at December 31, 2015	\$173,189
Net income applicable to common equity	10,897
Dividends declared on common stock	(3,414 )
Net purchase of treasury stock	(3,379 )
Changes in additional paid-in capital	(526 )
Changes related to AOCI <sup>(a)</sup>	1,557
Adjustment related to DVA <sup>(a)</sup>	491
Other	101
Increase in Standardized/Advanced CET1 capital	5,727
Standardized/Advanced CET1 capital at June 30, 2016	\$178,916
Standardized/Advanced Tier 1 capital at December 31, 2015	\$199,047
Change in CET1 capital	5,727
Net issuance of noncumulative perpetual preferred stock	—
Other	(57 )
Increase in Standardized/Advanced Tier 1 capital	5,670
Standardized/Advanced Tier 1 capital at June 30, 2016	\$204,717
Standardized Tier 2 capital at December 31, 2015	\$30,929
Change in long-term debt and other instruments qualifying as Tier 2	409
Change in qualifying allowance for credit losses	846
Other	39
Increase in Standardized Tier 2 capital	1,294
Standardized Tier 2 capital at June 30, 2016	\$32,223
Standardized Total capital at June 30, 2016	\$236,940
Advanced Tier 2 capital at December 31, 2015	\$21,132

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Change in long-term debt and other instruments qualifying as Tier 2	409
Change in qualifying allowance for credit losses	(489 )
Other	37
Increase in Advanced Tier 2 capital	(43 )
Advanced Tier 2 capital at June 30, 2016	\$21,089
Advanced Total capital at June 30, 2016	\$225,806

(a) Effective January 1, 2016, the adjustment reflects the impact of the adoption of DVA through OCI. For further discussion of the accounting change refer to Note 19.



## RWA rollforward

The following table presents changes in the components of RWA under Basel III Standardized and Advanced Fully Phased-In for the six months ended June 30, 2016. The amounts in the rollforward categories are estimates, based on the predominant driver of the change.

Six months ended June 30, 2016 (in billions)	Standardized			Advanced			Total RWA
	Credit risk RWA	Market risk RWA	Total RWA	Credit risk RWA	Market risk RWA	Operational risk RWA	
At December 31, 2015	\$1,333	\$142	\$1,475	\$954	\$142	\$400	\$1,496
Model & data changes <sup>(a)</sup>	4	(13)	(9)	4	(13)	—	(9)
Portfolio runoff <sup>(b)</sup>	(8)	(2)	(10)	(8)	(2)	—	(10)
Movement in portfolio levels <sup>(c)</sup>	18	3	21	27	2	—	29
Changes in RWA	14	(12)	2	23	(13)	—	10
June 30, 2016	\$1,347	\$130	\$1,477	\$977	\$129	\$400	\$1,506

(a) Model & data changes refer to movements in levels of RWA as a result of revised methodologies and/or treatment per regulatory guidance (exclusive of rule changes).

(b) Portfolio runoff for credit risk RWA primarily reflects reduced risk from position rollofts in legacy portfolios in Mortgage Banking (under both the Standardized and Advanced framework); and for market risk RWA reflects reduced risk from position rollofts in legacy portfolios in the wholesale businesses.

(c) Movement in portfolio levels for credit risk RWA refers to changes in book size, composition, credit quality, and market movements; and for market risk RWA refers to changes in position and market movements.

## Supplementary leverage ratio

For additional information on the SLR, see Capital Management on pages 149–158 of JPMorgan Chase's 2015 Annual Report.

The following table presents the components of the Firm's Fully Phased-In SLR as of June 30, 2016.

(in millions, except ratio)	June 30, 2016
Tier 1 Capital	\$204,717
Total average assets	2,441,189
Less: amounts deducted from Tier 1 capital	47,545
Total adjusted average assets <sup>(a)</sup>	2,393,644
Off-balance sheet exposures <sup>(b)</sup>	702,726
SLR leverage exposure	\$3,096,370
SLR	6.6 %

Adjusted average assets, for purposes of calculating the SLR, includes total quarterly average assets adjusted for (a) on-balance sheet assets that are subject to deduction from Tier 1 capital predominantly goodwill and other intangible assets.

(b) Off-balance sheet exposures are calculated as the average of the three month-end spot balances in the reporting quarter.

As of June 30, 2016, the Firm estimates that JPMorgan Chase Bank, N.A.'s and Chase Bank USA, N.A.'s Fully Phased-In SLRs are approximately 6.6% and 8.8%, respectively.

## Line of business equity

The Firm's framework for allocating capital to its business segments (line of business equity) is based on the following objectives:

• Integrate firmwide and line of business capital management activities;

• Measure performance consistently across all lines of business; and

• Provide comparability with peer firms for each of the lines of business

Each business segment is allocated capital by taking into consideration stand-alone peer comparisons, regulatory capital requirements (as estimated under Basel III Advanced Fully Phased-In) and economic risk. Capital is also allocated to each line of business for, among other things, goodwill and other intangibles associated with acquisitions effected by the line of business. ROE is measured and internal targets for expected returns are established as key measures of a business segment's performance.

## Line of business common equity

	June 30, December 31,	
(in billions)	2016	2015
Consumer & Community Banking	\$51.0	\$ 51.0
Corporate & Investment Bank	64.0	62.0
Commercial Banking	16.0	14.0
Asset Management	9.0	9.0
Corporate	86.4	85.5
Total common stockholders' equity	\$226.4	\$ 221.5

On at least an annual basis, the Firm assesses the level of capital required for each line of business as well as the assumptions and methodologies used to allocate capital. The line of business equity allocations are updated as refinements are implemented. The table below reflects the Firm's assessed level of capital required for each line of business as of the dates indicated.

Line of business common equity (in billions)	Quarterly average		
	2Q16	4Q15	2Q15
Consumer & Community Banking	\$51.0	\$51.0	\$51.0
Corporate & Investment Bank	64.0	62.0	62.0
Commercial Banking	16.0	14.0	14.0
Asset Management	9.0	9.0	9.0
Corporate	84.4	83.5	77.7
Total common stockholders' equity	\$224.4	\$219.5	\$213.7

## Planning and stress testing

## CCAR

The Federal Reserve requires large bank holding companies, including the Firm, to submit a capital plan on an annual basis. Through the CCAR, the Federal Reserve evaluates each bank holding company's ("BHC") capital adequacy and internal capital adequacy assessment processes, as well as its plans to make capital distributions, such as dividend payments or stock repurchases.

On June 29, 2016, the Federal Reserve informed the Firm that it did not object, on either a quantitative or qualitative basis, to the Firm's 2016 capital plan.

## Capital actions

## Dividends

The Firm's common stock dividend policy reflects JPMorgan Chase's earnings outlook, desired dividend payout ratio, capital objectives, and alternative investment opportunities. On May 17, 2016, the Firm announced that its Board of Directors had increased the quarterly common stock dividend to \$0.48 per share, effective with the dividend paid on July 31, 2016. The Firm's dividends will be subject to the Board of Directors' approval at the customary times those dividends are to be declared.

## Common equity

On March 17, 2016, the Firm announced that its Board of Directors had authorized the repurchase of up to an additional \$1.9 billion of common equity (common stock and warrants) through June 30, 2016 under its equity repurchase program. This amount is in addition to the \$6.4 billion of common equity that was previously authorized for repurchase between April 1, 2015 and June 30, 2016.

Following receipt of the Federal Reserve's non-objection to the Firm's 2016 capital plan the Firm's Board of Directors authorized the repurchase of up to \$10.6 billion of common equity (common stock and warrants) between July 1, 2016 and June 30, 2017. This authorization includes shares repurchased to offset issuances under the Firm's equity-based compensation plans.

The following table sets forth the Firm's repurchases of common equity for the three and six months ended June 30, 2016 and 2015. There were no warrants repurchased during the three and six months ended June 30, 2016 and 2015.

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Total shares of common stock repurchased	45.8	19.2	75.0	51.7
Aggregate common stock repurchases	\$2,840	\$1,249	\$4,536	\$3,149

There were 47.3 million warrants outstanding at June 30, 2016 compared with 47.4 million outstanding at December 31, 2015.

The Firm may, from time to time, enter into written trading plans under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate repurchases in accordance with the common equity repurchase program. A Rule 10b5-1 repurchase plan allows the Firm to repurchase its equity during periods when it would not otherwise be repurchasing common equity — for example, during internal trading blackout periods. All purchases under a Rule 10b5-1 plan must be made according to a predefined plan established when the Firm is not aware of material nonpublic information.

The authorization to repurchase common equity will be utilized at management's discretion, and the timing of purchases and the exact amount of common equity that may be repurchased is subject to various factors, including market conditions; legal and regulatory considerations affecting the amount and timing of repurchase activity; the Firm's capital position (taking into account goodwill and intangibles); internal capital generation; and alternative investment opportunities. The repurchase program does not include specific price targets or timetables; may be executed through open market purchases or privately negotiated transactions, or utilizing Rule 10b5-1 programs; and may be suspended at any time.

For additional information regarding repurchases of the Firm's equity securities, see Part II, Item 5: Market for registrant's common equity, related stockholder matters and issuer purchases of equity securities on page 20 of JPMorgan Chase's 2015 Form 10-K.

Preferred Stock

Preferred stock dividends declared were \$411 million and \$823 million for the three and six months ended June 30, 2016.

For additional information on the Firm's preferred stock, see Note 22 of JPMorgan Chase's 2015 Annual Report.

#### Other capital requirements

##### TLAC

In November 2015, the Financial Stability Board (“FSB”) finalized the Total Loss Absorbing Capacity (“TLAC”) standard for GSIBs, which establishes the criteria for TLAC eligible debt and capital instruments and defines the minimum requirements for amounts of loss absorbing and recapitalization capacity. This amount and type of debt and capital instruments is intended to effectively absorb losses, as necessary, upon the failure of a GSIB, without imposing such losses on taxpayers of the relevant jurisdiction or causing severe systemic disruptions, and thereby ensuring the continuity of the GSIB’s critical functions. The final standard will require GSIBs to meet a common minimum TLAC requirement beginning January 1, 2019.

On October 30, 2015, the Federal Reserve issued proposed rules that would require the top-tier holding companies of eight U.S. global systemically important bank holding companies, including the Firm, among other things, to maintain minimum levels of eligible TLAC and long-term debt satisfying certain eligibility criteria (“eligible LTD”) commencing January 1, 2019. These proposed TLAC rules would disqualify from eligible LTD, among other instruments, senior debt securities that permit acceleration for reasons other than insolvency or payment default, as well as structured notes and debt securities not governed by U.S. law. The Firm is awaiting the publication of the final rules to determine the full impact on the amount of eligible LTD the Firm will need to issue to be compliant.

For additional information on TLAC, see Capital Management on page 156 of JPMorgan Chase’s 2015 Annual Report.

##### Broker-dealer regulatory capital

JPMorgan Chase’s principal U.S. broker-dealer subsidiaries are JPMorgan Securities and J.P. Morgan Clearing Corp. (“JPMorgan Clearing”). JPMorgan Clearing is a subsidiary of JPMorgan Securities and provides clearing and settlement services. JPMorgan Securities and JPMorgan Clearing are each subject to Rule 15c3-1 under the Securities Exchange Act of 1934 (the “Net Capital Rule”). JPMorgan Securities and JPMorgan Clearing are also each registered as futures commission merchants and subject to Rule 1.17 of the Commodity Futures Trading Commission (“CFTC”). JPMorgan Securities and JPMorgan Clearing have elected to compute their minimum net capital requirements in accordance with the “Alternative Net Capital Requirements” of the Net Capital Rule. At June 30, 2016, JPMorgan Securities’ net capital, as defined by the Net Capital Rule, was \$13.6 billion, exceeding the minimum requirement by \$11.0 billion, and JPMorgan Clearing’s net capital was \$7.2 billion, exceeding the minimum requirement by \$5.6 billion.

In addition to its minimum net capital requirement, JPMorgan Securities is required to hold tentative net capital in excess of \$1.0 billion and is also required to notify the Securities and Exchange Commission (“SEC”) in the event that tentative net capital is less than \$5.0 billion, in accordance with the market and credit risk standards of Appendix E of the Net Capital Rule. As of June 30, 2016, JPMorgan Securities had tentative net capital in excess of the minimum and notification requirements.

J.P. Morgan Securities plc is a wholly-owned subsidiary of JPMorgan Chase Bank, N.A. and is the Firm’s principal operating subsidiary in the U.K. It has authority to engage in banking, investment banking and broker-dealer activities. J.P. Morgan Securities plc is jointly regulated by the U.K. Prudential Regulation Authority (“PRA”) and Financial Conduct Authority (“FCA”). J.P. Morgan Securities plc is subject to the European Union Capital Requirements Regulation and U.K. PRA capital rules, which implement Basel III.

At June 30, 2016, J.P. Morgan Securities plc had estimated total capital of \$34.4 billion; its estimated CET1 capital ratio was 14.2% and its estimated Total capital ratio was 18.0%. Both capital ratios exceeded the minimum standards of 4.5% and 8.0%, respectively, under the transitional requirements of the European Union’s Basel III Capital Requirements Directive and Regulation, as well as the additional capital requirements specified by the PRA.

LIQUIDITY  
RISK  
MANAGEMENT

Liquidity risk is the risk that the Firm will be unable to meet its contractual and contingent obligations or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets. The following discussion of JPMorgan Chase's Liquidity Risk Management should be read in conjunction with pages 159–164 of JPMorgan Chase's 2015 Annual Report.

LCR and NSFR

The U.S. LCR rule requires the Firm to measure the amount of HQLA held by the Firm in relation to estimated net cash outflows within a 30-day period during an acute stress event. The LCR was required to be 90% at January 1, 2016, increasing to a minimum of 100% on January 1, 2017 onward. At June 30, 2016, the Firm was compliant with the fully phased-in U.S. LCR.

The Basel Committee final standard for the net stable funding ratio ("Basel NSFR") is intended to measure the "available" amount of stable funding over a one-year horizon. Basel NSFR will become a minimum standard by January 1, 2018 and requires that this ratio be equal to at least 100% on an ongoing basis.

On April 26, 2016, the U.S. NSFR proposal was released for large banks and bank holding companies and was largely consistent with Basel NSFR. The proposed requirement would apply beginning on January 1, 2018, consistent with the Basel NSFR timeline.

The Firm estimates it was compliant with the proposed U.S. NSFR based on data as of March 31, 2016, and on its current understanding of the proposed rule.

HQLA

HQLA is the amount of assets that qualify for inclusion in the U.S. LCR. HQLA primarily consists of cash and certain unencumbered high quality liquid assets as defined in the final rule.

On April 1, 2016, the Federal Reserve published a final rule permitting investment-grade, U.S. general obligation state and municipal securities that meet certain criteria to be included in HQLA for purposes of the U.S. LCR, subject to certain limits. The final rule became effective beginning July 1, 2016, and did not have a material effect on the Firm's HQLA or LCR.

As of June 30, 2016, the Firm's HQLA was \$516 billion, compared with \$496 billion as of December 31, 2015. The increase in HQLA primarily reflects deposit growth in excess of loan growth. HQLA may fluctuate from period to period primarily due to normal flows from client activity.

The following table presents HQLA included in the LCR, broken out by HQLA-eligible cash and securities as of June 30, 2016.

	June
(in billions)	30,
	2016

HQLA

Eligible cash <sup>(a)</sup>	\$ 303
Eligible securities <sup>(b)</sup>	213
Total HQLA	\$ 516

(a) Cash on deposit at central banks.

(b) Predominantly includes U.S. agency mortgage-backed securities, U.S. Treasuries, and sovereign bonds net of applicable haircuts under U.S. LCR rules.

In addition to HQLA, as of June 30, 2016, the Firm has approximately \$234 billion of unencumbered marketable securities, such as equity securities and fixed income debt securities, available to raise liquidity, if required.

Furthermore, the Firm maintains borrowing capacity at various Federal Home Loan Banks ("FHLBs"), the Federal Reserve Bank discount window and various other central banks as a result of collateral pledged by the Firm to such banks. Although available, the Firm does not view the borrowing capacity at the Federal Reserve Bank discount window and the various other central banks as a primary source of liquidity. As of June 30, 2016, the Firm's remaining borrowing capacity at various FHLBs and the Federal Reserve Bank discount window was approximately \$196

billion. This remaining borrowing capacity excludes the benefit of securities included above in HQLA or other unencumbered securities currently held at the Federal Reserve Bank discount window for which the Firm has not drawn liquidity.

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## Funding

### Sources of funds

Management believes that the Firm's unsecured and secured funding capacity is sufficient to meet its on- and off-balance sheet obligations.

The Firm funds its global balance sheet through diverse sources of funding including a stable deposit franchise as well as secured and unsecured funding in the capital markets. The Firm's loan portfolio (\$872.8 billion at June 30, 2016), is funded with a portion of the Firm's deposits (\$1,331.0 billion at June 30, 2016), and through securitizations and, with respect to a portion of the Firm's real estate-related loans, with secured borrowings from the FHLBs. Deposits in excess of the amount utilized to fund loans are primarily invested in the Firm's investment securities portfolio or deployed in cash or

other short-term liquid investments based on their interest rate and liquidity risk characteristics. Securities borrowed or purchased under resale agreements and trading assets- debt and equity instruments are primarily funded by the Firm's securities loaned or sold under agreements to repurchase, trading liabilities- debt and equity instruments, and a portion of the Firm's long-term debt and stockholders' equity. In addition to funding securities borrowed or purchased under resale agreements and trading assets- debt and equity instruments, proceeds from the Firm's debt and equity issuances are used to fund certain loans and other financial and non-financial assets, or may be invested in the Firm's investment securities portfolio. See the discussion below for additional information relating to Deposits, Short-term funding, and Long-term funding and issuance.

### Deposits

The table below summarizes, by line of business, the deposit balances as of June 30, 2016, and December 31, 2015, and the average deposit balances for the three and six months ended June 30, 2016 and 2015, respectively.

Deposits (in millions)	June 30, 2016	December 31, 2015	Three months ended		Six months ended June	
			June 30, Average 2016	2015	30, Average 2016	2015
Consumer & Community Banking	\$586,074	\$ 557,645	\$583,115	\$529,448	\$572,699	\$520,850
Corporate & Investment Bank	418,416	395,228	407,084	412,859	399,853	429,154
Commercial Banking	171,944	172,470	169,090	186,078	170,105	191,711
Asset Management	148,967	146,766	151,214	152,563	150,915	155,386
Corporate	5,557	7,606	5,463	18,197	6,046	20,625
Total Firm	\$1,330,958	\$1,279,715	\$1,315,966	\$1,299,145	\$1,299,618	\$1,317,726

A key strength of the Firm is its diversified deposit franchise, through each of its lines of business, which provides a stable source of funding and limits reliance on the wholesale funding markets. A significant portion of the Firm's deposits are consumer deposits which are considered a stable source of liquidity. Additionally, the majority of the Firm's wholesale operating deposits are also considered to be relatively stable sources of liquidity because they are generated from customers that maintain operating service relationships with the Firm.

As of June 30, 2016, the Firm's loans-to-deposits ratio was 66%, compared with 65% at December 31, 2015.

Total deposits for the Firm were \$1,331.0 billion as of June 30, 2016, compared with \$1,279.7 billion at December 31, 2015 (60% and 61% of total liabilities at June 30, 2016, and December 31, 2015, respectively). The increase was attributable to higher consumer and wholesale deposits. The increase in consumer deposits was due to continued growth from new and existing customers, as well as the impact of low attrition rates. The increase in wholesale deposits was mainly driven by growth in client activity in CIB's Treasury Services business.

The Firm has typically experienced higher customer deposit inflows at quarter-ends. Therefore, the Firm believes average deposit balances are generally more representative of deposit trends. The increase in the average deposits for the three months ended June 30, 2016, compared with the three months ended June 30, 2015, was driven by an increase in consumer deposits, largely offset by a decrease in wholesale deposits reflecting the Firm's actions in 2015



to reduce non-operating deposits. The decrease in the average deposits for the six months ended June 30, 2016, compared with the six months ended June 30, 2015, was driven by a decrease in wholesale deposits reflecting the Firm's actions in 2015 to reduce non-operating deposits, predominantly offset by an increase in consumer deposits. For further discussions of deposit and liability balance trends, see the discussion of the Firm's Business Segment Results and the Consolidated Balance Sheets Analysis on pages 18–39 and pages 12–13, respectively.

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The following table summarizes short-term and long-term funding, excluding deposits, as of June 30, 2016, and December 31, 2015, and average balances for the three and six months ended June 30, 2016 and 2015, respectively. For additional information, see the Consolidated Balance Sheets Analysis on pages 12–13 and Note 12.

Sources of funds (excluding deposits) (in millions)	June 30, 2016	December 31, 2015	Three months ended June 30, Average		Six months ended June 30, Average	
			2016	2015	2016	2015
Commercial paper:						
Wholesale funding	\$ 17,279	\$ 15,562	\$ 17,462	\$ 18,144	\$ 17,499	\$ 19,923
Client cash management	—	—	—	30,876 <sup>(g)</sup>	—	34,563
Total commercial paper	\$ 17,279	\$ 15,562	\$ 17,462	\$ 49,020	\$ 17,499	\$ 54,486
Obligations of Firm-administered multi-seller conduits <sup>(a)</sup>	\$ 5,357	\$ 8,724	\$ 5,327	\$ 11,943	\$ 5,914	\$ 11,709
Other borrowed funds	\$ 19,945	\$ 21,105	\$ 20,107	\$ 31,673	\$ 20,169	\$ 31,559
Securities loaned or sold under agreements to repurchase:						
Securities sold under agreements to repurchase	\$ 151,111	\$ 129,598	\$ 158,142	\$ 174,724	\$ 154,330	\$ 174,404
Securities loaned	11,943	18,174	15,132	20,616	15,741	21,601
Total securities loaned or sold under agreements to repurchase <sup>(b)(c)</sup>	\$ 163,054	\$ 147,772	\$ 173,274	\$ 195,340	\$ 170,071	\$ 196,005
Senior notes	\$ 156,734	\$ 149,964	\$ 152,246	\$ 145,708	\$ 150,657	\$ 145,345
Trust preferred securities	3,966	3,969	3,969	3,997	3,970	4,719
Subordinated debt	23,770	25,027	25,176	27,316	25,271	28,257
Structured notes	36,087	32,813	35,602	31,057	34,576	30,738
Total long-term unsecured funding	\$ 220,557	\$ 211,773	\$ 216,993	\$ 208,078	\$ 214,474	\$ 209,059
Credit card securitization <sup>(a)</sup>	\$ 28,955	\$ 27,906	\$ 27,014	\$ 31,976	\$ 27,356	\$ 31,272
Other securitizations <sup>(d)</sup>	1,641	1,760	1,700	1,941	1,729	1,974
FHLB advances	69,526	71,581	69,528	69,830	70,384	67,163
Other long-term secured funding <sup>(e)</sup>	5,544	5,297	5,205	4,354	5,085	4,339
Total long-term secured funding	\$ 105,666	\$ 106,544	\$ 103,447	\$ 108,101	\$ 104,554	\$ 104,748
Preferred stock <sup>(f)</sup>	\$ 26,068	\$ 26,068	\$ 26,068	\$ 23,476	\$ 26,068	\$ 22,158
Common stockholders' equity <sup>(f)</sup>	\$ 226,355	\$ 221,505	\$ 224,429	\$ 213,738	\$ 222,995	\$ 213,049

(a) Included in beneficial interests issued by consolidated variable interest entities on the Firm's Consolidated balance sheets.

(b) Excludes federal funds purchased.

(c) Excluded long-term structured repurchase agreements of \$1.8 billion and \$4.2 billion as of June 30, 2016, and December 31, 2015, respectively, and average balances of \$2.7 billion and \$3.7 billion for the three months ended June 30, 2016 and 2015, respectively, and \$3.1 billion and \$3.3 billion for the six months ended June 30, 2016 and 2015, respectively.

(d) Other securitizations include securitizations of student loans. The Firm's wholesale businesses also securitize loans for client-driven transactions, which are not considered to be a source of funding for the Firm and are not included in the table.

(e) Includes long-term structured notes which are secured.

(f) For additional information on preferred stock and common stockholders' equity see Capital Management on pages 63–69 and the Consolidated statements of changes in stockholders' equity on page 84; and Note 22 and Note 23 of

JPMorgan Chase's 2015 Annual Report.

(g) During the third quarter of 2015 the Firm completed the discontinuation of its commercial paper customer sweep cash management program.

#### Short-term funding

The Firm's sources of short-term secured funding primarily consist of securities loaned or sold under agreements to repurchase. Securities loaned or sold under agreements to repurchase are secured predominantly by high-quality securities collateral, including government-issued debt and agency MBS, and constitute a significant portion of the federal funds purchased and securities loaned or sold under repurchase agreements on the Consolidated balance sheets. The increase at June 30, 2016, from December 31, 2015, was due to higher secured financing of investment securities in the Chief Investment Office ("CIO"), and higher client-driven market-making activities in CIB. The decrease in the average balance of securities loaned or sold under

agreements to repurchase for the three and six months ended June 30, 2016, compared with June 30, 2015, was largely due to lower secured financing of trading assets-debt and equity instruments in the CIB related to client-driven market-making activities. The balances associated with securities loaned or sold under agreements to repurchase fluctuate over time due to customers' investment and financing activities; the Firm's demand for financing; the ongoing management of the mix of the Firm's liabilities, including its secured and unsecured financing (for both the investment securities and market-making portfolios); and other market and portfolio factors.

## Long-term funding and issuance

Long-term funding provides additional sources of stable funding and liquidity for the Firm. The Firm's long-term funding plan is driven by expected client activity, liquidity considerations, and regulatory requirements. Long-term funding objectives include maintaining diversification, maximizing market access and optimizing funding costs, as well as maintaining a certain level of liquidity at JPMorgan Chase & Co. (the "Parent Company"). The Firm evaluates various funding markets, tenors and currencies in creating its optimal long-term funding plan.

The significant majority of the Firm's long-term unsecured funding is issued by the Parent Company to provide maximum flexibility in support of both bank and nonbank subsidiary funding. The following table summarizes long-term unsecured issuance and maturities or redemptions for the three and six months ended June 30, 2016 and 2015. For additional information, see Note 21 of JPMorgan Chase's 2015 Annual Report.

Long-term unsecured funding (in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
<b>Issuance</b>				
Senior notes issued in the U.S. market	\$5,968	\$3,734	\$13,187	\$13,586
Senior notes issued in non-U.S. markets	4,891	3,059	4,891	7,284
Total senior notes	10,859	6,793	18,078	20,870
Subordinated debt	—	1,722	—	1,722
Structured notes	5,278	5,696	13,611	12,609
Total long-term unsecured funding – issuance	\$16,137	\$14,211	\$31,689	\$35,201
<b>Maturities/redemptions</b>				
Senior notes	\$6,499	\$3,524	\$16,310	\$12,719
Trust preferred securities	—	1,500	—	1,500
Subordinated debt	2,000	2,226	2,002	3,032
Structured notes	4,437	4,504	8,541	10,324
Total long-term unsecured funding – maturities/redemptions	\$12,936	\$11,754	\$26,853	\$27,575

The Firm raises secured long-term funding primarily through securitization of consumer credit card loans and advances from the FHLBs. The following table summarizes the securitization issuance and FHLB advances and their respective maturities or redemptions for the three and six months ended June 30, 2016 and 2015, respectively.

Long-term secured funding (in millions)	Three months ended June 30,				Six months ended June 30,			
	Issuance		Maturities/Redemptions		Issuance		Maturities/Redemptions	
	2016	2015	2016	2015	2016	2015	2016	2015
Credit card securitization	\$3,814	\$3,650	\$ 2,350	\$ 3,785	\$3,814	\$6,126	\$ 2,775	\$ 6,130
Other securitizations <sup>(a)</sup>	—	—	61	63	—	—	119	128
FHLB advances	—	7,850	3	2,002	—	12,550	2,054	5,003
Other long-term secured funding <sup>(b)</sup>	236	139	46	91	326	263	89	209
Total long-term secured funding	\$4,050	\$11,639	\$ 2,460	\$ 5,941	\$4,140	\$18,939	\$ 5,037	\$ 11,470

(a) Other securitizations includes securitizations of student loans.

(b) Includes long-term structured notes which are secured.

The Firm's wholesale businesses also securitize loans for client-driven transactions; those client-driven loan securitizations are not considered to be a source of funding for the Firm and are not included in the table above. For further description of the client-driven loan securitizations, see Note 16 of JPMorgan Chase's 2015 Annual Report.

## Credit ratings

The cost and availability of financing are influenced by credit ratings. Reductions in these ratings could have an adverse effect on the Firm's access to liquidity sources, increase the cost of funds, trigger additional collateral or funding requirements and decrease the number of investors and counterparties willing to lend to the Firm.

Additionally, the Firm's funding requirements for VIEs and other third party commitments may be adversely affected by a decline in credit ratings. For additional information on the impact of a credit ratings downgrade on the funding requirements for VIEs, and on derivatives and collateral agreements, see Special-purpose entities on page 14, and credit risk, liquidity risk and credit-related contingent features in Note 5.

The credit ratings of the Parent Company and the Firm's principal bank and nonbank subsidiaries as of June 30, 2016, were as follows.

June 30, 2016	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A. Chase Bank USA, N.A.			J.P. Morgan Securities LLC		
	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook
Moody's	A3	P-2	Stable	Aa3	P-1	Stable	Aa3	P-1	Stable
Standard & Poor's	A-	A-2	Stable	A+	A-1	Stable	A+	A-1	Stable
Fitch Ratings	A+	F1	Stable	AA-	F1+	Stable	AA-	F1+	Stable

Downgrades of the Firm's long-term ratings by one or two notches could result in an increase in its cost of funds, and access to certain funding markets could be reduced as noted above. The nature and magnitude of the impact of ratings downgrades depends on numerous contractual and behavioral factors (which the Firm believes are incorporated in its liquidity risk and stress testing metrics). The Firm believes that it maintains sufficient liquidity to withstand a potential decrease in funding capacity due to ratings downgrades.

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

Critical factors in maintaining high credit ratings include a stable and diverse earnings stream, strong capital ratios, strong credit quality and risk management controls, diverse funding sources, and disciplined liquidity monitoring procedures. Rating agencies continue to evaluate economic and geopolitical trends, regulatory developments, future profitability, risk management practices, and litigation matters, as well as their broader ratings methodologies. Changes in any of these factors could lead to changes in the Firm's credit ratings.

Although the Firm closely monitors and endeavors to manage, to the extent it is able, factors influencing its credit ratings, there is no assurance that its credit ratings will not be changed in the future.

SUPERVISION  
AND  
REGULATION

For further information on Supervision and Regulation, see the Supervision and regulation section on pages 1–8 of JPMorgan Chase’s 2015 Form 10-K.

For more information about the applicable requirements relating to risk-based capital and leverage in the U.S. under Basel III, see Capital Management on pages 63–69 and Note 20.

Under Basel III, bank holding companies and banks are required to measure their liquidity against two specific liquidity tests: the LCR and the NSFR. For additional information on these ratios, see Liquidity Risk Management on pages 70–74.

For additional information on the Firm’s CCAR, see Capital Management on pages 63–69.

For further information on the current and potential impact of the Basel III framework, including GSIB requirements, and TLAC, see Capital Management on pages 63–69.

For information on the net capital of J.P. Morgan Securities LLC and J.P. Morgan Clearing Corp., and the applicable requirements relating to risk-based capital for J.P. Morgan Securities plc, see Capital Management on pages 63–69.

Dividends

At June 30, 2016, JPMorgan Chase estimated that its banking subsidiaries could pay, in the aggregate, approximately \$29 billion in dividends to their respective bank holding companies without the prior approval of their relevant banking regulators.

CRITICAL  
ACCOUNTING  
ESTIMATES  
USED BY THE  
FIRM

JPMorgan Chase's accounting policies and use of estimates are integral to understanding its reported results. The Firm's most complex accounting estimates require management's judgment to ascertain the appropriate carrying value of assets and liabilities. The Firm has established policies and control procedures intended to ensure that estimation methods, including any judgments made as part of such methods, are well-controlled, independently reviewed and applied consistently from period to period. The methods used and judgments made reflect, among other factors, the nature of the assets or liabilities and the related business and risk management strategies, which may vary across the Firm's businesses and portfolios. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. The Firm believes its estimates for determining the carrying value of its assets and liabilities are appropriate. The following is a brief description of the Firm's critical accounting estimates involving significant judgments.

Allowance for credit losses

JPMorgan Chase's allowance for credit losses covers the retained consumer and wholesale loan portfolios, as well as the Firm's wholesale and certain consumer lending-related commitments. The allowance for loan losses is intended to adjust the carrying value of the Firm's loan assets to reflect probable credit losses inherent in the loan portfolio as of the balance sheet date. Similarly, the allowance for lending-related commitments is established to cover probable credit losses inherent in the lending-related commitments portfolio as of the balance sheet date. For further discussion of the methodologies used in establishing the Firm's allowance for credit losses and the significant judgments involved, see Allowance for credit losses on pages 130–132, 165–167 and Note 15 of JPMorgan Chase's 2015 Annual Report; for amounts recorded as of June 30, 2016 and 2015, see Allowance for credit losses on pages 55–57 and Note 14 of this Form 10-Q.

As noted in the discussion on pages 165–167 of JPMorgan Chase's 2015 Annual Report, the Firm's allowance for credit losses is sensitive to numerous factors, which may differ depending on the portfolio. Changes in economic conditions or in the Firm's assumptions and estimates could affect its estimate of probable credit losses inherent in the portfolio at the balance sheet date. The Firm uses its best judgment to assess these economic conditions and loss data in estimating the allowance for credit losses and these estimates are subject to periodic refinement based on any changes to underlying external and Firm-specific historical data. In many cases, the use of alternate estimates (for example, the effect of home prices and unemployment rates on consumer delinquency, or the calibration between the Firm's wholesale loan risk ratings and external credit ratings) or data sources (for example, external probability of default ("PD") and loss given default ("LGD") factors that incorporate industry-wide information, versus Firm-specific history) would result in a different estimated allowance for credit losses. To illustrate the potential magnitude of

certain alternate judgments, the Firm estimates that changes in the following inputs would have the following effects on the Firm's modeled credit loss estimates as of June 30, 2016, without consideration of any offsetting or correlated effects of other inputs in the Firm's allowance for loan losses:

- For PCI loans, a combined 5% decline in housing prices and a 1% increase in unemployment rates from current levels could imply an increase to modeled credit loss estimates of approximately \$600 million.

- For the residential real estate portfolio, excluding PCI loans, a combined 5% decline in housing prices and a 1% increase in unemployment rates from current levels could imply an increase to modeled annual loss estimates of approximately \$150 million.

- A 50 basis point deterioration in forecasted credit card loss rates could imply an increase to modeled annualized credit card loan loss estimates of approximately \$675 million.

- An increase in PD factors consistent with a one-notch downgrade in the Firm's internal risk ratings for its entire wholesale loan portfolio could imply an increase in the Firm's modeled credit loss estimates of approximately \$1.9 billion.



A 100 basis point increase in estimated LGD for the Firm's entire wholesale loan portfolio could imply an increase in the Firm's modeled credit loss estimates of approximately \$175 million.

The purpose of these sensitivity analyses is to provide an indication of the isolated impacts of hypothetical alternative assumptions on modeled loss estimates. The changes in the inputs presented above are not intended to imply management's expectation of future deterioration of those risk factors. In addition, these analyses are not intended to estimate changes in the overall allowance for loan losses, which would also be influenced by the judgment management applies to the modeled loss estimates to reflect the uncertainty and imprecision of these modeled loss estimates based on then-current circumstances and conditions.

It is difficult to estimate how potential changes in specific factors might affect the overall allowance for credit losses because management considers a variety of factors and inputs in estimating the allowance for credit losses. Changes in these factors and inputs may not occur at the same rate and may not be consistent across all geographies or product types, and changes in factors may be directionally inconsistent, such that improvement in one factor may offset deterioration in other factors. In addition, it is difficult to predict how changes in specific economic conditions or assumptions could affect borrower behavior or other factors considered by management in estimating the allowance for credit losses. Given the process the Firm follows and the judgments made in evaluating the risk factors related to its loss estimates, management believes that its current estimate of the allowance for credit losses is appropriate.

## Fair value of financial instruments, MSRs and commodities inventory

## Assets measured at fair value

The following table includes the Firm's assets measured at fair value and the portion of such assets that are classified within level 3 of the valuation hierarchy. For further information, see Note 3.

June 30, 2016 (in billions, except ratio data)	Total assets at fair value	Total level 3 assets
Trading debt and equity instruments	\$302.3	\$9.7
Derivative receivables <sup>(a)</sup>	78.4	7.3
Trading assets	380.7	17.0
AFS securities	224.8	0.8
Loans	1.9	0.8
MSRs	5.1	5.1
Private equity investments <sup>(b)</sup>	1.7	1.7
Other	28.0	0.7
Total assets measured at fair value on a recurring basis	642.2	26.1
Total assets measured at fair value on a nonrecurring basis	0.8	0.5
Total assets measured at fair value	\$643.0	\$26.6
Total Firm assets	\$2,466.1	
Level 3 assets as a percentage of total Firm assets <sup>(a)</sup>		1.1 %
Level 3 assets as a percentage of total Firm assets at fair value <sup>(a)</sup>		4.1 %

For purposes of table above, the derivative receivables total reflects the impact of netting adjustments; however, the \$7.3 billion of derivative receivables classified as level 3 does not reflect the netting adjustment as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset. However, if the Firm were to net such balances within level 3, the reduction in the level 3 derivative receivables balance would be \$1.6 billion at June 30, 2016; this is exclusive of the netting benefit associated with cash collateral, which would further reduce the level 3 balances.

(b) Private equity instruments represent investments within Corporate.

## Valuation

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

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, the lack of observability of certain significant inputs requires management to assess all relevant empirical data in deriving valuation inputs — including, for example, transaction details, yield curves, interest rates, prepayment rates, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves. For further discussion of the valuation of level 3 instruments, including unobservable inputs used, see Note 3.

For instruments classified in levels 2 and 3, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality,

the Firm's credit-worthiness, market funding rates, liquidity considerations, unobservable parameters, and for portfolios that meet specified criteria, the size of the net open risk position. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole. For further discussion of valuation adjustments applied by the Firm, see Note 3.

Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Firm believes its valuation methods are appropriate and consistent

with those of other market participants, the methods and assumptions used reflect management judgment and may vary across the Firm's businesses and portfolios.

The Firm uses various methodologies and assumptions in the determination of fair value. The use of methodologies or assumptions different than those used by the Firm could result in a different estimate of fair value at the reporting date. For a detailed discussion of the Firm's valuation process and hierarchy, and its determination of fair value for individual financial instruments, see Note 3.

#### Goodwill impairment

Management applies significant judgment when testing goodwill for impairment. For a description of the significant valuation judgments associated with goodwill impairment, see Goodwill impairment on page 168 of JPMorgan Chase's 2015 Annual Report.

For the three months ended June 30, 2016, the Firm reviewed current conditions (including the estimated effects of regulatory and legislative changes and the current estimated market cost of equity) and prior projections of business performance for all its businesses. Based upon such reviews, the Firm concluded that the goodwill allocated to its reporting units was not impaired as of June 30, 2016.

Declines in business performance, increases in credit losses, increases in equity capital requirements, as well as deterioration in economic or market conditions, adverse estimates of the impact of regulatory or legislative changes or increases in the estimated market cost of equity, could cause the estimated fair values of the Firm's reporting units or their associated goodwill to decline in the future, which could result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

For additional information on goodwill, see Note 16.

#### Income taxes

For a description of the significant assumptions, judgments and interpretations associated with the accounting for income taxes, see Income taxes on page 169 of JPMorgan Chase's 2015 Annual Report.

#### Litigation reserves

For a description of the significant estimates and judgments associated with establishing litigation reserves, see Note 23 of this Form 10-Q, and Note 31 of JPMorgan Chase's 2015 Annual Report.

ACCOUNTING  
AND REPORTING  
DEVELOPMENTS

Financial Accounting Standards Board (“FASB”) Standards Adopted since January 1, 2016

Standard	Summary of guidance	Effects on financial statements
Amendments to the consolidation analysis	<p>Summary of guidance</p> <ul style="list-style-type: none"> <li>• Eliminates the deferral issued by the FASB in February 2010 of VIE-related accounting requirements for certain investment funds, including mutual funds, private equity funds and hedge funds.</li> <li>• Amends the evaluation of fees paid to a decision-maker or a service provider, and exempts certain money market funds from consolidation.</li> <li>• Requires that all excess tax benefits and tax deficiencies that pertain to employee stock-based incentive payments be recognized within income tax expense in the Consolidated statements of income, rather than within additional paid-in capital.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopted January 1, 2016.</li> <li>• There was no material impact on the Firm’s Consolidated Financial Statements.</li> <li>• For further information, see Note 1.</li> </ul>
Improvements to employee share-based payment accounting	<ul style="list-style-type: none"> <li>• Provides an alternative for consolidated financing VIEs to elect: (1) to measure their financial assets and liabilities separately under existing U.S. GAAP for fair value measurement with any differences in such fair values reflected in earnings; or (2) to measure both their financial assets and liabilities using the more observable of the fair value of the financial assets or the fair value of the financial liabilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopted January 1, 2016.</li> <li>• There was no material impact on the Firm’s Consolidated Financial Statements.</li> </ul>
Measuring the financial assets and financial liabilities of a consolidated collateralized financing entity	<ul style="list-style-type: none"> <li>• Provides an alternative for consolidated financing VIEs to elect: (1) to measure their financial assets and liabilities separately under existing U.S. GAAP for fair value measurement with any differences in such fair values reflected in earnings; or (2) to measure both their financial assets and liabilities using the more observable of the fair value of the financial assets or the fair value of the financial liabilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopted January 1, 2016.</li> <li>• There was no material impact on the Firm’s Consolidated Financial Statements as the Firm has historically measured the financial assets and liabilities using the more observable fair value.</li> </ul>
Recognition and measurement of financial assets and financial liabilities – DVA to OCI	<ul style="list-style-type: none"> <li>• For financial liabilities where the fair value option has been elected, the portion of the total change in fair value caused by changes in the Firm’s own credit risk (i.e., DVA) is required to be presented separately in other comprehensive income (“OCI”).</li> <li>• Requires a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopted January 1, 2016.</li> <li>• There was no material impact on the Firm’s Consolidated Financial Statements.</li> <li>• For additional information about the impact of the adoption of the new accounting guidance, see Notes 3, 4 and 19.</li> </ul>

FASB Standards Issued but not yet Adopted

Standard	Summary of guidance	Effects on financial statements
Revenue recognition – revenue from contracts with customers	<ul style="list-style-type: none"> <li>Requires that revenue from contracts with customers be recognized upon transfer of control of a good or service in the amount of consideration expected to be received.</li> <li>Changes the accounting for certain contract costs, including whether they may be offset against revenue in the statements of income, and requires additional disclosures about revenue and contract costs.</li> </ul>	<ul style="list-style-type: none"> <li>Required effective date: January 1, 2018<sup>(a)</sup></li> <li>Because the guidance does not apply to revenue associated with financial instruments, including loans and securities that are accounted for under other U.S. GAAP, the Firm does not expect the new revenue recognition guidance to have a material impact on the elements of its statements of income most closely associated with financial instruments, including securities gains, interest income and interest expense.</li> <li>The Firm plans to adopt the revenue recognition guidance in the first quarter of 2018 and is currently evaluating the potential impact on the Consolidated Financial Statements and its selection of transition method.</li> </ul>
Issued May 2014	<ul style="list-style-type: none"> <li>May be adopted using a full retrospective approach or a modified, cumulative effect-type approach wherein the guidance is applied only to existing contracts as of the date of initial application, and to new contracts transacted after that date.</li> </ul>	
Recognition and measurement of financial assets and financial liabilities	<ul style="list-style-type: none"> <li>Requires that certain equity instruments be measured at fair value, with changes in fair value recognized in earnings.</li> <li>Generally requires a cumulative-effect adjustment to retained earnings as of the beginning of the reporting period of adoption.</li> </ul>	<ul style="list-style-type: none"> <li>Required effective date: January 1, 2018.</li> <li>The Firm is currently evaluating the potential impact on the Consolidated Financial Statements.</li> </ul>
Issued January 2016		
Leases	<ul style="list-style-type: none"> <li>Requires lessees to recognize all leases longer than twelve months on the Consolidated balance sheets as lease liabilities with corresponding right-of-use assets.</li> <li>Requires lessees and lessors to classify most leases using principles similar to existing lease accounting, but eliminates the “bright line” classification tests.</li> <li>Requires lessees and lessors to expand qualitative and quantitative disclosures regarding their leasing arrangements.</li> </ul>	<ul style="list-style-type: none"> <li>Required effective date: January 1, 2019<sup>(a)</sup></li> <li>The Firm is currently evaluating the potential impact on the Consolidated Financial Statements.</li> </ul>
Issued February 2016		
Financial instruments - credit losses	<ul style="list-style-type: none"> <li>Replaces existing incurred loss impairment guidance and establishes a single allowance framework for financial assets carried at amortized cost (including held-to-maturity securities), which will reflect management’s estimate of credit losses over the full remaining expected life of the financial assets.</li> </ul>	<ul style="list-style-type: none"> <li>Required effective date: January 1, 2020<sup>(b)</sup></li> <li>The Firm expects that the new guidance will result in an increase in its allowance for credit losses due to several factors, including:                             <ol style="list-style-type: none"> <li>The allowance related to the Firm’s loans and commitments will increase to cover credit losses over the full remaining expected life of the portfolio, and will consider expected future changes in</li> </ol> </li> </ul>
Issued June 2016		

- Eliminates existing guidance for PCI loans, and requires recognition of an allowance for expected credit losses on financial assets purchased with more than insignificant credit deterioration since origination.
  - Amends existing impairment guidance for available-for-sale securities to incorporate an allowance, which will allow for reversals of impairment losses in the event that the credit of an issuer improves.
  - Requires a cumulative-effect adjustment to retained earnings as of the beginning of the reporting period of adoption.
- macroeconomic conditions
2. The nonaccretable difference on PCI loans will be recognized as an allowance, offset by an increase in the carrying value of the related loans
3. An allowance will be established for estimated credit losses on HTM securities
- The extent of the increase is under evaluation, but will depend upon the nature and characteristics of the Firm's portfolio at the adoption date, and the macroeconomic conditions and forecasts at that date.

(a) Early adoption is permitted.

(b) Early adoption is permitted on January 1, 2019.

**FORWARD-LOOKING  
STATEMENTS**

From time to time, the Firm has made and will make forward-looking statements. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as “anticipate,” “target,” “expect,” “estimate,” “intend,” “plan,” “goal,” “believe,” or other words of similar meaning. Forward-looking statements provide JPMorgan Chase’s current expectations or forecasts of future events, circumstances, results or aspirations. JPMorgan Chase’s disclosures in this Form 10-Q contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The Firm also may make forward-looking statements in its other documents filed or furnished with the Securities and Exchange Commission. In addition, the Firm’s senior management may make forward-looking statements orally to investors, analysts, representatives of the media and others.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond the Firm’s control. JPMorgan Chase’s actual future results may differ materially from those set forth in its 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 from those in the forward-looking statements:

- Local, regional and global business, economic and political conditions and geopolitical events;
- Changes in laws and regulatory requirements, including capital and liquidity requirements affecting the Firm’s businesses, and the ability of the Firm to address those requirements;
- Changes in trade, monetary and fiscal policies and laws;
- Changes in income tax laws and regulations (including the adoption, as currently proposed, of Treasury regulations under Section 385 of the U.S. Internal Revenue Code);
- Securities and capital markets behavior, including changes in market liquidity and volatility;
- Changes in investor sentiment or consumer spending or savings behavior;
- Ability of the Firm to manage effectively its capital and liquidity, including approval of its capital plans by banking regulators;
- Changes in credit ratings assigned to the Firm or its subsidiaries;
- Damage to the Firm’s reputation;
- Ability of the Firm to deal effectively with an economic slowdown or other economic or market disruption;
- Technology changes instituted by the Firm, its counterparties or competitors;
- The success of the Firm’s business simplification initiatives and the effectiveness of its control agenda;
- Ability of the Firm to develop new products and services, and the extent to which products or services previously sold by the Firm (including but not limited to mortgages and asset-backed securities) require the Firm to incur liabilities or absorb losses not contemplated at their initiation or origination;
- Acceptance of the Firm’s new and existing products and services by the marketplace and the ability of the Firm to innovate and to increase market share;
- Ability of the Firm to attract and retain qualified employees;
- Ability of the Firm to control expense;
- Competitive pressures;
- Changes in the credit quality of the Firm’s customers and counterparties;
- Adequacy of the Firm’s risk management framework, disclosure controls and procedures and internal control over financial reporting;
- Adverse judicial or regulatory proceedings;
- Changes in applicable accounting policies;
- Ability of the Firm to determine accurate values of certain assets and liabilities;
- Occurrence of natural or man-made disasters or calamities or conflicts and the Firm’s ability to deal effectively with disruptions caused by the foregoing;
- Ability of the Firm to maintain the security and integrity of its financial, accounting, technology, data processing and other operating systems and facilities;

- Ability of the Firm to effectively defend itself against cyberattacks and other attempts by unauthorized parties to access the Firm's information or disrupt its systems; and
- The other risks and uncertainties detailed in Part I,

Item 1A: Risk Factors in the Firm's Annual Report on Form 10-K for the year ended December 31, 2015.

Any forward-looking statements made by or on behalf of the Firm speak only as of the date they are made, and JPMorgan Chase does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the date the forward-looking statements were made. The reader should, however, consult any further disclosures of a forward-looking nature the Firm may make in any subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, or Current Reports on Form 8-K.



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JPMorgan Chase & Co.

Consolidated statements of income (unaudited)

(in millions, except per share data)	Three months ended		Six months ended	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Revenue				
Investment banking fees	\$1,644	\$1,833	\$2,977	\$3,627
Principal transactions	2,976	2,834	5,655	6,489
Lending- and deposit-related fees	1,403	1,418	2,806	2,781
Asset management, administration and commissions	3,681	4,015	7,305	7,822
Securities gains <sup>(a)</sup>	21	44	72	96
Mortgage fees and related income	689	783	1,356	1,488
Card income	1,358	1,615	2,659	3,046
Other income	1,261	586	2,062	1,168
Noninterest revenue	13,033	13,128	24,892	26,517
Interest income	13,813	12,514	27,365	25,079
Interest expense	2,466	1,830	4,638	3,718
Net interest income	11,347	10,684	22,727	21,361
Total net revenue	24,380	23,812	47,619	47,878
Provision for credit losses	1,402	935	3,226	1,894
Noninterest expense				
Compensation expense	7,778	7,694	15,438	15,737
Occupancy expense	899	923	1,782	1,856
Technology, communications and equipment expense	1,665	1,499	3,283	2,990
Professional and outside services	1,700	1,768	3,248	3,402
Marketing	672	642	1,375	1,233
Other expense	924	1,974	2,349	4,165
Total noninterest expense	13,638	14,500	27,475	29,383
Income before income tax expense	9,340	8,377	16,918	16,601
Income tax expense	3,140	2,087	5,198	4,397
Net income	\$6,200	\$6,290	\$11,720	\$12,204
Net income applicable to common stockholders	\$5,666	\$5,776	\$10,656	\$11,228
Net income per common share data				
Basic earnings per share	\$1.56	\$1.56	\$2.92	\$3.02
Diluted earnings per share	1.55	1.54	2.89	2.99
Weighted-average basic shares	3,635.8	3,707.8	3,652.9	3,716.6
Weighted-average diluted shares	3,666.5	3,743.6	3,681.7	3,750.5
Cash dividends declared per common share	\$0.48	\$0.44	\$0.92	\$0.84

The Firm recognized other-than-temporary impairment (“OTTI”) losses of \$32 million and \$1 million for the three (a) months ended June 30, 2016 and 2015, respectively, and \$38 million and \$2 million for the six months ended June 30, 2016 and 2015, respectively.

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



JPMorgan Chase &amp; Co.

Consolidated statements of comprehensive income (unaudited)

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Net income	\$6,200	\$6,290	\$11,720	\$12,204
Other comprehensive income/(loss), after-tax				
Unrealized gains/(losses) on investment securities	867	(1,419 )	1,292	(1,330 )
Translation adjustments, net of hedges	3	3	1	(7 )
Cash flow hedges	(87 )	80	(157 )	157
Defined benefit pension and OPEB plans	56	8	81	93
DVA on fair value option elected liabilities	(3 )	NA	55	NA
Total other comprehensive income/(loss), after-tax	836	(1,328 )	1,272	(1,087 )
Comprehensive income	\$7,036	\$4,962	\$12,992	\$11,117

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

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JPMorgan Chase & Co.

Consolidated balance sheets (unaudited)

(in millions, except share data)	Jun 30, 2016	Dec 31, 2015
Assets		
Cash and due from banks	\$19,710	\$20,490
Deposits with banks	345,595	340,015
Federal funds sold and securities purchased under resale agreements (included \$23,349 and \$23,141 at fair value)	237,267	212,575
Securities borrowed (included \$0 and \$395 at fair value)	103,225	98,721
Trading assets (included assets pledged of \$107,779 and \$115,284)	380,793	343,839
Securities (included \$224,799 and \$241,754 at fair value and assets pledged of \$23,789 and \$14,883)	278,610	290,827
Loans (included \$1,852 and \$2,861 at fair value)	872,804	837,299
Allowance for loan losses	(14,227)	(13,555)
Loans, net of allowance for loan losses	858,577	823,744
Accrued interest and accounts receivable	64,911	46,605
Premises and equipment	14,262	14,362
Goodwill	47,303	47,325
Mortgage servicing rights	5,072	6,608
Other intangible assets	917	1,015
Other assets (included \$7,309 and \$7,604 at fair value and assets pledged of \$1,378 and \$1,286)	109,854	105,572
Total assets <sup>(a)</sup>	\$2,466,096	\$2,351,698
Liabilities		
Deposits (included \$12,292 and \$12,516 at fair value)	\$1,330,958	\$1,279,715
Federal funds purchased and securities loaned or sold under repurchase agreements (included \$1,722 and \$3,526 at fair value)	166,044	152,678
Commercial paper	17,279	15,562
Other borrowed funds (included \$9,869 and \$9,911 at fair value)	19,945	21,105
Trading liabilities	158,958	126,897
Accounts payable and other liabilities (included \$4,577 and \$4,401 at fair value)	184,635	177,638
Beneficial interests issued by consolidated variable interest entities (included \$586 and \$787 at fair value)	40,227	41,879
Long-term debt (included \$36,486 and \$33,065 at fair value)	295,627	288,651
Total liabilities <sup>(a)</sup>	2,213,673	2,104,125
Commitments and contingencies (see Notes 21 and 23)		
Stockholders' equity		
Preferred stock (\$1 par value; authorized 200,000,000 shares; issued 2,606,750 shares)	26,068	26,068
Common stock (\$1 par value; authorized 9,000,000,000 shares; issued 4,104,933,895 shares)	4,105	4,105
Additional paid-in capital	91,974	92,500
Retained earnings	153,749	146,420
Accumulated other comprehensive income	1,618	192
Shares held in restricted stock units ("RSU") Trust, at cost (472,953 shares)	(21)	(21)
Treasury stock, at cost (492,951,535 and 441,459,392 shares)	(25,070)	(21,691)
Total stockholders' equity	252,423	247,573
Total liabilities and stockholders' equity	\$2,466,096	\$2,351,698

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Firm at June 30, 2016, and December 31, 2015. The difference between total VIE assets and liabilities represents the

Firm's interests in those entities, which were eliminated in consolidation.

(in millions)	Jun 30, 2016	Dec 31, 2015
Assets		
Trading assets	\$4,261	\$3,736
Loans	68,888	75,104
All other assets	3,546	2,765
Total assets	\$76,695	\$81,605
Liabilities		
Beneficial interests issued by consolidated VIEs	\$40,227	\$41,879
All other liabilities	750	809
Total liabilities	\$40,977	\$42,688

The assets of the consolidated VIEs are used to settle the liabilities of those entities. The holders of the beneficial interests do not have recourse to the general credit of JPMorgan Chase. At June 30, 2016, and December 31, 2015, the Firm provided limited program-wide credit enhancements of \$2.0 billion for each period related to its Firm-administered multi-seller conduits, which are eliminated in consolidation. For further discussion, see Note 15. The Notes to Consolidated Financial Statements (unaudited) are an integral part of these statements.

## JPMorgan Chase &amp; Co.

## Consolidated statements of changes in stockholders' equity (unaudited)

(in millions, except per share data)	Six months ended	
	2016	2015
Preferred stock		
Balance at January 1	\$26,068	\$20,063
Issuance of preferred stock	—	4,855
Balance at June 30	26,068	24,918
Common stock		
Balance at January 1 and June 30	4,105	4,105
Additional paid-in capital		
Balance at January 1	92,500	93,270
Shares issued and commitments to issue common stock for employee stock-based compensation awards, and related tax effects	(539)	(788)
Other	13	(278)
Balance at June 30	91,974	92,204
Retained earnings		
Balance at January 1	146,420	129,977
Cumulative effect of change in accounting principle	(154)	—
Net income	11,720	12,204
Dividends declared:		
Preferred stock	(823)	(704)
Common stock (\$0.92 and \$0.84 per share)	(3,414)	(3,183)
Balance at June 30	153,749	138,294
Accumulated other comprehensive income		
Balance at January 1	192	2,189
Cumulative effect of change in accounting principle	154	—
Other comprehensive income/(loss)	1,272	(1,087)
Balance at June 30	1,618	1,102
Shares held in RSU Trust, at cost		
Balance at January 1 and June 30	(21)	(21)
Treasury stock, at cost		
Balance at January 1	(21,691)	(17,856)
Purchase of treasury stock	(4,536)	(3,149)
Reissuance from treasury stock	1,157	1,608
Balance at June 30	(25,070)	(19,397)
Total stockholders' equity	\$252,423	\$241,205

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

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JPMorgan Chase & Co.

Consolidated statements of cash flows (unaudited)

(in millions)	Six months ended June 30,	
	2016	2015
Operating activities		
Net income	\$ 11,720	\$ 12,204
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	3,226	1,894
Depreciation and amortization	2,625	2,419
Deferred tax expense/(benefit)	577	90
Other	1,001	979
Originations and purchases of loans held-for-sale	(24,963 )	(30,665 )
Proceeds from sales, securitizations and paydowns of loans held-for-sale	22,356	27,797
Net change in:		
Trading assets	(52,501 )	34,114
Securities borrowed	(4,505 )	11,903
Accrued interest and accounts receivable	(18,407 )	154
Other assets	(10,764 )	718
Trading liabilities	42,738	(16,660 )
Accounts payable and other liabilities	3,714	(9,432 )
Other operating adjustments	276	(3,340 )
Net cash provided by/(used in) operating activities	(22,907 )	32,175
Investing activities		
Net change in:		
Deposits with banks	(5,580 )	85,670
Federal funds sold and securities purchased under resale agreements	(24,624 )	2,927
Held-to-maturity securities:		
Proceeds from paydowns and maturities	2,718	3,185
Purchases	(134 )	(5,678 )
Available-for-sale securities:		
Proceeds from paydowns and maturities	33,070	43,454
Proceeds from sales	22,559	22,569
Purchases	(42,002 )	(41,391 )
Proceeds from sales and securitizations of loans held-for-investment	5,599	10,217
Other changes in loans, net	(43,094 )	(45,505 )
All other investing activities, net	(576 )	2,023
Net cash provided by/(used in) investing activities	(52,064 )	77,471
Financing activities		
Net change in:		
Deposits	68,209	(88,838 )
Federal funds purchased and securities loaned or sold under repurchase agreements	13,346	(11,195 )
Commercial paper and other borrowed funds	311	(24,161 )
Beneficial interests issued by consolidated variable interest entities	(2,668 )	(1,454 )
Proceeds from long-term borrowings	36,064	54,585
Payments of long-term borrowings	(32,022 )	(40,190 )
Proceeds from issuance of preferred stock	—	4,774
Treasury stock purchased	(4,536 )	(3,149 )
Dividends paid	(4,120 )	(3,734 )
All other financing activities, net	(425 )	(67 )

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Net cash provided by/(used in) financing activities	74,159	(113,429)
Effect of exchange rate changes on cash and due from banks	32	47
Net decrease in cash and due from banks	(780 )	(3,736 )
Cash and due from banks at the beginning of the period	20,490	27,831
Cash and due from banks at the end of the period	\$19,710	\$24,095
Cash interest paid	\$4,283	\$3,302
Cash income taxes paid, net	1,261	5,833

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



See the Glossary of Terms and Acronyms on pages 169-176 for definitions of terms and acronyms used throughout the Notes to Consolidated Financial Statements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

### Note 1 – Basis of presentation

JPMorgan Chase & Co. (“JPMorgan Chase” or “the Firm”), a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the U.S., with operations worldwide. The Firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing and asset management. For a discussion of the Firm’s business segments, see Note 24.

The accounting and financial reporting policies of JPMorgan Chase and its subsidiaries conform to U.S. GAAP. Additionally, where applicable, the policies conform to the accounting and reporting guidelines prescribed by regulatory authorities.

The unaudited Consolidated Financial Statements prepared in conformity with U.S. GAAP require management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expense, and the disclosures of contingent assets and liabilities. Actual results could be different from these estimates. In the opinion of management, all normal, recurring adjustments have been included for a fair statement of this interim financial information.

These unaudited Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements, and related notes thereto, included in JPMorgan Chase’s 2015 Annual Report.

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

### Consolidation

The Consolidated Financial Statements include the accounts of JPMorgan Chase and other entities in which the Firm has a controlling financial interest. All material intercompany balances and transactions have been eliminated.

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

The Firm determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a VIE.

Effective January 1, 2016, the Firm adopted new accounting guidance related to the consolidation of legal entities such as limited partnerships, limited liability corporations, and securitization structures. The guidance eliminated the deferral issued by the Financial Accounting Standards Board in February 2010 of the accounting guidance for VIEs for certain investment funds, including mutual funds, private equity funds and hedge funds. In

addition, the guidance amends the evaluation of fees paid to a decision-maker or a service provider, and exempts certain money market funds from consolidation. Furthermore, asset management funds structured as limited partnerships or certain limited liability companies are now evaluated for consolidation as voting interest entities if the non-managing partners or members have the ability to remove the Firm as the general partner or managing member without cause (i.e., kick-out rights) based on a simple majority vote. Accordingly, the Firm does not consolidate these voting interest entities. However, in the limited cases where the non-managing partners or members do not have substantive kick-out or participating rights, the Firm evaluates the funds as VIEs and consolidates if it is the general partner or managing member and has a potentially significant variable interest. There was no material impact on the Firm’s Consolidated Financial Statements upon adoption of this accounting guidance.

For a further description of JPMorgan Chase’s accounting policies regarding consolidation, see Notes 1 and 16 of JPMorgan Chase’s 2015 Annual Report.

### Offsetting assets and liabilities

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

master netting agreement. The Firm has elected to net such balances when the specified conditions are met. For further information on offsetting assets and liabilities, see Note 1 of JPMorgan Chase's 2015 Annual Report.

Note 2 – Business changes

Increase in common stock dividend

The Board of Directors increased the Firm's quarterly common stock dividend from \$0.44 per share to \$0.48 per share, effective with the dividend paid on July 31, 2016, to stockholders of record at the close of business on July 6, 2016.

Note 3 – Fair value measurement

For a discussion of the Firm's valuation methodologies for assets, liabilities and lending-related commitments measured at fair value and the fair value hierarchy, see Note 3 of JPMorgan Chase's 2015 Annual Report.

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The following table presents the asset and liabilities reported at fair value as of June 30, 2016, and December 31, 2015, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

June 30, 2016 (in millions)	Fair value hierarchy			Derivative netting adjustments	Total fair value
	Level 1	Level 2	Level 3		
Federal funds sold and securities purchased under resale agreements	\$—	\$23,349	\$—	\$—	\$23,349
Securities borrowed	—	—	—	—	—
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies <sup>(a)</sup>	3	37,305	473	—	37,781
Residential – nonagency	—	981	200	—	1,181
Commercial – nonagency	—	1,580	30	—	1,610
Total mortgage-backed securities	3	39,866	703	—	40,572
U.S. Treasury and government agencies <sup>(a)</sup>	20,913	5,525	—	—	26,438
Obligations of U.S. states and municipalities	—	8,653	551	—	9,204
Certificates of deposit, bankers' acceptances and commercial paper	—	925	—	—	925
Non-U.S. government debt securities	32,159	30,241	37	—	62,437
Corporate debt securities	—	24,873	516	—	25,389
Loans <sup>(b)</sup>	—	25,570	6,016	—	31,586
Asset-backed securities	—	2,739	959	—	3,698
Total debt instruments	53,075	138,392	8,782	—	200,249
Equity securities	87,145	474	246	—	87,865
Physical commodities <sup>(c)</sup>	2,640	1,812	—	—	4,452
Other	—	9,050	670	—	9,720
Total debt and equity instruments <sup>(d)</sup>	142,860	149,728	9,698	—	302,286
Derivative receivables:					
Interest rate	508	927,721	2,899	(893,243)	37,885
Credit	—	38,450	1,639	(38,295)	1,794
Foreign exchange	1,447	227,981	1,465	(206,810)	24,083
Equity	—	37,924	1,090	(31,887)	7,127
Commodity	161	21,395	236	(14,235)	7,557
Total derivative receivables <sup>(e)</sup>	2,116	1,253,471	7,329	(1,184,470)	78,446
Total trading assets <sup>(f)</sup>	144,976	1,403,199	17,027	(1,184,470)	380,732
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies <sup>(a)</sup>	—	56,181	—	—	56,181
Residential – nonagency	—	21,494	1	—	21,495
Commercial – nonagency	—	14,948	—	—	14,948
Total mortgage-backed securities	—	92,623	1	—	92,624
U.S. Treasury and government agencies <sup>(a)</sup>	14,791	33	—	—	14,824
Obligations of U.S. states and municipalities	—	32,108	—	—	32,108
Certificates of deposit	—	106	—	—	106
Non-U.S. government debt securities	24,362	12,706	—	—	37,068
Corporate debt securities	—	6,461	—	—	6,461
Asset-backed securities:					
Collateralized loan obligations	—	30,506	760	—	31,266

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Other	—	8,347	49	—	8,396
Equity securities	1,946	—	—	—	1,946
Total available-for-sale securities	41,099	182,890	810	—	224,799
Loans	—	1,067	785	—	1,852
Mortgage servicing rights	—	—	5,072	—	5,072
Other assets:					
Private equity investments <sup>(g)</sup>	81	—	1,656	—	1,737
All other	3,910	—	713	—	4,623
Total other assets <sup>(f)</sup>	3,991	—	2,369	—	6,360
Total assets measured at fair value on a recurring basis	\$190,066	\$1,610,505	\$26,063	\$(1,184,470)	\$642,164
Deposits	\$—	\$9,883	\$2,409	\$—	\$12,292
Federal funds purchased and securities loaned or sold under repurchase agreements	—	1,722	—	—	1,722
Other borrowed funds	—	8,962	907	—	9,869
Trading liabilities:					
Debt and equity instruments <sup>(d)</sup>	80,400	20,737	57	—	101,194
Derivative payables:					
Interest rate	702	884,633	1,792	(872,050)	15,077
Credit	—	38,298	1,360	(37,935)	1,723
Foreign exchange	1,349	227,535	2,670	(208,331)	23,223
Equity	—	37,720	2,982	(32,475)	8,227
Commodity	184	22,081	955	(13,706)	9,514
Total derivative payables <sup>(e)</sup>	2,235	1,210,267	9,759	(1,164,497)	57,764
Total trading liabilities	82,635	1,231,004	9,816	(1,164,497)	158,958
Accounts payable and other liabilities	4,562	—	15	—	4,577
Beneficial interests issued by consolidated VIEs	—	2	584	—	586
Long-term debt	—	23,339	13,147	—	36,486
Total liabilities measured at fair value on a recurring basis	\$87,197	\$1,274,912	\$26,878	\$(1,164,497)	\$224,490

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December 31, 2015 (in millions)	Fair value hierarchy			Derivative netting adjustments	Total fair value
	Level 1	Level 2	Level 3		
Federal funds sold and securities purchased under resale agreements	\$—	\$23,141	\$—	\$—	\$23,141
Securities borrowed	—	395	—	—	395
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies <sup>(a)</sup>	6	31,815	715	—	32,536
Residential – nonagency	—	1,299	194	—	1,493
Commercial – nonagency	—	1,080	115	—	1,195
Total mortgage-backed securities	6	34,194	1,024	—	35,224
U.S. Treasury and government agencies <sup>(a)</sup>	12,036	6,985	—	—	19,021
Obligations of U.S. states and municipalities	—	6,986	651	—	7,637
Certificates of deposit, bankers' acceptances and commercial paper	—	1,042	—	—	1,042
Non-U.S. government debt securities	27,974	25,064	74	—	53,112
Corporate debt securities	—	22,807	736	—	23,543
Loans <sup>(b)</sup>	—	22,211	6,604	—	28,815
Asset-backed securities	—	2,392	1,832	—	4,224
Total debt instruments	40,016	121,681	10,921	—	172,618
Equity securities	94,059	606	265	—	94,930
Physical commodities <sup>(c)</sup>	3,593	1,064	—	—	4,657
Other	—	11,152	744	—	11,896
Total debt and equity instruments <sup>(d)</sup>	137,668	134,503	11,930	—	284,101
Derivative receivables:					
Interest rate	354	666,491	2,766	(643,248)	26,363
Credit	—	48,850	2,618	(50,045)	1,423
Foreign exchange	734	177,525	1,616	(162,698)	17,177
Equity	—	35,150	709	(30,330)	5,529
Commodity	108	24,720	237	(15,880)	9,185
Total derivative receivables <sup>(e)</sup>	1,196	952,736	7,946	(902,201)	59,677
Total trading assets <sup>(f)</sup>	138,864	1,087,239	19,876	(902,201)	343,778
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies <sup>(a)</sup>	—	55,066	—	—	55,066
Residential – nonagency	—	27,618	1	—	27,619
Commercial – nonagency	—	22,897	—	—	22,897
Total mortgage-backed securities	—	105,581	1	—	105,582
U.S. Treasury and government agencies <sup>(a)</sup>	10,998	38	—	—	11,036
Obligations of U.S. states and municipalities	—	33,550	—	—	33,550
Certificates of deposit	—	283	—	—	283
Non-U.S. government debt securities	23,199	13,477	—	—	36,676
Corporate debt securities	—	12,436	—	—	12,436
Asset-backed securities:					
Collateralized loan obligations	—	30,248	759	—	31,007
Other	—	9,033	64	—	9,097
Equity securities	2,087	—	—	—	2,087
Total available-for-sale securities	36,284	204,646	824	—	241,754

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Loans	—	1,343	1,518	—	2,861
Mortgage servicing rights	—	—	6,608	—	6,608
Other assets:				—	
Private equity investments <sup>(g)</sup>	102	101	1,657	—	1,860
All other	3,815	28	744	—	4,587
Total other assets <sup>(f)</sup>	3,917	129	2,401	—	6,447
Total assets measured at fair value on a recurring basis	\$179,065	\$1,316,893	\$31,227	\$(902,201)	\$624,984
Deposits	\$—	\$9,566	\$2,950	\$—	\$12,516
Federal funds purchased and securities loaned or sold under repurchase agreements	—	3,526	—	—	3,526
Other borrowed funds	—	9,272	639	—	9,911
Trading liabilities:					
Debt and equity instruments <sup>(d)</sup>	53,845	20,199	63	—	74,107
Derivative payables:					
Interest rate	216	633,060	1,890	(624,945)	10,221
Credit	—	48,460	2,069	(48,988)	1,541
Foreign exchange	669	187,890	2,341	(171,131)	19,769
Equity	—	36,440	2,223	(29,480)	9,183
Commodity	52	26,430	1,172	(15,578)	12,076
Total derivative payables <sup>(e)</sup>	937	932,280	9,695	(890,122)	52,790
Total trading liabilities	54,782	952,479	9,758	(890,122)	126,897
Accounts payable and other liabilities	4,382	—	19	—	4,401
Beneficial interests issued by consolidated VIEs	—	238	549	—	787
Long-term debt	—	21,452	11,613	—	33,065
Total liabilities measured at fair value on a recurring basis	\$59,164	\$996,533	\$25,528	\$(890,122)	\$191,103

(a) At June 30, 2016, and December 31, 2015, included total U.S. government-sponsored enterprise obligations of \$68.3 billion and \$67.0 billion, respectively, which were predominantly mortgage-related.

At June 30, 2016, and December 31, 2015, included within trading loans were \$14.9 billion and \$11.8 billion, respectively, of residential first-lien mortgages, and \$4.2 billion and \$4.3 billion, respectively, of commercial (b) first-lien mortgages. Residential mortgage loans include conforming mortgage loans originated with the intent to sell to U.S. government agencies of \$8.6 billion and \$5.3 billion, respectively, and reverse mortgages of \$2.2 billion and \$2.5 billion, respectively.

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

Therefore, market approximates fair value for

the Firm's physical commodities inventories. When fair value hedging has been applied (or when market is below cost), the carrying value of physical commodities approximates fair value, because under fair value hedge accounting, the cost basis is adjusted for changes in fair value. For a further discussion of the Firm's hedge accounting relationships, see Note 5. To provide consistent fair value disclosure information, all physical commodities inventories have been included in each period presented.

(d) Balances reflect the reduction of securities owned (long positions) by the amount of identical securities sold but not yet purchased (short positions).

As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists. For purposes of the tables above, the Firm does not reduce derivative receivables and derivative payables balances for this netting adjustment, either within or across the levels of the fair value hierarchy, as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset or liability. However, if the Firm were to net such balances within level 3, the reduction in the level 3 derivative receivables and payables balances would be \$1.6 billion and \$546 million at June 30, 2016, and December 31, 2015, respectively; this is exclusive of the netting benefit associated with cash collateral, which would further reduce the level 3 balances.

(e) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not required to be classified in the fair value hierarchy. At June 30, 2016, and December 31, 2015, the fair values of these investments, which include certain hedge funds, private equity funds, real estate and other funds, were \$1.0 billion and \$1.2 billion, respectively. Included in the balances at June 30, 2016, and December 31, 2015, were trading assets of \$61 million and \$61 million, respectively, and other assets of \$949 million and \$1.2 billion, respectively.

(f) Private equity instruments represent investments within Corporate. The portion of the private equity investment portfolio carried at fair value on a recurring basis had a cost basis of \$2.8 billion and \$3.5 billion at June 30, 2016, and December 31, 2015, respectively.

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

For the three and six months ended June 30, 2016 and 2015, there were no individually significant transfers between levels 1 and 2, or from level 2 into level 3. In addition, during the three and six months ended June 30, 2016, there were no individually significant transfers from level 3 to level 2.

During the three and six months ended June 30, 2015, transfers from level 3 into level 2 included \$1.9 billion and \$2.0 billion, respectively, of corporate debt driven by a reduction of the significance in the unobservable inputs and an increase in observability for certain structured products, and \$1.3 billion and \$1.9 billion of trading loans, respectively, driven by an increase in observability of certain collateralized financing transactions.

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

Level 3 valuations

For further information on the Firm's valuation process and a detailed discussion of the determination of fair value for individual financial instruments, see Note 3 of JPMorgan Chase's 2015 Annual Report.

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

The range of values presented in the table is representative of the highest and lowest level input used to value the significant groups of instruments within a product/instrument classification. Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value.



In the Firm's view, the input range and the weighted average value do not reflect the degree of input uncertainty or an assessment of the reasonableness of the Firm's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Firm and the relative distribution of instruments within the range of characteristics. For example, two option contracts may have similar levels of market risk exposure and valuation uncertainty, but may have significantly different implied volatility levels because the option contracts have different underlyings, tenors, or strike prices. The input range and weighted average values will therefore vary from period to period and parameter-to-parameter based on the characteristics of the instruments held by the Firm at each balance sheet date. For the Firm's derivatives and structured notes positions classified within level 3 at June 30, 2016, interest rate correlation inputs used in estimating fair value were concentrated towards the upper end of the range presented; equities correlation inputs were concentrated at the upper end of the range; the credit correlation inputs were distributed across the range presented; and the foreign exchange correlation inputs were concentrated at the upper end of the range presented. In addition, the interest rate volatility inputs used in estimating fair value were distributed across the range presented. The equity volatilities are concentrated in the lower half end of the range. The forward commodity prices used in estimating the fair value of commodity derivatives were concentrated in the middle of the range presented.

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Level 3 inputs<sup>(a)</sup>

June 30, 2016 (in millions, except for ratios and basis points)

Product/Instrument	Fair value	Principal valuation technique	Unobservable inputs	Range of input values	Weighted average
Residential mortgage-backed securities and loans	\$4,131	Discounted cash flows	Yield	2% -16	% 5 %
			Prepayment speed	0% -20	% 8 %
			Conditional default rate	0% -25	% 2 %
			Loss severity	0% -90	% 27 %
Commercial mortgage-backed securities and loans <sup>(b)</sup>	1,137	Discounted cash flows	Yield	1% -25	% 8 %
			Conditional default rate	0% -100	% 68 %
			Loss severity	40%	40 %
Corporate debt securities, obligations of U.S. states and municipalities, and other <sup>(c)</sup>	2,806	Discounted cash flows	Credit spread	40 bps $\frac{375}{\text{bps}}$	177bps
			Yield	3% -20	% 6 %
			Price	\$— -\$340	\$ 90
Net interest rate derivatives	1,107	Option pricing	Interest rate correlation	(30 )% -97	%
			Interest rate spread volatility	3% -38	%
Net credit derivatives <sup>(b)(c)</sup>	279	Discounted cash flows	Credit correlation	30% -90	%
Net foreign exchange derivatives	(1,205 )	Option pricing	Foreign exchange correlation	(20)% -70	%
Net equity derivatives	(1,892 )	Option pricing	Equity volatility	20% -60	%
Net commodity derivatives	(719 )	Discounted cash flows	Forward commodity price	\$36 -\$55 per barrel	
Collateralized loan obligations	760	Discounted cash flows	Credit spread	406 bps $\frac{701}{\text{bps}}$	469 bps
			Prepayment speed	20%	20 %
			Conditional default rate	2%	2 %
			Loss severity	30%	30 %
			Price	\$— -\$100	\$ 68
MSRs	5,072	Discounted cash flows	Refer to Note 16		
Private equity investments	1,656	Market comparables	EBITDA multiple	6.9 x $\frac{10.8}{x}$	8.2 x
			Interest rate correlation	(30 )% -97	%
Long-term debt, other borrowed funds, and deposits <sup>(d)</sup>	15,908	Option pricing	Interest rate spread volatility	3 % -38	%
			Foreign exchange correlation	(20 )% -70	%
			Equity correlation	(50 )% -75	%

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	555	Discounted cash flows	Credit correlation	30	% -90	%	
Beneficial interests issued by consolidated VIEs <sup>(e)</sup>	584	Discounted Cash Flows	Yield	2%	-8	%4	%
			Prepayment Speed	7%	-8	%7	%
			Conditional default rate	2%		2	%
			Loss severity	30%		30	%

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

The unobservable inputs and associated input ranges for approximately \$315 million of credit derivative receivables and \$276 million of credit derivative payables with underlying commercial mortgage risk have been included in the inputs and ranges provided for commercial MBS and loans.

The unobservable inputs and associated input ranges for approximately \$388 million of credit derivative receivables and \$355 million of credit derivative payables with underlying ABS risk have been included in the inputs and ranges provided for corporate debt securities, obligations of U.S. states and municipalities and other.

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

(e) The parameters are related to residential mortgage-backed securities.

#### Changes in and ranges of unobservable inputs

For a discussion of the impact on fair value of changes in unobservable inputs and the relationships between unobservable inputs as well as a description of attributes of the underlying instruments and external market factors that affect the range of inputs used in the valuation of the Firm's positions see Note 3 of JPMorgan Chase's 2015 Annual Report.

#### Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the Consolidated balance sheets amounts (including changes in fair value) for financial instruments classified by the Firm within level 3 of the fair value hierarchy for the three and six months ended June 30, 2016 and 2015. When a determination is made to classify a financial instrument within level 3, the determination is based on the significance of the unobservable parameters to the overall fair value measurement. However, level 3 financial

instruments typically include, in addition to the unobservable or level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, the Firm risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains or losses in the following tables do not reflect the effect of the Firm's risk management activities related to such level 3 instruments.

## Fair value measurements using significant unobservable inputs

Three months ended June 30, 2016 (in millions)	Fair value at April 1, 2016	Total realized/unrealized gains/(losses)	Purchases	Sales	Settlements	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2016	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2016
Assets:								
Federal funds sold and securities purchased under resale agreements	\$4	\$ —	\$ —	\$ —	\$ —	\$(4 )	\$—	\$ —
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	650	(24 )	1	(50)	(28 )	(76 )	473	(27 )
Residential – nonagency	186	(1 )	143	(148)	(6 )	26	200	(1 )
Commercial – nonagency	195	(1 )	15	(23)	—	(156 )	30	(2 )
Total mortgage-backed securities	1,031	(26 )	159	(221)	(34 )	(206 )	703	(30 )
Obligations of U.S. states and municipalities	620	4	—	(41)	(32 )	—	551	4
Non-U.S. government debt securities	40	(8 )	25	(19)	—	(1 )	37	(5 )
Corporate debt securities	654	(54 )	80	(89)	(68 )	(7 )	516	(50 )
Loans	6,776	(217 )	421	(733)	(338 )	107	6,016	(234 )
Asset-backed securities	1,190	16	255	(334)	(42 )	(126 )	959	4
Total debt instruments	10,311	(285 )	940	(1,437)	(514 )	(233 )	8,782	(311 )
Equity securities	279	(9 )	2	(24)	(3 )	1	246	(6 )
Other	723	(37 )	169	(144)	(29 )	(12 )	670	(36 )
Total trading assets – debt and equity instruments	11,313	(331 )	1,111	(1,605)	(546 )	(244 )	9,698	(353 )
Net derivative receivables: <sup>(a)</sup>								
Interest rate	846	334	62	(12)	(180 )	57	1,107	190
Credit	402	(202 )	—	(1 )	48	32	279	(76 )
Foreign exchange	(1,032 )	53	58	(103)	(158 )	(23 )	(1,205 )	75
Equity	(2,055 )	(12 )	72	(215)	(5 )	323	(1,892 )	9
Commodity	(952 )	235	—	18	(29 )	9	(719 )	291
Total net derivative receivables	(2,791 )	408	192	(313)	(324 )	398	(2,430 )	489
Available-for-sale securities:								
Asset-backed securities	809	7	—	—	(7 )	—	809	7
Other	1	—	—	—	—	—	1	—
Total available-for-sale securities	810	7	—	—	(7 )	—	810	7
Loans	1,009	(36 )	184	—	(372 )	—	785	(16 )
Mortgage servicing rights	5,658	(457 )	113	(3 )	(239 )	—	5,072	(457 )
Other assets:								
Private equity investments	1,644	25	427	(411)	(29 )	—	1,656	(29 )
All other	707	89	30	(11)	(102 )	—	713	82

Fair value measurements using significant unobservable inputs

Three months ended June 30, 2016 (in millions)	Fair value at April 1, 2016	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2016	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2016
<b>Liabilities:<sup>(b)</sup></b>									
Deposits	\$2,419	\$ 33 <sup>(c)</sup>	\$ —	\$ —	\$ 317	\$ (168 )	\$ (192 )	\$2,409	\$ 40 <sup>(c)</sup>
Federal funds purchased and securities loaned or sold under repurchase agreements	6	—	—	—	—	(2 )	(4 )	—	—
Other borrowed funds	568	(31 ) <sup>(c)</sup>	—	—	515	(170 )	25	907	(12 ) <sup>(c)</sup>
Trading liabilities – debt and equity instruments	52	(3 ) <sup>(c)</sup>	—	17	—	(12 )	3	57	(1 ) <sup>(c)</sup>
Accounts payable and other liabilities	16	—	—	—	—	(1 )	—	15	—
Beneficial interests issued by consolidated VIEs	649	(30 ) <sup>(c)</sup>	—	—	—	(35 )	—	584	(30 ) <sup>(c)</sup>
Long-term debt	12,587	(47 ) <sup>(c)</sup>	—	—	2,714	(1,498 )	(609 )	13,147	186 <sup>(c)</sup>

## Fair value measurements using significant unobservable inputs

Three months ended June 30, 2015 (in millions)	Fair value at Apr 1, 2015	Total realized/unrealized gains/(losses)	Purchases	Sales	Settlements	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2015	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2015
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	\$888	\$ 91	\$ 108	\$(148)	\$ (34 )	\$(4 )	\$901	\$ 84
Residential – nonagency	449	54	25	(116 )	(4 )	(285 )	123	28
Commercial – nonagency	211	2	98	(49 )	(6 )	(118 )	138	(2 )
Total mortgage-backed securities	1,548	147	231	(313 )	(44 )	(407 )	1,162	110
Obligations of U.S. states and municipalities	1,331	3	47	(39 )	(2 )	(93 )	1,247	3
Non-U.S. government debt securities	180	8	54	(20 )	(11 )	(3 )	208	16
Corporate debt securities	2,759	5	288	(313 )	57	(1,853 )	943	10
Loans	10,763	294	1,160	(1,152)	(350 )	(1,152 )	9,563	264
Asset-backed securities	1,233	21	737	(371 )	(26 )	(55 )	1,539	15
Total debt instruments	17,814	478	2,517	(2,208)	(376 )	(3,563 )	14,662	418
Equity securities	317	8	21	(13 )	(14 )	(9 )	310	9
Other	1,041	80	450	(451 )	(137 )	(14 )	969	(3 )
Total trading assets – debt and equity instruments	19,172	566	(c) 2,988	(2,672)	(527 )	(3,586 )	15,941	424 (c)
Net derivative receivables: <sup>(a)</sup>								
Interest rate	650	351	133	(84 )	(98 )	(93 )	859	309
Credit	275	17	1	(1 )	107	33	432	22
Foreign exchange	707	118	8	(8 )	(187 )	(233 )	405	245
Equity	(2,745 )	801	216	(383 )	93	170	(1,848 )	621
Commodity	(735 )	129	—	—	47	(35 )	(594 )	180
Total net derivative receivables	(1,848 )	1,416	(c) 358	(476 )	(38 )	(158 )	(746 )	1,377 (c)
Available-for-sale securities:								
Asset-backed securities	881	2	—	—	(21 )	—	862	2
Other	122	—	—	—	(10 )	(99 )	13	—
Total available-for-sale securities	1,003	2	(d) —	—	(31 )	(99 )	875	2 (d)
Loans	2,222	85	(e) 297	—	(309 )	—	2,295	83 (e)
Mortgage servicing rights	6,641	794	(e) 583	(218 )	(229 )	—	7,571	794 (e)
Other assets:								
Private equity investments <sup>(j)</sup>	2,073	11	(c) 7	(27 )	(54 )	(23 )	1,987	(14 ) (c)
All other <sup>(i)</sup>	890	12	(f) 11	(57 )	(17 )	—	839	3 (f)

## Fair value measurements using significant unobservable inputs

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Three months ended June 30, 2015 (in millions)	Fair value at Apr 1, 2015	Total realized/ (gains)/losses	Purchases	Sales	Issuance	Settlements	Transfer into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2015	Change in (gains)/losses related to financial instruments held at June 30, 2015
<b>Liabilities:<sup>(b)</sup></b>									
Deposits	\$3,340	\$ (156 ) <sup>(c)</sup>	\$ —	\$ —	\$ 673	\$ (30 )	\$ (299 )	\$3,528	\$ (139 ) <sup>(c)</sup>
Other borrowed funds <sup>(j)</sup>	1,116	(4 ) <sup>(c)</sup>	—	—	1,274	(1,161 )	36	1,261	38 <sup>(c)</sup>
Trading liabilities – debt and equity instruments	82	2 <sup>(c)</sup>	(23 )	21	—	(5 )	(5 )	72	2 <sup>(c)</sup>
Accounts payable and other liabilities	23	—	—	—	—	—	—	23	—
Beneficial interests issued by consolidated VIEs <sup>(j)</sup>	1,023	36 <sup>(c)</sup>	—	—	284	(203 )	—	1,140	26 <sup>(c)</sup>
Long-term debt	12,003	(92 ) <sup>(c)</sup>	—	—	2,546	(1,774 )	(94 )	12,589	19 <sup>(c)</sup>

## Fair value measurements using significant unobservable inputs

Six months ended June 30, 2016 (in millions)	Fair value at January 1, 2016	Total realized/unrealized gains/(losses)	Purchases	Sales	Settlements	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2016	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2016
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	\$715	\$ (74 )	\$ 129	\$(208)	\$ (58 )	\$(31 )	\$473	\$(78 )
Residential – nonagency	194	(1 )	177	(184 )	(11 )	25	200	(6 )
Commercial – nonagency	115	(6 )	65	(28 )	—	(116 )	30	(2 )
Total mortgage-backed securities	1,024	(81 )	371	(420 )	(69 )	(122 )	703	(86 )
Obligations of U.S. states and municipalities	651	9	36	(107 )	(38 )	—	551	9
Non-U.S. government debt securities	74	2	29	(51 )	—	(17 )	37	(14 )
Corporate debt securities	736	(32 )	159	(144 )	(125 )	(78 )	516	(1 )
Loans	6,604	(188 )	865	(1,144)	(642 )	521	6,016	(195 )
Asset-backed securities	1,832	17	432	(470 )	(917 )	65	959	3
Total debt instruments	10,921	(273 )	1,892	(2,336)	(1,791 )	369	8,782	(284 )
Equity securities	265	(3 )	33	(33 )	(22 )	6	246	17
Other	744	(46 )	353	(287 )	(35 )	(59 )	670	(12 )
Total trading assets – debt and equity instruments	11,930	(322 ) <sup>(c)</sup>	2,278	(2,656)	(1,848 )	316	9,698	(279 ) <sup>(c)</sup>
Net derivative receivables: <sup>(a)</sup>								
Interest rate	876	540	106	(20 )	(442 )	47	1,107	153
Credit	549	(448 )	—	(2 )	117	63	279	(402 )
Foreign exchange	(725 )	(194 )	58	(118 )	(200 )	(26 )	(1,205 )	(72 )
Equity	(1,514 )	(364 )	142	(322 )	73	93	(1,892 )	(3 )
Commodity	(935 )	227	—	18	(40 )	11	(719 )	230
Total net derivative receivables	(1,749 )	(239 ) <sup>(c)</sup>	306	(444 )	(492 )	188	(2,430 )	(94 ) <sup>(c)</sup>
Available-for-sale securities:								
Asset-backed securities	823	(1 )	—	—	(13 )	—	809	(14 )
Other	1	—	—	—	—	—	1	—
Total available-for-sale securities	824	(1 ) <sup>(d)</sup>	—	—	(13 )	—	810	(14 ) <sup>(d)</sup>
Loans	1,518	(14 ) <sup>(c)</sup>	184	—	(590 )	(313 )	785	(16 ) <sup>(c)</sup>
Mortgage servicing rights	6,608	(1,209 ) <sup>(e)</sup>	220	(67 )	(480 )	—	5,072	(1,209 ) <sup>(e)</sup>
Other assets:								
Private equity investments	1,657	70 <sup>(c)</sup>	441	(427 )	(85 )	—	1,656	8 <sup>(c)</sup>
All other	744	76 <sup>(f)</sup>	30	(11 )	(126 )	—	713	(30 ) <sup>(f)</sup>



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Fair value measurements using significant unobservable inputs

Six months ended June 30, 2016 (in millions)	Fair value at January 1, 2016	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2016	Change in unrealized (gains)/ losses related to financial instruments held at June 30, 2016
<b>Liabilities:<sup>(b)</sup></b>									
Deposits	\$2,950	\$ 75 <sup>(c)</sup>	—	\$—	\$ 483	\$ (677 )	\$ (422 )	\$2,409	\$ 318 <sup>(c)</sup>
Federal funds purchased and securities loaned or sold under repurchase agreements	—	—	—	—	—	(2 )	2	—	—
Other borrowed funds	639	(156 ) <sup>(c)</sup>	—	—	772	(369 )	21	907	4 <sup>(c)</sup>
Trading liabilities – debt and equity instruments	63	(7 ) <sup>(c)</sup>	—	18	—	(15 )	(2 )	57	—
Accounts payable and other liabilities	19	—	—	—	—	(4 )	—	15	—
Beneficial interests issued by consolidated VIEs	549	(22 ) <sup>(c)</sup>	—	—	143	(86 )	—	584	(35 ) <sup>(c)</sup>
Long-term debt	11,613	392 <sup>(c)</sup>	—	—	4,875	(2,895 )	(838 )	13,147	1,154 <sup>(c)</sup>

## Fair value measurements using significant unobservable inputs

Six months ended June 30, 2015 (in millions)	Fair value at January 1, 2015	Total realized/unrealized gains/(losses)	Purchases	Sales	Settlements (b)	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2015	Change in
								related financial instruments held at June 30, 2015
Assets:								
Trading assets:								
Debt instruments:								
Mortgage-backed securities:								
U.S. government agencies	\$922	\$ 38	\$ 182	\$(165)	\$ (74)	\$(2)	\$901	\$ 40
Residential – nonagency	663	44	177	(463)	(10)	(288)	123	26
Commercial – nonagency	306	(9)	180	(200)	(14)	(125)	138	(6)
Total mortgage-backed securities	1,891	73	539	(828)	(98)	(415)	1,162	60
Obligations of U.S. states and municipalities	1,273	13	191	(110)	(27)	(93)	1,247	12
Non-U.S. government debt securities	302	9	155	(112)	(42)	(104)	208	19
Corporate debt securities	2,989	(50)	821	(809)	(35)	(1,973)	943	18
Loans	13,287	9	1,896	(3,149)	(819)	(1,661)	9,563	(67)
Asset-backed securities	1,264	(16)	1,296	(892)	6	(119)	1,539	(14)
Total debt instruments	21,006	38	4,898	(5,900)	(1,015)	(4,365)	14,662	28
Equity securities	431	46	50	(123)	(17)	(77)	310	51
Other	1,052	88	1,111	(1,035)	(216)	(31)	969	14
Total trading assets – debt and equity instruments	22,489	172	(c) 6,059	(7,058)	(1,248)	(4,473)	15,941	93 (c)
Net derivative receivables: <sup>(a)</sup>								
Interest rate	626	493	442	(158)	(353)	(191)	859	541
Credit	189	94	10	(4)	126	17	432	195
Foreign exchange	(526)	945	13	(11)	14	(30)	405	551
Equity	(1,785)	325	424	(672)	(262)	122	(1,848)	137
Commodity	(565)	89	—	—	(51)	(67)	(594)	(101)
Total net derivative receivables	(2,061)	1,946	(c) 889	(845)	(526)	(149)	(746)	1,323 (c)
Available-for-sale securities:								
Asset-backed securities	908	(7)	49	(43)	(45)	—	862	(2)
Other	129	—	—	—	(17)	(99)	13	—
Total available-for-sale securities	1,037	(7)	(d) 49	(43)	(62)	(99)	875	(2) (d)
Loans	2,541	(120)	(c) 417	(83)	(460)	—	2,295	(118) (c)
Mortgage servicing rights	7,436	215	(e) 739	(375)	(444)	—	7,571	215 (e)
Other assets:								
Private equity investments <sup>(j)</sup>	2,225	46	(c) 7	(27)	(115)	(149)	1,987	(16) (c)
All other <sup>(j)</sup>	959	11	(f) 66	(144)	(53)	—	839	(16) (f)

## Fair value measurements using significant unobservable inputs

Six months ended June 30, 2015 (in millions)	Fair value at January 1, 2015	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuance	Settlements	Transfers into and/or out of level 3 <sup>(i)</sup>	Fair value at June 30, 2015	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2015
<b>Liabilities:<sup>(b)</sup></b>									
Deposits	\$2,859	\$ (64 ) <sup>(c)</sup>	\$ —	\$ —	\$ 1,448	\$ (145 )	\$ (570 )	\$3,528	\$ 7 <sup>(c)</sup>
Other borrowed funds <sup>(i)</sup>	1,453	(123 ) <sup>(c)</sup>	—	—	2,322	(2,142 )	(249 )	1,261	(122 ) <sup>(c)</sup>
Trading liabilities – debt and equity instruments	72	5 <sup>(c)</sup>	(131 )	147	—	(14 )	(7 )	72	8 <sup>(c)</sup>
Accounts payable and other liabilities	26	—	—	—	—	(3 )	—	23	—
Beneficial interests issued by consolidated VIEs <sup>(i)</sup>	1,146	(17 ) <sup>(c)</sup>	—	—	286	(275 )	—	1,140	—
Long-term debt <sup>(i)</sup>	11,877	(197 ) <sup>(c)</sup>	—	—	5,383	(4,157 )	(317 )	12,589	(37 ) <sup>(c)</sup>

(a) All level 3 derivatives are presented on a net basis, irrespective of the underlying counterparty.

(b) Level 3 liabilities as a percentage of total Firm liabilities accounted for at fair value (including liabilities measured at fair value on a nonrecurring basis) were 12% at June 30, 2016 and 13% at December 31, 2015.

- Predominantly reported in principal transactions revenue, except for changes in fair value for Consumer & (c) Community Banking mortgage loans and lending-related commitments originated with the intent to sell, and mortgage loan purchase commitments, which are reported in mortgage fees and related income.
- Realized gains/(losses) on AFS securities, as well as other-than-temporary impairment losses that are recorded in earnings, are reported in securities gains. Unrealized gains/(losses) are reported in OCI. Realized gains/(losses) and foreign exchange hedge accounting adjustments recorded in income on AFS securities were zero for the three (d) months ended June 30, 2016 and 2015, respectively, and zero and \$(7) million for the six months ended June 30, 2016 and 2015, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were \$7 million and \$2 million for the three months ended June 30, 2016 and 2015, respectively, and \$(2) million and zero for the six months ended June 30, 2016 and 2015, respectively.
- (e) Changes in fair value for CCB mortgage servicing rights are reported in mortgage fees and related income.
- (f) Predominantly reported in other income.
- (g) Loan originations are included in purchases.
- (h) Includes financial assets and liabilities that have matured, been partially or fully repaid, impacts of modifications, and deconsolidations associated with beneficial interests in VIEs.
- (i) All transfers into and/or out of level 3 are assumed to occur at the beginning of the quarterly reporting period in which they occur.
- (j) Certain prior period amounts have been revised to conform with the current period presentation. The revision had no impact on the Firm's Consolidated balance sheets or its results of operations.

#### Level 3 analysis

##### Consolidated balance sheets changes

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were 1.1% of total Firm assets at June 30, 2016. The following describes significant changes to level 3 assets since December 31, 2015, for those items measured at fair value on a recurring basis. For further information on changes impacting items measured at fair value on a nonrecurring basis, see Assets and liabilities measured at fair value on a nonrecurring basis on page 97.

##### Three months ended June 30, 2016

Level 3 assets were \$26.1 billion at June 30, 2016, reflecting a decrease of \$2.4 billion from March 31, 2016 due to the following:

\$1.6 billion decrease in trading assets - debt and equity instruments largely driven by lower levels of loans and asset-backed securities due to sales.

##### Six months ended June 30, 2016

Level 3 assets at June 30, 2016 decreased by \$5.2 billion from December 31, 2015, largely due to the following: \$2.8 billion decrease in trading assets driven by lower levels of credit derivatives, largely due to transfers from level 3 into level 2 as a result of an increase in observability of valuation inputs, asset-backed securities due to settlements and loan sales.

\$1.5 billion decrease in the fair value of MSRs. For further details see Note 16

##### Gains and losses

The following describes significant components of total realized/unrealized gains/(losses) for instruments measured at fair value on a recurring basis for the periods indicated. For further information on these instruments, see Changes in level 3 recurring fair value measurements rollforward tables on pages 92-96.

##### Three months ended June 30, 2016

\$295 million of net losses on assets and \$78 million of net gains on liabilities, none of which were individually significant.

##### Three months ended June 30, 2015

\$1.4 billion of gains on derivatives, largely driven by equity derivatives due to market movements.

##### Six months ended June 30, 2016

\$1.6 billion of net losses on assets largely driven by \$1.2 billion loss on MSRs. For further details see Note 16.

##### Six months ended June 30, 2015

\$2.0 billion of gains on derivatives, largely driven by foreign exchange and interest rate derivatives due to market movements.

Credit & funding adjustments — derivatives

Derivatives are generally valued using models that use as their basis observable market parameters. These market parameters generally do not consider factors such as counterparty nonperformance risk, the Firm's own credit quality, and funding costs. Therefore, it is generally necessary to make adjustments to the base estimate of fair value to reflect these factors.

CVA represent the adjustment, relative to the relevant benchmark interest rate, necessary to reflect counterparty nonperformance risk. The Firm estimates CVA using a scenario analysis to estimate the expected credit exposure across all of the Firm's positions with each counterparty, and then estimates losses as a result of a counterparty credit event. The key inputs to this methodology are (i) the expected positive exposure to each counterparty based on a simulation that assumes the current population of existing derivatives with each counterparty remains unchanged and considers contractual factors designed to mitigate the Firm's credit exposure, such as collateral and legal rights of offset; (ii) the probability of a default event occurring for each counterparty, as derived from observed or estimated credit default swaps ("CDS") spreads; and (iii) estimated recovery rates implied by CDS spreads, adjusted to consider the differences in recovery rates as a derivative creditor relative to those reflected in CDS spreads, which generally reflect senior unsecured creditor risk.

Debit valuation adjustments represent the adjustment, relative to the relevant benchmark interest rate, necessary to reflect the credit quality of the Firm. The derivative DVA calculation methodology is generally consistent with the CVA methodology described above and incorporates JPMorgan Chase's credit spread as observed through the CDS market to estimate the probability of default and loss given default as a result of a systemic event affecting the Firm.

FVA represent the adjustment to reflect the impact of funding and is recognized where there is evidence that a market participant in the principal market would incorporate it in a transfer of the instrument. The Firm's FVA framework, applied to uncollateralized (including partially collateralized) over-the-counter ("OTC") derivatives, leverages its existing CVA and DVA calculation methodologies, and considers the fact that the Firm's own credit risk is a significant component of funding costs.

The key inputs to FVA are: (i) the expected funding requirements arising from the Firm's positions with each counterparty and collateral arrangements; (ii) for assets, the estimated market funding cost in the principal market; and (iii) for liabilities, the hypothetical market funding cost for a transfer to a market participant with a similar credit standing as the Firm. For collateralized derivatives, the fair value is estimated by discounting expected future cash flows at the relevant overnight indexed swap rate given the underlying collateral agreement with the counterparty, and therefore a separate FVA is not necessary.

The following table provides the impact of credit and funding adjustments on principal transactions revenue in the respective periods, excluding the effect of any associated hedging activities. The DVA and FVA reported below include the impact of the Firm's own credit quality on the inception value of liabilities as well as the impact of changes in the Firm's own credit quality over time.

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Credit adjustments:				
Derivatives CVA	\$(168)	\$341	\$(756)	\$522
Derivatives DVA and FVA	43	204	(123)	63

Valuation adjustments on fair value option elected liabilities

The valuation of the Firm's liabilities for which the fair value option has been elected requires consideration of the Firm's own credit risk. DVA on fair value option elected liabilities is measured using (i) the current fair value of the liability and (ii) changes (subsequent to the issuance of the liability) in the Firm's probability of default and loss given default, which are estimated based on changes in the Firm's credit spread observed in the bond market. Effective January 1, 2016, the effect of DVA on fair value option elected liabilities is recognized in OCI. See Note 19 for further information.

Assets and liabilities measured at fair value on a nonrecurring basis

At June 30, 2016 and 2015, assets measured at fair value on a nonrecurring basis were \$750 million and \$2.0 billion, respectively, which predominantly consisted of loans that had fair value adjustments in the first six months of both 2016 and 2015. At June 30, 2016, \$291 million and \$459 million of these loans were classified in levels 2 and 3 of the fair value hierarchy, respectively. At June 30, 2015, \$94 million and \$1.9 billion of these loans were classified in levels 2 and 3 of the fair value hierarchy, respectively. Liabilities measured at fair value on a nonrecurring basis were not significant at June 30, 2016 and 2015. For the six months ended June 30, 2016 there were no significant transfers between levels 1, 2 and 3 related to assets held at the balance sheet date.

Of the \$459 million of level 3 assets measured at fair value on a nonrecurring basis as of June 30, 2016:

\$271 million related to residential real estate loans measured at the net realizable value of the underlying collateral (i.e., collateral-dependent loans and other loans charged off in accordance with regulatory guidance). These amounts are classified as level 3 as they are valued using a broker's price opinion and discounted based upon the Firm's experience with actual liquidation values. These discounts to the broker price opinions ranged from 8% to 52%, with a weighted average of 22%.

The total change in the recorded value of assets and liabilities for which a fair value adjustment has been included in the Consolidated statements of income for the three months ended June 30, 2016 and 2015, related to financial instruments held at those dates, was a loss of \$76 million and \$114 million, respectively and for the six months ended June 30, 2016 and 2015, was a loss of \$130 million and \$183 million, respectively.

For information about the measurement of impaired collateral-dependent loans, and other loans where the carrying value is based on the fair value of the underlying collateral (e.g., residential mortgage loans charged off in accordance with regulatory guidance), see Note 14 of JPMorgan Chase's 2015 Annual Report.

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

The following table presents the carrying values and estimated fair values at June 30, 2016, and December 31, 2015, of financial assets and liabilities, excluding financial instruments which are carried at fair value on a recurring basis, and their classification within the fair value hierarchy. For additional information regarding the financial instruments within the scope of this disclosure, and the methods and significant assumptions used to estimate their fair value, see Note 3 of JPMorgan Chase's 2015 Annual Report.

(in billions)	June 30, 2016					December 31, 2015				
	Carrying value	Estimated fair value hierarchy			Total estimated fair value	Carrying value	Estimated fair value hierarchy			Total estimated fair value
		Level 1	Level 2	Level 3			Level 1	Level 2	Level 3	
<b>Financial assets</b>										
Cash and due from banks	\$ 19.7	\$ 19.7	\$—	\$—	\$ 19.7	\$ 20.5	\$ 20.5	\$—	\$—	\$ 20.5
Deposits with banks	345.6	340.4	5.2	—	345.6	340.0	335.9	4.1	—	340.0
Accrued interest and accounts receivable	64.9	—	64.8	0.1	64.9	46.6	—	46.4	0.2	46.6
Federal funds sold and securities purchased under resale agreements	214.0	—	213.7	0.3	214.0	189.5	—	189.5	—	189.5
Securities borrowed	103.2	—	103.2	—	103.2	98.3	—	98.3	—	98.3
Securities, held-to-maturity <sup>(a)</sup>	53.8	—	56.8	—	56.8	49.1	—	50.6	—	50.6
Loans, net of allowance for loan losses <sup>(b)</sup>	856.7	—	26.7	835.3	862.0	820.8	—	25.4	802.7	828.1
Other	71.1	0.2	60.7	14.4	75.3	66.0	0.1	56.3	14.3	70.7
<b>Financial liabilities</b>										
Deposits	\$ 1,318.7	\$—	\$ 1,318.6	\$ 0.1	\$ 1,318.7	\$ 1,267.2	\$—	\$ 1,266.1	\$ 1.2	\$ 1,267.3
Federal funds purchased and securities loaned or sold under repurchase agreements	164.3	—	164.3	—	164.3	149.2	—	149.2	—	149.2
Commercial paper	17.3	—	17.3	—	17.3	15.6	—	15.6	—	15.6
Other borrowed funds	10.0	—	10.0	—	10.0	11.2	—	11.2	—	11.2
Accounts payable and other liabilities	155.3	—	152.3	2.7	155.0	144.6	—	141.7	2.8	144.5
Beneficial interests issued by consolidated VIEs <sup>(c)</sup>	39.6	—	39.8	—	39.8	41.1	—	40.2	0.9	41.1
Long-term debt and junior subordinated deferrable interest debentures <sup>(d)</sup>	259.1	—	264.5	4.5	269.0	255.6	—	257.4	4.3	261.7

(a) Carrying value reflects unamortized discount or premium.

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



hierarchy on pages 185–188 of JPMorgan Chase’s 2015 Annual Report.

(c) Carrying value reflects unamortized issuance costs.

(d) Carrying value reflects unamortized premiums and discounts, issuance costs, and other valuation adjustments.

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

	June 30, 2016				December 31, 2015			
	Carrying value	Level 2	Level 3	Total estimated fair value	Carrying value	Level 2	Level 3	Total estimated fair value
(in billions)								
Wholesale lending-related commitments	\$0.9	\$-	-\$2.6	\$ 2.6	\$0.8	\$-	-\$3.0	\$ 3.0

(a) Excludes the current carrying values of the guarantee liability and the offsetting asset, each of which are recognized at fair value at the inception of guarantees.

The Firm does not estimate the fair value of consumer lending-related commitments. In many cases, the Firm can reduce or cancel these commitments by providing the borrower notice or, in some cases as permitted by law, without notice. For a further discussion of the valuation of lending-related commitments, see page 186 of JPMorgan Chase’s 2015 Annual Report.

## Note 4 – Fair value option

For a discussion of the primary financial instruments for which the fair value option was elected, including the basis for those elections and the determination of instrument-specific credit risk, where relevant, see Note 4 of JPMorgan Chase's 2015 Annual Report.

## Changes in fair value under the fair value option election

The following tables presents the changes in fair value included in the Consolidated statements of income for the three and six months ended June 30, 2016 and 2015, for items for which the fair value option was elected. The profit and loss information presented below only includes the financial instruments that were elected to be measured at fair value; related risk management instruments, which are required to be measured at fair value, are not included in the table.

(in millions)	Three months ended June 30,				
	2016		2015		
	Principal transactions income	All other in fair value recorded	Principal transactions income	All other in fair value recorded	Total changes in fair value
Federal funds sold and securities purchased under resale agreements <sup>(a)</sup>	\$—	\$ —	\$(99)	\$ —	\$(99)
Securities borrowed <sup>(a)</sup>	3	3	(2)	—	(2)
Trading assets:					
Debt and equity instruments, excluding loans	(1)	(140)	139	1	140
Loans reported as trading assets <sup>(b)</sup> :					
Changes in instrument-specific credit risk	34	16 <sup>(e)</sup>	59	10 <sup>(e)</sup>	69
Other changes in fair value	70	206 <sup>(e)</sup>	(15)	100 <sup>(e)</sup>	85
Loans <sup>(b)</sup> :					
Changes in instrument-specific credit risk	—	—	—	—	—
Other changes in fair value	(3)	(3)	—	—	—
Other assets	2	102 <sup>(f)</sup>	2	3 <sup>(f)</sup>	5
Deposits <sup>(c)</sup>	(2)	(226)	162	—	162
Federal funds purchased and securities loaned or sold under repurchase agreements <sup>(a)</sup>	(3)	(3)	18	—	18
Other borrowed funds <sup>(c)</sup>	(5)	(529)	115	—	115
Trading liabilities	(2)	(2)	(12)	—	(12)
Beneficial interests issued by consolidated VIEs	16	16	26	—	26
Other liabilities	—	—	—	—	—
Long-term debt:					
DVA on fair value option elected liabilities <sup>(c)</sup>	—	—	209	—	209
Other changes in fair value <sup>(d)</sup>	(6)	(600)	728	—	728

(in millions)	Six months ended June 30,					
	2016			2015		
	Principal transactions	All other income	Total changes in fair value recorded	Principal transactions	All other income	Total changes in fair value recorded
Federal funds sold and securities purchased under resale agreements <sup>(a)</sup>	\$68	\$ —	\$ 68	\$(26)	\$ —	\$( 26 )
Securities borrowed <sup>(a)</sup>	1	—	1	(4 )	—	(4 )
Trading assets:						
Debt and equity instruments, excluding loans	(113)	—	(113 )	519	1	520
Loans reported as trading assets <sup>(b)</sup> :						
Changes in instrument-specific credit risk	98	14 <sup>(e)</sup>	112	211	13 <sup>(e)</sup>	224
Other changes in fair value	186	52 <sup>(f)</sup>	709	112	38 <sup>(f)</sup>	492
Loans <sup>(b)</sup> :						
Changes in instrument-specific credit risk	13	—	13	1	—	1
Other changes in fair value	4	—	4	—	—	—
Other assets	14	82 <sup>(f)</sup>	96	62	9 <sup>(f)</sup>	71
Deposits <sup>(c)</sup>	(569)	—	(569 )	37	—	37
Federal funds purchased and securities loaned or sold under repurchase agreements <sup>(a)</sup>	(20 )	—	(20 )	9	—	9
Other borrowed funds <sup>(c)</sup>	(1 )	—	(1 )	106	—	106
Trading liabilities	2	—	2	(14 )	—	(14 )
Beneficial interests issued by consolidated VIEs	23	—	23	44	—	44
Other liabilities	—	—	—	—	—	—
Long-term debt:						
DVA on fair value option elected liabilities <sup>(c)</sup>	—	—	—	325	—	325
Other changes in fair value <sup>(d)</sup>	(918)	—	(918 )	350	—	350

Resale and repurchase agreements, securities borrowed agreements and securities lending agreements: Generally, for these types of agreements, there is a requirement that collateral be maintained with a market value equal to or in excess of the principal amount loaned; as a result, there would be no adjustment or an immaterial adjustment for instrument-specific credit risk related to these agreements.

Loans and lending-related commitments: For floating-rate instruments, all changes in value are attributed to instrument-specific credit risk. For fixed-rate instruments, an allocation of the changes in value for the period is made between those changes in value that are interest rate-related and changes in value that are credit-related.

Allocations are generally based on an analysis of borrower-specific credit spread and recovery information, where available, or benchmarking to similar entities or industries.

Effective January 1, 2016, unrealized gains/(losses) due to instrument-specific credit risk (DVA) for liabilities for which the fair value option has been elected is recorded in other comprehensive income, while realized gains (losses) are recorded in principal transactions revenue. DVA for the three months ended March 31, 2015 was included in principal transactions revenue. See Notes 3 and 19 for further information. The amounts presented for the three months ended March 31, 2015 include the impact of the Firm's own credit quality on the inception value of liabilities as well as the impact of changes in the Firm's own credit quality subsequent to issuance.

Long-term debt measured at fair value predominantly relate to structured notes containing embedded derivatives.

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

(e) Reported in mortgage fees and related income.

(f) Reported in other income.



Difference between aggregate fair value and aggregate remaining contractual principal balance outstanding  
The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of June 30, 2016, and December 31, 2015, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

(in millions)	June 30, 2016			December 31, 2015		
	Contractual principal outstanding	Fair value	Fair value over/(under) contractual principal outstanding	Contractual principal outstanding	Fair value	Fair value over/(under) contractual principal outstanding
Loans <sup>(a)</sup>						
Nonaccrual loans						
Loans reported as trading assets	\$3,432	\$819	\$ (2,613 )	\$3,484	\$631	\$ (2,853 )
Loans	7	7	—	7	7	—
Subtotal	3,439	826	(2,613 )	3,491	638	(2,853 )
All other performing loans						
Loans reported as trading assets	32,923	30,767	(2,156 )	30,780	28,184	(2,596 )
Loans	1,814	1,808	(6 )	2,771	2,752	(19 )
Total loans	\$38,176	\$33,401	\$ (4,775 )	\$37,042	\$31,574	\$ (5,468 )
Long-term debt						
Principal-protected debt	\$20,080 <sup>(c)</sup>	\$18,602	\$ (1,478 )	\$17,910 <sup>(c)</sup>	\$16,611	\$ (1,299 )
Nonprincipal-protected debt <sup>(b)</sup>	NA	17,884	NA	NA	16,454	NA
Total long-term debt	NA	\$36,486	NA	NA	\$33,065	NA
Long-term beneficial interests						
Nonprincipal-protected debt	NA	\$586	NA	NA	\$787	NA
Total long-term beneficial interests	NA	\$586	NA	NA	\$787	NA

<sup>(a)</sup> There were no performing loans that were ninety days or more past due as of June 30, 2016, and December 31, 2015, respectively.

Remaining contractual principal is not applicable to nonprincipal-protected notes. Unlike principal-protected structured notes, for which the Firm is obligated to return a stated amount of principal at the maturity of the note, nonprincipal-protected structured notes do not obligate the Firm to return a stated amount of principal at maturity, <sup>(b)</sup> but to return an amount based on the performance of an underlying variable or derivative feature embedded in the note. However, investors are exposed to the credit risk of the Firm as issuer for both nonprincipal-protected and principal protected notes.

<sup>(c)</sup> Where the Firm issues principal-protected zero-coupon or discount notes, the balance reflects the contractual principal payment at maturity or, if applicable, the contractual principal payment at the Firm's next call date. At June 30, 2016, and December 31, 2015, the contractual amount of letters of credit for which the fair value option was elected was \$4.7 billion and \$4.6 billion, respectively, with a corresponding fair value of \$(95) million and \$(94) million, respectively. For further information regarding off-balance sheet lending-related financial instruments, see Note 29 of JPMorgan Chase's 2015 Annual Report, and Note 21 of this Form 10-Q.

Structured note products by balance sheet classification and risk component

The table below presents the fair value of the structured notes issued by the Firm, by balance sheet classification and the primary risk type.

(in millions)	June 30, 2016				December 31, 2015			
	Long-term debt	Other borrowed funds	Deposits	Total	Long-term debt	Other borrowed funds	Deposits	Total
Risk exposure								
Interest rate	\$15,594	\$169	\$2,908	\$18,671	\$12,531	\$58	\$3,340	\$15,929
Credit	3,476	669	—	4,145	3,195	547	—	3,742

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Foreign exchange	2,130	260	7	2,397	1,765	77	11	1,853
Equity	14,394	8,351	5,358	28,103	14,293	8,447	4,993	27,733
Commodity	646	37	1,584	2,267	640	50	1,981	2,671
Total structured notes	\$36,240	\$ 9,486	\$ 9,857	\$55,583	\$32,424	\$ 9,179	\$ 10,325	\$51,928

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## Note 5 – Derivative instruments

JPMorgan Chase makes markets in derivatives for clients and also uses derivatives to hedge or manage its own risk exposures. For a further discussion of the Firm’s use of and accounting policies regarding derivative instruments, see Note 6 of JPMorgan Chase’s 2015 Annual Report.

The Firm’s disclosures are based on the accounting treatment and purpose of these derivatives. A limited number of the Firm’s derivatives are designated in hedge

accounting relationships and are disclosed according to the type of hedge (fair value hedge, cash flow hedge, or net investment hedge). Derivatives not designated in hedge accounting relationships include certain derivatives that are used to manage certain risks associated with specified assets or liabilities (“specified risk management” positions) as well as derivatives used in the Firm’s market-making businesses or for other purposes.

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

Type of Derivative	Use of Derivative	Designation and disclosure	Affected segment or unit	10-Q page reference
Manage specifically identified risk exposures in qualifying hedge accounting relationships:				
Interest rate	Hedge fixed rate assets and liabilities	Fair value hedge	Corporate	108
Interest rate	Hedge floating-rate assets and liabilities	Cash flow hedge	Corporate	109
Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	Corporate	108
Foreign exchange	Hedge forecasted revenue and expense	Cash flow hedge	Corporate	109
Foreign exchange	Hedge the value of the Firm’s investments in non-U.S. dollar functional currency entities	Net investment hedge	Corporate	110
Commodity	Hedge commodity inventory	Fair value hedge	CIB	108
Manage specifically identified risk exposures not designated in qualifying hedge accounting relationships:				
Interest rate	Manage the risk of the mortgage pipeline, warehouse loans and MSRs	Specified risk management	CCB	110
Credit	Manage the credit risk of wholesale lending exposures	Specified risk management	CIB	110
Commodity	Manage the risk of certain commodities-related contracts and investments	Specified risk management	CIB	110
Interest rate and foreign exchange	Manage the risk of certain other specified assets and liabilities	Specified risk management	Corporate	110
Market-making derivatives and other activities:				
Various	Market-making and related risk management	Market-making and other	CIB	110
Various	Other derivatives	Market-making and other	CIB, Corporate	110

## Notional amount of derivative contracts

The following table summarizes the notional amount of derivative contracts outstanding as of June 30, 2016, and December 31, 2015.

(in billions)	Notional amounts <sup>(b)</sup>	
	June 30, 2016	December 31, 2015
Interest rate contracts		
Swaps	\$25,493	\$ 24,162
Futures and forwards	5,925	5,167
Written options	3,204	3,506
Purchased options	3,709	3,896
Total interest rate contracts	38,331	36,731
Credit derivatives <sup>(a)</sup>	2,688	2,900
Foreign exchange contracts		
Cross-currency swaps	3,462	3,199
Spot, futures and forwards	5,708	5,028
Written options	816	690
Purchased options	822	706
Total foreign exchange contracts	10,808	9,623
Equity contracts		
Swaps	252	232
Futures and forwards	47	43
Written options	487	395
Purchased options	418	326
Total equity contracts	1,204	996
Commodity contracts		
Swaps	82	83
Spot, futures and forwards	128	99
Written options	116	115
Purchased options	116	112
Total commodity contracts	442	409
Total derivative notional amounts	\$53,473	\$ 50,659

(a) For more information on volumes and types of credit derivative contracts, see the Credit derivatives discussion on page 111.

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

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



## Impact of derivatives on the Consolidated Balance Sheets

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Firm's Consolidated balance sheets as of June 30, 2016, and December 31, 2015, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables<sup>(a)</sup>

June 30, 2016 (in millions)	Gross derivative receivables			Net derivative receivables <sup>(b)</sup>	Gross derivative payables			Net derivative payables <sup>(b)</sup>
	Not designated as hedges	Designated as hedges	Total derivative receivables		Not designated as hedges	Designated as hedges	Total derivative payables	
Trading assets and liabilities								
Interest rate	\$923,529	\$ 7,599	\$931,128	\$ 37,885	\$883,414	\$ 3,713	\$887,127	\$ 15,077
Credit	40,089	—	40,089	1,794	39,658	—	39,658	1,723
Foreign exchange	229,337	1,556	230,893	24,083	230,007	1,547	231,554	23,223
Equity	39,014	—	39,014	7,127	40,702	—	40,702	8,227
Commodity	21,661	131	21,792	7,557	23,060	160	23,220	9,514
Total fair value of trading assets and liabilities	\$1,253,630	\$ 9,286	\$1,262,916	\$ 78,446	\$1,216,841	\$ 5,420	\$1,222,261	\$ 57,764

December 31, 2015 (in millions)	Gross derivative receivables			Net derivative receivables <sup>(b)</sup>	Gross derivative payables			Net derivative payables <sup>(b)</sup>
	Not designated as hedges	Designated as hedges	Total derivative receivables		Not designated as hedges	Designated as hedges	Total derivative payables	
Trading assets and liabilities								
Interest rate	\$665,531	\$ 4,080	\$669,611	\$ 26,363	\$632,928	\$ 2,238	\$635,166	\$ 10,221
Credit	51,468	—	51,468	1,423	50,529	—	50,529	1,541
Foreign exchange	179,072	803	179,875	17,177	189,397	1,503	190,900	19,769
Equity	35,859	—	35,859	5,529	38,663	—	38,663	9,183
Commodity	23,713	1,352	25,065	9,185	27,653	1	27,654	12,076
Total fair value of trading assets and liabilities	\$955,643	\$ 6,235	\$961,878	\$ 59,677	\$939,170	\$ 3,742	\$942,912	\$ 52,790

(a) Balances exclude structured notes for which the fair value option has been elected. See Note 4 for further information.

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

Derivatives netting

The following tables present, as of June 30, 2016, and December 31, 2015, gross and net derivative receivables and payables by contract and settlement type. Derivative receivables and payables, as well as the related cash collateral from the same counterparty have been netted on the Consolidated balance sheets where the Firm has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, amounts are not eligible for netting on the Consolidated balance sheets, and those derivative receivables and payables are shown separately in the tables below.

In addition to the cash collateral received and transferred that is presented on a net basis with derivative receivables and payables, the Firm receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with the Firm's derivative instruments, but are not eligible for net presentation:

collateral that consists of non-cash financial instruments (generally U.S. government and agency securities and other G7 government bonds) and cash collateral held at third party custodians, which are shown separately as "Collateral not nettable on the Consolidated balance sheets" in the tables below, up to the fair value exposure amount.

the amount of collateral held or transferred that exceeds the fair value exposure at the individual counterparty level, as of the date presented, which is excluded from the tables below.

collateral held or transferred that relates to derivative receivables or payables where an appropriate legal opinion has not been either sought or obtained with respect to the master netting agreement, which is excluded from the tables below.

June 30, 2016			December 31, 2015		
Gross (in derivative receivables millions)	Amounts netted on the Consolidated balance sheets	Net derivative receivables	Gross derivative receivable	Amounts netted on the Consolidated balance sheets	Net derivative receivables
U.S. GAAP nettable derivative receivables					
Interest rate contracts:					
\$573,664	\$(493,080)	\$ 30,584	\$417,386	\$(396,506)	\$ 20,880
400,405	(399,891)	514	246,750	(246,742)	8
Exchange-traded	(a)	10	—	—	—
Total interest rate contracts	(893,243)	31,108	664,136	(643,248)	20,888
Credit contracts:					
62,086	(31,700)	1,286	44,082	(43,182)	900
6,679	(6,595)	34	6,866	(6,863)	3
Total credit contracts	(38,295)	1,320	50,948	(50,045)	903
Foreign exchange contracts:					

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OTC-cleared	223,658	(206,356 )	17,302	175,060	(162,377 )	12,683
Exchange-traded <sup>(a)</sup>	501	(406 )	95	323	(321 )	2
Total	224,159	(206,762 )	17,397	175,383	(162,698 )	12,685
foreign exchange contracts						
Equity contracts:						
OTC-cleared	21,473	(20,244 )	1,229	20,690	(20,439 )	251
Exchange-traded <sup>(a)</sup>	5,440	(4,143 )	4,197	12,285	(9,891 )	2,394
Total	26,913	(24,387 )	5,426	32,975	(30,330 )	2,645
contracts						
Commodity contracts:						
OTC-cleared	21,904	(6,092 )	6,812	15,001	(6,772 )	8,229
Exchange-traded <sup>(a)</sup>	5,293	(814 )	150	9,199	(9,108 )	91
Total	27,197	(6,906 )	6,962	24,200	(15,880 )	8,320
contracts						
Derivative receivables with appropriate legal opinion	1,246,763	(1,184,470) <sup>(b)</sup>	62,293	947,642	(902,201 ) <sup>(b)</sup>	45,441
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	16,153		16,153	14,236		14,236
derivative receivables recognized on the Consolidated balance	\$1,262,916		\$ 78,446	\$961,878		\$ 59,677

sheets Collateral not nettable on the Consolidated balance sheets <sup>(c)(d)</sup> Net amounts	(17,150 )	(13,543 )
	\$ 61,296	\$ 46,134

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June 30, 2016			December 31, 2015		
Gross (in derivative millions) payables	Amounts netted on the Consolidated balance sheets	Net derivative payables	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables
U.S.					
GAAP					
nettable					
derivative					
payables					
Interest					
rate					
contracts:					
OTC	\$ (478,773 )	\$ 13,641	\$ 393,709	\$ (384,576 )	\$ 9,133
OTC-cleared	( 393,154 )	349	240,398	( 240,369 )	29
Exchange-traded	( 102 ) <sup>(a)</sup>	37	—	—	—
Total	( 872,050 )	14,027	634,107	( 624,945 )	9,162
interest					
rate					
contracts					
Credit					
contracts:					
OTC	( 31,778 )	1,437	44,379	( 43,019 )	1,360
OTC-cleared	( 6,157 )	—	5,969	( 5,969 )	—
Total	( 37,935 )	1,437	50,348	( 48,988 )	1,360
contracts					
Foreign					
exchange					
contracts:					
OTC	( 207,922 )	16,499	185,178	( 170,830 )	14,348
OTC-cleared	( 89 )	—	301	( 301 )	—
Exchange-traded	( 20 ) <sup>(a)</sup>	297	—	—	—
Total	( 208,331 )	16,796	185,479	( 171,131 )	14,348
foreign					
exchange					
contracts					
Equity					
contracts:					
OTC	( 20,901 )	4,814	23,458	( 19,589 )	3,869
OTC-cleared	—	—	—	—	—
Exchange-traded	( 1,74 )	520	10,998	( 9,891 )	1,107
Total	( 32,475 )	5,334	34,456	( 29,480 )	4,976
contracts					
Commodity					
contracts:					
OTC	( 5,318 )	8,037	16,953	( 6,256 )	10,697
OTC-cleared	—	—	—	—	—

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Exchange-traded	(8,388)	)	341	9,374	(9,322	)	52
Total							
collateral	(13,706	)	8,378	26,327	(15,578	)	10,749
contracts							
Derivative							
payables							
with	1,210,469	(1,164,497) <sup>(b)</sup>	45,972	930,717	(890,122	) <sup>(b)</sup>	40,595
appropriate							
legal							
opinions							
Derivative							
payables							
where							
an							
appropriate							
legal							
opinion			11,792	12,195			12,195
has							
not							
been							
either							
sought							
or							
obtained							
Total							
derivative							
payables							
recognized							
\$	1,222,261		\$ 57,764	\$ 942,912			\$ 52,790
the							
Consolidated							
balance							
sheets							
Collateral							
not							
nettable							
on			(10,017	)			(7,957
the							)
Consolidated							
balance							
sheets <sup>(c)(d)(e)</sup>							
Net			\$ 47,747				\$ 44,833
amounts							

(a) Exchange-traded derivative balances that relate to futures contracts are settled daily.

Net derivatives receivable included cash collateral netted of \$88.5 billion and \$73.7 billion at June 30, 2016, and December 31, 2015, respectively. Net derivatives payable included cash collateral netted of \$68.5

(b) billion and \$61.6 billion related to OTC and OTC-cleared derivatives at June 30, 2016, and December 31, 2015, respectively.

(c) Excludes all collateral related to derivative instruments where an appropriate legal opinion has not been either sought or obtained.

(d)

Represents liquid security collateral as well as cash collateral held at third party custodians related to derivative instruments where an appropriate legal opinion has been obtained. For some counterparties, the collateral amounts of financial instruments may exceed the derivative receivables and derivative payables balances. Where this is the case, the total amount reported is limited to the net derivative receivables and net derivative payables balances with that counterparty.

- (e) Derivative payables collateral relates only to OTC and OTC-cleared derivative instruments. Amounts exclude collateral transferred related to exchange-traded derivative instruments.

Liquidity risk and credit-related contingent features

For a more detailed discussion of liquidity risk and credit-related contingent features related to the Firm's derivative contracts, see Note 6 of JPMorgan Chase's 2015 Annual Report.

The following table shows the aggregate fair value of net derivative payables related to OTC and OTC-cleared derivatives that contain contingent collateral or termination features that may be triggered upon a ratings downgrade, and the associated collateral the Firm has posted in the normal course of business, at June 30, 2016, and December 31, 2015.

OTC and OTC-cleared derivative payables containing downgrade triggers

(in millions)	June 30, December 31,	
	2016	2015
Aggregate fair value of net derivative payables	\$25,926	\$ 22,328
Collateral posted	21,139	18,942

The following table shows the impact of a single-notch and two-notch downgrade of the long-term issuer ratings of JPMorgan Chase & Co. and its subsidiaries, predominantly JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."),

at June 30, 2016, and December 31, 2015, related to OTC and OTC-cleared derivative contracts with contingent collateral or termination features that may be triggered upon a ratings downgrade. Derivatives contracts generally require additional collateral to be posted or terminations to be triggered when the predefined threshold rating is breached. A downgrade by a single rating agency that does not result in a rating lower than a preexisting corresponding rating provided by another major rating agency will generally not result in additional collateral, (except in certain instances in which additional initial margin may be required upon a ratings downgrade), nor in termination payments requirements. The liquidity impact in the table is calculated based upon a downgrade below the lowest current rating of the rating agencies referred to in the derivative contract.

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

(in millions)	June 30, 2016		December 31, 2015	
	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade <sup>(a)</sup>	\$723	\$ 2,798	\$ 807	\$ 3,028
Amount required to settle contracts with termination triggers upon downgrade <sup>(b)</sup>	255	858	271	1,093

(a) Includes the additional collateral to be posted for initial margin.

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

Derivatives executed in contemplation of a sale of the underlying financial asset

In certain instances the Firm enters into transactions in which it transfers financial assets but maintains the economic exposure to the transferred assets by entering into a derivative with the same counterparty in contemplation of the initial transfer. The Firm generally accounts for such transfers as collateralized financing transactions as described in Note 12, but in limited circumstances they may qualify to be accounted for as a sale and a derivative under U.S. GAAP. The amount of such transfers accounted for as a sale where the associated derivative was outstanding at June 30, 2016 was not material.





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Impact of derivatives on the Consolidated statements of income

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

Fair value hedge gains and losses

The following tables present derivative instruments, by contract type, used in fair value hedge accounting relationships, as well as pre-tax gains/(losses) recorded on such derivatives and the related hedged items for the three and six months ended June 30, 2016 and 2015, respectively.

Three months ended June 30, 2016 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffective components	Excluded components <sup>(e)</sup>
Contract type					
Interest rate <sup>(a)</sup>	\$903	\$(709 )	\$ 194	\$ 1	\$ 193
Foreign exchange <sup>(b)</sup>	1,487	(1,472 )	15	—	15
Commodity <sup>(c)</sup>	(215 )	216	1	(10 )	11
Total	\$2,175	\$(1,965)	\$ 210	\$ (9 )	\$ 219

Three months ended June 30, 2015 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffective components	Excluded components <sup>(e)</sup>
Contract type					
Interest rate <sup>(a)</sup>	\$(1,541)	\$1,709	\$ 168	\$(19 )	\$ 187
Foreign exchange <sup>(b)</sup>	(2,118 )	2,097	(21 )	—	(21 )
Commodity <sup>(c)</sup>	242	(295 )	(53 )	(5 )	(48 )
Total	\$(3,417)	\$3,511	\$ 94	\$(24 )	\$ 118

Six months ended June 30, 2016 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffective components	Excluded components <sup>(e)</sup>
Contract type					
Interest rate <sup>(a)</sup>	\$2,281	\$(1,908)	\$ 373	\$ 29	\$ 344
Foreign exchange <sup>(b)</sup>	189	(90 )	99	—	99
Commodity <sup>(c)</sup>	(73 )	78	5	(12 )	17
Total	\$2,397	\$(1,920)	\$ 477	\$ 17	\$ 460

Six months ended June 30, 2015 (in millions)	Gains/(losses) recorded in income			Income statement impact due to:	
	Derivatives	Hedged items	Total income statement impact	Hedge ineffective components	Excluded components <sup>(e)</sup>
Contract type					

## impact

Contract type					
Interest rate <sup>(a)</sup>	\$(935 )	\$1,461	\$ 526	\$ (2 )	\$ 528
Foreign exchange <sup>(b)</sup>	4,357	(4,362 )	(5 )	—	(5 )
Commodity <sup>(c)</sup>	564	(603 )	(39 )	(11 )	(28 )
Total	\$3,986	\$(3,504)	\$ 482	\$ (13 )	\$ 495

(a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate (“LIBOR”)) interest rate risk of fixed-rate long-term debt and AFS securities. Gains and losses were recorded in net interest income.

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

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

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

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

Cash flow hedge gains and losses

The following tables present derivative instruments, by contract type, used in cash flow hedge accounting relationships, and the pre-tax gains/(losses) recorded on such derivatives, for the three and six months ended June 30, 2016 and 2015, respectively. The Firm includes the gain/(loss) on the hedging derivative and the change in cash flows on the hedged item in the same line item in the Consolidated statements of income.

Three months ended June 30, 2016 (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	Derivatives – effective Hedge portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income <sup>(c)</sup>	Total income statement impact	Derivatives Total – effective change portion in OCI recorded in for OCI period
Contract type				
Interest rate <sup>(a)</sup>	\$ (20 )	\$	—\$ (20 )	\$ (26 ) \$ (6 )
Foreign exchange <sup>(b)</sup>	(28 )	—	(28 )	(161 ) (133 )
Total	\$ (48 )	\$	—\$ (48 )	\$ (187 ) \$ (139 )

Three months ended June 30, 2015 (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	Derivatives – effective Hedge portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income <sup>(c)</sup>	Total income statement impact	Derivatives Total – effective change portion in OCI recorded in for OCI period
Contract type				
Interest rate <sup>(a)</sup>	\$ 22	\$	—\$ 22	\$ (23 ) \$ (45 )
Foreign exchange <sup>(b)</sup>	(29 )	—	(29 )	143 172
Total	\$ (7 )	\$	—\$ (7 )	\$ 120 \$ 127

Six months ended June 30, 2016 (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	Derivatives – effective Hedge portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income <sup>(c)</sup>	Total income statement impact	Derivatives Total – effective change portion in OCI recorded in for OCI period
Contract type				
Interest rate <sup>(a)</sup>	\$ (40 )	\$	—\$ (40 )	\$ (100 ) \$ (60 )
Foreign exchange <sup>(b)</sup>	(63 )	—	(63 )	(254 ) (191 )

Total	\$ (103 )	—\$ (103 )	\$ (354 )	\$ (251 )
	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	Derivatives			
	– effective	Hedge	Total	Derivatives
	portion:	ineffectiveness	income	– effective change
Six months ended June 30, 2015	reclassified	recorded	statement	portion in OCI
(in millions)	from AOCI to income	directly in income <sup>(c)</sup>	impact	recorded in for OCI period
Contract type				
Interest rate <sup>(a)</sup>	\$ (127 )	—\$ (127 )	\$ (20 )	\$ 107
Foreign exchange <sup>(b)</sup>	(55 )	—	(55 )	91 146
Total	\$ (182 )	—\$ (182 )	\$ 71	\$ 253

Primarily consists of benchmark interest rate hedges of LIBOR-indexed floating-rate assets and floating-rate (a) liabilities. Gains and losses were recorded in net interest income, and for the forecasted transactions that the Firm determined during the six months ended June 30, 2015, were probable of not occurring, in other income.

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

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

The Firm did not experience any forecasted transactions that failed to occur for the three and six months ended June 30, 2016. In the first quarter of 2015, the Firm reclassified approximately \$150 million of net losses from AOCI to other income because the Firm determined that it was probable that the forecasted interest payment cash flows would not occur as a result of the planned reduction in wholesale non-operating deposits.

Over the next 12 months, the Firm expects that approximately \$212 million (after-tax) of net losses recorded in AOCI at June 30, 2016, related to cash flow hedges will be recognized in income. For terminated cash flow hedges, the maximum length of time over which forecasted transactions are remaining is approximately 7 years. For open cash flow hedges, the maximum length of time over which forecasted transactions are hedged is approximately 2 years. The Firm's longer-dated forecasted transactions relate to core lending and borrowing activities.

Net investment hedge gains and losses

The following table presents hedging instruments, by contract type, that were used in net investment hedge accounting relationships, and the pre-tax gains/(losses) recorded on such instruments for the three and six months ended June 30, 2016 and 2015.

	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	2016		2015	
	Excluded component	Effective portion recorded directly in income <sup>(a)</sup>	Excluded component	Effective portion recorded directly in OCI income <sup>(a)</sup>
Three months ended June 30, (in millions)				
Foreign exchange derivatives	\$(65 )	\$ 17	\$(91 )	\$(250 )

	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	2016		2015	
	Excluded component	Effective portion recorded directly in income <sup>(a)</sup>	Excluded component	Effective portion recorded directly in OCI income <sup>(a)</sup>
Six months ended June 30, (in millions)				
Foreign exchange derivatives	\$(150)	\$(573 )	\$(189)	\$(743)

Certain components of hedging derivatives are permitted to be excluded from the assessment of hedge effectiveness, such as forward points on foreign exchange forward contracts. Amounts related to excluded components are recorded in other income. The Firm measures the ineffectiveness of net investment hedge accounting relationships based on changes in spot foreign currency rates, and, therefore, there was no significant ineffectiveness for net investment hedge accounting relationships during the three and six months ended June 30, 2016 and 2015.

Gains and losses on derivatives used for specified risk management purposes

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

(in millions)	Derivatives gains/(losses) recorded in income			
	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Contract type				
Interest rate <sup>(a)</sup>	\$661	\$(563)	\$1,644	\$120
Credit <sup>(b)</sup>	(99 )	(10 )	(160 )	(24 )
Foreign exchange <sup>(c)</sup>	10	7	—	(5 )
Commodity <sup>(d)</sup>	—	23	—	(13 )

Total \$572 \$(543)\$1,484 \$78

Primarily represents interest rate derivatives used to hedge the interest rate risk inherent in the mortgage pipeline, (a) warehouse loans and MSR, as well as written commitments to originate warehouse loans. Gains and losses were recorded predominantly in mortgage fees and related income.

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

Primarily relates to derivatives used to mitigate foreign exchange risk of specified foreign (c) currency-denominated assets and liabilities. Gains and losses were recorded in principal transactions revenue.

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

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

The Firm makes markets in derivatives in order to meet the needs of customers and uses derivatives to manage certain risks associated with net open risk positions from its market-making activities, including the counterparty credit risk arising from derivative receivables. All derivatives not included in the hedge accounting or specified risk management categories above are included in this category. Gains and losses on these derivatives are primarily recorded in principal transactions revenue. See Note 6 for information on principal transactions revenue.

## Credit derivatives

For a more detailed discussion of credit derivatives, see Note 6 of JPMorgan Chase's 2015 Annual Report. The Firm does not use notional amounts of credit derivatives as the primary measure of risk management for such derivatives, because the notional amount does not take into account the probability of the occurrence of a credit event, the recovery value of the reference obligation, or related cash instruments and economic hedges, each of which reduces, in the Firm's view, the risks associated with such derivatives.

## Total credit derivatives and credit-related notes

June 30, 2016 (in millions)	Maximum payout/Notional amount			
	Protection sold	Protection purchased with identical underlyings <sup>(b)</sup>	Net protection (sold)/purchased <sup>(c)</sup>	Other protection purchased <sup>(d)</sup>
Credit derivatives				
Credit default swaps	\$(1,265,820)	\$ 1,296,519	\$ 30,699	\$ 9,114
Other credit derivatives <sup>(a)</sup>	(48,447 )	55,407	6,960	13,394
Total credit derivatives	(1,314,267 )	1,351,926	37,659	22,508
Credit-related notes	(30 )	—	(30 )	5,285
Total	\$(1,314,297)	\$ 1,351,926	\$ 37,629	\$ 27,793

December 31, 2015 (in millions)	Maximum payout/Notional amount			
	Protection sold	Protection purchased with identical underlyings <sup>(b)</sup>	Net protection (sold)/purchased <sup>(c)</sup>	Other protection purchased <sup>(d)</sup>
Credit derivatives				
Credit default swaps	\$(1,386,071)	\$ 1,402,201	\$ 16,130	\$ 12,011
Other credit derivatives <sup>(a)</sup>	(42,738 )	38,158	(4,580 )	18,792
Total credit derivatives	(1,428,809 )	1,440,359	11,550	30,803
Credit-related notes	(30 )	—	(30 )	4,715
Total	\$(1,428,839)	\$ 1,440,359	\$ 11,520	\$ 35,518

(a) Other credit derivatives predominantly consists of credit swap options.

Represents the total notional amount of protection purchased where the underlying reference instrument is identical

(b) to the reference instrument on protection sold; the notional amount of protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.

(c) Does not take into account the fair value of the reference obligation at the time of settlement, which would generally reduce the amount the seller of protection pays to the buyer of protection in determining settlement value.

(d) Represents protection purchased by the Firm on referenced instruments (single-name, portfolio or index) where the Firm has not sold any protection on the identical reference instrument.

The following tables summarize the notional amounts by the ratings and maturity profile, and the total fair value, of credit derivatives and credit-related notes as of June 30, 2016, and December 31, 2015, where JPMorgan Chase is the seller of protection. The maturity profile is based on the remaining contractual maturity of the credit derivative contracts. The ratings profile is based on the rating of the reference entity on which the credit derivative contract is based. The ratings and maturity profile of credit derivatives and credit-related notes where JPMorgan Chase is the purchaser of protection are comparable to the profile reflected below.

 Protection sold – credit derivatives and credit-related notes ratings<sup>(a)</sup>/maturity profile

June 30, 2016 (in millions)				Total notional amount	Fair value of receivables <sup>(b)</sup>	Fair value of payables <sup>(b)</sup>	Net fair value
	<1 year	1–5 years	>5 years				



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Risk rating of reference entity

Investment-grade	\$(301,532)	\$(630,907)	\$(50,438)	\$(982,877 )	\$ 10,283	\$(5,367 )	\$4,916
Noninvestment-grade	(112,773 )	(204,633 )	(14,014 )	(331,420 )	9,220	(14,275 )	(5,055 )
Total	\$(414,305)	\$(835,540)	\$(64,452)	\$(1,314,297)	\$ 19,503	\$(19,642 )	\$(139 )

December 31, 2015  
(in millions)

<1 year	1-5 years	>5 years	Total notional amount	Fair value of receivables <sup>(b)</sup>	Fair value of payables <sup>(b)</sup>	Net fair value
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Risk rating of reference entity

Investment-grade	\$(307,211)	\$(699,227)	\$(46,970)	\$(1,053,408)	\$ 13,539	\$(6,836 )	\$6,703
Noninvestment-grade	(109,195 )	(245,151 )	(21,085 )	(375,431 )	10,823	(18,891 )	(8,068 )
Total	\$(416,406)	\$(944,378)	\$(68,055)	\$(1,428,839)	\$ 24,362	\$(25,727 )	\$(1,365)

(a) The ratings scale is primarily based on external credit ratings defined by S&P and Moody's.

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

## Note 6 – Noninterest revenue

For a discussion of the components of and accounting policies for the Firm's noninterest revenue, see Note 7 of JPMorgan Chase's 2015 Annual Report.

The following table presents the components of investment banking fees.

(in millions)	Three months		Six months	
	ended June 30, 2016	ended June 30, 2015	ended June 30, 2016	ended June 30, 2015
Underwriting				
Equity	\$283	\$452	\$485	\$851
Debt	896	913	1,446	1,766
Total underwriting	1,179	1,365	1,931	2,617
Advisory	465	468	1,046	1,010
Total investment banking fees	\$1,644	\$1,833	\$2,977	\$3,627

The following table presents all realized and unrealized gains and losses recorded in principal transactions revenue. This table excludes interest income and interest expense on trading assets and liabilities, which are an integral part of the overall performance of the Firm's client-driven market-making activities. See Note 7 for further information on interest income and interest expense. Trading revenue is presented primarily by instrument type. The Firm's client-driven market-making businesses generally utilize a variety of instrument types in connection with their market-making and related risk-management activities; accordingly, the trading revenue presented in the table below is not representative of the total revenue of any individual line of business.

(in millions)	Three months		Six months	
	ended June 30, 2016	ended June 30, 2015	ended June 30, 2016	ended June 30, 2015
Trading revenue by instrument type				
Interest rate	\$635	\$420	\$1,018	\$1,306
Credit	728	624	1,103	1,039
Foreign exchange	576	563	1,283	1,407
Equity	861	908	1,691	1,956
Commodity <sup>(a)</sup>	224	250	450	589
Total trading revenue	3,024	2,765	5,545	6,297
Private equity gains <sup>(b)</sup>	(48)	69	110	192
Principal transactions	\$2,976	\$2,834	\$5,655	\$6,489

<sup>(a)</sup> Commodity derivatives are frequently used to manage the Firm's risk exposure to its physical commodities inventories. For gains/(losses) related to commodity fair value hedges, see Note 5.

<sup>(b)</sup> Includes revenue on private equity investments held in the Private Equity business within Corporate, as well as those held in other business segments.

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

(in millions)	Three months		Six months	
	ended June 30, 2016	ended June 30, 2015	ended June 30, 2016	ended June 30, 2015
Asset management fees				
Investment management fees <sup>(a)</sup>	\$2,210	\$2,416	\$4,338	\$4,690
All other asset management fees <sup>(b)</sup>	97	99	187	198
Total asset management fees	2,307	2,515	4,525	4,888
Total administration fees <sup>(c)</sup>	488	527	966	1,034

Commission and other fees				
Brokerage commissions	535	592	1,123	1,186
All other commissions and fees	351	381	691	714
Total commissions and fees	886	973	1,814	1,900
Total asset management, administration and commissions	\$3,681	\$4,015	\$7,305	\$7,822

- (a) Represents fees earned from managing assets on behalf of the Firm's clients, including investors in Firm-sponsored funds and owners of separately managed investment accounts.
- (b) Represents fees for services that are ancillary to investment management services, such as commissions earned on the sales or distribution of mutual funds to clients.
- (c) Predominantly includes fees for custody, securities lending, funds services and securities clearance.

Other income

Other income on the Firm's Consolidated statements of income included the following:

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Operating lease income	\$651	\$504	\$1,266	\$973

## Note 7 – Interest income and Interest expense

For a description of JPMorgan Chase's accounting policies regarding interest income and interest expense, see Note 8 of JPMorgan Chase's 2015 Annual Report.

Details of interest income and interest expense were as follows.

(in millions)	Three months ended		Six months ended	
	June 30,		June 30,	
	2016	2015	2016	2015
Interest income				
Loans	\$8,974	\$8,079	\$17,828	\$16,026
Taxable securities	1,380	1,608	2,822	3,332
Nontaxable securities <sup>(a)</sup>	442	423	885	821
Total securities	1,822	2,031	3,707	4,153
Trading assets	1,860	1,736	3,558	3,470
Federal funds sold and securities purchased under resale agreements	576	340	1,130	736
Securities borrowed <sup>(b)</sup>	(96)	(159)	(188)	(279)
Deposits with banks	466	312	926	653
Other assets <sup>(c)</sup>	211	175	404	320
Total interest income	13,813	12,514	27,365	25,079
Interest expense				
Interest-bearing deposits	321	308	641	672
Federal funds purchased and securities loaned or sold under repurchase agreements	282	143	542	285
Commercial paper	38	30	71	64
Trading liabilities – debt, short-term and other liabilities <sup>(d)</sup>	314	171	541	327
Long-term debt	1,393	1,068	2,612	2,162
Beneficial interests issued by consolidated VIEs	118	110	231	208
Total interest expense	2,466	1,830	4,638	3,718
Net interest income	11,347	10,684	22,727	21,361
Provision for credit losses	1,402	935	3,226	1,894
Net interest income after provision for credit losses	\$9,945	\$9,749	\$19,501	\$19,467

(a) Represents securities which are tax-exempt for U.S. federal income tax purposes.

Negative interest income for the three and six months ended June 30, 2016 and 2015, is a result of increased client-driven demand for certain securities combined with the impact of low interest rates. This is matched book activity and the negative interest expense on the corresponding securities loaned is recognized in interest expense and reported within short-term and other liabilities.

(c) Largely margin loans.

(d) Includes brokerage customer payables.

## Note 8 – Pension and other postretirement employee benefit plans

For a discussion of JPMorgan Chase's pension and OPEB plans, see Note 9 of JPMorgan Chase's 2015 Annual Report. The following table presents the components of net periodic benefit costs reported in the Consolidated statements of income for the Firm's U.S. and non-U.S. defined benefit pension, defined contribution and OPEB plans.

	Pension plans				OPEB plans	
	U.S.		Non-U.S.			
	2016	2015	2016	2015	2016	2015
Three months ended June 30, (in millions)						
Components of net periodic benefit cost						
Benefits earned during the period	\$74	\$85	\$9	\$10	\$—	\$—
Interest cost on benefit obligations	133	125	24	28	7	8
Expected return on plan assets	(223)	(233)	(34)	(37)	(26)	(27)
Amortization:						
Net (gain)/loss	58	61	6	9	—	—
Prior service cost/(credit)	(8)	(8)	(1)	(1)	—	—
Net periodic defined benefit cost	34	30	4	9	(19)	(19)
Other defined benefit pension plans <sup>(a)</sup>	4	4	3	—	NA	NA
Total defined benefit plans	38	34	7	9	(19)	(19)
Total defined contribution plans	123	115	83	86	NA	NA
Total pension and OPEB cost included in compensation expense	\$161	\$149	\$90	\$95	\$(19)	\$(19)

	Pension plans				OPEB plans	
	U.S.		Non-U.S.			
	2016	2015	2016	2015	2016	2015
Six months ended June 30, (in millions)						
Components of net periodic benefit cost						
Benefits earned during the period	\$147	\$170	\$18	\$19	\$—	\$—
Interest cost on benefit obligations	266	250	50	56	15	16
Expected return on plan assets	(445)	(465)	(70)	(75)	(52)	(53)
Amortization:						
Net (gain)/loss	117	123	11	18	—	—
Prior service cost/(credit)	(17)	(17)	(1)	(1)	—	—
Net periodic defined benefit cost	68	61	8	17	(37)	(37)
Other defined benefit pension plans <sup>(a)</sup>	7	7	5	5	NA	NA
Total defined benefit plans	75	68	13	22	(37)	(37)
Total defined contribution plans	222	204	169	169	NA	NA
Total pension and OPEB cost included in compensation expense	\$297	\$272	\$182	\$191	\$(37)	\$(37)

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

The fair values of plan assets for the U.S. defined benefit pension and OPEB plans and for the material non-U.S. defined benefit pension plans were \$15.9 billion and \$3.6 billion, as of June 30, 2016, and \$16.0 billion and \$3.5 billion respectively, as of December 31, 2015. See Note 19 for further information on unrecognized amounts (i.e., net (gain)/loss and prior service costs/(credit)) reflected in AOCI for the three and six months ended June 30, 2016 and 2015.

The Firm does not anticipate any contribution to the U.S. defined benefit pension plan in 2016 at this time. For 2016, the cost associated with funding benefits under the Firm's U.S. non-qualified defined benefit pension plans is expected to total \$33 million. The 2016 contributions to the non-U.S. defined benefit pension and OPEB plans are expected to be \$47 million and \$2 million, respectively.



## Note 9 – Employee stock-based incentives

For a discussion of the accounting policies and other information relating to employee stock-based incentives, see Note 10 of JPMorgan Chase’s 2015 Annual Report.

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

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Cost of prior grants of RSUs, stock appreciation rights (“SARs”) and performance share units (“PSUs”) that are amortized over their applicable vesting periods	\$267	\$295	\$551	\$587
Accrual of estimated costs of stock-based awards to be granted in future periods including those to full-career eligible employees	287	215	522	488
Total noncash compensation expense related to employee stock-based incentive plans	\$554	\$510	\$1,073	\$1,075

In the first quarter of 2016, in connection with its annual incentive grant for the 2015 performance year, the Firm granted 33 million RSUs and 926 thousand PSUs, all with a weighted-average grant date fair value of \$57.24.

## PSU Awards

In January 2016, the Firm’s Board of Directors approved the grant of PSUs to members of the Firm’s Operating Committee under the variable compensation program for performance year 2015. PSUs are subject to the Firm’s achievement of specified performance criteria over a three-year period. The number of awards that vest can range from zero to 150% of the grant amount. The awards vest and are converted into shares of common stock in the quarter after the end of the three-year performance period. In addition, dividends will be notionally reinvested in the Firm’s common stock and will be delivered only in respect of any earned shares.

Once the PSUs have vested, the shares of common stock that are delivered, after applicable tax withholding, must be held for an additional two-year period, for a total combined vesting and holding period of five years from the grant date.

## Note 10 – Noninterest expense

For details on noninterest expense, see Consolidated statements of income on page 81. Included within other expense are the following:

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Legal expense/(benefit)	\$(430)	\$291	\$(476)	\$978
FDIC-related expense	283	300	552	618

## Note 11 – Securities

Securities are classified as trading, AFS or HTM. Securities classified as trading assets are discussed in Note 3. Predominantly all of the Firm's AFS and HTM securities are held by Treasury and CIO within the investment securities portfolio in connection with the Firm's asset-liability management objectives. At June 30, 2016, the investment securities portfolio consisted of debt securities with an average credit rating of AA+ (based upon external ratings where available, and where not available, based primarily upon internal ratings which correspond to ratings as defined by S&P and Moody's). For additional information regarding the investment securities portfolio, see Note 12 of JPMorgan Chase's 2015 Annual Report.

During the second quarter of 2016, the Firm transferred commercial mortgage-backed securities and obligations of U.S. states and municipalities with a fair value of \$7.5 billion from available-for-sale to held-to-maturity. These securities were transferred at fair value. AOCI included net pretax unrealized gains of \$78 million on the securities at the date of transfer. The transfers reflect the Firm's intent to hold the securities to maturity in order to reduce the impact of price volatility on AOCI. This transfer was a non-cash transaction.

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

(in millions)	June 30, 2016				December 31, 2015			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale debt securities								
Mortgage-backed securities:								
U.S. government agencies <sup>(a)</sup>	\$54,254	\$ 1,955	\$ 28	\$56,181	\$53,689	\$ 1,483	\$ 106	\$55,066
Residential:								
Prime and Alt-A	6,916	79	28	6,967	7,462	40	57	7,445
Subprime	2,765	6	6	2,765	210	7	—	217
Non-U.S.	11,571	213	21	11,763	19,629	341	13	19,957
Commercial	14,808	205	65	14,948	22,990	150	243	22,897
Total mortgage-backed securities	90,314	2,458	148	92,624	103,980	2,021	419	105,582
U.S. Treasury and government agencies <sup>(a)</sup>	14,925	66	167	14,824	11,202	—	166	11,036
Obligations of U.S. states and municipalities	28,975	3,146	13	32,108	31,328	2,245	23	33,550
Certificates of deposit	105	1	—	106	282	1	—	283
Non-U.S. government debt securities	35,990	1,099	21	37,068	35,864	853	41	36,676
Corporate debt securities	6,457	70	66	6,461	12,464	142	170	12,436
Asset-backed securities:								
Collateralized loan obligations	31,381	46	161	31,266	31,146	52	191	31,007
Other	8,431	52	87	8,396	9,125	72	100	9,097
Total available-for-sale debt securities	216,578	6,938	663	222,853	235,391	5,386	1,110	239,667
Available-for-sale equity securities	1,927	19	—	1,946	2,067	20	—	2,087
Total available-for-sale securities	\$218,505	\$ 6,957	\$ 663	\$224,799	\$237,458	\$ 5,406	\$ 1,110	\$241,754
Held-to-maturity debt securities								
Mortgage-backed securities:								
U.S. government agencies <sup>(b)</sup>	33,508	1,635	—	35,143	36,271	852	42	37,081
Commercial	5,801	139	—	5,940	—	—	—	—
Total mortgage-backed securities	39,309	1,774	—	41,083	36,271	852	42	37,081
	14,502	1,229	—	15,731	12,802	708	4	13,506



Obligations of U.S. states and municipalities

Total held-to-maturity debt securities	53,811	3,003	—	56,814	49,073	1,560	46	50,587
Total securities	\$272,316	\$ 9,960	\$ 663	\$281,613	\$286,531	\$ 6,966	\$ 1,156	\$292,341

(a) Included total U.S. government-sponsored enterprise obligations with fair values of \$38.0 billion and \$42.3 billion at June 30, 2016, and December 31, 2015, respectively, which were predominantly mortgage-related.

(b) Included total U.S. government-sponsored enterprise obligations with amortized cost of \$28.5 billion and \$30.8 billion at June 30, 2016, and December 31, 2015, respectively, which were predominantly mortgage-related.

## Securities impairment

The following tables present the fair value and gross unrealized losses for investment securities by aging category at June 30, 2016, and December 31, 2015.

June 30, 2016 (in millions)	Securities with gross unrealized losses					
	Less than 12 months		12 months or more			
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	\$368	\$ 17	\$570	\$ 11	\$938	\$ 28
Residential:						
Prime and Alt-A	2,153	27	13	1	2,166	28
Subprime	2,585	6	—	—	2,585	6
Non-U.S.	1,296	12	703	9	1,999	21
Commercial	4,576	57	1,156	8	5,732	65
Total mortgage-backed securities	10,978	119	2,442	29	13,420	148
U.S. Treasury and government agencies	11,677	167	—	—	11,677	167
Obligations of U.S. states and municipalities	527	12	66	1	593	13
Certificates of deposit		—	—	—	—	—
Non-U.S. government debt securities	2,379	8	561	13	2,940	21
Corporate debt securities	1,119	30	732	36	1,851	66
Asset-backed securities:						
Collateralized loan obligations	10,601	32	13,744	129	24,345	161
Other	3,562	78	310	9	3,872	87
Total available-for-sale debt securities	40,843	446	17,855	217	58,698	663
Available-for-sale equity securities	—	—	—	—	—	—
Held-to-maturity securities						
Mortgage-backed securities						
U.S. government agencies	—	—	—	—	—	—
Commercial	—	—	—	—	—	—
Total mortgage-backed securities	—	—	—	—	—	—
Obligations of U.S. states and municipalities	—	—	—	—	—	—
Total held-to-maturity securities	—	—	—	—	—	—
Total securities with gross unrealized losses	\$40,843	\$ 446	\$17,855	\$ 217	\$58,698	\$ 663

December 31, 2015 (in millions)	Securities with gross unrealized losses					
	Less than 12 months		12 months or more		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	\$13,002	\$ 95	\$697	\$ 11	\$13,699	\$ 106
Residential:						
Prime and Alt-A	5,147	51	238	6	5,385	57
Subprime	—	—	—	—	—	—
Non-U.S.	2,021	12	167	1	2,188	13
Commercial	13,779	239	658	4	14,437	243
Total mortgage-backed securities	33,949	397	1,760	22	35,709	419
U.S. Treasury and government agencies	10,998	166	—	—	10,998	166
Obligations of U.S. states and municipalities	1,676	18	205	5	1,881	23
Certificates of deposit	—	—	—	—	—	—
Non-U.S. government debt securities	3,267	26	367	15	3,634	41
Corporate debt securities	3,198	125	848	45	4,046	170
Asset-backed securities:						
Collateralized loan obligations	15,340	67	10,692	124	26,032	191
Other	4,284	60	1,005	40	5,289	100
Total available-for-sale debt securities	72,712	859	14,877	251	87,589	1,110
Available-for-sale equity securities	—	—	—	—	—	—
Held-to-maturity debt securities						
Mortgage-backed securities						
U.S. government agencies	3,294	42	—	—	3,294	42
Commercial	—	—	—	—	—	—
Total mortgage-backed securities	3,294	42	—	—	3,294	42
Obligations of U.S. states and municipalities	469	4	—	—	469	4
Total Held-to-maturity securities	3,763	46	—	—	3,763	46
Total securities with gross unrealized losses	\$76,475	\$ 905	\$14,877	\$ 251	\$91,352	\$ 1,156

Gross unrealized losses

The Firm has recognized unrealized losses on securities it intends to sell as other-than-temporary impairment (“OTTI”). The Firm does not intend to sell any of the remaining securities with an unrealized loss in AOCI as of June 30, 2016, and it is not likely that the Firm will be required to sell these securities before recovery of their amortized cost basis. Except for the securities for which credit losses have been recognized in income, the Firm believes that the securities with an unrealized loss as of June 30, 2016, are not other-than-temporarily impaired. For additional information on other-than-temporary impairment, see Note 12 of the JPMorgan Chase’s 2015 Annual Report.

Securities gains and losses

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

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Realized gains	\$80	\$94	\$189	\$185

Realized losses	(27 )	(49 )	(79 )	(87 )
OTTI losses	(32 )	(1 )	(38 )	(2 )
Net securities gains	\$21	\$44	\$72	\$96

OTTI losses

Credit-related losses recognized in income \$— \$— \$(1 )\$(1 )

Securities the Firm intends to sell<sup>(a)</sup> (32 ) (1 ) (37 ) (1 )

Total OTTI losses recognized in income \$(32)\$(1 ) \$(38 )\$(2 )

<sup>(a)</sup> Excludes realized losses on securities sold of \$5 million for the six months ended June 30, 2016 that had been previously reported as an OTTI loss due to the intention to sell the securities.

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

The cumulative credit loss component, including any changes therein, of OTTI losses that have been recognized in income related to AFS debt securities that the Firm does not intend to sell was not material as of and during the three and six month periods ended June 30, 2016 and 2015.

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Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at June 30, 2016, of JPMorgan Chase's investment securities portfolio by contractual maturity.

By remaining maturity June 30, 2016 (in millions)	Due in one year or less	Due after one year through five years	Due after five years through 10 years	Due after 10 years <sup>(c)</sup>	Total	
<b>Available-for-sale debt securities</b>						
<b>Mortgage-backed securities<sup>(a)</sup></b>						
Amortized cost	\$2,813	\$4,147	\$7,996	\$75,358	\$90,314	
Fair value	2,833	4,246	8,239	77,306	92,624	
Average yield <sup>(b)</sup>	2.03	%2.16	%3.03	%3.22	%3.11	%
<b>U.S. Treasury and government agencies</b>						
Amortized cost	\$—	\$—	\$13,598	\$1,327	\$14,925	
Fair value	—	—	13,554	1,270	14,824	
Average yield <sup>(b)</sup>	—	%—	%0.76	%0.52	%0.74	%
<b>Obligations of U.S. states and municipalities</b>						
Amortized cost	\$155	\$576	\$1,357	\$26,887	\$28,975	
Fair value	158	593	1,452	29,905	32,108	
Average yield <sup>(b)</sup>	4.89	%3.00	%5.85	%6.64	%6.52	%
<b>Certificates of deposit</b>						
Amortized cost	\$105	\$—	\$—	\$—	\$105	
Fair value	106	—	—	—	106	
Average yield <sup>(b)</sup>	1.78	%—	%—	%—	%1.78	%
<b>Non-U.S. government debt securities</b>						
Amortized cost	\$5,619	\$12,759	\$14,407	\$3,205	\$35,990	
Fair value	5,629	13,108	15,022	3,309	37,068	
Average yield <sup>(b)</sup>	3.05	%1.71	%0.85	%0.68	%1.48	%
<b>Corporate debt securities</b>						
Amortized cost	\$1,906	\$2,806	\$1,597	\$148	\$6,457	
Fair value	1,919	2,826	1,573	143	6,461	
Average yield <sup>(b)</sup>	3.15	%2.59	%2.92	%3.24	%2.85	%
<b>Asset-backed securities</b>						
Amortized cost	\$9	\$689	\$20,443	\$18,671	\$39,812	
Fair value	9	696	20,356	18,601	39,662	
Average yield <sup>(b)</sup>	2.70	%1.10	%2.10	%2.04	%2.06	%
<b>Total available-for-sale debt securities</b>						
Amortized cost	\$10,607	\$20,977	\$59,398	\$125,596	\$216,578	
Fair value	10,654	21,469	60,196	130,534	222,853	
Average yield <sup>(b)</sup>	2.81	%1.93	%1.73	%3.68	%2.93	%
<b>Available-for-sale equity securities</b>						
Amortized cost	\$—	\$—	\$—	\$1,927	\$1,927	
Fair value	—	—	—	1,946	1,946	
Average yield <sup>(b)</sup>	—	%—	%—	%0.35	%0.35	%
<b>Total available-for-sale securities</b>						
Amortized cost	\$10,607	\$20,977	\$59,398	\$127,523	\$218,505	
Fair value	10,654	21,469	60,196	132,480	224,799	
Average yield <sup>(b)</sup>	2.81	%1.93	%1.73	%3.63	%2.91	%
<b>Held-to-maturity debt securities</b>						
<b>Mortgage-backed securities<sup>(a)</sup></b>						

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Amortized cost	\$—	\$—	\$—	\$39,309	\$39,309	
Fair value	—	—	—	41,083	41,083	
Average yield <sup>(b)</sup>	—	%—	%—	%3.32	%3.32	%
Obligations of U.S. states and municipalities						
Amortized cost	\$—	\$—	\$1,132	\$13,370	\$14,502	
Fair value	—	—	1,211	14,520	15,731	
Average yield <sup>(b)</sup>	—	%—	%5.04	%5.68	%5.63	%
Total held-to-maturity securities						
Amortized cost	\$—	\$—	\$1,132	\$52,679	\$53,811	
Fair value	—	—	1,211	55,603	56,814	
Average yield <sup>(b)</sup>	—	—	%5.04	%3.92	%3.94%	

(a) U.S. government-sponsored enterprises were the only issuers whose securities exceeded 10% of JPMorgan Chase's total stockholders' equity at June 30, 2016.

Average yield is computed using the effective yield of each security owned at the end of the period, weighted (b) based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts, and the effect of related hedging

derivatives. Taxable-equivalent amounts are used where applicable. The effective yield excludes unscheduled principal prepayments; and accordingly, actual maturities of securities may differ from their contractual or expected maturities as certain securities may be prepaid.

Includes securities with no stated maturity. Substantially all of the Firm's U.S. residential mortgage-backed securities and collateralized mortgage obligations are due in 10 years or more, based on contractual maturity. The (c) estimated weighted-average life, which reflects anticipated future prepayments, is approximately 4 years for agency residential mortgage-backed securities, 2 years for agency residential collateralized mortgage obligations and 3 years for nonagency residential collateralized mortgage obligations.

#### Note 12 – Securities financing activities

For a discussion of accounting policies relating to securities financing activities, see Note 13 of JPMorgan Chase's 2015 Annual Report. For further information regarding securities borrowed and securities lending agreements for which the fair value option has been elected, see Note 4. For further information regarding assets pledged and collateral received in securities financing agreements, see Note 22.

The table below summarizes the gross and net amounts of the Firm's securities financing agreements as of June 30, 2016 and December 31, 2015. When the Firm has obtained an appropriate legal opinion with respect to the master netting agreement with a counterparty and where other relevant netting criteria under U.S. GAAP are met, the Firm nets, on the Consolidated balance sheets, the balances outstanding under its securities financing agreements with the same counterparty. In addition, the Firm exchanges securities and/or cash collateral with its counterparties; this collateral also reduces, in the Firm's view, the economic exposure with the counterparty. Such collateral, along with securities financing balances that do not meet relevant netting criteria under U.S. GAAP, is presented as "Amounts not nettable on the Consolidated balance sheets," and reduces the "Net amounts" presented below, if the Firm has an appropriate legal opinion with respect to the master netting agreement with the counterparty. Where a legal opinion has not been either sought or obtained, the securities financing balances are presented gross in the "Net amounts" below, and related collateral does not reduce the amounts presented.

June 30, 2016					
(in millions)	Gross amounts	Amounts netted on the Consolidated balance sheets	Amounts presented on the Consolidated balance sheets <sup>(b)</sup>	Amounts not nettable on the Consolidated balance sheets <sup>(c)</sup>	Net amounts <sup>(d)</sup>
<b>Assets</b>					
Securities purchased under resale agreements	\$423,422	\$(186,271)	\$237,151	\$(231,324)	\$5,827
Securities borrowed	103,225	—	103,225	(74,417)	28,808
<b>Liabilities</b>					
Securities sold under repurchase agreements	\$339,192	\$(186,271)	\$152,921	\$(135,783)	\$17,138
Securities loaned and other <sup>(a)</sup>	16,505	—	16,505	(16,253)	252
December 31, 2015					
(in millions)	Gross amounts	Amounts netted on the Consolidated balance sheets	Amounts presented on the Consolidated balance sheets <sup>(b)</sup>	Amounts not nettable on the Consolidated balance sheets <sup>(c)</sup>	Net amounts <sup>(d)</sup>
<b>Assets</b>					
Securities purchased under resale agreements	\$368,148	\$(156,258)	\$211,890	\$(206,774)	\$5,116
Securities borrowed	98,721	—	98,721	(65,081)	33,640
<b>Liabilities</b>					
Securities sold under repurchase agreements	\$290,044	\$(156,258)	\$133,786	\$(118,832)	\$14,954
Securities loaned and other <sup>(a)</sup>	22,556	—	22,556	(22,245)	311

Includes securities-for-securities lending transactions of \$4.6 billion and \$4.4 billion at June 30, 2016 and (a) December 31, 2015, respectively, accounted for at fair value, where the Firm is acting as lender. These amounts are presented within other liabilities on the Consolidated balance sheets.

Includes securities financing agreements accounted for at fair value. At June 30, 2016 and December 31, 2015, (b) included securities purchased under resale agreements of \$23.3 billion and \$23.1 billion, respectively, securities borrowed of zero and \$395 million, respectively, and securities sold under agreements to repurchase of \$1.7 billion and \$3.5 billion, respectively. There were no securities loaned accounted for at fair value in either period.

In some cases, collateral exchanged with a counterparty exceeds the net asset or liability balance with that (c) counterparty. In such cases, the amounts reported in this column are limited to the related asset or liability with that counterparty.

Includes securities financing agreements that provide collateral rights, but where an appropriate legal opinion with respect to the master netting agreement has not been either sought or obtained. At June 30, 2016 and December 31, (d) 2015, included \$3.3 billion and \$2.3 billion, respectively, of securities purchased under resale agreements; \$26.2 billion and \$31.3 billion, respectively, of securities borrowed; \$14.5 billion and \$12.6 billion, respectively, of securities sold under agreements to repurchase; and \$93 million and \$45 million, respectively, of securities loaned and other.



The tables below present as of June 30, 2016, and December 31, 2015 the types of financial assets pledged in securities financing agreements and the remaining contractual maturity of the securities financing agreements.

(in millions)	Gross liability balance			
	June 30, 2016		December 31, 2015	
	Securities sold under repurchase agreements	Securities loaned and other <sup>(a)</sup>	Securities sold under repurchase agreements	Securities loaned and other <sup>(a)</sup>
Mortgage-backed securities	\$21,668	\$ —	\$12,790	\$ —
U.S. Treasury and government agencies	175,788	57	154,377	5
Obligations of U.S. states and municipalities	2,114	—	1,316	—
Non-U.S. government debt	98,644	2,502	80,162	4,426
Corporate debt securities	22,187	72	21,286	78
Asset-backed securities	4,212	—	4,394	—
Equity securities	14,579	13,874	15,719	18,047
Total	\$339,192	\$16,505	\$290,044	\$22,556

  

June 30, 2016 (in millions)	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	\$124,686	\$126,730	\$38,856	\$48,920	\$339,192
Total securities loaned and other <sup>(a)</sup>	9,339	384	8	6,774	16,505

  

December 31, 2015 (in millions)	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	\$114,595	\$100,082	\$29,955	\$45,412	\$290,044
Total securities loaned and other <sup>(a)</sup>	8,320	708	793	12,735	22,556

Includes securities-for-securities lending transactions of \$4.6 billion and \$4.4 billion at June 30, 2016 and (a)December 31, 2015, respectively, accounted for at fair value, where the Firm is acting as lender. These amounts are presented within other liabilities on the Consolidated balance sheets.

Transfers not qualifying for sale accounting

At June 30, 2016, and December 31, 2015, the Firm held \$5.6 billion and \$7.5 billion, respectively, of financial assets for which the rights have been transferred to third parties; however, the transfers did not qualify as a sale in accordance with U.S. GAAP. These transfers have been recognized as collateralized financing transactions. The transferred assets are recorded in trading assets and loans, and the corresponding liabilities are recorded predominantly in other borrowed funds on the Consolidated balance sheets.

Note 13 – Loans

Loan accounting framework

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

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

For a detailed discussion of loans, including accounting policies, see Note 14 of JPMorgan Chase’s 2015 Annual Report. See Note 4 of this Form 10-Q for further information on the Firm’s elections of fair value accounting under the fair value option. See Note 3 of this Form 10-Q for further information on loans carried at fair value and classified as trading assets.

Loan portfolio

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

Consumer, excluding credit card <sup>(a)</sup>	Credit card	Wholesale <sup>(f)</sup>
Residential real estate – excluding PCI		
<ul style="list-style-type: none"> <li>• Home equity<sup>(b)</sup></li> <li>• Residential mortgage<sup>(c)</sup></li> </ul>		
Other consumer loans		
<ul style="list-style-type: none"> <li>• Auto<sup>(d)</sup></li> <li>• Business banking<sup>(d)(e)</sup></li> <li>• Student and other</li> </ul>	<ul style="list-style-type: none"> <li>• Credit card loans</li> </ul>	<ul style="list-style-type: none"> <li>• Commercial and industrial</li> <li>• Real estate</li> <li>• Financial institutions</li> <li>• Government agencies</li> <li>• Other<sup>(g)</sup></li> </ul>
Residential real estate – PCI		
<ul style="list-style-type: none"> <li>• Home equity</li> <li>• Prime mortgage</li> <li>• Subprime mortgage</li> <li>• Option ARMs</li> </ul>		

(a) Includes loans held in CCB, prime mortgage and home equity loans held in AM and prime mortgage loans held in Corporate.

(b) Includes senior and junior lien home equity loans.

(c) Includes prime (including option ARMs) and subprime loans.

(d) Includes certain business banking and auto dealer risk-rated loans that apply the wholesale methodology for determining the allowance for loan losses; these loans are managed by CCB, and therefore, for consistency in presentation, are included with the other consumer loan classes.

(e) Predominantly includes Business Banking loans as well as deposit overdrafts.

(f) Includes loans held in CIB, CB, AM and Corporate. Excludes prime mortgage and home equity loans held in AM and prime mortgage loans held in Corporate. Classes are internally defined and may not align with regulatory definitions.

(g) Includes loans to: individuals; SPEs; holding companies; and private education and civic organizations. For more information on exposures to SPEs, see Note 16 of JPMorgan Chase’s 2015 Annual Report.

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

June 30, 2016 (in millions)	Consumer, Credit excluding card <sup>(a)</sup>	Wholesale Total
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	credit card			
Retained	\$ 361,050	\$ 131,507	\$ 374,174	\$ 866,731 <sup>(b)</sup>
Held-for-sale	255	84	3,882	4,221
At fair value	—	—	1,852	1,852
Total	\$ 361,305	\$ 131,591	\$ 379,908	\$ 872,804

December 31, 2015 (in millions)	Consumer, excluding credit card	Credit card <sup>(a)</sup>	Wholesale	Total
Retained	\$ 344,355	\$ 131,387	\$ 357,050	\$ 832,792 <sup>(b)</sup>
Held-for-sale	466	76	1,104	1,646
At fair value	—	—	2,861	2,861
Total	\$ 344,821	\$ 131,463	\$ 361,015	\$ 837,299

(a) Includes accrued interest and fees net of an allowance for the uncollectible portion of accrued interest and fee income.

Loans (other than PCI loans and those for which the fair value option has been elected) are presented net of (b) unearned income, unamortized discounts and premiums, and net deferred loan costs. These amounts were not material as of June 30, 2016, and December 31, 2015.

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

Three months ended June 30, (in millions)	2016			2015				
	Consumer, excluding credit card	Credit card	WholesaleTotal	Consumer, excluding credit card	Credit card	WholesaleTotal		
Purchases	\$824 <sup>(a)(b)</sup>	\$ -	\$ 405	\$1,229	\$1,114 <sup>(a)(b)</sup>	\$ -	\$ 487	\$1,601
Sales	905	—	2,082	2,987	1,207	— <sup>(c)</sup>	3,076	4,283
Retained loans reclassified to held-for-sale	18	—	127	145	1,254	—	115	1,369

Six months ended June 30, (in millions)	2016			2015				
	Consumer, excluding credit card	Credit card	WholesaleTotal	Consumer, excluding credit card	Credit card	WholesaleTotal		
Purchases	\$2,089 <sup>(a)(b)</sup>	\$ -	\$ 693	\$2,782	\$2,722 <sup>(a)(b)</sup>	\$ -	\$ 695	\$3,417
Sales	1,665	—	3,746	5,411	2,943	— <sup>(c)</sup>	5,525	8,468
Retained loans reclassified to held-for-sale	83	—	616	699	1,272	—	435	1,707

Purchases predominantly represent the Firm's voluntary repurchase of certain delinquent loans from loan pools as permitted by Government National Mortgage Association ("Ginnie Mae") guidelines. The Firm typically elects to repurchase these delinquent loans as it continues to service them and/or manage the foreclosure process in accordance with applicable requirements of Ginnie Mae, the Federal Housing Administration ("FHA"), Rural Housing Service of the U.S. Department of Agriculture ("RHS"), and/or the U.S. Department of Veterans Affairs ("VA").

Excludes purchases of retained loans sourced through the correspondent origination channel and underwritten in accordance with the Firm's standards. Such purchases were \$8.4 billion and \$14.2 billion for the three months ended June 30, 2016 and 2015, respectively, and \$17.1 billion and \$25.4 billion for the six months ended June 30, 2016 and 2015, respectively.

(c) Prior period amounts have been revised to conform with current period presentation.

The following table provides information about gains and losses, including lower of cost or fair value adjustments, on loan sales by portfolio segment.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments) <sup>(a)</sup>				
Consumer, excluding credit card	\$64	\$86	\$117	\$177
Credit card	(4)	(7)	(4)	(9)
Wholesale	—	5	(2)	(1)
Total net gains on sales of loans (including lower of cost or fair value adjustments)	\$60	\$84	\$111	\$185

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



## Consumer, excluding credit card loan portfolio

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

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

(in millions)	June 30, 2016	December 31, 2015
Residential real estate – excluding PCI		
Home equity	\$42,371	\$ 45,559
Residential mortgage	184,704	166,239
Other consumer loans		
Auto	64,056	60,255
Business banking	22,047	21,208
Student and other	9,512	10,096
Residential real estate – PCI		
Home equity	14,000	14,989
Prime mortgage	8,240	8,893
Subprime mortgage	3,089	3,263
Option ARMs	13,031	13,853
Total retained loans	\$361,050	\$ 344,355

For further information on consumer credit quality indicators, see Note 14 of JPMorgan Chase's 2015 Annual Report.

Residential real estate – excluding PCI loans

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

Residential real estate – excluding PCI loans

(in millions, except ratios)	Home equity <sup>(g)</sup>		Residential mortgage <sup>(g)</sup>		Total residential real estate – excluding PCI	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Loan delinquency <sup>(a)</sup>						
Current	\$41,234	\$44,299	\$176,141	\$156,463	\$217,375	\$200,762
30–149 days past due	613	708	3,626	4,042	4,239	4,750
150 or more days past due	524	552	4,937	5,734	5,461	6,286
Total retained loans	\$42,371	\$45,559	\$184,704	\$166,239	\$227,075	\$211,798
% of 30+ days past due to total retained loans <sup>(b)</sup>	2.68	% 2.77	% 0.85	% 1.03	% 1.19	% 1.40
90 or more days past due and government guaranteed <sup>(c)</sup>	\$—	\$—	\$5,040	\$6,056	\$5,040	\$6,056
Nonaccrual loans	2,012	2,191	2,365	2,503	4,377	4,694
Current estimated LTV ratios <sup>(d)(e)</sup>						
Greater than 125% and refreshed FICO scores:						
Equal to or greater than 660	\$100	\$165	\$58	\$58	\$158	\$223
Less than 660	22	32	67	77	89	109
101% to 125% and refreshed FICO scores:						
Equal to or greater than 660	952	1,344	194	274	1,146	1,618
Less than 660	303	434	248	291	551	725
80% to 100% and refreshed FICO scores:						
Equal to or greater than 660	3,718	4,537	3,879	3,159	7,597	7,696
Less than 660	1,143	1,409	858	996	2,001	2,405
Less than 80% and refreshed FICO scores:						
Equal to or greater than 660	28,855	29,648	161,194	142,241	190,049	171,889
Less than 660	4,664	4,934	6,739	6,797	11,403	11,731
No FICO/LTV available	2,614	3,056	1,570	1,658	4,184	4,714
U.S. government-guaranteed	—	—	9,897	10,688	9,897	10,688
Total retained loans	\$42,371	\$45,559	\$184,704	\$166,239	\$227,075	\$211,798
Geographic region						
California	\$8,287	\$8,945	\$55,336	\$47,263	\$63,623	\$56,208
New York	8,639	9,147	23,370	21,462	32,009	30,609
Illinois	3,183	3,420	12,882	11,524	16,065	14,944
Texas	2,358	2,532	10,190	9,128	12,548	11,660
Florida	2,285	2,409	7,959	7,177	10,244	9,586
New Jersey	2,413	2,590	6,179	5,567	8,592	8,157
Washington	1,341	1,451	4,871	4,176	6,212	5,627
Arizona	1,957	2,143	3,492	3,155	5,449	5,298
Michigan	1,248	1,350	2,053	1,945	3,301	3,295
Ohio	1,523	1,652	1,356	1,247	2,879	2,899
All other <sup>(f)</sup>	9,137	9,920	57,016	53,595	66,153	63,515
Total retained loans	\$42,371	\$45,559	\$184,704	\$166,239	\$227,075	\$211,798

(a) Individual delinquency classifications include mortgage loans insured by U.S. government agencies as follows: current included \$2.9 billion and \$2.6 billion; 30–149 days past due included \$2.8 billion and \$3.2 billion; and 150

or more days past due included \$4.2 billion and \$4.9 billion at June 30, 2016, and December 31, 2015, respectively.

- (b) At June 30, 2016, and December 31, 2015, Residential mortgage loans excluded mortgage loans insured by U.S. government agencies of \$7.0 billion and \$8.1 billion, respectively. These amounts have been excluded from nonaccrual loans based upon the government guarantee.

These balances, which are 90 days or more past due, were excluded from nonaccrual loans as the loans are guaranteed by U.S. government agencies. Typically the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting agreed-upon servicing guidelines. At June 30, (c) 2016, and December 31, 2015, these balances included \$2.9 billion and \$3.4 billion, respectively, of loans that are no longer accruing interest based on the agreed-upon servicing guidelines. For the remaining balance, interest is being accrued at the guaranteed reimbursement rate. There were no loans not guaranteed by U.S. government agencies that are 90 or more days past due and still accruing at June 30, 2016, and December 31, 2015.

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

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

- (f) At June 30, 2016, and December 31, 2015, included mortgage loans insured by U.S. government agencies of \$9.9 billion and \$10.7 billion, respectively.

- (g) Includes residential real estate loans to private banking clients in AM, for which the primary credit quality indicators are the borrower's financial position and LTV.



The following table represents the Firm's delinquency statistics for junior lien home equity loans and lines as of June 30, 2016, and December 31, 2015.

(in millions, except ratios)	Total loans		Total 30+ day delinquency rate	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
HELOCs: <sup>(a)</sup>				
Within the revolving period <sup>(b)</sup>	\$13,220	\$17,050	1.32%	1.57%
Beyond the revolving period	12,738	11,252	2.92	3.10
HELOANs	2,148	2,409	2.65	3.03
Total	\$28,106	\$30,711	2.15%	2.25%

(a) These HELOCs are predominantly revolving loans for a 10-year period, after which time the HELOC converts to a loan with a 20-year amortization period, but also include HELOCs that allow interest-only payments beyond the revolving period.

(b) The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are experiencing financial difficulty or when the collateral does not support the loan amount.

HELOCs beyond the revolving period and home equity loans HELOANs have higher delinquency rates than do HELOCs within the revolving period. That is primarily because the fully-amortizing payment that is generally required for those products is higher than the minimum payment options available for HELOCs within the revolving period. The higher delinquency rates associated with amortizing HELOCs and HELOANs are factored into the Firm's allowance for loan losses.

#### Impaired loans

The table below sets forth information about the Firm's residential real estate impaired loans, excluding PCI loans. These loans are considered to be impaired as they have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 of JPMorgan Chase's 2015 Annual Report.

(in millions)	Home equity		Residential mortgage		Total residential real estate – excluding PCI	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Impaired loans						
With an allowance	\$1,295	\$1,293	\$5,001	\$5,243	\$6,296	\$6,536
Without an allowance <sup>(a)</sup>	1,009	1,065	1,376	1,447	2,385	2,512
Total impaired loans <sup>(b)(c)</sup>	\$2,304	\$2,358	\$6,377	\$6,690	\$8,681	\$9,048
Allowance for loan losses related to impaired loans	\$146	\$138	\$79	\$108	\$225	\$246
Unpaid principal balance of impaired loans <sup>(d)</sup>	3,870	3,960	8,718	9,082	12,588	13,042
Impaired loans on nonaccrual status <sup>(e)</sup>	1,144	1,220	1,846	1,957	2,990	3,177

(a) Represents collateral-dependent residential mortgage loans that are charged off to the fair value of the underlying collateral less cost to sell. The Firm reports, in accordance with regulatory guidance, residential real estate loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status. At June 30, 2016, Chapter 7 residential real estate loans included approximately 13% of home equity and 16% of residential mortgages that were 30 days or more past due.

(b)

At June 30, 2016, and December 31, 2015, \$3.7 billion and \$3.8 billion, respectively, of loans modified subsequent to repurchase from Ginnie Mae in accordance with the standards of the appropriate government agency (i.e., FHA, VA, RHS) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure.

(c) Predominantly all residential real estate impaired loans, excluding PCI loans, are in the U.S.

Represents the contractual amount of principal owed at June 30, 2016, and December 31, 2015. The unpaid

(d) principal balance differs from the impaired loan balances due to various factors, including charge-offs; net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.

As of June 30, 2016, and December 31, 2015, nonaccrual loans included \$2.4 billion and \$2.5 billion, respectively, of TDRs for which the borrowers were less than 90 days past due. For additional information about loans modified in a TDR that are on nonaccrual status refer to the Loan accounting framework in Note 14 of JPMorgan Chase's 2015 Annual Report.

The following tables present average impaired loans and the related interest income reported by the Firm.

Three months ended June 30,	Average impaired loans		Interest income on impaired loans <sup>(a)</sup>		Interest income on impaired loans on a cash basis <sup>(a)</sup>	
					2016	2015
(in millions)	2016	2015	2016	2015	2016	2015
Home equity	\$2,340	\$2,371	\$32	\$33	\$20	\$22
Residential mortgage	6,453	8,153	77	90	20	23
Total residential real estate – excluding PCI	\$8,793	\$10,524	\$109	\$123	\$40	\$45

Six months ended June 30,	Average impaired loans		Interest income on impaired loans <sup>(a)</sup>		Interest income on impaired loans on a cash basis <sup>(a)</sup>	
					2016	2015
(in millions)	2016	2015	2016	2015	2016	2015
Home equity	\$2,350	\$2,382	\$63	\$66	\$41	\$44
Residential mortgage	6,534	8,512	155	186	39	46
Total residential real estate – excluding PCI	\$8,884	\$10,894	\$218	\$252	\$80	\$90

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

#### Loan modifications

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

The following table presents new TDRs reported by the Firm.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Home equity	\$70	\$75	\$196	\$147
Residential mortgage	59	73	122	155
Total residential real estate – excluding PCI	\$129	\$148	\$318	\$302

## Nature and extent of modifications

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

The following tables provide information about how residential real estate loans, excluding PCI loans, were modified under the above loss mitigation programs during the periods presented. These tables exclude Chapter 7 loans where the sole concession granted is the discharge of debt.

Three months ended June 30,	Home equity		Residential mortgage		Total residential real estate – excluding PCI		
	2016	2015	2016	2015	2016	2015	
Number of loans approved for a trial modification	688	387	555	661	1,243	1,048	
Number of loans permanently modified	949	956	979	742	1,928	1,698	
Concession granted: <sup>(a)</sup>							
Interest rate reduction	80	%75	%71	%73	%75	%74	%
Term or payment extension	84	87	90	81	87	84	
Principal and/or interest deferred	20	26	16	25	18	26	
Principal forgiveness	11	4	29	27	20	14	
Other <sup>(b)</sup>	1	—	23	9	12	4	

Six months ended June 30,	Home equity		Residential mortgage		Total residential real estate – excluding PCI		
	2016	2015	2016	2015	2016	2015	
Number of loans approved for a trial modification	1,737	897	1,135	1,328	2,872	2,225	
Number of loans permanently modified	2,641	1,726	1,711	1,592	4,352	3,318	
Concession granted: <sup>(a)</sup>							
Interest rate reduction	71	%76	%72	%70	%71	%73	%
Term or payment extension	88	86	90	81	89	84	
Principal and/or interest deferred	18	27	19	28	18	28	
Principal forgiveness	10	5	27	29	17	16	
Other <sup>(b)</sup>	1	—	21	9	9	5	

Represents concessions granted in permanent modifications as a percentage of the number of loans permanently modified. The sum of the percentages exceeds 100% because predominantly all of the modifications include more than one type of concession. A significant portion of trial modifications include interest rate reductions and/or term or payment extensions.

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

## Financial effects of modifications and redefaults

The following tables provide information about the financial effects of the various concessions granted in modifications of residential real estate loans, excluding PCI, under the above loss mitigation programs and about redefaults of certain loans modified in TDRs for the periods presented. Because the specific types and amounts of concessions offered to borrowers frequently change between the trial modification and the permanent modification, the following tables present only the financial effects of permanent modifications. These tables also exclude Chapter 7 loans where the sole concession granted is the discharge of debt.

Three months ended June 30, (in millions, except weighted-average data and number of loans)	Home equity		Residential mortgage		Total residential real estate – excluding PCI	
	2016	2015	2016	2015	2016	2015
	Weighted-average interest rate of loans with interest rate reductions – before TDR	5.28%	5.1%	5.67%	5.66%	5.54%
Weighted-average interest rate of loans with interest rate reductions – after TDR	2.52	2.49	2.98	2.74	2.83	2.65
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	17	18	25	24	22	22
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	38	33	38	37	38	35
Charge-offs recognized upon permanent modification	\$—	\$1	\$1	\$3	\$1	\$4
Principal deferred	4	7	9	14	13	21
Principal forgiven	1	1	13	14	14	15
Balance of loans that redefaulted within one year of permanent modification <sup>(a)</sup>	\$11	\$5	\$26	\$37	\$37	\$42

Six months ended June 30, (in millions, except weighted-average data and number of loans)	Home equity		Residential mortgage		Total residential real estate – excluding PCI	
	2016	2015	2016	2015	2016	2015
	Weighted-average interest rate of loans with interest rate reductions – before TDR	5.13%	5.2%	5.60%	5.72%	5.40%
Weighted-average interest rate of loans with interest rate reductions – after TDR	2.46	2.45	2.92	2.74	2.73	2.65
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	18	18	25	25	22	23
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	38	33	38	37	38	36
Charge-offs recognized upon permanent modification	\$1	\$2	\$2	\$5	\$3	\$7
Principal deferred	12	13	19	32	31	45
Principal forgiven	4	2	25	33	29	35
Balance of loans that redefaulted within one year of permanent modification <sup>(a)</sup>	\$20	\$9	\$48	\$68	\$68	\$77

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

At June 30, 2016, the weighted-average estimated remaining lives of residential real estate loans, excluding PCI loans, permanently modified in TDRs were 9 years for home equity and 10 years for residential mortgages. The estimated remaining lives of these loans reflect estimated prepayments, both voluntary and involuntary (i.e., foreclosures and other forced liquidations).

Active and suspended foreclosure

At June 30, 2016, and December 31, 2015, the Firm had non-PCI residential real estate loans, excluding those insured by U.S. government agencies, with a carrying value of \$1.0 billion and \$1.2 billion, respectively, that were not included in REO, but were in the process of active or suspended foreclosure.

## Other consumer loans

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

(in millions, except ratios)	Auto		Business banking		Student and other		Total other consumer		
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	
Loan delinquency <sup>(a)</sup>									
Current	\$63,313	\$59,442	\$21,741	\$20,887	\$8,930	\$9,405	\$93,984	\$89,734	
30–119 days past due	736	804	182	215	363	445	1,281	1,464	
120 or more days past due	7	9	124	106	219	246	350	361	
Total retained loans	\$64,056	\$60,255	\$22,047	\$21,208	\$9,512	\$10,096	\$95,615	\$91,559	
% of 30+ days past due to total retained loans	1.16	% 1.35	% 1.39	% 1.51	% 1.30	% <sup>(d)</sup> 1.63	% <sup>(d)</sup> 1.23	% <sup>(d)</sup> 1.42	% <sup>(d)</sup>
90 or more days past due and still accruing <sup>(b)</sup>	\$—	\$—	\$—	\$—	\$252	\$290	\$252	\$290	
Nonaccrual loans	208	116	290	263	210	242	708	621	
Geographic region									
California	\$7,785	\$7,186	\$3,888	\$3,530	\$985	\$1,051	\$12,658	\$11,767	
New York	3,929	3,874	3,375	3,359	1,203	1,224	8,507	8,457	
Illinois	4,004	3,678	1,559	1,459	633	679	6,196	5,816	
Texas	6,896	6,457	2,692	2,622	784	839	10,372	9,918	
Florida	3,286	2,843	1,015	941	482	516	4,783	4,300	
New Jersey	2,024	1,998	507	500	336	366	2,867	2,864	
Washington	1,177	1,135	269	264	196	212	1,642	1,611	
Arizona	2,194	2,033	1,247	1,205	229	236	3,670	3,474	
Michigan	1,496	1,550	1,331	1,361	386	415	3,213	3,326	
Ohio	2,293	2,340	1,385	1,363	523	559	4,201	4,262	
All other	28,972	27,161	4,779	4,604	3,755	3,999	37,506	35,764	
Total retained loans	\$64,056	\$60,255	\$22,047	\$21,208	\$9,512	\$10,096	\$95,615	\$91,559	
Loans by risk ratings <sup>(c)</sup>									
Noncriticized	\$12,422	\$11,277	\$16,245	\$15,505	NA	NA	\$28,667	\$26,782	
Criticized performing	150	76	757	815	NA	NA	907	891	
Criticized nonaccrual	103	—	239	210	NA	NA	342	210	

Student loan delinquency classifications included loans insured by U.S. government agencies under the FFELP as follows: current included \$3.6 billion and \$3.8 billion; 30-119 days past due included \$256 million and \$299 million; and 120 or more days past due included \$202 million and \$227 million at June 30, 2016, and December 31, 2015, respectively.

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

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

June 30, 2016, and December 31, 2015, excluded loans 30 days or more past due and still accruing, which are (d)insured by U.S. government agencies under the FFELP, of \$458 million and \$526 million, respectively. These amounts were excluded as reimbursement of insured amounts is proceeding normally.



### Other consumer impaired loans and loan modifications

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

(in millions)	June 30, December 31,	
	2016	2015
Impaired loans		
With an allowance	\$ 660	\$ 527
Without an allowance <sup>(a)</sup>	29	31
Total impaired loans <sup>(b)(c)</sup>	\$ 689	\$ 558
Allowance for loan losses related to impaired loans	\$ 140	\$ 118
Unpaid principal balance of impaired loans <sup>(d)</sup>	801	668
Impaired loans on nonaccrual status	562	449

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

(b) Predominantly all other consumer impaired loans are in the U.S.

(c) Other consumer average impaired loans were \$622 million and \$566 million for the three months ended June 30, 2016 and 2015, respectively, and \$596 million and \$576 million for the six months ended June 30, 2016 and 2015, respectively. The related interest income on impaired loans, including those on a cash basis, was not material for the three and six months ended June 30, 2016 and 2015.

(d) Represents the contractual amount of principal owed at June 30, 2016, and December 31, 2015. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the principal balance; net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.

### Loan modifications

Certain other consumer loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. All of these TDRs are reported as impaired loans in the table above. See Note 14 of JPMorgan Chase's 2015 Annual Report for further information on other consumer loans modified in TDRs.

The following table provides information about the Firm's other consumer loans modified in TDRs. New TDRs were not material for the three and six months ended June 30, 2016 and 2015.

(in millions)	June 30, December 31,	
	2016	2015
Loans modified in TDRs <sup>(a)(b)</sup>	\$ 382	\$ 384
TDRs on nonaccrual status	255	275

(a) The impact of these modifications was not material to the Firm for the three and six months ended June 30, 2016 and 2015.

(b) Additional commitments to lend to borrowers whose loans have been modified in TDRs as of June 30, 2016, and December 31, 2015, were immaterial.

Purchased credit-impaired loans

For a detailed discussion of PCI loans, including the related accounting policies, see Note 14 of JPMorgan Chase's 2015 Annual Report.

Residential real estate – PCI loans

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

(in millions, except ratios)	Home equity		Prime mortgage		Subprime mortgage		Option ARMs		Total PCI	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Carrying value <sup>(a)</sup>	\$14,000	\$14,989	\$8,240	\$8,893	\$3,089	\$3,263	\$13,031	\$13,853	\$38,360	\$40,998
Related allowance for loan losses <sup>(b)</sup>	1,708	1,708	897	985	—	—	49	49	2,654	2,742
Loan delinquency (based on unpaid principal balance)										
Current	\$13,500	\$14,387	\$7,374	\$7,894	\$3,145	\$3,232	\$11,782	\$12,370	\$35,801	\$37,883
30–149 days past due	279	322	383	424	387	439	615	711	1,664	1,896
150 or more days past due	543	633	507	601	274	380	1,028	1,272	2,352	2,886
Total loans	\$14,322	\$15,342	\$8,264	\$8,919	\$3,806	\$4,051	\$13,425	\$14,353	\$39,817	\$42,665
% of 30+ days past due to total loans	5.74	%6.22	%10.77	%11.49	%17.37	%20.22	%12.24	%13.82	%10.09	%11.21
Current estimated LTV ratios (based on unpaid principal balance) <sup>(c)(d)</sup>										
Greater than 125% and refreshed FICO scores:										
Equal to or greater than 660	\$100	\$153	\$7	\$10	\$6	\$10	\$15	\$19	\$128	\$192
Less than 660	53	80	18	28	37	55	27	36	135	199
101% to 125% and refreshed FICO scores:										
Equal to or greater than 660	722	942	73	120	52	77	108	166	955	1,305

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Less than 660	335	444	108	152	167	220	179	239	789	1,055
80% to 100% and refreshed FICO scores: Equal to or greater than 660	2,279	2,709	604	816	269	331	747	977	3,899	4,833
Less than 660	974	1,136	476	614	522	643	813	1,050	2,785	3,443
Lower than 80% and refreshed FICO scores: Equal to or greater than 660	6,821	6,724	4,164	4,243	921	863	6,994	7,073	18,900	18,903
Less than 660	2,250	2,265	2,382	2,438	1,644	1,642	3,913	4,065	10,189	10,410
No FICO/LTV available	788	889	432	498	188	210	629	728	2,037	2,325
Total unpaid principal balance	\$14,322	\$15,342	\$8,264	\$8,919	\$3,806	\$4,051	\$13,425	\$14,353	\$39,817	\$42,665
Geographic region (based on unpaid principal balance)										
California	\$8,590	\$9,205	\$4,791	\$5,172	\$952	\$1,005	\$7,620	\$8,108	\$21,953	\$23,490
New York	745	788	538	580	377	400	758	813	2,418	2,581
Illinois	339	358	242	263	185	196	297	333	1,063	1,150
Texas	204	224	86	94	227	243	70	75	587	636
Florida	1,393	1,479	540	586	348	373	1,098	1,183	3,379	3,621
New Jersey	297	310	222	238	129	139	431	470	1,079	1,157
Washington	748	819	180	194	74	81	319	339	1,321	1,433
Arizona	263	281	133	143	72	76	193	203	661	703
Michigan	41	44	131	141	106	113	140	150	418	448
Ohio	15	17	42	45	59	62	54	61	170	185
All other	1,687	1,817	1,359	1,463	1,277	1,363	2,445	2,618	6,768	7,261
Total unpaid principal balance	\$14,322	\$15,342	\$8,264	\$8,919	\$3,806	\$4,051	\$13,425	\$14,353	\$39,817	\$42,665

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

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

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

related to the property.

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

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Approximately 23% of the PCI home equity portfolio are senior lien loans; the remaining balance are junior lien HELOANs or HELOCs. The following tables set forth delinquency statistics for PCI junior lien home equity loans and lines of credit based on the unpaid principal balance as of June 30, 2016, and December 31, 2015.

(in millions, except ratios)	Total loans		Total 30+ day delinquency rate	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
HELOCs: <sup>(a)</sup>				
Within the revolving period <sup>(b)</sup>	\$3,476	\$5,000	3.60%	4.10%
Beyond the revolving period <sup>(c)</sup>	6,975	6,252	3.94	4.46
HELOANs	525	582	4.76	5.33
Total	\$10,976	\$11,834	3.87%	4.35%

(a) In general, these HELOCs are revolving loans for a 10-year period, after which time the HELOC converts to an interest-only loan with a balloon payment at the end of the loan's term.

(b) Substantially all undrawn HELOCs within the revolving period have been closed.

(c) Includes loans modified into fixed rate amortizing loans.

The table below sets forth the accretable yield activity for the Firm's PCI consumer loans for the three and six months ended June 30, 2016 and 2015, and represents the Firm's estimate of gross interest income expected to be earned over the remaining life of the PCI loan portfolios. The table excludes the cost to fund the PCI portfolios, and therefore the accretable yield does not represent net interest income expected to be earned on these portfolios.

(in millions, except ratios)	Total PCI			
	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Beginning balance	\$12,674	\$14,034	\$13,491	\$14,592
Accretion into interest income	(395 )	(430 )	(802 )	(866 )
Changes in interest rates on variable-rate loans	25	12	101	18
Other changes in expected cash flows <sup>(a)</sup>	(3 )	125	(489 )	(3 )
Balance at June 30	\$12,301	\$13,741	\$12,301	\$13,741
Accretable yield percentage	4.37 %	4.18 %	4.36 %	4.16 %

Other changes in expected cash flows may vary from period to period as the Firm continues to refine its cash flow (a) model and periodically updates model assumptions. For the three and six months ended June 30, 2016 and 2015, other changes in expected cash flows were driven by changes in prepayment assumptions.

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

#### Active and suspended foreclosure

At June 30, 2016, and December 31, 2015, the Firm had PCI residential real estate loans with an unpaid principal balance of \$1.9 billion and \$2.3 billion, respectively, that were not included in REO, but were in the process of active or suspended foreclosure.

#### Credit card loan portfolio

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

(in millions, except ratios)	June 30, 2016	December 31, 2015
Loan delinquency		
Current and less than 30 days	\$129,664	\$129,502

past due and still accruing			
30–89 days past due and still accruing	926	941	
90 or more days past due and still accruing	917	944	
Total retained credit card loans	\$131,507	\$131,387	
Loan delinquency ratios			
% of 30+ days past due to total retained loans	1.40	% 1.43	%
% of 90+ days past due to total retained loans	0.70	0.72	
Credit card loans by geographic region			
California	\$18,946	\$18,802	
Texas	12,086	11,847	
New York	11,323	11,360	
Florida	7,823	7,806	
Illinois	7,670	7,655	
New Jersey	5,847	5,879	
Ohio	4,624	4,700	
Pennsylvania	4,465	4,533	
Michigan	3,504	3,562	
Colorado	3,486	3,399	
All other	51,733	51,844	
Total retained credit card loans	\$131,507	\$131,387	
Percentage of portfolio based on carrying value with estimated refreshed FICO scores <sup>(a)</sup>			
Equal to or greater than 660	85.2	% 84.4	%
Less than 660	13.4	13.1	
No FICO available	1.4	2.5	

The current period percentage of portfolio based on carrying value with estimated refreshed FICO scores (a) disclosures have been updated to reflect where the FICO score is unavailable. The prior period amounts have been revised to conform with the current presentation.

#### Credit card impaired loans and loan modifications

For a detailed discussion of impaired credit card loans, including credit card loan modifications, see Note 14 of JPMorgan Chase's 2015 Annual Report.

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

(in millions)	June 30, December 31,	
	2016	2015
Impaired credit card loans with an allowance <sup>(a)(b)</sup>		
Credit card loans with modified payment terms <sup>(c)</sup>	\$ 1,156	\$ 1,286
Modified credit card loans that have reverted to pre-modification payment terms <sup>(d)</sup>	151	179
Total impaired credit card loans <sup>(e)</sup>	\$ 1,307	\$ 1,465
Allowance for loan losses related to impaired credit card loans	\$ 361	\$ 460

(a) The carrying value and the unpaid principal balance are the same for credit card impaired loans.

(b) There were no impaired loans without an allowance.

(c) Represents credit card loans outstanding to borrowers enrolled in a credit card modification program as of the date presented.

(d) Represents credit card loans that were modified in TDRs but that have subsequently reverted back to the loans' pre-modification payment terms.

At June 30, 2016, and December 31, 2015, \$96 million and \$113 million, respectively, of loans have reverted back to the pre-modification payment terms of the loans due to noncompliance with the terms of the modified loans. The remaining \$55 million and \$66 million at June 30, 2016, and December 31, 2015, respectively, of these loans are to borrowers who have successfully completed a short-term modification program. The Firm continues to report these loans as TDRs since the borrowers' credit lines remain closed.

(e) Predominantly all impaired credit card loans are in the U.S.

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

(in millions)	Three months		Six months	
	ended June		ended June	
	2016	2015	2016	2015
Average impaired credit card loans	\$ 1,345	\$ 1,769	\$ 1,390	\$ 1,854
Interest income on impaired credit card loans	16	21	33	44

#### Loan modifications

The Firm may modify loans to credit card borrowers who are experiencing financial difficulty. Most of these loans have been modified under programs that involve placing the customer on a fixed payment plan with a reduced interest rate, generally for 60 months. All of these credit card loan modifications are considered to be TDRs. New enrollments in these loan modification programs were \$141 million and \$151 million, for the three months ended June 30, 2016 and 2015, respectively, and \$300 million and \$329 million for the six months ended June 30, 2016 and 2015, respectively. For additional information about credit card loan modifications, see Note 14 of JPMorgan Chase's 2015 Annual Report.

#### Financial effects of modifications and redefaults

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

(in millions, except weighted-average data)	Three months		Six months	
	ended June		ended June	
	2016	2015	2016	2015
Weighted-average interest rate of loans – before TDR	15.6%	15.1%	15.5%	15.1%
Weighted-average interest rate of loans – after TDR	4.85	4.27	4.82	4.28
Loans that redefaulted within one year of modification <sup>(a)</sup>	\$ 18	\$ 20	\$ 37	\$ 42

(a)

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

For credit card loans modified in TDRs, payment default is deemed to have occurred when the loans become two payments past due. A substantial portion of these loans is expected to be charged-off in accordance with the Firm's standard charge-off policy. Based on historical experience, the estimated weighted-average default rate for modified credit card loans was expected to be 27.62% and 25.61% as of June 30, 2016, and December 31, 2015, respectively.



## Wholesale loan portfolio

Wholesale loans include loans made to a variety of customers, ranging from large corporate and institutional clients to high-net-worth individuals. The primary credit quality indicator for wholesale loans is the risk rating

assigned to each loan. For further information on these risk ratings, see Note 14 and Note 15 of JPMorgan Chase's 2015

Annual Report.

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

(in millions, except ratios)	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other <sup>(d)</sup>
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016
Loans by risk ratings									
Investment-grade	\$64,981	\$62,150	\$80,968	\$74,330	\$23,869	\$21,786	\$14,032	\$11,363	\$96,234
Noninvestment-grade:									
Noncriticized	46,665	45,632	17,202	17,008	6,662	7,667	465	256	12,663
Criticized performing	7,024	4,542	837	1,251	292	320	6	7	181
Criticized nonaccrual	1,662	608	223	231	17	10	—	—	191
Total noninvestment-grade	55,351	50,782	18,262	18,490	6,971	7,997	471	263	13,035
Total retained loans	\$120,332	\$112,932	\$99,230	\$92,820	\$30,840	\$29,783	\$14,503	\$11,626	\$109,269
% of total criticized exposure to total retained loans	7.22	% 4.56	% 1.07	% 1.60	% 1.00	% 1.11	% 0.04	% 0.06	% 0.34
% of criticized nonaccrual to total retained loans	1.38	0.54	0.22	0.25	0.06	0.03	—	—	0.17
Loans by geographic distribution <sup>(a)</sup>									
Total non-U.S.	\$32,659	\$30,063	\$3,152	\$3,003	\$16,741	\$17,166	\$4,302	\$1,788	\$42,262
Total U.S.	87,673	82,869	96,078	89,817	14,099	12,617	10,201	9,838	67,007
Total retained loans	\$120,332	\$112,932	\$99,230	\$92,820	\$30,840	\$29,783	\$14,503	\$11,626	\$109,269
Loan delinquency <sup>(b)</sup>									
Current and less than 30 days past due and still accruing	\$118,447	\$112,058	\$98,947	\$92,381	\$30,727	\$29,713	\$14,484	\$11,565	\$108,152
30–89 days past due and still accruing	165	259	56	193	80	49	15	55	904
90 or more days past due and still accruing <sup>(c)</sup>	58	7	4	15	16	11	4	6	22
Criticized nonaccrual	1,662	608	223	231	17	10	—	—	191
Total retained loans	\$120,332	\$112,932	\$99,230	\$92,820	\$30,840	\$29,783	\$14,503	\$11,626	\$109,269

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.

The credit quality of wholesale loans is assessed primarily through ongoing review and monitoring of an obligor's (b)ability to meet contractual obligations rather than relying on the past due status, which is generally a lagging indicator of credit quality. For further discussion, see Note 14 of JPMorgan Chase's 2015 Annual Report.

- (c) Represents loans that are considered well-collateralized and therefore still accruing interest.
- (d) Other includes: individuals; SPEs; holding companies; and private education and civic organizations. For more information on exposures to SPEs, see Note 16 of JPMorgan Chase's 2015 Annual Report.

The following table presents additional information on the real estate class of loans within the Wholesale portfolio segment for the periods indicated. For further information on real estate loans, see Note 14 of JPMorgan Chase's 2015 Annual Report.

(in millions, except ratios)	Multifamily		Commercial lessors		Commercial construction and development		Other		Total real estate loans		
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	
Real estate retained loans	\$62,396	\$60,290	\$23,900	\$20,062	\$5,205	\$4,920	\$7,729	\$7,548	\$99,230	\$92,820	
Criticized exposure	514	520	483	844	55	43	8	75	1,060	1,482	
% of total criticized exposure to total real estate retained loans	0.82	%0.86	% 2.02	%4.21	% 1.06	%0.87	% 0.10	%0.99	% 1.07	%1.60	%
Criticized nonaccrual loans to total real estate retained loans	\$117	\$85	\$106	\$100	\$—	\$1	\$—	\$45	\$223	\$231	
% of criticized nonaccrual loans to total real estate retained loans	0.19	%0.14	% 0.44	%0.50	% —	%0.02	% —	%0.60	% 0.22	%0.25	%

#### Wholesale impaired loans and loan modifications

Wholesale impaired loans consist of loans that have been placed on nonaccrual status and/or that have been modified in a TDR. All impaired loans are evaluated for an asset-specific allowance as described in Note 15 of JPMorgan Chase's 2015 Annual Report.

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

(in millions)	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other		Total retained loans	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Impaired loans												
With an allowance	\$1,423	\$522	\$150	\$148	\$17	\$10	\$—	—	—\$58	\$46	\$1,648	\$726
Without an allowance <sup>(a)</sup>	278	98	89	106	—	—	—	—	134	94	501	298
Total impaired loans	\$1,701	\$620	\$239	\$254	\$17	\$10	\$—	—	—\$192	\$140	\$2,149 <sup>(c)</sup>	\$1,024 <sup>(c)</sup>
Allowance for loan losses related to impaired loans	\$468	\$220	\$25	\$27	\$4	\$3	\$—	—	—\$28	\$24	\$525	\$274
Unpaid principal balance of impaired loans <sup>(b)</sup>	1,942	669	340	363	20	13	—	—	208	164	2,510	1,209

(a) When the discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially

charged-off and/or there have been interest payments received and applied to the loan balance.

(b) Represents the contractual amount of principal owed at June 30, 2016, and December 31, 2015. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; interest payments received and applied to the carrying value; net deferred loan fees or costs; and unamortized discount or premiums on purchased loans.

(c) Based upon the domicile of the borrower, largely consists of loans in the U.S.

The following table presents the Firm's average impaired loans for the periods indicated.

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Commercial and industrial	\$1,704	\$355	\$1,413	\$303
Real estate	235	242	234	255
Financial institutions	11	15	11	15
Government agencies	—	1	—	1
Other	194	114	189	111
Total <sup>(a)</sup>	\$2,144	\$727	\$1,847	\$685

(a) The related interest income on accruing impaired loans and interest income recognized on a cash basis were not material for the three and six months

ended June 30, 2016 and 2015.

Certain loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. All TDRs are reported as impaired loans in the tables above. TDRs were \$355 million and \$208 million as of June 30, 2016, and December 31, 2015, respectively.

## Note 14 – Allowance for credit losses

For detailed discussion of the allowance for credit losses and the related accounting policies, see Note 15 of JPMorgan Chase's 2015 Annual Report.

## Allowance for credit losses and related information

The table below summarizes information about the allowances for loan losses and lending-related commitments, and includes a breakdown of loans and lending-related commitments by impairment methodology.

Six months ended June 30, (in millions)	2016				2015			
	Consumer, excluding credit card	Credit card	Wholesale Total		Consumer, excluding credit card	Credit card	Wholesale Total	
Allowance for loan losses								
Beginning balance at January 1,	\$5,806	\$3,434	\$4,315	\$13,555	7,050	\$3,439	\$3,696	\$14,185
Gross charge-offs	688	1,874	228	2,790	827	1,776	33	2,636
Gross recoveries	(301)	(184)	(14)	(499)	(337)	(187)	(53)	(577)
Net charge-offs/(recoveries)	387	1,690	214	2,291	490	1,589	(20)	2,059
Write-offs of PCI loans <sup>(a)</sup>	88	—	—	88	110	—	—	110
Provision for loan losses	316	1,940	796	3,052	42	1,589	265	1,896
Other	(1)	—	—	(1)	—	(5)	8	3
Ending balance at June 30,	\$5,646	\$3,684	\$4,897	\$14,227	\$6,492	\$3,434	\$3,989	\$13,915
Allowance for loan losses by impairment methodology								
Asset-specific <sup>(b)</sup>	\$365	\$361	<sup>(c)</sup> \$525	\$1,251	\$436	\$518	<sup>(c)</sup> \$147	\$1,101
Formula-based	2,627	3,323	4,372	10,322	2,841	2,916	3,842	9,599
PCI	2,654	—	—	2,654	3,215	—	—	3,215
Total allowance for loan losses	\$5,646	\$3,684	\$4,897	\$14,227	\$6,492	\$3,434	\$3,989	\$13,915
Loans by impairment methodology								
Asset-specific	\$9,370	\$1,307	\$2,149	\$12,826	\$9,960	\$1,685	\$908	\$12,553
Formula-based	313,320	130,200	372,021	815,541	263,015	123,020	337,307	723,342
PCI	38,360	—	4	38,364	43,806	—	4	43,810
Total retained loans	\$361,050	\$131,507	\$374,174	\$866,731	\$316,781	\$124,705	\$338,219	\$779,705
Impaired collateral-dependent loans								
Net charge-offs	\$43	\$—	\$5	\$48	\$33	\$—	\$2	\$35
Loans measured at fair value of collateral less cost to sell	2,431	—	295	2,726	2,695	—	307	3,002

Allowance for lending-related commitments									
Beginning balance at January 1,	\$ 14	\$—	\$772	\$786	\$ 13	\$—	\$609	\$622	
Provision for lending-related commitments	—	—	174	174	2	—	(4	)(2	)
Ending balance at June 30,	\$ 14	\$—	\$946	\$960	\$ 15	\$—	\$605	\$620	
Allowance for lending-related commitments by impairment methodology									
Asset-specific	\$—	\$—	\$143	\$143	\$—	\$—	\$55	\$55	
Formula-based	14	—	803	817	15	—	550	565	
Total allowance for lending-related commitments	\$ 14	\$—	\$946	\$960	\$ 15	\$—	\$605	\$620	
Lending-related commitments by impairment methodology									
Asset-specific	\$—	\$—	\$460	\$460	\$—	\$—	\$133	\$133	
Formula-based	59,224	539,105	356,685	955,014	59,817	523,717	351,915	935,449	
Total lending-related commitments	\$59,224	\$539,105	\$357,145	\$955,474	\$59,817	\$523,717	\$352,048	\$935,582	

Write-offs of PCI loans are recorded against the allowance for loan losses when actual losses for a pool exceed (a) estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. A write-off of a PCI loan is recognized when the underlying loan is removed from a pool (e.g., upon liquidation).

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

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

## Note 15 – Variable interest entities

For a further description of JPMorgan Chase’s accounting policies regarding consolidation of VIEs, see Note 1 of JPMorgan Chase’s 2015 Annual Report.

The following table summarizes the most significant types of Firm-sponsored VIEs by business segment.

Line-of-Business	Transaction Type	Activity	Form 10-Q page reference
CCB	Credit card securitization trusts	Securitization of both originated and purchased credit card receivables	138
	Mortgage securitization trusts	Servicing and securitization of both originated and purchased residential mortgages	138–140
CIB	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, and student loans	138–140
	Multi-seller conduits	Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to meet investor needs	140
	Municipal bond vehicles		140–141

The Firm also invests in and provides financing and other services to VIEs sponsored by third parties, as described on page 141 of this Note.

## Significant Firm-sponsored variable interest entities

## Credit card securitizations

For a more detailed discussion of JPMorgan Chase’s involvement with credit card securitizations, see Note 16 of JPMorgan Chase’s 2015 Annual Report.

As a result of the Firm’s continuing involvement, the Firm is considered to be the primary beneficiary of its Firm-sponsored credit card securitization trusts, including its primary vehicle, the Chase Issuance Trust. See the table on page 142 of this Note for further information on consolidated VIE assets and liabilities.

## Firm-sponsored mortgage and other securitization trusts

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

For a detailed discussion of the Firm’s involvement with Firm-sponsored mortgage and other securitization trusts, as well as the accounting treatment relating to such trusts, see Note 16 of JPMorgan Chase’s 2015 Annual Report.

The following table presents the total unpaid principal amount of assets held in Firm-sponsored private-label securitization entities, including those in which the Firm has continuing involvement, and those that are consolidated by the Firm. Continuing involvement includes servicing the loans; holding senior interests or subordinated interests; recourse or guarantee arrangements; and derivative transactions. In certain instances, the Firm's only continuing involvement is servicing the loans. See Securitization activity on page 143 of this Note for further information regarding the Firm's cash flows with and interests retained in nonconsolidated VIEs, and page 143 of this Note for information on the Firm's loan sales to U.S. government agencies.

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs <sup>(c)(d)(e)</sup>		
	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase
June 30, 2016 (in millions)						
Securitization-related <sup>(a)</sup>						
Residential mortgage:						
Prime/Alt-A and option ARMs	\$80,751	\$ 2,988	\$ 61,235	\$142	\$ 1,455	\$ 1,597
Subprime	22,990	5	21,230	69	—	69
Commercial and other <sup>(b)</sup>	112,384	107	76,159	958	2,958	3,916
Total	\$216,125	\$ 3,100	\$ 158,624	\$1,169	\$ 4,413	\$ 5,582

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs <sup>(c)(d)(e)</sup>		
	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase
December 31, 2015 (in millions)						
Securitization-related <sup>(a)</sup>						
Residential mortgage:						
Prime/Alt-A and option ARMs	\$85,687	\$ 1,400	\$ 66,708	\$394	\$ 1,619	\$ 2,013
Subprime	24,389	64	22,549	109	—	109
Commercial and other <sup>(b)</sup>	123,474	107	80,319	447	3,451	3,898
Total	\$233,550	\$ 1,571	\$ 169,576	\$950	\$ 5,070	\$ 6,020

(a) Excludes U.S. government agency securitizations. See page 143 of this Note for information on the Firm's loan sales to U.S. government agencies.

(b) Consists of securities backed by commercial loans (predominantly real estate) and non-mortgage-related consumer receivables purchased from third parties. The Firm generally does not retain a residual interest in its sponsored commercial mortgage securitization transactions.

(c) Excludes the following: retained servicing (see Note 16 for a discussion of MSRs); securities retained from loan sales to U.S. government agencies; interest rate and foreign exchange derivatives primarily used to manage interest rate and foreign exchange risks of securitization entities (See Note 5 for further information on derivatives); senior and subordinated securities of \$142 million and \$9 million, respectively, at June 30, 2016, and \$163 million and \$73 million, respectively, at December 31, 2015, which the Firm purchased in connection with CIB's secondary market-making activities.

(d) Includes interests held in re-securitization transactions.



As of June 30, 2016, and December 31, 2015, 54% and 76%, respectively, of the Firm's retained securitization interests, which are carried at fair value, were risk-rated "A" or better, on an S&P-equivalent basis. The retained interests in prime residential mortgages consisted of \$1.5 billion and \$1.9 billion of investment-grade and \$51 (e) million and \$93 million of noninvestment-grade retained interests at June 30, 2016, and December 31, 2015, respectively. The retained interests in commercial and other securitizations trusts consisted of \$3.7 billion and \$3.7 billion of investment-grade and \$235 million and \$198 million of noninvestment-grade retained interests at June 30, 2016, and December 31, 2015, respectively.

#### Residential mortgage

For a more detailed description of the Firm's involvement with residential mortgage securitizations, see Note 16 of JPMorgan Chase's 2015 Annual Report.

At June 30, 2016, and December 31, 2015, the Firm did not consolidate the assets of certain Firm-sponsored residential mortgage securitization VIEs, in which the Firm had continuing involvement, primarily due to the fact that the Firm did not hold an interest in these trusts that could potentially be significant to the trusts. See the table on page 142 of this Note for more information on the consolidated residential mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated residential mortgage securitizations.

#### Commercial mortgages and other consumer securitizations

CIB originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts. For a more detailed description of the Firm's involvement with commercial mortgage and other consumer securitizations, see Note 16 of JPMorgan Chase's 2015 Annual Report. See the table on page 142 of this Note for more information on the consolidated commercial mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated securitizations.

#### Re-securitizations

For a more detailed description of JPMorgan Chase's

participation in certain re-securitization transactions, see Note 16 of JPMorgan Chase's 2015 Annual Report.

During the three months ended June 30, 2016 and 2015, the Firm transferred \$3.5 billion and \$6.3 billion, respectively, of securities to agency VIEs, and \$144 million and \$255 million, respectively, of securities to private-label VIEs.

During the six months ended June 30, 2016 and 2015, the Firm transferred \$6.4 billion and \$10.2 billion, respectively, of securities to agency VIEs, and \$144 million and \$727 million, respectively, of securities to private-label VIEs.

As of June 30, 2016, and December 31, 2015, total assets (including the notional amount of interest-only securities) of nonconsolidated Firm-sponsored private-label re-securitization entities in which the Firm has continuing involvement were \$2.4 billion and \$2.2 billion, respectively. At June 30, 2016, and December 31, 2015, the Firm held approximately \$2.5 billion and \$4.6 billion, respectively, of interests in nonconsolidated agency re-securitization entities. The Firm's exposure to non-consolidated private-label re-securitization entities as of June 30, 2016, and December 31, 2015 was not material. As of June 30, 2016, and December 31, 2015, the Firm did not consolidate any agency re-securitizations. As of June 30, 2016, and December 31, 2015, the Firm consolidated an insignificant amount of assets and liabilities of Firm-sponsored private-label re-securitizations.

#### Multi-seller conduits

For a more detailed description of JPMorgan Chase's principal involvement with Firm-administered multi-seller conduits, see Note 16 of JPMorgan Chase's 2015 Annual Report.

In the normal course of business, JPMorgan Chase makes markets in and invests in commercial paper issued by the Firm-administered multi-seller conduits. The Firm held \$19.1 billion and \$15.7 billion of the commercial paper issued by the Firm-administered multi-seller conduits at June 30, 2016, and December 31, 2015, respectively. The Firm's investments reflect the Firm's funding needs and capacity and were not driven by market illiquidity. The Firm is not obligated under any agreement to purchase the commercial paper issued by the Firm-administered multi-seller conduits.

Deal-specific liquidity facilities, program-wide liquidity and credit enhancement provided by the Firm have been eliminated in consolidation. The Firm or the Firm-administered multi-seller conduits provide lending-related commitments to certain clients of the Firm-administered multi-seller conduits. The unfunded portion of these commitments was \$9.0 billion and \$5.6 billion at June 30, 2016, and December 31, 2015, and are reported as off-balance sheet lending-related commitments. For more information on off-balance sheet lending-related commitments, see Note 21.

#### VIEs associated with investor intermediation activities

#### Municipal bond vehicles

For a more detailed description of JPMorgan Chase's principal involvement with municipal bond vehicles, see Note 16 of JPMorgan Chase's 2015 Annual Report.

The Firm's exposure to nonconsolidated municipal bond VIEs at June 30, 2016, and December 31, 2015, including the ratings profile of the VIEs' assets, was as follows.

(in millions)	Fair value of assets held by VIEs	Liquidity facilities	Excess/(deficit) <sup>(a)</sup>		Maximum exposure
Nonconsolidated municipal bond vehicles					
June 30, 2016	\$3,566	\$ 1,973	\$ 1,593		\$ 1,973
December 31, 2015	6,937	3,794	3,143		3,794

  

(in millions, except where otherwise noted)	Ratings profile of VIE assets <sup>(b)</sup>					Fair value of assets held by VIEs	Wt. avg. expected life of assets (years)
	Investment-grade	AAA to AAA-	AA+ to AA-	A+ to A-	BBB+ to BBB-		
June 30, 2016	\$970	\$2,286	\$153	\$ 24	\$ 133	\$3,566	3.9
December 31, 2015	1,743	4,631	448	24	91	6,937	4.0

(a) Represents the excess of the fair values of municipal bond assets available to repay the liquidity facilities, if drawn.

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

(c) These security positions have been defeased by the municipality and no longer carry credit ratings, but are backed by high quality assets such as U.S. treasuries and cash.

#### VIEs sponsored by third parties

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

## Consolidated VIE assets and liabilities

The following table presents information on assets and liabilities related to VIEs consolidated by the Firm as of June 30, 2016, and December 31, 2015.

June 30, 2016 (in millions)	Assets			Total assets <sup>(d)</sup>	Liabilities		Total liabilities
	Trading assets	Loans	Other <sup>(c)</sup>		Beneficial interests in VIE assets <sup>(e)</sup>	Other <sup>(f)</sup>	
VIE program type <sup>(a)</sup>							
Firm-sponsored credit card trusts	\$—	\$40,438	\$ 705	\$41,143	\$28,955	\$ 15	\$ 28,970
Firm-administered multi-seller conduits	8	24,282	43	24,333	5,357	28	5,385
Municipal bond vehicles	3,422	—	12	3,434	3,348	2	3,350
Mortgage securitization entities <sup>(b)</sup>	635	2,365	80	3,080	728	590	1,318
Student loan securitization entities	—	1,803	60	1,863	1,641	5	1,646
Other	196	—	2,646	2,842	198	110	308
Total	\$4,261	\$68,888	\$ 3,546	\$76,695	\$40,227	\$ 750	\$ 40,977

December 31, 2015 (in millions)	Assets			Total assets <sup>(d)</sup>	Liabilities		Total liabilities
	Trading assets	Loans	Other <sup>(c)</sup>		Beneficial interests in VIE assets <sup>(e)</sup>	Other <sup>(f)</sup>	
VIE program type <sup>(a)</sup>							
Firm-sponsored credit card trusts	\$—	\$47,358	\$ 718	\$48,076	\$27,906	\$ 15	\$ 27,921
Firm-administered multi-seller conduits	—	24,388	37	24,425	8,724	19	8,743
Municipal bond vehicles	2,686	—	5	2,691	2,597	1	2,598
Mortgage securitization entities <sup>(b)</sup>	840	1,433	27	2,300	777	643	1,420
Student loan securitization entities	—	1,925	62	1,987	1,760	5	1,765
Other	210	—	1,916	2,126	115	126	241
Total	\$3,736	\$75,104	\$ 2,765	\$81,605	\$41,879	\$ 809	\$ 42,688

(a) Excludes intercompany transactions which were eliminated in consolidation.

(b) Includes residential and commercial mortgage securitizations as well as re-securitizations.

(c) Includes assets classified as cash, AFS securities, and other assets on the Consolidated balance sheets.

The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those (d) entities. The difference between total assets and total liabilities recognized for consolidated VIEs represents the Firm's interest in the consolidated VIEs for each program type.

The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item on the Consolidated balance sheets titled, "Beneficial interests issued by consolidated variable interest entities." The holders of these beneficial interests do not have recourse to the general credit of JPMorgan Chase. Included in beneficial (e) interests in VIE assets are long-term beneficial interests of \$31.5 billion and \$30.6 billion at June 30, 2016, and December 31, 2015, respectively. The maturities of the long-term beneficial interests as of June 30, 2016, were as follows: \$9.3 billion under one year, \$19.1 billion between one and five years, and \$3.1 billion over five years.

(f) Includes liabilities classified as accounts payable and other liabilities on the Consolidated balance sheets.

## Loan securitizations

The Firm has securitized and sold a variety of loans, including residential mortgage, credit card, student and commercial (primarily related to real estate) loans. For a further description of the Firm's accounting policies regarding securitizations, see Note 16 of JPMorgan Chase's 2015 Annual Report.



## Securitization activity

The following table provides information related to the Firm's securitization activities for the three and six months ended June 30, 2016 and 2015, related to assets held in JPMorgan Chase-sponsored securitization entities that were not consolidated by the Firm, and where sale accounting was achieved based on the accounting rules in effect at the time of the securitization.

(in millions)	Three months ended June 30,				Six months ended June 30,			
	2016		2015		2016		2015	
	Residential mortgage	Commercial and other <sup>(d)</sup> <sup>(e)</sup>	Residential mortgage	Commercial and other <sup>(d)</sup> <sup>(e)</sup>	Residential mortgage	Commercial and other <sup>(d)</sup> <sup>(e)</sup>	Residential mortgage	Commercial and other <sup>(d)</sup> <sup>(e)</sup>
Principal securitized	\$413	\$ 1,034	\$380	\$ 2,676	\$413	\$ 2,358	\$1,692	\$ 6,051
All cash flows during the period: <sup>(a)</sup>								
Proceeds from new securitizations <sup>(b)</sup>	\$413	\$ 1,062	\$385	\$ 2,689	\$413	\$ 2,373	\$1,702	\$ 6,058
Servicing fees collected	111	1	134	1	223	1	280	2
Purchases of previously transferred financial assets (or the underlying collateral) <sup>(c)</sup>	—	—	1	—	37	—	1	—
Cash flows received on interests	111	307	116	128	205	580	186	207

(a) Excludes re-securitization transactions.

For the three and six months ended June 30, 2016, \$413 million and \$413 million, respectively, of proceeds from residential mortgage securitizations were received as securities classified in level 2 of the fair value hierarchy. For the three and six months ended June 30, 2016, \$1.1 billion and \$2.4 billion, respectively, of proceeds from commercial mortgage securitizations were received as securities classified in level 2 and \$2 million proceeds classified as level 3 of the fair value hierarchy. For the three and six months ended June 30, 2015, \$385 million and \$1.7 billion of proceeds from residential mortgage securitizations were received as securities classified in level 2 and no proceeds classified as level 3 of the fair value hierarchy, respectively. For the three and six months ended June 30, 2015, \$2.7 billion and \$6.0 billion, respectively, of proceeds from commercial mortgage securitizations were received as securities classified in level 2 and \$38 million of proceeds classified as level 3 of the fair value hierarchy, and no proceeds from commercial mortgage securitization were received as cash. All loans transferred into securitization vehicles during the three and six months ended June 30, 2016 and 2015, were classified as trading assets; and changes in fair value were recorded in principal transactions revenue. The Firm elected the fair value option for loans pending securitization. The carrying value of these loans accounted for at fair value approximated the proceeds received from securitization.

(b) Includes cash paid by the Firm to reacquire assets from off-balance sheet, nonconsolidated entities – for example, loan repurchases due to representation and warranties and servicer clean-up calls.

(c) Includes prime, Alt-A, subprime, and option ARMs. Excludes certain loan securitization transactions entered into with Ginnie Mae, Fannie Mae and Freddie Mac.

(d) Includes commercial mortgage and student loan securitizations.

(e) Loans and excess MSR sold to U.S. government-sponsored enterprises, loans in securitization transactions pursuant to Ginnie Mae guidelines, and other third-party-sponsored securitization entities

In addition to the amounts reported in the securitization activity tables above, the Firm, in the normal course of business, sells originated and purchased mortgage loans and certain originated excess MSR on a nonrecourse basis, predominantly to U.S. government-sponsored enterprises (“U.S. GSEs”). These loans and excess MSR are sold primarily for the purpose of securitization by the U.S. GSEs, who provide certain guarantee provisions (e.g., credit enhancement of the loans). The Firm also sells loans into securitization transactions pursuant to Ginnie Mae guidelines; these loans are typically insured or guaranteed by another U.S. government agency. The Firm does not consolidate the securitization vehicles underlying these transactions as it is not the primary beneficiary. For a limited number of loan sales, the Firm is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. See Note 21 of this Form 10-Q, and Note 29 of JPMorgan Chase's 2015 Annual Report for additional information about the Firm's loan sales- and securitization-related indemnifications. See Note 16 for additional information about the impact of the Firm's sale of

certain excess MSRs. The following table summarizes the activities related to loans sold to the U.S. GSEs, loans in securitization transactions pursuant to Ginnie Mae guidelines, and other third-party-sponsored securitization entities.

(in millions)	Three months		Six months	
	ended June 30,		ended June 30,	
	2016	2015	2016	2015
Carrying value of loans sold	\$8,824	\$10,660	\$17,836	\$22,799
Proceeds received from loan sales as cash	234	48	238	99
Proceeds received from loans sales as securities <sup>(a)</sup>	8,548	10,559	17,503	22,588
Total proceeds received from loan sales <sup>(b)</sup>	\$8,782	\$10,607	\$17,741	\$22,687
Gains on loan sales <sup>(c)</sup>	\$64	\$86	\$114	\$177

(a) Predominantly includes securities from U.S. GSEs and Ginnie Mae that are generally sold shortly after receipt.

(b) Excludes the value of MSRs retained upon the sale of loans. Gains on loan sales include the value of MSRs.

(c) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale.



## Options to repurchase delinquent loans

In addition to the Firm's obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 21, the Firm also has the option to repurchase delinquent loans that it services for Ginnie Mae loan pools, as well as for other U.S. government agencies under certain arrangements. The Firm typically elects to repurchase delinquent loans from Ginnie Mae loan pools as it continues to service them and/or manage the foreclosure process in accordance with the applicable requirements, and such loans continue to be insured or guaranteed. When the Firm's repurchase option becomes exercisable, such loans must be reported on the Consolidated balance sheets as a loan with a corresponding

liability. As of June 30, 2016, and December 31, 2015, the Firm had recorded on its Consolidated balance sheets \$10.2 billion and \$11.1 billion, respectively, of loans that either had been repurchased or for which the Firm had an option to repurchase. Predominantly all of these amounts relate to loans that have been repurchased from Ginnie Mae loan pools. Additionally, real estate owned resulting from voluntary repurchases of loans was \$355 million and \$343 million as of June 30, 2016, and December 31, 2015, respectively. Substantially all of these loans and real estate owned are insured or guaranteed by U.S. government agencies. For additional information, refer to Note 13 of this Form 10-Q and Note 14 of JPMorgan Chase's 2015 Annual Report.

## Loan delinquencies and liquidation losses

The table below includes information about components of nonconsolidated securitized financial assets, in which the Firm has continuing involvement, and delinquencies as of June 30, 2016, and December 31, 2015.

	Securitized assets		90 days past due		Liquidation losses			
					Three months ended June 30,		Six months ended June 30,	
(in millions)	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015	2016	2015	2016	2015
Securitized loans <sup>(a)</sup>								
Residential mortgage:								
Prime / Alt-A & option ARMs	\$61,235	\$66,708	\$7,055	\$8,325	\$318	\$454	\$658	\$916
Subprime	21,230	22,549	4,853	5,448	296	371	618	725
Commercial and other	76,159	80,319	1,172	1,808	93	40	486	139
Total loans securitized	\$158,624	\$169,576	\$13,080	\$15,581	\$707	\$865	\$1,762	\$1,780

Total assets held in securitization-related SPEs were \$216.1 billion and \$233.6 billion, respectively, at June 30, 2016, and December 31, 2015. The \$158.6 billion and \$169.6 billion, respectively, of loans securitized at June 30, (a)2016, and December 31, 2015, excluded: \$54.4 billion and \$62.4 billion, respectively, of securitized loans in which the Firm has no continuing involvement, and \$3.1 billion and \$1.6 billion, respectively, of loan securitizations consolidated on the Firm's Consolidated balance sheets at June 30, 2016, and December 31, 2015.

## Note 16 – Goodwill and other intangible assets

For a discussion of the accounting policies related to goodwill and other intangible assets, see Note 17 of JPMorgan Chase's 2015 Annual Report.

The following table presents goodwill attributed to the business segments.

(in millions)	June 30, December 31,	
	2016	2015
Consumer & Community Banking	\$30,808	\$ 30,769
Corporate & Investment Bank	6,774	6,772
Commercial Banking	2,861	2,861
Asset Management	6,860	6,923
Total goodwill	\$47,303	\$ 47,325

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

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Balance at beginning of period	\$47,310	\$47,453	\$47,325	\$47,647
Changes during the period from:				
Business combinations	—	9	—	17
Dispositions <sup>(a)</sup>	—	—	(71	) (101 )
Other <sup>(b)</sup>	(7	) 14	49	(87 )
Balance at June 30,	\$47,303	\$47,476	\$47,303	\$47,476

During the six months ended June 30, 2016, represents AM goodwill, which was disposed of as part of AM sales (a) completed in March 2016. During the six months ended June 30, 2015, represents Private Equity goodwill, which was disposed of as part of a Private Equity sale completed in January 2015.

(b) Includes foreign currency translation adjustments and other tax-related adjustments.

## Goodwill Impairment testing

For further description of the Firm's goodwill impairment testing process, including the primary method used to estimate the fair value of the reporting units, and the assumptions used in the goodwill impairment test, see Impairment testing on pages 274–275 of JPMorgan Chase's 2015 Annual Report.

Goodwill was not impaired at June 30, 2016, or December 31, 2015, nor was goodwill written off due to impairment during the six months ended June 30, 2016 or 2015.

Declines in business performance, increases in credit losses, increases in equity capital requirements, as well as deterioration in economic or market conditions, adverse estimates of the impact of regulatory or legislative changes or increases in the estimated market cost of equity, could cause the estimated fair values of the Firm's reporting units or their associated goodwill to decline in the future, which could result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

## Mortgage servicing rights

MSRs represent the fair value of expected future cash flows for performing servicing activities for others. The fair value considers estimated future servicing fees and ancillary revenue, offset by estimated costs to service the loans, and generally declines over time as net servicing cash flows are received, effectively amortizing the MSR asset against contractual servicing and ancillary fee income. MSRs are either purchased from third parties or recognized upon sale or securitization of mortgage loans if servicing is retained. For a further description of the MSR asset, interest rate risk management, and the valuation of MSRs, see Note 17 of JPMorgan Chase's 2015 Annual Report and Note 3 of this Form 10-Q.

The following table summarizes MSR activity for the three and six months ended June 30, 2016 and 2015.

(in millions, except where otherwise noted)	As of or for the three months ended June 30,		As of or for the six months ended June 30,	
	2016	2015	2016	2015
Fair value at beginning of period	\$5,658	\$6,641	\$6,608	\$7,436
MSR activity:				
Originations of MSRs	113	145	220	300
Purchase of MSRs	—	438	—	439
Disposition of MSRs <sup>(a)</sup>	(3 )	(218 )	(67 )	(375 )
Net additions	110	365	153	364
Changes due to collection/realization of expected cash flows	(239 )	(229 )	(480 )	(444 )
Changes in valuation due to inputs and assumptions:				
Changes due to market interest rates and other <sup>(b)</sup>	(433 )	816	(1,195 )	339
Changes in valuation due to other inputs and assumptions:				
Projected cash flows (e.g., cost to service)	(14 )	(17 )	(7 )	(27 )
Discount rates	—	—	7	(10 )
Prepayment model changes and other <sup>(c)</sup>	(10 )	(5 )	(14 )	(87 )
Total changes in valuation due to other inputs and assumptions	(24 )	(22 )	(14 )	(124 )
Total changes in valuation due to inputs and assumptions	(457 )	794	(1,209 )	215
Fair value at June 30,	\$5,072	\$7,571	\$5,072	\$7,571
Change in unrealized gains/(losses) included in income related to MSRs held at June 30,	\$(457 )	\$794	\$(1,209)	\$215
Contractual service fees, late fees and other ancillary fees included in income	\$545	\$644	\$1,106	\$1,311
Third-party mortgage loans serviced at June 30, (in billions)	\$632	\$727	\$632	\$727
Net servicer advances at June 30, (in billions) <sup>(d)</sup>	\$5.6	\$7.1	\$5.6	\$7.1

For the six months ended June 30, 2016, predominantly represents excess MSRs transferred to agency-sponsored trusts in exchange for stripped mortgage-backed securities ("SMBS"). In each transaction, a portion of the SMBS was (a) acquired by third parties at the transaction date; the Firm acquired and has retained the remaining balance of those SMBS as trading securities. Also includes sales of MSRs for the three months ended June 30, 2016 and 2015 and six months ended June 30, 2016 and 2015.

(b) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.

(c) Represents changes in prepayments other than those attributable to changes in market interest rates.

(d) Represents amounts the Firm pays as the servicer (e.g., scheduled principal and interest, taxes and insurance), which will generally be reimbursed within a short period of time after the advance from future cash flows from the trust or the underlying loans. The Firm's credit risk associated with these servicer advances is minimal because reimbursement of the advances is typically senior to all cash payments to investors. In addition, the Firm maintains the right to stop payment to investors if the collateral is insufficient to cover the advance. However, certain of these

servicer advances may not be recoverable if they were not made in accordance with applicable rules and agreements.

The following table presents the components of mortgage fees and related income (including the impact of MSR risk management activities) for the three and six months ended June 30, 2016 and 2015.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
CCB mortgage fees and related income				
Net production revenue	\$261	\$233	\$423	\$470
Net mortgage servicing revenue:				
Operating revenue:				
Loan servicing revenue	593	707	1,209	1,456
Changes in MSR asset fair value due to collection/realization of expected cash flows	(238 )	(228 )	(478 )	(442 )
Total operating revenue	355	479	731	1,014
Risk management:				
Changes in MSR asset fair value due to market interest rates and other <sup>(a)</sup>	(433 )	815	(1,195 )	339
Other changes in MSR asset fair value due to other inputs and assumptions in model <sup>(b)</sup>	(24 )	(22 )	(14 )	(124 )
Change in derivative fair value and other	530	(723 )	1,411	(213 )
Total risk management	73	70	202	2
Total net mortgage servicing revenue	428	549	933	1,016
Total CCB mortgage fees and related income	689	782	1,356	1,486
All other	—	1	—	2
Mortgage fees and related income	\$689	\$783	\$1,356	\$1,488

<sup>(a)</sup> Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.

<sup>(b)</sup> Represents the aggregate impact of changes in model inputs and assumptions such as projected cash flows (e.g., cost to service), discount rates and changes in prepayments other than those attributable to changes in market interest rates (e.g., changes in prepayments due to changes in home prices).

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSRs at June 30, 2016, and December 31, 2015, and outlines the sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

(in millions, Dec 31, 2015 rates)  
 Weighted-average prepayment rate  
 10.07% 9.81%  
 assumption ("CPR")  
 \$(275)  
 on fair value of 10%

adverse  
change  
Impact  
on  
fair  
value  
(\$26 ) (529 )  
of  
20%  
adverse  
change  
Weighted-average  
option  
10.15 % 9.54 %  
adjusted  
spread  
Impact  
on  
fair  
value  
of  
\$(183) \$(258)  
100  
basis  
point  
adverse  
change  
Impact  
on  
fair  
value  
of  
(\$353 ) (498 )  
200  
basis  
point  
adverse  
change  
CPR: Constant prepayment rate.

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

## Note 17 – Deposits

For further discussion on deposits, see Note 19 of JPMorgan Chase’s 2015 Annual Report.

At June 30, 2016, and December 31, 2015, noninterest-bearing and interest-bearing deposits were as follows.

(in millions)	June 30, 2016	December 31, 2015
U.S. offices		
Noninterest-bearing	\$393,294	\$392,721
Interest-bearing (included \$10,973 and \$10,916 at fair value) <sup>(a)</sup>	695,763	663,004
Total deposits in U.S. offices	1,089,057	1,055,725
Non-U.S. offices		
Noninterest-bearing	20,980	18,921
Interest-bearing (included \$1,319 and \$1,600 at fair value) <sup>(a)</sup>	220,921	205,069
Total deposits in non-U.S. offices	241,901	223,990
Total deposits	\$1,330,958	\$1,279,715

<sup>(a)</sup> Includes structured notes classified as deposits for which the fair value option has been elected. For further discussion, see Note 4 of JPMorgan Chase’s 2015 Annual Report.

## Note 18 – Earnings per share

For a discussion of the computation of basic and diluted earnings per share (“EPS”), see Note 24 of JPMorgan Chase’s 2015 Annual Report. The following table presents the calculation of basic and diluted EPS for the three and six months ended June 30, 2016 and 2015.

(in millions, except per share amounts)	Three months ended June 30, 2016		Six months ended June 30, 2015	
Basic earnings per share				
Net income	\$6,200	\$6,290	\$11,720	\$12,204
Less: Preferred stock dividends	411	380	823	704
Net income applicable to common equity	5,789	5,910	10,897	11,500
Less: Dividends and undistributed earnings allocated to participating securities	123	134	241	272
Net income applicable to common stockholders	\$5,666	\$5,776	\$10,656	\$11,228
Total weighted-average basic shares outstanding	3,635.83	3,707.8	3,652.9	3,716.6
Net income per share	\$1.56	\$1.56	\$2.92	\$3.02
Diluted earnings per share				
Net income applicable to common stockholders	\$5,666	\$5,776	\$10,656	\$11,228
Total weighted-average basic shares outstanding	3,635.83	3,707.8	3,652.9	3,716.6
Add: Employee stock options, SARs, warrants and PSUs	30.7	35.8	28.8	33.9
Total weighted-average diluted shares outstanding <sup>(a)</sup>	3,666.53	3,743.6	3,681.7	3,750.5
Net income per share	\$1.55	\$1.54	\$2.89	\$2.99

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

## Note 19 – Accumulated other comprehensive income/(loss)

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

Effective January 1, 2016, the Firm adopted new accounting guidance related to the recognition and measurement of financial liabilities where the fair value option has been elected. This guidance requires the portion of the total change in fair value caused by changes in the Firm's own credit risk (DVA) to be presented separately in other comprehensive income; previously these amounts were recognized in net income. The guidance was required to be applied as of the beginning of the fiscal year of adoption by means of a cumulative effect adjustment to the Consolidated balance sheets, which resulted in a reclassification from retained earnings to accumulated other comprehensive income.

As of or for the three months ended June 30, 2016 (in millions)	Unrealized gains/(losses) on investment securities <sup>(a)</sup>	Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at April 1, 2016	\$ 3,054	\$ (164 )	\$(114)	\$(2,206)	\$ 212	\$ 782
Net change	867	3	(87 )	56	(3 )	836
Balance at June 30, 2016	\$ 3,921	\$ (161 )	\$(201)	\$(2,150)	\$ 209	\$ 1,618

As of or for the three months ended June 30, 2015 (in millions)	Unrealized gains/(losses) on investment securities <sup>(a)</sup>	Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at April 1, 2015	\$ 4,862	\$ (157 )	\$(18 )	\$(2,257)	NA	\$ 2,430
Net change	(1,419 )	3	80	8	NA	(1,328 )
Balance at June 30, 2015	\$ 3,443	\$ (154 )	\$62	\$(2,249)	NA	\$ 1,102

As of or for the six months ended June 30, 2016 (in millions)	Unrealized gains/(losses) on investment securities <sup>(a)</sup>	Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at January 1, 2016	\$ 2,629	\$ (162 )	\$(44 )	\$(2,231)	NA	\$ 192
Cumulative effect of change in accounting principle	—	—	—	—	154	154
Net change	1,292	1	(157 )	81	55	1,272
Balance at June 30, 2016	\$ 3,921	\$ (161 )	\$(201)	\$(2,150)	\$ 209	\$ 1,618

As of or for the six months ended June 30, 2015 (in millions)	Unrealized gains/(losses) on investment securities <sup>(a)</sup>	Translation adjustments, net of hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at January 1, 2015	\$ 4,773	\$ (147 )	\$(95 )	\$(2,342)	NA	\$ 2,189



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Net change	(1,330 )	(7 )	157	93	NA	(1,087 )
Balance at June 30, 2015	\$ 3,443	\$ (154 )	\$62	\$(2,249)	NA	\$ 1,102

(a) Represents the after-tax difference between the fair value and amortized cost of securities accounted for as AFS, including net unamortized unrealized gains and losses related to AFS securities transferred to HTM.



## Defined benefit pension and OPEB plans:

Net gains/(losses) arising during the period	(15	)	6	(9	)	101	(39	)	62	
Reclassification adjustments included in net income <sup>(e)</sup> :										
Amortization of net loss	128	(49	)	79	141	(53	)	88		
Prior service costs/(credits)	(18	)	7	(11	)	(18	)	7	(11	)
Foreign exchange and other	34	(12	)	22	—	(46	)	(46	)	
Net change	129	(48	)	81	224	(131	)	93		
DVA on fair value option elected liabilities, net change:	\$88	\$(33	)	55	NA	NA	NA			
Total other comprehensive income/(loss)	\$2,040	\$(768)	\$1,272	\$(1,727)	\$640	\$(1,087)				

(a) The pre-tax amount is reported in securities gains in the Consolidated statements of income.

Reclassifications of pre-tax realized gains/(losses) on translation adjustments and related hedges are reported in

(b) other income/expense in the Consolidated statements of income. The amounts were not material for the periods presented.

(c) The pre-tax amounts are predominantly recorded in net interest income in the Consolidated statements of income.

In 2015, the Firm reclassified approximately \$150 million of net losses from AOCI to other income because the

(d) Firm determined that it is probable that the forecasted interest payment cash flows will not occur. For additional information, see Note 5.

(e) The pre-tax amount is reported in compensation expense in the Consolidated statements of income.

## Note 20 – Regulatory capital

The Federal Reserve establishes capital requirements, including well-capitalized standards, for the consolidated financial holding company. The Office of the Comptroller of the Currency (“OCC”) establishes similar capital requirements and standards for the Firm’s national banks, including JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A.

The Basel Committee’s most recent capital framework (“Basel III”) for large and internationally active U.S. bank holding companies and banks, including the Firm and its IDI subsidiaries, revised, among other things, the definition of capital and introduced a new CET1 capital requirement; presents two comprehensive methodologies for calculating RWA, a general (Standardized) approach, (“Basel III Standardized”) and an advanced approach, (“Basel III Advanced”); and sets out minimum capital ratios and overall capital adequacy standards. Certain of the requirements of Basel III are subject to phase-in periods that began on January 1, 2014 and continue through the end of 2018 (“Basel III Transitional”).

There are three categories of risk-based capital under the Basel III Transitional rules: CET1 capital, as well as Tier 1 capital and Tier 2 capital. CET1 capital predominantly includes common stockholders’ equity (including capital for AOCI related to debt and equity securities classified as AFS as well as for defined benefit pension and OPEB plans), less certain deductions for goodwill, MSRs and deferred tax assets that arise from net operating loss (“NOL”) and tax credit carryforwards. Tier 1 capital predominantly consists of CET1 capital as well as perpetual preferred stock. Tier 2 capital includes long-term debt qualifying as Tier 2 and qualifying allowance for credit losses. Total capital is Tier 1 capital plus Tier 2 capital.

The following tables present the regulatory capital, assets and risk-based capital ratios for JPMorgan Chase and its significant national bank subsidiaries under both Basel III Standardized Transitional and Basel III Advanced Transitional.

(in millions, except ratios)	JPMorgan Chase & Co. <sup>(e)</sup>			
	Basel III Standardized Transitional		Basel III Advanced Transitional	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Regulatory capital				
CET1 capital	\$179,593	\$175,398	\$179,593	\$175,398
Tier 1 capital <sup>(a)</sup>	204,390	200,482	204,390	200,482
Total capital	238,999	234,413	227,865	224,616
Assets				
Risk-weighted	1,469,430	1,465,262	1,497,509	1,485,336
Adjusted average <sup>(b)</sup>	2,391,819	2,358,471	2,391,819	2,358,471
Capital ratios <sup>(c)</sup>				
CET1	12.2	% 12.0	% 12.0	% 11.8
Tier 1 <sup>(a)</sup>	13.9	13.7	13.6	13.5
Total	16.3	16.0	15.2	15.1
Tier 1 leverage <sup>(d)</sup>	8.5	8.5	8.5	8.5
(in millions, except ratios)	JPMorgan Chase Bank, N.A. <sup>(e)</sup>			
	Basel III Standardized Transitional		Basel III Advanced Transitional	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
Regulatory capital				
CET1 capital	\$173,841	\$168,857	\$173,841	\$168,857

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Tier 1 capital <sup>(a)</sup>	174,090	169,222	174,090	169,222
Total capital	188,827	183,262	181,145	176,423
Assets				
Risk-weighted	1,314,446	1,264,056	1,292,153	1,249,607
Adjusted average <sup>(b)</sup>	1,992,814	1,910,934	1,992,814	1,910,934
Capital ratios <sup>(c)</sup>				
CET1	13.2	% 13.4	% 13.5	% 13.5
Tier 1 <sup>(a)</sup>	13.2	13.4	13.5	13.5
Total	14.4	14.5	14.0	14.1
Tier 1 leverage <sup>(d)</sup>	8.7	8.9	8.7	8.9

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(in millions, except ratios)	Chase Bank USA, N.A. <sup>(e)</sup>			
	Basel III Standardized Transitional		Basel III Advanced Transitional	
	Jun 30, 2016	Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
<b>Regulatory capital</b>				
CET1 capital	\$16,457	\$15,419	\$16,457	\$15,419
Tier 1 capital <sup>(a)</sup>	16,457	15,419	16,457	15,419
Total capital	22,420	21,418	21,107	20,069
<b>Assets</b>				
Risk-weighted	103,322	105,807	180,737	181,775
Adjusted average <sup>(b)</sup>	132,916	134,152	132,916	134,152
<b>Capital ratios<sup>(c)</sup></b>				
CET1	15.9	% 14.6	% 9.1	% 8.5
Tier 1 <sup>(a)</sup>	15.9	14.6	9.1	8.5
Total	21.7	20.2	11.7	11.0
Tier 1 leverage <sup>(d)</sup>	12.4	11.5	12.4	11.5

(a) Includes the deduction associated with the permissible holdings of covered funds (as defined by the Volcker Rule) acquired after December 31, 2013 which was not material as of June 30, 2016.

(b) Adjusted average assets, for purposes of calculating the Tier 1 leverage ratio, includes total quarterly average assets adjusted for unrealized gains/(losses) on AFS securities, less deductions for goodwill and other intangible assets, defined benefit pension plan assets, and deferred tax assets related to NOL and tax credit carryforwards.

(c) For each of the risk-based capital ratios, the capital adequacy of the Firm and its national bank subsidiaries is evaluated against the Basel III approach, Standardized or Advanced, which results in the lower ratio (the “Collins Floor”), as required by the Collins Amendment of the Dodd-Frank Act.

(d) The Tier 1 leverage ratio is not a risk-based measure of capital. This ratio is calculated by dividing Tier 1 capital by adjusted average assets.

(e) Asset and capital amounts for JPMorgan Chase’s banking subsidiaries reflect intercompany transactions; whereas the respective amounts for JPMorgan Chase reflect the elimination of intercompany transactions.

Note: Rating agencies allow measures of capital to be adjusted upward for deferred tax liabilities, which have resulted from both nontaxable business combinations and from tax-deductible goodwill. The Firm had deferred tax liabilities resulting from nontaxable business combinations totaling \$94 million and \$105 million at June 30, 2016, and December 31, 2015, respectively; and deferred tax liabilities resulting from tax-deductible goodwill of \$3.1 billion and \$3.0 billion at June 30, 2016, and December 31, 2015, respectively.

Under the risk-based capital guidelines of the Federal Reserve, JPMorgan Chase is required to maintain minimum ratios of CET1, Tier 1 and Total capital to risk-weighted assets, as well as a minimum leverage ratio (which is defined as Tier 1 capital divided by adjusted quarterly average assets). Failure to meet these minimum requirements could cause the Federal Reserve to take action. National bank subsidiaries also are subject to these capital requirements by their respective primary regulators. The following table presents the minimum ratios to which the Firm and its national bank subsidiaries are subject as of June 30, 2016.

Capital ratios	Minimum capital ratios		Well-capitalized ratios	
	BHC <sup>(a)</sup>	IDI <sup>(b)</sup>	BHC <sup>(c)</sup>	IDI <sup>(d)</sup>
CET1	6.25%	5.125%	—	% 6.5
Tier 1	7.75	6.625	6.0	8.0

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Total	9.75	8.625	10.0	10.0
Tier 1 leverage	4.0	4.0	—	5.0

Note: The table above is as defined by the regulations issued by the Federal Reserve, OCC and FDIC and to which the Firm and its national bank subsidiaries are subject.

Represents the transitional minimum capital ratios applicable to the Firm under Basel III at June 30, 2016.

(a) Commencing in the first quarter of 2016, the CET1 minimum capital ratio includes 0.625% resulting from the phase in of the Firm's 2.5% capital conservation buffer and 1.125%, resulting from the phase in of the Firm's estimated 4.5% GSIB surcharge as of December 31, 2014 published by the Federal Reserve on July 20, 2015.

Represents requirements for JPMorgan Chase's banking subsidiaries. The CET1 minimum capital ratio includes (b)0.625% resulting from the phase in of the 2.5% capital conservation buffer that is applicable to the banking subsidiaries. The banking subsidiaries are not subject to the GSIB surcharge.

(c) Represents requirements for bank holding companies pursuant to regulations issued by the Federal Reserve.

(d) Represents requirements for bank subsidiaries pursuant to regulations issued under the FDIC Improvement Act.

As of June 30, 2016, and December 31, 2015, JPMorgan Chase and all of its banking subsidiaries were well-capitalized and met all capital requirements to which each was subject.

Note 21 – Off-balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the counterparty draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm's view, representative of its actual future credit exposure or funding requirements. For further discussion of lending-related commitments and guarantees, and the Firm's related accounting policies, see Note 29 of JPMorgan Chase's 2015 Annual Report.

To provide for probable credit losses inherent in wholesale and certain consumer lending-related commitments, an allowance for credit losses on lending-related commitments is maintained. See Note 14 for further information regarding the allowance for credit losses on lending-related commitments. The following table summarizes the contractual amounts and carrying values of off-balance sheet lending-related financial instruments, guarantees and other commitments at June 30, 2016, and December 31, 2015. The amounts in the table below for credit card and home equity lending-related commitments represent the total available credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. The Firm can reduce or cancel credit card lines of credit by providing the borrower notice or, in some cases as permitted by law, without notice. In addition, the Firm typically closes credit card lines when the borrower is 60 days or more past due. The Firm may reduce or close home equity lines of credit when there are significant decreases in the value of the underlying property, or when there has been a demonstrable decline in the creditworthiness of the borrower.



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

	Contractual amount					Carrying value <sup>(h)</sup>		
	June 30, 2016					Dec 31, 2015	Jun 30, 2016	Dec 31, 2015
	Expires in 1 year or less	Expires after 1 year through 3 years	Expires after 3 years through 5 years	Expires after 5 years	Total	Total		
By remaining maturity (in millions)								
Lending-related								
Consumer, excluding credit card:								
Home equity	\$4,159	\$5,800	\$1,101	\$10,910	\$21,970	\$22,756	\$—	\$—
Residential mortgage <sup>(a)</sup>	14,166	—	—	—	14,166	12,992	—	—
Auto	8,530	1,098	123	57	9,808	10,237	2	2
Business banking	11,777	735	129	492	13,133	12,351	12	12
Student and other	108	1	—	38	147	142	—	—
Total consumer, excluding credit card	\$38,740	\$7,634	\$1,353	\$11,497	\$59,224	\$58,478	\$14	\$14
Credit card	\$539,105	\$—	\$—	\$—	\$539,105	\$515,518	\$—	\$—
Total consumer <sup>(b)</sup>	\$577,845	\$7,634	\$1,353	\$11,497	\$598,329	\$573,996	\$14	\$14
Wholesale:								
Other unfunded commitments to extend credit <sup>(c)(d)</sup>	\$72,440	\$98,970	\$136,539	\$9,015	\$316,964	\$323,325	\$793	\$649
Standby letters of credit and other financial guarantees <sup>(c)(d)</sup>	17,196	11,840	4,589	2,975	36,600	39,133	585	548
Other letters of credit <sup>(c)</sup>	3,266	240	75	—	3,581	3,941	2	2
Total wholesale <sup>(e)</sup>	\$92,902	\$111,050	\$141,203	\$11,990	\$357,145	\$366,399	\$1,380	\$1,199
Total lending-related	\$670,747	\$118,684	\$142,556	\$23,487	\$955,474	\$940,395	\$1,394	\$1,213
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees <sup>(f)</sup>	\$174,319	\$—	\$—	\$—	\$174,319	\$183,329	\$—	\$—
Derivatives qualifying as guarantees	3,086	209	11,623	39,267	54,185	53,784	274	222
Unsettled reverse repurchase and securities borrowing agreements	73,036	—	—	—	73,036	42,482	—	—
Unsettled repurchase and securities lending agreements	44,373	—	—	—	44,373	21,798	—	—
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	NA	NA	NA	NA	NA	NA	140	148
Loans sold with recourse	NA	NA	NA	NA	3,664	4,274	69	82
Other guarantees and commitments <sup>(g)</sup>	976	2,652	1,032	1,537	6,197	5,580	(80)	(94)

(a) Includes certain commitments to purchase loans from correspondents.

(b) Predominantly all consumer lending-related commitments are in the U.S.

At June 30, 2016, and December 31, 2015, reflected the contractual amount net of risk participations totaling \$315 million and \$385 million, respectively, for other unfunded commitments to extend credit; \$10.8 billion and \$11.2 billion, respectively, for standby letters of credit and other financial guarantees; and \$357 million and \$341 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.

(d) At June 30, 2016, and December 31, 2015, included credit enhancements and bond and commercial paper liquidity commitments to U.S. states and municipalities, hospitals and other non-profit entities of \$11.4 billion and \$12.3

billion, respectively, within other unfunded commitments to extend credit; and \$8.1 billion and \$9.6 billion, respectively, within standby letters of credit and other financial guarantees. Other unfunded commitments to extend credit also include liquidity facilities to nonconsolidated municipal bond VIEs; see Note 15.

(e) At June 30, 2016, and December 31, 2015, the U.S. portion of the contractual amount of total wholesale lending-related commitments was 78% and 77%, respectively.

(f) At June 30, 2016, and December 31, 2015, collateral held by the Firm in support of securities lending indemnification agreements was \$180.6 billion and \$190.6 billion, respectively. Securities lending collateral consists of primarily cash and securities issued by governments that are members of the Organisation for Economic Co-operation and Development and U.S. government agencies.

(g) At June 30, 2016, and December 31, 2015, included unfunded commitments of \$49 million and \$50 million, respectively, to third-party private equity funds; and \$1.0 billion and \$871 million, at June 30, 2016, and December 31, 2015, respectively, to other equity investments. These commitments included \$66 million and \$73 million, respectively, related to investments that are generally fair valued at net asset value as discussed in Note 3.

In addition, at June 30, 2016, and December 31, 2015, included letters of credit hedged by derivative transactions and managed on a market risk basis of \$4.7 billion and \$4.6 billion, respectively.

(h) For lending-related products, the carrying value represents the allowance for lending-related commitments and the guarantee liability; for derivative-related products, the carrying value represents the fair value.

Other unfunded commitments to extend credit

Other unfunded commitments to extend credit generally consist of commitments for working capital and general corporate purposes, extensions of credit to support commercial paper facilities and bond financings in the event that those obligations cannot be remarketed to new investors, as well as committed liquidity facilities to clearing organizations. The Firm also issues commitments under multipurpose facilities which could be drawn upon in several forms, including the issuance of a standby letter of credit.

Also included in other unfunded commitments to extend credit are noninvestment-grade exposures to leveraged finance counterparties, which totaled \$55.9 billion at June 30, 2016. In the second quarter of 2016, the Firm implemented interagency guidance on the definition of leveraged financing, which broadened the scope of sectors beyond that of Commercial & industrial and transactions beyond those of buyouts, acquisitions or capital distributions, and modified the methodology for calculating leveraged ratios.

The Firm acts as a settlement and custody bank in the U.S. tri-party repurchase transaction market. In its role as settlement and custody bank, the Firm is exposed to the intra-day credit risk of its cash borrower clients, usually broker-dealers. This exposure arises under secured clearance advance facilities that the Firm extends to its clients (i.e., cash borrowers); these facilities contractually limit the Firm's intra-day credit risk to the facility amount and must be repaid by the end of the day. As of June 30, 2016, and December 31, 2015, the secured clearance advance facility maximum outstanding commitment amount was \$2.5 billion and \$2.9 billion, respectively.

Standby letters of credit and other financial guarantees

Standby letters of credit and other financial guarantees are conditional lending commitments issued by the Firm to guarantee the performance of a customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade and similar transactions.

The following table summarizes the standby letters of credit and other letters of credit arrangements as of June 30, 2016, and December 31, 2015.

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

	June 30, 2016		December 31, 2015	
	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
(in millions)				
Investment-grade <sup>(a)</sup>	\$29,121	\$2,962	\$31,751	\$3,290
Noninvestment-grade <sup>(a)</sup>	7,479	619	7,382	651
Total contractual amount	\$36,600	\$3,581	\$39,133	\$3,941
Allowance for lending-related commitments	\$151	\$2	\$121	\$2
Guarantee liability	434	—	427	—
Total carrying value	\$585	\$2	\$548	\$2

Commitments with collateral \$20,137 \$950 \$18,825 \$996

<sup>(a)</sup> The ratings scale is based on the Firm's internal ratings which generally correspond to ratings as defined by S&P and Moody's.



#### Derivatives qualifying as guarantees

In addition to the contracts described above, the Firm transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. For further information on these derivatives, see Note 29 of JPMorgan Chase's 2015 Annual Report. The total notional value of the derivatives that the Firm deems to be guarantees was \$54.2 billion and \$53.8 billion at June 30, 2016, and December 31, 2015, respectively. The notional amount generally represents the Firm's maximum exposure to derivatives qualifying as guarantees. However, exposure to certain stable value contracts is contractually limited to a substantially lower percentage of the notional amount; the notional amount on these stable value contracts was

\$28.5 billion and \$28.4 billion at June 30, 2016, and December 31, 2015, respectively, and the maximum exposure to loss was \$3.0 billion at both June 30, 2016, and December 31, 2015. The fair values of the contracts reflect the probability of whether the Firm will be required to perform under the contract. The fair value related to derivatives that the Firm deems to be guarantees were derivative payables of \$283 million and \$236 million at June 30, 2016, and December 31, 2015, respectively, and derivative receivables of \$9 million and \$14 million at June 30, 2016, and December 31, 2015, respectively. The Firm reduces exposures to these contracts by entering into offsetting transactions, or by entering into contracts that hedge the market risk related to the derivative guarantees.

In addition to derivative contracts that meet the characteristics of a guarantee, the Firm is both a purchaser and seller of credit protection in the credit derivatives market. For a further discussion of credit derivatives, see Note 5.

#### Loan sales- and securitization-related indemnifications

In connection with the Firm's mortgage loan sale and securitization activities with GSEs and in certain private label transactions, the Firm has made representations and warranties that the loans sold meet certain requirements that may require the Firm to repurchase mortgage loans and/or indemnify the loan purchaser. Further, although the Firm's securitizations are predominantly nonrecourse, the Firm does provide recourse servicing in certain limited cases where it agrees to share credit risk with the owner of the mortgage loans. For additional information, see Note 29 of JPMorgan Chase's 2015 Annual Report.

The liability related to repurchase demands associated with private label securitizations is separately evaluated by the Firm in establishing its litigation reserves. For additional information regarding litigation, see Note 23 of this Form 10-Q and Note 31 of JPMorgan Chase's 2015 Annual Report.

#### Guarantees of subsidiary

JPMorgan Chase Financial Company LLC ("JPMFC"), a direct, 100%-owned finance subsidiary of the Parent Company, was formed on September 30, 2015, for the purpose of issuing debt and other securities in offerings to investors. Securities issued by JPMFC are fully and unconditionally guaranteed by the Parent Company, and these guarantees rank on a parity with the Firm's unsecured and unsubordinated indebtedness.

Note 22 – Pledged assets and collateral

For a discussion of the Firm’s pledged assets and collateral, see Note 30 of JPMorgan Chase’s 2015 Annual Report.

Pledged assets

The Firm may pledge financial assets that it owns to maintain potential borrowing capacity with central banks and for other purposes, including to secure borrowings and public deposits, and to collateralize repurchase and other securities financing agreements, and to cover customer short sales. Certain of these pledged assets may be sold or repledged or otherwise used by the secured parties and are identified as financial instruments owned (pledged to various parties) on the Consolidated balance sheets. At June 30, 2016, and December 31, 2015, the Firm had pledged assets of \$405.8 billion and \$385.6 billion, respectively, at Federal Reserve banks and FHLBs. In addition, as of June 30, 2016, and December 31, 2015, the Firm had pledged \$55.4 billion and \$50.7 billion, respectively, of financial assets that may not be sold or repledged or otherwise used by the secured parties. Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. See Note 15 for additional information on assets and liabilities of consolidated VIEs. For additional information on the Firm’s securities financing activities, see Note 12. For additional information on the Firm’s long-term debt, see Note 21 of JPMorgan Chase’s 2015 Annual Report.

Collateral

At June 30, 2016, and December 31, 2015, the Firm had accepted financial assets as collateral that it could sell or repledge, deliver or otherwise use with a fair value of \$851.7 billion and \$748.5 billion, respectively. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. Of the collateral received, \$681.8 billion and \$580.9 billion, respectively, were sold, repledged, delivered or otherwise used. Collateral was generally used under repurchase agreements, securities lending agreements or to cover customer short sales and to collateralize deposits and derivative agreements.

Note 23 – Litigation

Contingencies

As of June 30, 2016, the Firm and its subsidiaries and affiliates are defendants or putative defendants in numerous legal proceedings, including private, civil litigations and regulatory/government investigations. The litigations range from individual actions involving a single plaintiff to class action lawsuits with potentially millions of class members. Investigations involve both formal and informal proceedings, by both governmental agencies and self-regulatory organizations. These legal proceedings are at varying stages of adjudication, arbitration or investigation, and involve each of the Firm’s lines of business and geographies and a wide variety of claims (including common law tort and contract claims and statutory antitrust, securities and consumer protection claims), some of which present novel legal theories.

The Firm believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for its legal proceedings is from \$0 to approximately \$3.3 billion at June 30, 2016. This estimated aggregate range of reasonably possible losses was based upon currently available information for those proceedings in which the Firm believes that an estimate of reasonably possible loss can be made. For certain matters, the Firm does not believe that such an estimate can be made, as of that date. The Firm’s estimate of the aggregate range of reasonably possible losses involves significant judgment, given the number, variety and varying stages of the proceedings (including the fact that many are in preliminary stages), the existence in many such proceedings of multiple defendants (including the Firm) whose share of liability has yet to be determined, the numerous yet-unresolved issues in many of the proceedings (including issues regarding class certification and the scope of many of the claims) and the attendant uncertainty of the various potential outcomes of such proceedings, particularly proceedings that could result from government investigations. Accordingly, the Firm’s estimate will change from time to time, and actual losses may vary significantly.

Set forth below are descriptions of the Firm’s material legal proceedings.

Auto Dealer Regulatory Matter. The U.S. Department of Justice (“DOJ”) is investigating potential statistical disparities in markups charged to borrowers of different races and ethnicities by automobile dealers on loans originated by those

dealers and purchased by the Firm.

CIO Litigation. The Firm has been sued in a consolidated shareholder class action, and in a consolidated putative class action brought under the Employee Retirement Income Security Act (“ERISA”), relating to 2012 losses in the synthetic credit portfolio formerly managed by the Firm’s Chief Investment Office (“CIO”). A settlement of the shareholder class action, under which the Firm will pay

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\$150 million, has received final court approval over two pro se objections. One of the objectors has appealed. The putative ERISA class action has been dismissed, and the plaintiffs are appealing that dismissal.

Foreign Exchange Investigations and Litigation. The Firm previously reported settlements with certain government authorities relating to its foreign exchange (“FX”) sales and trading activities and controls related to those activities. FX-related investigations and inquiries by government authorities, including competition authorities, are ongoing, and the Firm is cooperating with those matters.

The Firm is also one of a number of foreign exchange dealers defending a class action filed in the United States District Court for the Southern District of New York by U.S.-based plaintiffs, principally alleging violations of federal antitrust laws based on an alleged conspiracy to manipulate foreign exchange rates (the “U.S. class action”). In January 2015, the Firm entered into a settlement agreement in the U.S. class action. Following this settlement, a number of additional putative class actions were filed seeking damages for persons who transacted FX futures and options on futures (the “exchanged-based actions”), consumers who purchased foreign currencies at allegedly inflated rates (the “consumer actions”), and participants or beneficiaries of qualified ERISA plans (the “ERISA actions”). Since then, the Firm has entered into a revised settlement agreement to resolve the consolidated U.S. class action, including the exchange-based actions, and that agreement has been preliminarily approved by the Court. The consumer actions and ERISA actions remain pending.

In September 2015, two class actions were filed in Canada against the Firm as well as a number of other FX dealers, principally for alleged violations of the Canadian Competition Act based on an alleged conspiracy to fix the prices of currency purchased in the FX market. The first action was filed in the province of Ontario, and seeks to represent all persons in Canada who transacted any FX instrument. The second action seeks to represent only those persons in Quebec who engaged in FX transactions.

General Motors Litigation. JPMorgan Chase Bank, N.A. participated in, and was the Administrative Agent on behalf of a syndicate of lenders on, a \$1.5 billion syndicated Term Loan facility (“Term Loan”) for General Motors Corporation (“GM”). In July 2009, in connection with the GM bankruptcy proceedings, the Official Committee of Unsecured Creditors of Motors Liquidation Company (“Creditors Committee”) filed a lawsuit against JPMorgan Chase Bank, N.A., in its individual capacity and as Administrative Agent for other lenders on the Term Loan, seeking to hold the underlying lien invalid based on the filing of a UCC-3 termination statement relating to the Term Loan. In January 2015, following several court proceedings, the United States Court of Appeals for the Second Circuit reversed the Bankruptcy Court’s dismissal of the Creditors Committee’s claim and

remanded the case to the Bankruptcy Court with instructions to enter partial summary judgment for the Creditors Committee as to the termination statement. The proceedings in the Bankruptcy Court continue with respect to, among other things, additional defenses asserted by JPMorgan Chase Bank, N.A. and the value of additional collateral on the Term Loan that was unaffected by the filing of the termination statement at issue. In addition, certain Term Loan lenders filed cross-claims against JPMorgan Chase Bank, N.A. in the Bankruptcy Court seeking indemnification and asserting various claims.

Interchange Litigation. A group of merchants and retail associations filed a series of class action complaints alleging that Visa and MasterCard, as well as certain banks, conspired to set the price of credit and debit card interchange fees, enacted respective rules in violation of antitrust laws, and engaged in tying/bundling and exclusive dealing. The parties entered into an agreement to settle the cases for a cash payment of \$6.1 billion to the class plaintiffs (of which the Firm’s share is approximately 20%) and an amount equal to ten basis points of credit card interchange for a period of eight months to be measured from a date within 60 days of the end of the opt-out period. The agreement also provides for modifications to each credit card network’s rules, including those that prohibit surcharging credit card transactions. In December 2013, the District Court granted final approval of the settlement.

A number of merchants appealed to the United States Court of Appeals for the Second Circuit, which vacated the District Court’s certification of the class action and reversed the approval of the class settlement in June 2016. The case has been remanded to the District Court for further proceedings consistent with the appellate decision.

Certain merchants and trade associations have also filed a motion with the District Court seeking to set aside the approval of the class settlement on the basis of alleged improper communications between one of MasterCard’s former outside counsel and one of plaintiffs’ outside counsel. That motion remains pending. Certain merchants that opted out



of the class settlement have filed actions against Visa and MasterCard, as well as against the Firm and other banks, and those actions are proceeding.

Investment Management Litigation. The Firm is defending two pending cases that are coordinated for pre-trial purposes, alleging that investment portfolios managed by J.P. Morgan Investment Management (“JPMIM”) were inappropriately invested in securities backed by residential real estate collateral. Plaintiffs Assured Guaranty (U.K.) and Ambac Assurance UK Limited claim that JPMIM is liable for total losses of more than \$1 billion in market value of these securities. Discovery has been completed. In January 2016, plaintiffs filed a joint partial motion for summary judgment in the coordinated actions, which JPMIM has opposed.

Lehman Brothers Bankruptcy Proceedings. In May 2010, Lehman Brothers Holdings Inc. (“LBHI”) and its Official Committee of Unsecured Creditors (the “Committee”) filed a complaint (and later an amended complaint) against JPMorgan Chase Bank, N.A. in the United States Bankruptcy Court for the Southern District of New York that asserted both federal bankruptcy law and state common law claims, and sought, among other relief, to recover \$7.9 billion in collateral that was transferred to JPMorgan Chase Bank, N.A. in the weeks preceding LBHI’s bankruptcy. The amended complaint also sought unspecified damages on the grounds that JPMorgan Chase Bank, N.A.’s collateral requests hastened LBHI’s bankruptcy. The Bankruptcy Court dismissed the claims in the amended complaint that sought to void the allegedly constructively fraudulent and preferential transfers made to the Firm during September 2008, but did not dismiss the other claims, including claims for duress and fraud. The Firm filed counterclaims against LBHI, including alleging that LBHI fraudulently induced the Firm to make large extensions of credit against inappropriate collateral in connection with the Firm’s role as the clearing bank for Lehman Brothers Inc. (“LBI”), LBHI’s broker-dealer subsidiary. In September 2015, the District Court, to which the case had been transferred from the Bankruptcy Court, granted summary judgment in favor of JPMorgan Chase Bank, N.A. on most of the claims against it that the Bankruptcy Court had not previously dismissed, including the claims for duress and fraud. The District Court also denied LBHI’s motion for summary judgment on certain of its claims and for dismissal of the Firm’s counterclaims. The claims that remained following the District Court’s ruling challenged the propriety of the Firm’s post-petition payment, from collateral posted by LBHI, of approximately \$1.9 billion of derivatives, repo and securities lending claims.

In the Bankruptcy Court proceedings, LBHI and several of its subsidiaries that had been Chapter 11 debtors had filed a separate complaint and objection to derivatives claims asserted by the Firm alleging that the amount of the derivatives claims had been overstated and challenging certain set-offs taken by JPMorgan Chase entities to recover on the claims. In January 2015, LBHI filed claims objections with respect to guaranty claims asserted by the Firm arising from close-outs of derivatives transactions with LBI and one of its affiliates, and a claim objection with respect to derivatives close-out claims acquired by the Firm in the Washington Mutual transaction.

In January 2016, the parties reached an agreement, approved by the Bankruptcy Court, under which the Firm has paid \$1.42 billion to settle all of the claims, counterclaims and claims objections, including all appeal rights, except for the claims specified in the following paragraph. One pro se objector sought to appeal the settlement, and the United States Court of Appeals for the Second Circuit dismissed his appeal.

The settlement did not resolve the following remaining matters: In the Bankruptcy Court proceedings, LBHI and the Committee filed an objection to the claims asserted by JPMorgan Chase Bank, N.A. against LBHI with respect to clearing advances made to LBI, principally on the grounds that the Firm had not conducted the sale of the securities collateral held for its claims in a commercially reasonable manner. In January 2015, LBHI brought two claims objections relating to securities lending claims and a group of other smaller claims. Discovery with respect to these objections is ongoing.

LIBOR and Other Benchmark Rate Investigations and Litigation. JPMorgan Chase has received subpoenas and requests for documents and, in some cases, interviews, from federal and state agencies and entities, including the DOJ, the U.S. Commodity Futures Trading Commission (“CFTC”), the U.S. Securities and Exchange Commission (“SEC”) and various state attorneys general, as well as the European Commission (“EC”), the U.K. Financial Conduct Authority (“FCA”), the Canadian Competition Bureau, the Swiss Competition Commission and other regulatory authorities and banking associations around the world relating primarily to the process by which interest rates were submitted to the British Bankers Association (“BBA”) in connection with the setting of the BBA’s London Interbank Offered Rate (“LIBOR”) for various currencies, principally in 2007 and 2008. Some of the inquiries also relate to similar processes by which information on rates is submitted to the European Banking Federation (“EBF”) in connection with the setting of the EBF’s Euro Interbank Offered Rates (“EURIBOR”) and to the Japanese Bankers’ Association for the setting of Tokyo Interbank Offered Rates (“TIBOR”), as well as processes for the setting of U.S. dollar ISDAFIX rates and other reference rates in various parts of the world during similar time periods. The Firm is responding to and continuing to cooperate with these inquiries. As previously reported, the Firm has resolved EC inquiries relating to Yen LIBOR and Swiss Franc LIBOR. In May 2014, the EC issued a Statement of Objections outlining its case against the Firm (and others) as to EURIBOR, to which the Firm has filed a response and made oral representations. In June 2016, the DOJ

informed the Firm that the DOJ had closed its inquiry into LIBOR and other benchmark rates with respect to the Firm without taking action. Other inquiries have been discontinued without any action against JPMorgan Chase, including by the FCA and the Canadian Competition Bureau.

In addition, the Firm has been named as a defendant along with other banks in a series of individual and putative class actions filed in various United States District Courts, in which plaintiffs make varying allegations that in various periods, starting in 2000 or later, defendants either individually or collectively manipulated the U.S. dollar LIBOR, Yen LIBOR, Swiss franc LIBOR, Euroyen TIBOR, EURIBOR, Singapore Interbank Offered Rate (“SIBOR”) and/or Singapore Swap Offer Rate (“SOR”) rates by submitting

rates that were artificially low or high. Plaintiffs allege that they transacted in loans, derivatives or other financial instruments whose values are affected by changes in U.S. dollar LIBOR, Yen LIBOR, Swiss franc LIBOR, Euroyen TIBOR, EURIBOR, SIBOR or SOR, and assert a variety of claims including antitrust claims seeking treble damages. These matters are in various stages of litigation.

The U.S. dollar LIBOR-related putative class actions and most U.S. dollar LIBOR-related individual actions were consolidated for pre-trial purposes in the United States District Court for the Southern District of New York. The Court dismissed certain claims, including the antitrust claims, and permitted other claims under the Commodity Exchange Act and common law to proceed. In May 2016, the United States Court of Appeals for the Second Circuit vacated the dismissal of the antitrust claims and remanded the case to the District Court to consider, among other things, whether the plaintiffs have standing to assert antitrust claims. JPMorgan Chase and other defendants again moved to dismiss the antitrust claims in July 2016.

The Firm is one of the defendants in a number of putative class actions alleging that defendant banks and ICAP conspired to manipulate the U.S. dollar ISDAFIX rates. Plaintiffs primarily assert claims under the federal antitrust laws and Commodity Exchange Act. In April 2016, the Firm settled the ISDAFIX litigation, along with certain other banks. Those settlements have been preliminarily approved by the Court.

**Madoff Litigation.** A putative class action was filed in the United States District Court for the District of New Jersey by investors who were net winners (i.e., Madoff customers who had taken more money out of their accounts than had been invested) in Madoff's Ponzi scheme and were not included in a prior class action settlement. These plaintiffs allege violations of the federal securities law, as well as other state and federal claims. A similar action was filed in the United States District Court for the Middle District of Florida, although it was not styled as a class action, and included claims pursuant to Florida statutes. The Florida court granted the Firm's motion to dismiss the case in September 2015. The plaintiffs have filed an appeal, which is pending. In addition, the same plaintiffs have re-filed their dismissed state claims in Florida state court. The Firm's motion to dismiss is pending. The New Jersey court granted the transfer motion to the Southern District of New York, which granted the Firm's motion to dismiss. The plaintiffs have filed a notice of appeal.

Three shareholder derivative actions have also been filed in New York federal and state court against the Firm, as nominal defendant, and certain of its current and former Board members, alleging breach of fiduciary duty in connection with the Firm's relationship with Bernard Madoff and the alleged failure to maintain effective internal controls to detect fraudulent transactions. All three actions

have been dismissed. The plaintiff in one of the actions is seeking leave to appeal, which the Firm has opposed.

**Mortgage-Backed Securities and Repurchase Litigation and Related Regulatory Investigations.** The Firm and affiliates (together, "JPMC"), Bear Stearns and affiliates (together, "Bear Stearns") and certain Washington Mutual affiliates (together, "Washington Mutual") have been named as defendants in a number of cases in their various roles in offerings of mortgage-backed securities ("MBS"). Following the settlements referred to below, the remaining civil cases include one investor action, one action by a monoline insurer relating to Bear Stearns' role solely as underwriter, and actions for repurchase of mortgage loans. The Firm and certain of its current and former officers and Board members have also been sued in shareholder derivative actions relating to the Firm's MBS activities, and one action remains pending.

**Issuer Litigation – Individual Purchaser Actions.** With the exception of one remaining action, the Firm has settled all of the individual actions brought against JPMC, Bear Stearns and Washington Mutual as MBS issuers (and, in some cases, also as underwriters of their own MBS offerings).

**Underwriter Actions.** The Firm is defending one remaining action by a monoline insurer relating to Bear Stearns' role solely as underwriter for another issuer's MBS offering. The issuer is defunct.

**Repurchase Litigation.** The Firm is defending a number of actions brought by trustees, securities administrators and/or master servicers of various MBS trusts on behalf of purchasers of securities issued by those trusts. These cases generally allege breaches of various representations and warranties regarding securitized loans and seek repurchase of those loans or equivalent monetary relief, as well as indemnification of attorneys' fees and costs and other remedies.

Deutsche Bank National Trust Company, acting as trustee for various MBS trusts, has filed such a suit against JPMorgan Chase Bank, N.A. and the Federal Deposit Insurance Corporation (the "FDIC") in connection with a significant number of MBS issued by Washington Mutual; that case is described in the Washington Mutual Litigations

section below. Other repurchase actions, each specific to one or more MBS transactions issued by JPMC and/or Bear Stearns, are in various stages of litigation.

In addition, the Firm and a group of 21 institutional MBS investors made a binding offer to the trustees of MBS issued by JPMC and Bear Stearns providing for the payment of \$4.5 billion and the implementation of certain servicing changes by JPMC, to resolve all repurchase and servicing claims that have been asserted or could have been asserted with respect to 330 MBS trusts created between 2005 and 2008. The offer does not resolve claims relating to Washington Mutual MBS. The trustees (or separate and successor trustees) for this group of 330 trusts have accepted the settlement for 319 trusts in whole or in part

and excluded from the settlement 16 trusts in whole or in part. The trustees' acceptance is subject to a judicial approval proceeding initiated by the trustees and pending in New York state court. The judicial approval hearing was held in January 2016, and the parties are awaiting a decision.

Additional actions have been filed against third-party trustees that relate to loan repurchase and servicing claims involving trusts sponsored by JPMC, Bear Stearns and Washington Mutual.

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

**Derivative Actions.** Shareholder derivative actions relating to the Firm's MBS activities have been filed against the Firm, as nominal defendant, and certain of its current and former officers and members of its Board of Directors, in New York state court and California federal court. The New York actions have been dismissed, and the California action remains pending.

**Government Enforcement Investigations and Litigation.** The Firm is responding to an ongoing investigation being conducted by the DOJ's Criminal Division and a United States Attorney's Office relating to MBS offerings securitized and sold by the Firm and its subsidiaries. The Firm has also received subpoenas and informal requests for information from state authorities concerning the issuance and underwriting of MBS-related matters. The Firm continues to respond to these MBS-related regulatory inquiries.

In addition, the Firm continues to cooperate with investigations by the DOJ, including the United States Attorney's Office for the District of Connecticut, and by the SEC Division of Enforcement and the Office of the Special Inspector General for the Troubled Asset Relief Program, all of which relate to, among other matters, communications with counterparties in connection with certain secondary market trading in residential and commercial MBS.

**Mortgage-Related Investigations and Litigation.** The Civil Division of the United States Attorney's Office for the Southern District of New York is conducting an investigation concerning the Firm's compliance with the Fair Housing Act and Equal Credit Opportunity Act in connection with its mortgage lending practices. In addition, three municipalities have commenced litigation against the Firm alleging violations of an unfair competition law or the Fair Housing Act. The municipalities seek, among other things, civil penalties for the unfair competition claim, and, for the Fair Housing Act claims, damages resulting from lost tax revenue and increased municipal costs associated with foreclosed properties. The municipal actions are stayed

pending the United States Supreme Court's review of decisions of the United States Court of Appeals for the Eleventh Circuit which held, among other things, that the City of Miami has standing under the Fair Housing Act to pursue similar claims against other banks.

In March 2015, JPMorgan Chase Bank, N.A entered into a settlement agreement with the Executive Office for United States Bankruptcy Trustees and the United States Trustee Program (collectively, the "Bankruptcy Trustee") to resolve issues relating to mortgage payment change notices and escrow statements in bankruptcy proceedings. The Bankruptcy Trustee continues to review certain issues relating to mortgage payment change notices. In January 2016, the OCC determined that, among other things, the mortgage payment change notices issues that were the subject of the settlement with the Bankruptcy Trustee violated the 2011 mortgage servicing-related consent order entered into by JPMorgan Chase Bank, N.A. and the OCC (as amended in 2013 and 2015), and assessed a \$48 million civil money penalty. The OCC concurrently terminated that consent order.

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

Adjustment occurred in December 2013. Accordingly, all the above-described actions against the Firm have been dismissed pursuant to the terms of the Plan of Adjustment. The appeal of the Bankruptcy Court's order confirming the Plan of Adjustment remains pending.

Petters Bankruptcy and Related Matters. JPMorgan Chase and certain of its affiliates, including One Equity Partners ("OEP"), have been named as defendants in several actions filed in connection with the receivership and bankruptcy proceedings pertaining to Thomas J. Petters and certain affiliated entities (collectively, "Petters") and the Polaroid Corporation. The principal actions against JPMorgan Chase

and its affiliates have been brought by a court-appointed receiver for Petters and the trustees in bankruptcy proceedings for three Petters entities. These actions generally seek to avoid certain putative transfers in connection with (i) the 2005 acquisition by Petters of Polaroid, which at the time was majority-owned by OEP; (ii) two credit facilities that JPMorgan Chase and other financial institutions entered into with Polaroid; and (iii) a credit line and investment accounts held by Petters. The actions collectively seek recovery of approximately \$450 million.

Defendants have moved to dismiss the complaints in the actions filed by the Petters bankruptcy trustees.

Proprietary Products Investigations and Litigation. In December 2015, JPMorgan Chase Bank, N.A. and J.P. Morgan Securities LLC agreed to a settlement with the SEC, and JPMorgan Chase Bank, N.A. agreed to a settlement with the CFTC, regarding disclosures to clients concerning conflicts associated with the Firm's sale and use of proprietary products, such as J.P. Morgan mutual funds,

in the Firm's wealth management businesses, and the U.S. Private Bank's disclosures concerning the use of hedge funds that pay placement agent fees to JPMorgan Chase broker-dealer affiliates. The Firm continues to cooperate with inquiries from other government authorities concerning disclosure of conflicts associated with the Firm's sale and use of proprietary products. A putative class action, which was filed in the United States District Court for the Northern District of Illinois on behalf of financial advisory clients from 2007 to the present whose funds were invested in proprietary funds and who were charged investment management fees, was dismissed by the Court. Plaintiffs' appeal of the dismissal is pending.

Referral Hiring Practices Investigations. Various regulators, including the DOJ's Criminal Division as well as the SEC, are investigating, among other things, the Firm's compliance with the Foreign Corrupt Practices Act and other laws with respect to the Firm's hiring practices related to candidates referred by clients, potential clients and government officials, and its engagement of consultants in the Asia Pacific region. The Firm is responding to and cooperating with these investigations.

Washington Mutual Litigations. Proceedings related to Washington Mutual's failure are pending before the United States District Court for the District of Columbia and include a lawsuit brought by Deutsche Bank National Trust Company, initially against the FDIC and amended to include JPMorgan Chase Bank, N.A. as a defendant, asserting an estimated \$6 billion to \$10 billion in damages based upon alleged breaches of certain representations and warranties given by certain Washington Mutual affiliates in connection with mortgage securitization agreements. The case includes assertions that JPMorgan Chase Bank, N.A. may have assumed liabilities for the alleged breaches of representations and warranties in the mortgage

securitization agreements. In June 2015, the court ruled in favor of JPMorgan Chase Bank, N.A. on the question of whether the Firm or the FDIC bears responsibility for Washington Mutual Bank's repurchase obligations, holding that JPMorgan Chase Bank, N.A. assumed only those liabilities that were reflected on Washington Mutual Bank's financial accounting records as of September 25, 2008, and only up to the amount of the book value reflected therein. The FDIC is appealing that ruling and the case has otherwise been stayed pending the outcome of that appeal.

JPMorgan Chase has also filed complaints in the United States District Court for the District of Columbia against the FDIC, in its corporate capacity as well as in its capacity as receiver for Washington Mutual Bank, asserting multiple claims for indemnification under the terms of the Purchase & Assumption Agreement between JPMorgan Chase Bank, N.A. and the FDIC relating to JPMorgan Chase Bank, N.A.'s purchase of substantially all of the assets and certain liabilities of Washington Mutual Bank (the "Purchase & Assumption Agreement").

The Firm, Deutsche Bank National Trust Company and the FDIC have signed a term sheet to resolve (a) pending litigation brought by Deutsche Bank National Trust Company against the FDIC and JPMorgan Chase Bank, N.A., as defendants, relating to alleged breaches of certain representations and warranties given by certain Washington Mutual affiliates in connection with mortgage securitization agreements and (b) JPMorgan Chase Bank, N.A.'s outstanding indemnification claims pursuant to the terms of the Purchase & Assumption Agreement. The term sheet is subject to FDIC Board approval, finalization of settlement documents and certain judicial approval procedures.

Wendel. Since 2012, the French criminal authorities have been investigating a series of transactions entered into by senior managers of Wendel Investissement ("Wendel") during the period from 2004 through 2007 to restructure their shareholdings in Wendel. JPMorgan Chase Bank, N.A., Paris branch provided financing for the transactions to a number of managers of Wendel in 2007. In April 2015, JPMorgan Chase Bank, N.A. was notified that the authorities



were formally investigating the role of its Paris branch in the transactions, including alleged criminal tax abuse. JPMorgan Chase is responding to and cooperating with the investigation. In addition, civil proceedings have been commenced against JPMorgan Chase Bank, N.A. by a number of the managers. The claims are separate, involve different allegations and are at various stages of proceedings.

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In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries are named as defendants or are otherwise involved in a substantial number of other legal proceedings. The Firm believes it has meritorious defenses to the claims asserted against it in its

currently outstanding legal proceedings and it intends to defend itself vigorously in all such matters. Additional legal proceedings may be initiated from time to time in the future.

The Firm has established reserves for several hundred of its currently outstanding legal proceedings. In accordance with the provisions of U.S. GAAP for contingencies, the Firm accrues for a litigation-related liability when it is probable that such a liability has been incurred and the amount of the loss can be reasonably estimated. The Firm evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upwards or downward, as appropriate, based on management's best judgment after consultation with counsel. The Firm's legal expense was a benefit of \$(430) million and an expense of \$291 million during the three months ended June 30, 2016 and 2015, respectively, and a benefit of \$(476) million and an expense of \$978 million during the six months ended June 30, 2016 and 2015, respectively. There is no assurance that the Firm's litigation reserves will not need to be adjusted in the future.

In view of the inherent difficulty of predicting the outcome

of legal proceedings, particularly where the claimants seek very large or indeterminate damages, or where the matters present novel legal theories, involve a large number of parties or are in early stages of discovery, the Firm cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or impact related to those matters. JPMorgan Chase believes, based upon its current knowledge, after consultation with counsel and after taking into account its current litigation reserves, that the legal proceedings currently pending against it should not have a material adverse effect on the Firm's consolidated financial condition. The Firm notes, however, that in light of the uncertainties involved in such proceedings, there is no assurance that the ultimate resolution of these matters will not significantly exceed the reserves it has currently accrued. As a result, the outcome of a particular matter may be material to JPMorgan Chase's operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of JPMorgan Chase's income for that period.

Note 24 – Business segments

The Firm is managed on a line of business basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset Management. In addition, there is a Corporate segment. The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by management. Results of these lines of business are presented on a managed basis. For a further discussion concerning JPMorgan Chase’s business segments, see Business Segment Results on page 18, and pages 83–84, and Note 33 of JPMorgan Chase’s 2015 Annual Report.

Segment results

The accompanying tables provide a summary of the Firm’s segment results for the three and six months ended June 30, 2016 and 2015, on a managed basis. Total net revenue (noninterest revenue and net interest income) for each of the segments is presented on a FTE basis. Accordingly,

revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities. This allows management to assess the comparability of revenue from year-to-year arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense/(benefit).

On at least an annual basis, the Firm assesses the level of capital required for each line of business as well as the assumptions and methodologies used to allocate capital. The line of business equity allocations are updated as refinements are implemented. Each business segment is allocated capital by taking into consideration stand-alone peer comparisons, regulatory capital requirements (as estimated under Basel III Advanced Fully Phased-In rules) and economic risk. The amount of capital assigned to each business is referred to as equity.

Segment results and reconciliation<sup>(a)</sup>

As of or for the three months ended June 30, (in millions, except ratios)	Consumer & Community Banking		Corporate & Investment Bank		Commercial Banking		Asset Management	
	2016	2015	2016	2015	2016	2015	2016	2015
Noninterest revenue	\$4,138	\$4,089	\$6,475	\$6,233	\$586	\$609	\$2,192	\$2,544
Net interest income	7,313	6,926	2,690	2,490	1,231	1,130	747	631
Total net revenue	11,451	11,015	9,165	8,723	1,817	1,739	2,939	3,175
Provision for credit losses	1,201	702	235	50	(25)	182	(8)	—
Noninterest expense	6,004	6,210	5,078	5,137	731	703	2,098	2,406
Income before income tax expense	4,246	4,103	3,852	3,536	1,111	854	849	769
Income tax expense	1,590	1,570	1,359	1,195	415	329	328	318
Net income	\$2,656	\$2,533	\$2,493	\$2,341	\$696	\$525	\$521	\$451
Average common equity	\$51,000	\$51,000	\$64,000	\$62,000	\$16,000	\$14,000	\$9,000	\$9,000
Total assets	519,187	472,181	826,019	819,745	208,151	201,377	134,380	134,059
Return on common equity	20%	19%	15%	14%	16%	14%	22%	19%
Overhead ratio	52	56	55	59	40	40	71	76
As of or for the three months ended June 30, (in millions, except ratios)	Corporate		Reconciling Items <sup>(a)</sup>		Total			
	2016	2015	2016	2015	2016	2015		
Noninterest revenue	\$171	\$100	\$(529)	\$(447)	\$13,033	\$13,128		
Net interest income	(329)	)(221)	)(305)	)(272)	11,347	10,684		
Total net revenue	(158)	)(121)	)(834)	)(719)	24,380	23,812		
Provision for credit losses	(1)	)1	—	—	1,402	935		
Noninterest expense	(273)	)44	—	—	13,638	14,500		
Income/(loss) before income tax expense/(benefit)	116	(166)	)(834)	)(719)	9,340	8,377		

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Income tax expense/(benefit)	282	(606	) (834	)(719	) 3,140	2,087
Net income/(loss)	\$(166	)\$440	\$—	\$—	\$6,200	\$6,290
Average common equity	\$84,429	\$77,738	\$—	\$—	\$224,429	\$213,738
Total assets	778,359	821,736	NA	NA	2,466,096	2,449,098
Return on common equity	NM	NM	NM	NM	10	% 11 %
Overhead ratio	NM	NM	NM	NM	56	61

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Segment results and reconciliation<sup>(a)</sup>

As of or for the six months ended June 30, (in millions, except ratios)	Consumer & Community Banking		Corporate & Investment Bank		Commercial Banking		Asset Management	
	2016	2015	2016	2015	2016	2015	2016	2015
	Noninterest revenue	\$7,944	\$7,825	\$12,009	\$13,307	\$1,142	\$1,245	\$4,437
Net interest income	14,624	13,894	5,291	4,998	2,478	2,236	1,474	1,252
Total net revenue	22,568	21,719	17,300	18,305	3,620	3,481	5,911	6,180
Provision for credit losses	2,251	1,632	694	19	279	243	5	4
Noninterest expense	12,092	12,400	9,886	10,794	1,444	1,412	4,173	4,581
Income before income tax expense	8,225	7,687	6,720	7,492	1,897	1,826	1,733	1,595
Income tax expense	3,079	2,935	2,248	2,614	705	703	625	642
Net income	\$5,146	\$4,752	\$4,472	\$4,878	\$1,192	\$1,123	\$1,108	\$953
Average common equity	\$51,000	\$51,000	\$64,000	\$62,000	\$16,000	\$14,000	\$9,000	\$9,000
Total assets	519,187	472,181	826,019	819,745	208,151	201,377	134,380	134,059
Return on common equity	19%	18%	13%	15%	14%	15%	24%	21%
Overhead ratio	54	57	57	59	40	41	71	74

  

As of or for the six months ended June 30, (in millions, except ratios)	Corporate		Reconciling Items <sup>(a)</sup>		Total	
	2016	2015	2016	2015	2016	2015
	Noninterest revenue	\$440	\$140	\$(1,080)	\$(928)	\$24,892
Net interest income	(542)	(474)	(598)	(545)	22,727	21,361
Total net revenue	(102)	(334)	(1,678)	(1,473)	47,619	47,878
Provision for credit losses	(3)	(4)	—	—	3,226	1,894
Noninterest expense	(120)	196	—	—	27,475	29,383
Income/(loss) before income tax expense/(benefit)	21	(526)	(1,678)	(1,473)	16,918	16,601
Income tax expense/(benefit)	219	(1,024)	(1,678)	(1,473)	5,198	4,397
Net income/(loss)	\$(198)	\$498	\$—	\$—	\$11,720	\$12,204
Average common equity	\$82,995	\$77,049	\$—	\$—	\$222,995	\$213,049
Total assets	778,359	821,736	NA	NA	2,466,096	2,449,098
Return on common equity	NM	NM	NM	NM	10%	11%
Overhead ratio	NM	NM	NM	NM	58	61

Segment managed results reflect revenue on an FTE basis with the corresponding income tax impact recorded (a) within income tax expense/(benefit). These FTE adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results.

Report of Independent Registered Public Accounting Firm

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

We have reviewed the accompanying consolidated balance sheet of JPMorgan Chase & Co. and its subsidiaries (the “Firm”) as of June 30, 2016, and the related consolidated statements of income and comprehensive income for each of the three-month and six-month periods ended June 30, 2016 and 2015 and changes in stockholders’ equity, and cash flows for each of the six-month periods ended June 30, 2016 and 2015. These interim financial statements are the responsibility of the Firm’s management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole.

Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2015, and the related consolidated statements of income, comprehensive income, changes in stockholders’ equity, and changes in cash flows for the year then ended (not presented herein), and in our report dated February 23, 2016, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2015, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived.

August 3, 2016

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

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JPMorgan Chase & Co.

Consolidated average balance sheets, interest and rates

(Taxable-equivalent interest and rates; in millions, except rates)

	Three months ended June 30, 2016			Three months ended June 30, 2015		
	Average balance	Interest <sup>(e)</sup>	Rate (annualized)	Average balance	Interest <sup>(e)</sup>	Rate (annualized)
<b>Assets</b>						
Deposits with banks	\$379,001	\$466	0.49 %	\$437,776	\$312	0.29 %
Federal funds sold and securities purchased under resale agreements	201,871	576	1.15	205,352	340	0.66
Securities borrowed	101,669	(96)	<sup>(f)</sup> (0.38)	107,178	(159)	<sup>(f)</sup> (0.59)
Trading assets – debt instruments	215,780	1,878	3.50	208,823	1,755	3.37
Taxable securities	235,641	1,380	2.36	282,398	1,609	2.28
Nontaxable securities <sup>(a)</sup>	44,400	671	6.08	41,543	628	6.06
Total securities	280,041	2,051	2.95 <sup>(g)</sup>	323,941	2,237	2.77 <sup>(g)</sup>
Loans	859,727	9,032	4.22	774,205	8,126	4.21
Other assets <sup>(b)</sup>	41,436	211	2.06	40,362	175	1.74
Total interest-earning assets	2,079,525	14,118	2.73	2,097,637	12,786	2.44
Allowance for loan losses	(13,983)			(14,076)		
Cash and due from banks	18,956			23,211		
Trading assets – equity instruments	99,626			117,638		
Trading assets – derivative receivables	69,823			73,805		
Goodwill	47,309			47,485		
Mortgage servicing rights	5,512			6,924		
Other intangible assets	928			1,113		
Other assets	133,493			140,096		
Total assets	\$2,441,189			\$2,493,833		
<b>Liabilities</b>						
Interest-bearing deposits	\$915,295	\$321	0.14 %	\$869,523	\$308	0.14 %
Federal funds purchased and securities loaned or sold under repurchase agreements	176,855	282	0.64	200,054	143	0.29
Commercial paper	17,462	38	0.88	49,020	30	0.25
Trading liabilities – debt, short-term and other liabilities <sup>(c)(d)</sup>	200,141	314	0.63	213,246	171	0.32
Beneficial interests issued by consolidated VIEs	38,411	118	1.24	51,600	110	0.85
Long-term debt	291,726	1,393	1.92	282,262	1,068	1.52
Total interest-bearing liabilities	1,639,890	2,466	0.60	1,665,705	1,830	0.44
Noninterest-bearing deposits	400,671			429,622		
Trading liabilities – equity instruments <sup>(d)</sup>	20,747			16,528		
Trading liabilities – derivative payables	54,048			64,249		
All other liabilities, including the allowance for lending-related commitments	75,336			80,515		
Total liabilities	2,190,692			2,256,619		
<b>Stockholders' equity</b>						
Preferred stock	26,068			23,476		
Common stockholders' equity	224,429			213,738		



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Total stockholders' equity	250,497		237,214	
Total liabilities and stockholders' equity	\$2,441,189		\$2,493,833	
Interest rate spread		2.13 %		2.00 %
Net interest income and net yield on interest-earning assets	\$11,652	2.25	\$10,956	2.09

(a) Represents securities which are tax exempt for U.S. federal income tax purposes.

(b) Includes margin loans.

(c) Includes brokerage customer payables.

(d) Included trading liabilities – debt and equity instruments of \$95,151 million and \$83,180 million for the three months ended June 30, 2016 and 2015 respectively.

(e) Interest includes the effect of certain related hedging derivatives. Taxable-equivalent amounts are used where applicable.

(f) Negative interest income and yield is a result of increased client-driven demand for certain securities combined with the impact of low interest rates; this is matched book activity and the negative interest expense on the corresponding securities loaned is recognized in interest expense and reported within trading liabilities – debt, short-term and other liabilities.

(g) For the three months ended June 30, 2016 and 2015, the annualized rates for securities, based on amortized cost, were 3.00% and 2.83%, respectively; this does not give effect to changes in fair value that are reflected in accumulated other comprehensive income/(loss).

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JPMorgan Chase & Co.

Consolidated average balance sheets, interest and rates

(Taxable-equivalent interest and rates; in millions, except rates)

	Six months ended June 30, 2016			Six months ended June 30, 2015		
	Average balance	Interest <sup>(e)</sup>	Rate (annualized)	Average balance	Interest <sup>(e)</sup>	Rate (annualized)
<b>Assets</b>						
Deposits with banks	\$371,600	\$926	0.5 %	\$458,862	\$653	0.29 %
Federal funds sold and securities purchased under resale agreements	203,433	1,130	1.12	211,415	736	0.70
Securities borrowed	102,565	(188)	<sup>(f)</sup> (0.37 %)	109,177	(279)	<sup>(f)</sup> (0.52 %)
Trading assets – debt instruments	212,047	3,594	3.41	209,443	3,510	3.38
Taxable securities	238,008	2,822	2.38	288,688	3,333	2.33
Nontaxable securities <sup>(a)</sup>	44,257	1,336	6.07	40,735	1,231	6.09
Total securities	282,265	4,158	2.96	<sup>(g)</sup> 329,423	4,564	2.79
Loans	850,126	17,939	4.24	765,967	16,120	4.24
Other assets <sup>(b)</sup>	39,718	404	2.05	38,791	320	1.66
Total interest-earning assets	2,061,754	27,963	2.73	2,123,078	25,624	2.43
Allowance for loan losses	(13,810)			(14,067)		
Cash and due from banks	18,450			23,963		
Trading assets – equity instruments	92,453			114,893		
Trading assets – derivative receivables	70,237			78,825		
Goodwill	47,320			47,488		
Mortgage servicing rights	5,715			6,876		
Other intangible assets	957			1,138		
Other assets	134,979			142,797		
Total assets	\$2,418,055			\$2,524,991		
<b>Liabilities</b>						
Interest-bearing deposits	\$899,689	\$641	0.14 %	\$886,828	\$672	0.15 %
Federal funds purchased and securities loaned or sold under repurchase agreements	174,050	542	0.63	200,145	285	0.29
Commercial paper	17,499	71	0.82	54,486	64	0.24
Trading liabilities – debt, short-term and other liabilities <sup>(c)(d)</sup>	198,187	541	0.55	218,275	327	0.30
Beneficial interests issued by consolidated VIEs	39,125	231	1.19	51,142	208	0.82
Long-term debt	289,943	2,612	1.81	280,561	2,162	1.55
Total interest-bearing liabilities	1,618,493	4,638	0.58	1,691,437	3,718	0.44
Noninterest-bearing deposits	399,929			430,898		
Trading liabilities – equity instrument <sup>(d)</sup>	19,625			17,365		
Trading liabilities – derivative payables	57,319			70,116		
All other liabilities, including the allowance for lending-related commitments	73,626			79,968		
Total liabilities	2,168,992			2,289,784		
<b>Stockholders' equity</b>						
Preferred stock	26,068			22,158		
Common stockholders' equity	222,995			213,049		

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Total stockholders' equity	249,063		235,207	
Total liabilities and stockholders' equity	\$2,418,055		\$2,524,991	
Interest rate spread		2.15 %		1.99 %
Net interest income and net yield on interest-earning assets	\$23,325	2.28	\$21,906	2.08

(a) Represents securities which are tax exempt for U.S. federal income tax purposes.

(b) Includes margin loans.

(c) Includes brokerage customer payables.

(d) Included trading liabilities - debt and equity instruments of \$91,434 million and \$83,680 million for the six months ended June 30, 2016 and 2015, respectively.

(e) Interest includes the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable.

(f) Negative interest income and yield is a result of increased client-driven demand for certain securities combined with the impact of low interest rates; this is matched book activity and the negative interest expense on the corresponding securities loaned is recognized in interest expense and reported within trading liabilities - debt, short-term and other liabilities.

(g) For the six months ended June 30, 2016 and 2015, the annualized rates for securities, based on amortized cost, were 3.01% and 2.86% respectively; this does not give effect to changes in fair value that are reflected in accumulated other comprehensive income/(loss).

GLOSSARY

OF TERMS

AND

ACRONYMS

2015 Annual Report or 2015 Form 10-K: Annual report on Form 10-K for year ended December 31, 2015, filed with the U.S. Securities and Exchange Commission.

ABS: Asset-backed securities

Active foreclosures: Loans referred to foreclosure where formal foreclosure proceedings are ongoing. Includes both judicial and non-judicial states.

AFS: Available-for-sale

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

AM: Asset Management

AOCI: Accumulated other comprehensive income/(loss)

ARM: Adjustable rate mortgage(s)

AUC: Assets under custody

AUM: Assets under management

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities, or other obligations, issued by VIEs that JPMorgan Chase consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

BHC: Bank holding company

CB: Commercial Banking

CBB: Consumer & Business Banking

CCAR: Comprehensive Capital Analysis and Review

SCCL: single-counterparty credit limits

CCB: Consumer & Community Banking

CCP: "Central counterparty" is a clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the future performance of open contracts. A CCP becomes counterparty to trades with market participants through novation, an open offer system, or another legally binding arrangement.

CDS: Credit default swaps

CEO: Chief Executive Officer

CET1 Capital: Common Equity Tier 1 Capital

CFTC: Commodity Futures Trading Commission

CFO: Chief Financial Officer

Chase Bank USA, N.A.: Chase Bank USA, National Association

CIB: Corporate & Investment Bank

CIO: Chief Investment Office

Client deposits and other third party liabilities: Deposits,

as well as deposits that are swept to on-balance sheet liabilities (e.g., commercial paper, federal funds purchased and securities loaned or sold under repurchase agreements) as part of client cash management programs. During the third quarter 2015 the Firm completed the discontinuation of its commercial paper customer sweep cash management program.

CLO: Collateralized loan obligations

CLTV: Combined loan-to-value

Commercial Card provides a wide range of payment services to corporate and public sector clients worldwide through the commercial card products. Services include procurement, corporate travel and entertainment, expense management services, and business-to-business payment solutions.

COO: Chief Operating Officer

Core loans: Loans considered central to the Firm's ongoing businesses; core loans exclude loans classified as trading assets, runoff portfolios, discontinued portfolios and portfolios the Firm has an intent to exit.

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third party issuer (the reference entity) which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Upon the occurrence of a credit event by the reference entity, which may include, among other events, the bankruptcy or failure to pay its obligations, or certain restructurings of the debt of the reference entity, neither party has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value at the time of settling the credit derivative contract. The determination as to whether a credit event has occurred is generally made by the relevant ISDA Determinations Committee.

Criticized: Criticized loans, lending-related commitments and derivative receivables that are classified as special mention, substandard and doubtful categories for regulatory purposes and are generally consistent with a rating of CCC+/Caa1 and below, as defined by S&P and Moody's.

CRO: Chief Risk Officer

CVA: Credit valuation adjustments

DFAST: Dodd-Frank Act Stress Test

Dodd-Frank Act: Wall Street Reform and Consumer Protection Act

DOJ: U.S. Department of Justice

DOL: U.S. Department of Labor

DVA: Debit valuation adjustment

E&P: Exploration & Production

EC: European Commission

Eligible LTD: Long-term debt satisfying certain eligibility criteria

ERISA: Employee Retirement Income Security Act of 1974

EPS: Earnings per share

Exchange-traded derivatives: Derivative contracts that are executed on an exchange and settled via a central clearing house.

FASB: Financial Accounting Standards Board

Fannie Mae: Federal National Mortgage Association

FCA: Financial Conduct Authority

FCC: Firmwide Control Committee

FDIA: Federal Depository Insurance Act

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

Fee share: Proportion of fee revenue based on estimates of investment banking fees generated across the industry from investment banking transactions in M&A, equity and debt underwriting, and loan syndications. Source: Dealogic, a third party provider of investment banking fee competitive analysis and volume-based league tables for the above noted industry products.

FFELP: Federal Family Education Loan Program

FFIEC: Federal Financial Institutions Examination Council

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

Firm: JPMorgan Chase & Co.

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

FSB: Financial Stability Board

FTE: Fully taxable equivalent

FVA: Funding valuation adjustment

FX: Foreign exchange

G7: Group of Seven nations. Countries in the G7 are Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

G7 government bonds: Bonds issued by the government of one of the G7 nations.

Ginnie Mae: Government National Mortgage Association

GSE: Fannie Mae and Freddie Mac

GSIB: Globally systemically important banks

HAMP: Home affordable modification program

Headcount-related expense: Includes salary and benefits (excluding performance-based incentives), and other noncompensation costs related to employees.

HELOAN: Home equity loan

HELOC: Home equity line of credit

Home equity – senior lien: Represents loans and commitments where JPMorgan Chase holds the first security interest on the property.

Home equity – junior lien: Represents loans and commitments where JPMorgan Chase holds a security interest that is subordinate in rank to other liens.

HQLA: High quality liquid assets

HTM: Held-to-maturity

IDI: Insured depository institutions

Impaired loan: Impaired loans are loans measured at amortized cost, for which it is probable that the Firm will be unable to collect all amounts due, including principal and interest, according to the contractual terms of the agreement.

Impaired loans include the following:

◆All wholesale nonaccrual loans

◆All TDRs (both wholesale and consumer), including ones that have returned to accrual status

Interchange income: A fee paid to a credit card issuer in the clearing and settlement of a sales or cash advance transaction.

Investment-grade: An indication of credit quality based on JPMorgan Chase's internal risk assessment system.

"Investment grade" generally represents a risk profile similar to a rating of a "BBB-"/"Baa3" or better, as defined by independent rating agencies.

ISDA: International Swaps and Derivatives Association

JPMorgan Chase: JPMorgan Chase & Co.

JPMorgan Chase Bank, N.A.: JPMorgan Chase Bank, National Association

JPMorgan Clearing: J.P. Morgan Clearing Corp.

JPMorgan Securities: J.P. Morgan Securities LLC

LCR: Liquidity coverage ratio

LGD: Loss given default

LLC: Limited Liability Company

LOB: Line of business

LIBOR: London Interbank Offered Rate

LTD: Life-to-date

LTIP: Long-term incentive plan

LTV: Loan-to-value ratio. For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Origination date LTV ratio

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

Current estimated LTV ratio

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

Combined LTV ratio

The LTV ratio considering all available lien positions, as well as unused lines, related to the property. Combined LTV ratios are used for junior lien home equity products.

Managed basis: A non-GAAP presentation of financial results that includes reclassifications to present revenue on a fully taxable-equivalent basis. Management uses this non-GAAP financial measure at the segment level, because it believes this provides information to enable investors to understand the underlying operational performance and trends of the particular business segment and facilitates a comparison of the business segment with the performance of competitors.

Master netting agreement: An agreement between two counterparties who have multiple contracts with each other that provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default on or termination of any one contract.

MBS: Mortgage-backed securities

MD&A: Management discussion and analysis

MMDA: Money Market Deposit Accounts

Moody's: Moody's Investor Services

Mortgage product types:

Alt-A

Alt-A loans are generally higher in credit quality than subprime loans but have characteristics that would disqualify the borrower from a traditional prime loan. Alt-A lending characteristics may include one or more of the following: (i) limited documentation; (ii) a high CLTV ratio; (iii) loans secured by non-owner occupied properties; or (iv) a debt-to-income ratio above normal limits. A substantial proportion of the Firm's Alt-A loans are those where a borrower does not provide complete documentation of his or her assets or the amount or source of his or her income.

Option ARMs

The option ARM real estate loan product is an adjustable-rate mortgage loan that provides the borrower with the option each month to make a fully amortizing, interest-only or minimum payment. The minimum payment on an option ARM loan is based on the interest rate charged during the introductory period. This introductory rate is usually significantly below the fully indexed rate. The fully indexed rate is calculated using an index rate plus a margin. Once the introductory period ends, the contractual interest rate charged on the loan increases to the fully indexed rate and adjusts monthly to reflect movements in the index. The minimum payment is typically insufficient to cover interest accrued in the prior month, and any unpaid interest is deferred and added to the principal balance of the loan. Option ARM loans are subject to payment recast, which converts the loan to a variable-rate fully amortizing loan upon meeting specified loan balance and anniversary date triggers.

Prime

Prime mortgage loans are made to borrowers with good credit records who meet specific underwriting requirements, including prescriptive requirements related to income and overall debt levels. New prime mortgage borrowers provide full documentation and generally have reliable payment histories.

Subprime

Subprime loans are loans that, prior to mid-2008, were offered to certain customers with one or more high risk characteristics, including but not limited to: (i) unreliable or poor payment histories; (ii) a high LTV ratio of greater



than 80% (without borrower-paid mortgage insurance); (iii) a high debt-to-income ratio; (iv) an occupancy type for the loan is other than the borrower's primary residence; or (v) a history of delinquencies or late payments on the loan.

MSA: Metropolitan statistical areas

MSR: Mortgage servicing rights

NA: Data is not applicable or available for the period presented.

Net Capital Rule: Rule 15c3-1 under the Securities Exchange Act of 1934.

Net charge-off/(recovery) rate: Represents net charge-offs/(recoveries) (annualized) divided by average retained loans for the reporting period.

Net yield on interest-earning assets: The average rate for interest-earning assets less the average rate paid for all sources of funds.

NM: Not meaningful.

NOL: Net operating loss

Nonaccrual loans: Loans for which interest income is not recognized on an accrual basis. Loans (other than credit card loans and certain consumer loans insured by U.S. government agencies) are placed on nonaccrual status when management believes full payment of principal and

interest is not expected, regardless of delinquency status, or when principal and interest has been in default for a period of 90 days or more unless the loan is both well-secured and in the process of collection. Collateral-dependent loans are typically maintained on nonaccrual status.

Nonperforming assets: Nonperforming assets include nonaccrual loans, nonperforming derivatives and certain assets acquired in loan satisfaction, predominantly real estate owned and other commercial and personal property.

NOW: Negotiable Order of Withdrawal

NSFR: Net stable funding ratio

OAS: Option-adjusted spread

OCC: Office of the controller of the currency

OCI: Other comprehensive income

OEP: One Equity Partners

OIS: Overnight index swap

OPEB: Other postretirement employee benefit

OTC: Over-the-counter derivatives: Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

OTC cleared: Over-the-counter cleared derivatives: Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

OTTI: Other-than-temporary impairment

Overhead ratio: Noninterest expense as a percentage of total net revenue.

Parent Company: JPMorgan Chase & Co.

Participating securities: Represents unvested stock-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings per share calculation using the two-class method. JPMorgan Chase grants restricted stock and RSUs to certain employees under its stock-based compensation programs, which entitle the recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

PCA: Prompt corrective action

PCI: "Purchased credit-impaired" loans represents loans that were acquired in the Washington Mutual transaction and deemed to be credit-impaired on the acquisition date in accordance with the guidance of the FASB. The guidance allows purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools,

provided that the loans have common risk characteristics (e.g., product type, LTV ratios, FICO scores, past due status, geographic location). A pool is then accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows.

PD: Probability of default

PRA: Prudential Regulatory Authority

Pre-provision profit/(loss): Represents total net revenue less noninterest expense. The Firm believes that this financial measure is useful in assessing the ability of a lending institution to generate income in excess of its provision for credit losses.

Principal transactions revenue: Principal transactions revenue includes realized and unrealized gains and losses recorded on derivatives, other financial instruments, private equity investments, and physical commodities used in market-making and client-driven activities. In addition, Principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk management activities including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specified risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk, and (c) other derivatives.

PSU(s): Performance share units

Receivables from customers: Primarily represents margin loans to prime and retail brokerage customers which are included in accrued interest and accounts receivable on the Consolidated balance sheets.

Regulatory VaR: Daily aggregated VaR calculated in accordance with regulatory rules.

REO: Real estate owned

Reported basis: Financial statements prepared under U.S. GAAP, which excludes the impact of taxable-equivalent adjustments.

Retained loans: Loans that are held-for-investment (i.e. excludes loans held-for-sale and loans at fair value).

RHS: Rural Housing Service of the U.S. Department of Agriculture

RWA: Risk-weighted assets: Basel III establishes two comprehensive methodologies for calculating RWA (a Standardized approach and an Advanced approach) which include capital requirements for credit risk, market risk, and in the case of Basel III Advanced, also operational risk. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally

consistent basis between Basel III Standardized and Basel III Advanced.

ROE: Return on equity

ROTCE: Return on tangible common equity

RSU(s): Restricted stock units

S&P: Standard and Poor's 500 Index

SAR(s): Stock appreciation rights

SEC: Securities and Exchange Commission

Seed capital: Initial JPMorgan capital invested in products, such as mutual funds, with the intention of ensuring the fund is of sufficient size to represent a viable offering to clients, enabling pricing of its shares, and allowing the manager to develop a track record. After these goals are achieved, the intent is to remove the Firm's capital from the investment.

Short sale: A short sale is a sale of real estate in which proceeds from selling the underlying property are less than the amount owed the Firm under the terms of the related mortgage and the related lien is released upon receipt of such proceeds.

Single-name: Single reference-entities

SLR: Supplementary leverage ratio

SMBS: Stripped mortgage-backed securities

SOA: Society of Actuaries

SPEs: Special purpose entities

Structural interest rate risk: Represents interest rate risk of the non-trading assets and liabilities of the Firm.

Structured notes: Structured notes are predominantly financial instruments containing embedded derivatives. Where present, the embedded derivative is the primary driver of risk.

Suspended foreclosures: Loans referred to foreclosure where formal foreclosure proceedings have started but are currently on hold, which could be due to bankruptcy or loss mitigation. Includes both judicial and non-judicial states.

Taxable-equivalent basis: In presenting managed results, the total net revenue for each of the business segments and the Firm is presented on a tax-equivalent basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities; the

corresponding income tax impact related to tax-exempt items is recorded within income tax expense.

TBVPS: Tangible book value per share

TCE: Tangible common equity

TDR: "Troubled debt restructuring" is deemed to occur when the Firm modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty.

TLAC: Total Loss Absorbing Capacity

U.K.: United Kingdom

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

U.S.: United States of America

U.S. GAAP: Accounting principles generally accepted in the United States of America.

U.S. GSEs and U.S. GSE obligations: In the U.S., GSEs are quasi-governmental, privately-held entities established by Congress to improve the flow of credit to specific sectors of the economy and provide certain essential services to the public. U.S. GSEs include Fannie Mae and Freddie Mac, but do not include Ginnie Mae, which is directly owned by the U.S. Department of Housing and Urban Development. U.S. GSE obligations are not explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government.

U.S. LCR: Liquidity coverage ratio under the final U.S. rule.

U.S. Treasury: U.S. Department of the Treasury

VA: U.S. Department of Veterans Affairs

VaR: "Value-at-risk" is a measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

VIEs: Variable interest entities

Warehouse loans: Consist of prime mortgages originated with the intent to sell that are accounted for at fair value and classified as trading assets.

Washington Mutual transaction: On September 25, 2008, JPMorgan Chase acquired certain of the assets of the banking operations of Washington Mutual Bank ("Washington Mutual") from the FDIC.

LINE OF  
BUSINESS  
METRICS

CONSUMER & COMMUNITY BANKING (“CCB”)

Households – A household is a collection of individuals or entities aggregated together by name, address, tax identifier and phone. Reported on a one-month lag.

Deposit margin/deposit spread - Represents net interest income expressed as a percentage of average deposits.

Mortgage Production and Mortgage Servicing revenue comprises the following:

Net production revenue includes net gains or losses on originations and sales of mortgage loans, other production-related fees and losses related to the repurchase of previously-sold loans.

Net mortgage servicing revenue includes the following components:

a) Operating revenue predominantly represents the return on Mortgage Servicing’s MSR asset and includes:

• Actual gross income earned from servicing third-party mortgage loans, such as contractually specified servicing fees and ancillary income; and

• The change in the fair value of the MSR asset due to the collection or realization of expected cash flows.

b) Risk management represents the components of Mortgage Servicing’s MSR asset that are subject to ongoing risk management activities, together with derivatives and other instruments used in those risk management activities.

Mortgage origination channels comprise the following:

Retail – Borrowers who buy or refinance a home through direct contact with a mortgage banker employed by the Firm using a branch office, the Internet or by phone. Borrowers are frequently referred to a mortgage banker by a banker in a Chase branch, real estate brokers, home builders or other third parties.

Correspondent – Banks, thrifts, other mortgage banks and other financial institutions that sell closed loans to the Firm.

Card Services includes the Credit Card and Commerce Solutions businesses.

Commerce Solutions is a business that primarily processes transactions for merchants.

Sales volume – Dollar amount of cardmember purchases, net of returns.

Net revenue rate – Represents Card Services net revenue (annualized) expressed as a percentage of average loans for the period.

Auto loan and lease origination volume – Dollar amount of auto loans and leases originated.

CORPORATE & INVESTMENT BANK (“CIB”)

Definition of selected CIB revenue:

Investment Banking incorporates all revenue associated with investment banking activities, and is reported net of investment banking revenue shared with other lines of business.

Treasury Services offers a broad range of products and services that enable clients to manage payments and receipts, as well as invest and manage funds. Products include U.S. dollar and multi-currency clearing, ACH, lockbox, disbursement and reconciliation services, check deposits, and currency-related services.

Lending includes net interest income, fees, gains or losses on loan sale activity, gains or losses on securities received as part of a loan restructuring, and the risk management results related to the credit portfolio. Lending also includes Trade Finance, which includes loans tied directly to goods crossing borders, export/import loans, commercial letters of credit, standby letters of credit, and supply chain finance.

Fixed Income Markets primarily include revenue related to market-making across global fixed income markets, including foreign exchange, interest rate, credit and commodities markets.

Equity Markets primarily include revenue related to market-making across global equity products, including cash instruments, derivatives, convertibles and Prime Services.

Securities Services includes primarily custody, fund accounting and administration, and securities lending products sold principally to asset managers, insurance companies and public and private investment funds. Also includes clearance, collateral management and depositary receipts business which provides broker-dealer clearing and custody services, including tri-party repo transactions, collateral management products, and depositary bank services for American and global depositary receipt programs.

Description of certain business metrics:

Assets under custody (“AUC”) represents activities associated with the safekeeping and servicing of assets on which Securities Services earns fees.

Investment banking fees include advisory, equity underwriting, bond underwriting and loan syndication fees.

## COMMERCIAL BANKING (“CB”)

CB is divided into four primary client segments: Middle Market Banking, Corporate Client Banking, Commercial Term Lending, and Real Estate Banking.

Middle Market Banking covers corporate, municipal and nonprofit clients, with annual revenue generally ranging between \$20 million and \$500 million.

Corporate Client Banking covers clients with annual revenue generally ranging between \$500 million and \$2 billion and focuses on clients that have broader investment banking needs.

Commercial Term Lending primarily provides term financing to real estate investors/owners for multifamily properties as well as office, retail and industrial properties.

Real Estate Banking provides full-service banking to investors and developers of institutional-grade real estate investment properties.

Other primarily includes lending and investment-related activities within the Community Development Banking business.

CB product revenue comprises the following:

Lending includes a variety of financing alternatives, which are primarily provided on a secured basis; collateral includes receivables, inventory, equipment, real estate or other assets. Products include term loans, revolving lines of credit, bridge financing, asset-based structures, leases, and standby letters of credit.

Treasury services includes revenue from a broad range of products and services that enable CB clients to manage payments and receipts, as well as invest and manage funds.

Investment banking includes revenue from a range of products providing CB clients with sophisticated capital-raising alternatives, as well as balance sheet and risk management tools through advisory, equity underwriting, and loan syndications. Revenue from Fixed income and Equity market products used by CB clients is also included.

Other product revenue primarily includes tax-equivalent adjustments generated from Community Development Banking activity and certain income derived from principal transactions.

## ASSET MANAGEMENT (“AM”)

Assets under management – Represent assets managed by AM on behalf of its Private Banking, Institutional and Retail clients. Includes “Committed capital not Called,” on which AM earns fees.

Client assets – Represent assets under management, as well as custody, brokerage, administration and deposit accounts.

Multi-asset – Any fund or account that allocates assets under management to more than one asset class.

Alternative assets – The following types of assets constitute alternative investments – hedge funds, currency, real estate, private equity and other investment funds designed to focus on nontraditional strategies.

AM’s lines of business consist of the following:

Global Investment Management provides comprehensive global investment services - including asset management, pension analytics, asset-liability management and active risk-budgeting strategies.

Global Wealth Management offers investment advice and wealth management, including investment management, capital markets and risk management, tax and estate planning, banking, lending and specialty-wealth advisory services.

AM’s client segments consist of the following:

Private Banking clients include high- and ultra-high-net-worth individuals, families, money managers, business owners and small corporations worldwide.

Institutional clients include both corporate and public institutions, endowments, foundations, nonprofit organizations and governments worldwide.

Retail clients include financial intermediaries and individual investors.



J.P. Morgan Asset Management has two high-level measures of its overall fund performance:

Percentage of mutual fund assets under management in funds rated 4- or 5-star: Mutual fund rating services rank funds based on their risk-adjusted performance over various periods. A 5-star rating is the best rating and represents the top 10% of industry-wide ranked funds.

A 4-star rating represents the next 22.5% of industry-wide ranked funds. A 3-star rating represents the next 35% of industry-wide ranked funds. A 2-star rating represents the next 22.5% of industry-wide ranked funds. A 1-star rating is the worst rating and represents the bottom 10% of industry-wide ranked funds. The “overall Morningstar rating” is derived from a weighted average of the performance associated with a fund’s three-, five- and ten-year (if applicable) Morningstar Rating metrics. For U.S. domiciled funds, separate star ratings are given at the individual share class level. The Nomura “star rating” is based on three-year risk-adjusted performance only. Funds with fewer than three years of history are not rated and hence excluded from this analysis. All ratings, the assigned peer categories and the asset values used to derive this analysis are sourced from these fund rating providers. The data providers re-denominate the asset values into U.S. dollars. This % of AUM is based on star ratings at the share class level for U.S. domiciled funds, and at a “primary share class” level to represent the star rating of all other funds except for Japan where Nomura provides ratings at the fund level. The “primary share class”, as defined by Morningstar, denotes the share class recommended as being the best proxy for the portfolio and in most cases will be the most retail version (based upon annual management charge, minimum investment, currency and other factors). The performance data could have been different if all funds/accounts would have been included. Past performance is not indicative of future results.

Percentage of mutual fund assets under management in funds ranked in the 1st or 2nd quartile (one, three and five years): All quartile rankings, the assigned peer categories and the asset values used to derive this analysis are sourced from the fund ranking providers. Quartile rankings are done on the net-of-fee absolute return of each fund. The data providers re-denominate the asset values into U.S. dollars. This % of AUM is based on fund performance and associated peer rankings at the share class level for U.S. domiciled funds, at a “primary share class” level to represent the quartile ranking of the U.K., Luxembourg and Hong Kong funds and at the fund level for all other funds. The “primary share class”, as defined by Morningstar, denotes the share class recommended as being the best proxy for the portfolio and in most cases will be the most retail version (based upon annual management charge, minimum investment, currency and other factors). Where peer group rankings given for a fund are in more than one “primary share class” territory both rankings are included to reflect local market competitiveness (applies to “Offshore Territories” and “HK SFC Authorized” funds only). The performance data could have been different if all funds/accounts would have been included. Past performance is not indicative of future results.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

For a discussion of the quantitative and qualitative disclosures about market risk, see the Market Risk Management section of Management’s discussion and analysis on pages 58–61 of this Form 10-Q and pages 133–139 of JPMorgan Chase’s 2015 Annual Report.

Item 4. Controls and Procedures.

As of the end of the period covered by this report, an evaluation was carried out under the supervision and with the participation of the Firm’s management, including its Chairman and Chief Executive Officer and its Chief Financial Officer, of the effectiveness of its disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934). Based on that evaluation, the Chairman and Chief Executive Officer and the Chief Financial Officer concluded that these disclosure controls and procedures were effective. See Exhibits 31.1 and 31.2 for the Certification statements issued by the Chairman and Chief Executive Officer and Chief Financial Officer. The Firm is committed to maintaining high standards of internal control over financial reporting. Nevertheless, because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, in a firm as large and complex as JPMorgan Chase, lapses or deficiencies in internal controls do occur from time to time, and there can be no assurance that any such deficiencies will not result in significant deficiencies or material weaknesses in internal controls in the future. For further information, see “Management’s report on internal control over financial reporting” on page 174 of JPMorgan Chase’s 2015 Annual Report. There was no change in the Firm’s internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) that occurred during the three months ended June 30, 2016, that has materially affected, or is reasonably likely to materially affect, the Firm’s internal control over financial reporting.

Part II – Other Information

Item 1. Legal Proceedings.

For information that updates the disclosures set forth under Part I, Item 3: Legal Proceedings, in the Firm’s 2015 Annual Report on Form 10-K, see the discussion of the Firm’s material legal proceedings in Note 23 of this Form 10-Q.

Item 1A. Risk Factors.

For a discussion of certain risk factors affecting the Firm, see Part I, Item 1A: Risk Factors on pages 8–18 of JPMorgan Chase’s 2015 Annual Report on Form 10-K and Forward-Looking Statements on page 80 of this Form 10-Q.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

During the three months ended June 30, 2016, there were no shares of common stock of JPMorgan Chase & Co. issued in transactions exempt from registration under the Securities Act of 1933, pursuant to Section 4(2) thereof. Repurchases under the common equity repurchase program

On March 17, 2016, the Firm announced that its Board of Directors had authorized the repurchase of up to an additional \$1.9 billion of common equity (common stock and warrants) through June 30, 2016 under its equity repurchase program. This amount is in addition to the \$6.4 billion of common equity that was previously authorized for repurchase between April 1, 2015 and June 30, 2016.

Following receipt of the Federal Reserve’s non-objection to the Firm’s 2016 capital plan submitted under CCAR, the Firm’s Board of Directors authorized the repurchase of up to \$10.6 billion of common equity (common stock and warrants) between July 1, 2016 and June 30, 2017. This authorization includes shares repurchased to offset issuances under the Firm’s equity-based compensation plans.

The following table sets forth the Firm’s repurchases of common equity for the three and six months ended June 30, 2016 and 2015. There were no warrants repurchased during the six months ended June 30, 2016 and 2015.

	Three months ended June 30,		Six months ended June 30,	
(in millions)	2016	2015	2016	2015
Total shares of common stock repurchased	45.8	19.2	75.0	51.7
Aggregate common stock repurchases	\$2,840	\$1,249	\$4,536	\$3,149

The Firm may, from time to time, enter into written trading plans under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate repurchases in accordance with the common equity repurchase program. A Rule 10b5-1 repurchase plan allows the Firm to repurchase its equity during periods when it would not otherwise be repurchasing common equity — for example, during internal trading blackout periods. All purchases under a Rule 10b5-1 plan must be made according to a predefined plan established when the Firm is not aware of material nonpublic information.

The authorization to repurchase common equity will be utilized at management's discretion, and the timing of purchases and the exact amount of common equity that may be repurchased is subject to various factors, including market conditions; legal and regulatory considerations affecting the amount and timing of repurchase activity; the Firm's capital position (taking into account goodwill and

intangibles); internal capital generation; and alternative investment opportunities. The repurchase program does not include specific price targets or timetables; may be executed through open market purchases or privately negotiated transactions, or utilizing Rule 10b5-1 programs; and may be suspended at any time.

Shares repurchased pursuant to the common equity repurchase program during the six months ended June 30, 2016, were as follows.

Three months ended June 30, 2016	Total shares of common stock repurchased	Average price paid per share of common stock <sup>(a)</sup>	Aggregate repurchases of common equity (in millions) <sup>(a)</sup>	Dollar value of remaining authorized repurchase (in millions) <sup>(a)</sup>	
First quarter	29,153,888	\$ 58.17	\$ 1,696	\$ 2,898	<sup>(b)</sup>
April	17,831,180	60.16	1,073	1,825	
May	14,092,821	62.53	881	944	
June	13,931,463	63.59	886	58	
Second quarter	45,855,464	61.93	2,840	58	
Year-to-date	75,009,352	\$ 60.47	\$ 4,536	\$ 58	<sup>(c)</sup>

(a) Excludes commissions cost.

(b) Dollar value remaining under the repurchase program including the additional \$1.9 billion authorized by the Board of Directors on March 17, 2016.

(c) The \$58 million unused portion under the prior Board authorization was canceled when the \$10.6 billion program was authorized.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit No. Description of Exhibit

10.1 Terms and Conditions of Fixed Allowance (U.K.), as amended.<sup>(a)(b)</sup>

15 Letter re: Unaudited Interim Financial Information.<sup>(b)</sup>

31.1 Certification.<sup>(b)</sup>

31.2 Certification.<sup>(b)</sup>

32 Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.<sup>(c)</sup>

- 101.INS XBRL Instance Document.<sup>(b)(d)</sup>
- 101.SCH XBRL Taxonomy Extension Schema Document.<sup>(b)</sup>
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document.<sup>(b)</sup>
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document.<sup>(b)</sup>
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document.<sup>(b)</sup>
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document.<sup>(b)</sup>

(a) This exhibit is a management contract or compensatory plan or arrangement.

(b) Filed herewith.

Furnished herewith. This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in the Firm’s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016, formatted in XBRL (eXtensible Business Reporting Language) interactive data files: (i) the Consolidated statements of income (unaudited) for the three and six months ended June 30, 2016 and 2015, (ii) the Consolidated statements of comprehensive income (unaudited) for the three and six months ended June 30, 2016 and 2015, (iii) the Consolidated balance sheets (unaudited) as of June 30, 2016, and December 31, 2015, (iv) the Consolidated statements of changes in stockholders’ equity (unaudited) for the six months ended June 30, 2016 and 2015, (v) the Consolidated statements of cash flows (unaudited) for the six months ended June 30, 2016 and 2015, and (vi) the Notes to Consolidated Financial Statements (unaudited).

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

JPMorgan Chase & Co.

(Registrant)

By: /s/ Mark W. O'Donovan

Mark W. O'Donovan

Managing Director and Corporate Controller

(Principal Accounting Officer)

Date: August 3, 2016

INDEX TO EXHIBITS

Exhibit No.	Description of Exhibit
10.1	Terms and Conditions of Fixed Allowance (U.K.), as amended.
15	Letter re: Unaudited Interim Financial Information.
31.1	Certification.
31.2	Certification.
32	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.†
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

† This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.