Non-collateralised Structured Products

Issuer

J.P. Morgan Structured Products B.V.

(Incorporated with limited liability in The Netherlands)

Guarantor

JPMorgan Chase Bank, National Association

(a national banking association organized under the laws of United States of America)

Managers

J.P. Morgan Securities plc
J.P. Morgan Securities (Asia Pacific) Limited

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This document, for which the issuer and the guarantor accept full responsibility, includes particulars given in compliance with the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the Stock Exchange's Listing Rules) for the purpose of giving information with regard to the issuer, the guarantor and the structured products referred to in this document. The issuer and the guarantor accept full responsibility for the accuracy of the information contained in the base listing document dated 5 April 2017 (the base listing document), the supplemental disclosure document dated 28 April 2017 (the first supplemental disclosure document) and this document and confirm, having made all reasonable enquiries, that to the best of their knowledge and belief there are no other facts the omission of which would make any statement in the base listing document, the first supplemental disclosure document and this document misleading.

Investors are warned that the price of the structured products may fall in value as rapidly as it may rise and holders may sustain a total loss of their investment. Prospective purchasers should therefore ensure that they understand the nature of the structured products and carefully study the risk factors set out in this document, the base listing document and the first supplemental disclosure document and, where necessary, seek professional advice, before they invest in the structured products.

The structured products constitute general unsecured contractual obligations of the issuer and of no other person and the guarantee constitutes the general unsecured contractual obligation of the guarantor and of no other person. The structured products will rank equally among themselves and with all our other unsecured obligations and the guarantee will rank equally with all of the guarantor's other unsecured obligations (in each case, save for obligations preferred by law) upon liquidation. If you purchase the structured products you are relying upon the creditworthiness of the issuer and the guarantor and have no rights under the structured products against (a) the company which has issued the underlying shares; (b) the trustee or the manager of the underlying trust; or (c) the index compiler of the underlying index. If the issuer becomes insolvent or defaults on its obligations under the structured products or the guarantor becomes insolvent or defaults on its obligations under the guarantee, you may not be able to recover all or even part of the amount due under the structured products (if any).

The issuer and the guarantor are part of a large global financial institution and have many financial products and contracts outstanding at any given time. When purchasing the structured products, you will be relying on the creditworthiness of the issuer and the guarantor and of no one else.

The distribution of this document, our base listing document and the first supplemental disclosure document and the offering, sale and delivery of structured products in certain jurisdictions may be restricted by law. You are required to inform yourselves about and to observe such restrictions. Please read Annex 3 "Purchase and Sale" in the base listing document. **The structured products have not been and will not be registered under the United States Securities Act of 1933, as amended (the Securities Act), and trading in the structured products has not been and will not be approved by the United States Commodity Futures Trading Commission under the United States Commodity Exchange Act. The structured products may not be offered or sold within the United States or to or for the account or benefit of U.S. Persons (as defined in Regulation S under the Securities Act).**

Supplemental Disclosure Document dated 29 September 2017

J.P.Morgan

IMPORTANT

If you are in doubt as to the contents of this supplemental disclosure document, you should obtain independent professional advice.

We, the issuer of our structured products, are publishing this supplemental disclosure document in order to obtain a listing on the Stock Exchange of our warrants, callable bull/bear contracts (the CBBCs) and other structured products. We will refer to the warrants, the CBBCs and other structured products as "structured products" in this supplemental disclosure document. This supplemental disclosure document contains the issuer's financial statements for the six months ended 30 June 2017 and the guarantor's consolidated financial statements for the six months ended 30 June 2017. You should read this supplemental disclosure document as well as our base listing document (including the first supplemental disclosure document and any other supplemental disclosure document to be issued by us from time to time) and the relevant launch announcement and supplemental listing document (including any addendum to such launch announcement and supplemental listing document to be issued by us from time to time) (together, the listing documents) to understand the offer before deciding whether to buy our structured products.

Copies of our base listing document, the first supplemental disclosure document, this supplemental disclosure document and the relevant launch announcement and supplemental listing document (together with a Chinese translation of each of these documents) and other documents set out in the relevant launch announcement and supplemental listing document may be inspected during usual business hours on any weekday (Saturdays, Sundays and holidays excepted) at the offices of J.P. Morgan Securities (Asia Pacific) Limited at 25/F, Chater House, 8 Connaught Road Central, Hong Kong.

本公司基本上市文件、第一份補充披露文件、本補充披露文件及有關推出公佈及補充上市文件（及以上各份文件的中譯本）連同有關推出公佈及補充上市文件內所列之其他文件，可於平日（星期六，星期日及假期除外）的一般營業時間於J.P. Morgan Securities (Asia Pacific) Limited的辦事處（地址為香港干諾道中8號遮打大廈25樓）查閱。

We do not give you investment advice; you must decide for yourself, after reading the listing documents for the relevant structured products and, if necessary, seeking professional advice, whether our structured products meet your investment needs.

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FINANCIAL STATEMENTS
FOR THE SIX MONTHS ENDED 30 JUNE 2017 RELATING TO THE ISSUER

This section sets out the issuer's financial statements for the six months ended 30 June 2017 (the issuer's 2017 interim financial statements). You can read and inspect a copy of the issuer's 2017 interim financial statements by going to the offices of J.P. Morgan Securities (Asia Pacific) Limited at 25/F, Chater House, 8 Connaught Road Central, Hong Kong.

References to page numbers in the issuer's 2017 interim financial statements refer to the original page numbers of the issuer's 2017 interim financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Amsterdam, the Netherlands

(Chamber of Commerce Number: 34259454)

Financial statements for the six month period ended 30 June 2017

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Interim report for the six month period ended 30 June 2017

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J.P. MORGAN STRUCTURED PRODUCTS BV
Directors' report

The directors present their report and the interim financial statements of J.P. Morgan Structured Products B.V. (the "Company") for the six month period ended 30 June 2017.

Principal activity

The Company's primary activity is the management and issuance of structured products comprising certificates, warrants and other market participation notes, and the subsequent hedging of these risk positions.

Review of business

During the period, the Company continued to issue structured products. The proceeds from the sale of the structured products were used to fund the activities of other JPMorgan Chase & Co. (together with its subsidiaries "Firm" or "JPMorgan Chase") undertakings through certain economic hedging arrangements. The principal purpose of these hedging arrangements is to hedge against various risks associated with the issuance activity. During the period, the Company issued structured products in the Asia Pacific region, Europe, the Middle East, Africa, Latin America and the United States of America, and are either issued to private investors or listed on exchanges.

The Company's ultimate controlling entity is JPMorgan Chase & Co.

Key performance indicators ("KPI")

As the Company is managed as part of the Corporate Investment Bank of JPMorgan Chase there are no KPI's that are specific to the Company. The results are monitored against expectations of the business activities. A more detailed description of the Firm's key performance indicators may be found within the JPMorgan Chase & Co. 2016 Annual Report.

Business environment, strategy and future outlook

The primary objective of the Company is the continued development of structured products to be offered and sold to retail, 'high net worth' and institutional investors principally outside of the United States of America, linked to a range of underlying reference assets including equity, credit, interest rates, commodities and so called 'alternatives' such as funds and hedge funds.

Principal risks and uncertainties

The Company's issuance activities expose it to financial and operational risks, which are managed by the Board of Directors, using the Firm's risk management framework. The Board of Directors monitors the Firm's financial and operational risks and has responsibility for ensuring effective risk management and control.

The financial risks arising from the structured products issued by the Company are matched by simultaneously entering into equal and offsetting over-the-counter ("OTC") transactions with other JPMorgan Chase undertakings so that all such risks are effectively hedged from the perspective of the Company. The contractual payments associated with the notes issued by the Company are guaranteed by JPMorgan Chase Bank, N.A. Further details on the financial risks of the Company are set out in note 17 to the financial statements.

Results and dividends

The results for the period are set out on page 5 and show the Company's profit for the period after taxation is $2,540,000 (2016: $1,362,000).

No dividend was paid or proposed during the period (2016: nil).

Events after the reporting period

The Directors are not aware of any events or circumstances which have taken place after 30 June 2016 but before these financial statements have been approved for issue, that could materially affect the financial position or results of the Company and which would require specific disclosure in these financial statements.

Directors

The directors of the Company who served during the period and up to the date of signing the financial statements were as follows:

J.C.P. van Uffelen	(Appointed 6 March 2007)
D.R. Hansson	(Appointed 5 August 2010)
W.H. Kamphuijs	(Appointed 1 September 2014)
H.P. de Kanter	(Appointed 10 April 2014)
R. Terasawa	(Appointed 30 October 2014)

Composition of the Board

The size and composition of the Board of Managing Directors and the combined experience and expertise should reflect the best fit for profile and strategy of the Company. The Company is aware that the gender diversity is below the goals as set out in article 2:276 section 2 of the Dutch Civil Code and the Company will pay close attention to gender diversity in the process of recruiting and appointing new Managing Directors.

Creditor payment policy

All invoices from suppliers are settled on the Company's behalf by an affiliated Firm company, JPMorgan Chase Bank, N.A.

The Firm's policy is to pay invoices (including those in respect of the Company) upon presentation, except where other arrangements have been negotiated with the supplier. It is the policy of the Company to abide by the terms of payment, provided the supplier performs according to the terms of the contract.

Registered address

Herikerbergweg 238
Luna ArenA, 1101CM
Amsterdam

Expected developments of the Company

The directors of the Company expect:

a) that the Company will continue to issue structured products;
b) that the Company will not enter into fixed asset investments; and
c) that the interest income will continue to fluctuate in line with the development in market interest rates.

Statement under Transparency Directive (as implemented in Dutch law)

The directors confirm to the best of their knowledge that:

a) the attached financial statements are prepared in accordance with International Financial Reporting Standards ("IFRS") as endorsed by the European Union and give a true and fair view of the assets, liabilities, financial position and profit of the Company for the period ended 30 June 2017, and
b) the annual report for the period ended 30 June 2017, consisting of the directors report and the financial statements, gives a true and fair view of the position as per the balance sheet date 30 June 2017.

The directors further herewith report their arrangements for an audit committee (the "Audit Committee") as follows:

Audit Committee

The Company makes use of the exemption to the requirement to establish its own Audit Committee based on Article 3a of the Royal Decree of 26 July 2008 implementing article 41 of the EU Directive 2006/43EG, as the Audit Committee of JPMorgan Chase & Co. that is compliant with the requirements will fulfil the role of the Company's Audit Committee. JPMorgan Chase & Co. operates an Audit Committee, which covers the Firm, including the Company and is formed of entirely non-management, independent directors in compliance with the recommendations from the EU Commission. Details of the Charter, Membership, Duties and Responsibilities can be found on the Firm's website.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Directors' report (continued)

The financial statements on pages 4 to 22 were approved by the Board of Directors on 19 September 2017 and signed on its behalf by:

W.H. Kamphuijs

J.C.P. van Uffelen

Date:

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Balance sheet

	Notes	Unaudited 30 June 2017 $'000	31 December 2016 $'000
Assets			
Current assets			
Financial assets held for trading	4	**21,505,090**	18,791,157
Trade and other receivables	5	**301,253**	562,456
Current tax asset		**—**	219
Cash and cash equivalents	6	**514,346**	607,888
Total assets		**22,320,689**	19,961,720
Liabilities			
Current liabilities			
Financial liabilities designated at fair value through profit or loss	7	**21,505,090**	18,791,157
Trade and other payables	10	**181,223**	210,777
Current tax liabilities		**81**	—
Bank borrowings	11	**101,121**	429,152
Total liabilities		**21,787,515**	19,431,086
Equity			
Capital and reserves attributable to equity shareholders of the Company			
Share capital	12	**26**	26
Share premium reserve		**499,997**	499,997
Legal reserve		**2**	2
Retained earnings		**33,149**	30,609
Total equity		**533,174**	530,634
Total liabilities and equity		**22,320,689**	19,961,720

Chamber of Commerce Number: 34259454

The notes on pages 8 - 22 form an integral part of the financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Income statement (unaudited)

Six month period ended	Notes	**Unaudited 30 June 2017** **$'000**	Unaudited 30 June 2016 $'000
Fee and commission income	13	**6,703**	1,850
Fee and commission expense	13	**(2,436)**	(1,250)
Administrative expense		**(1,076)**	(322)
Net foreign exchange (loss)/gain		**(64)**	7
Operating profit		**3,127**	285
Net interest income	15	**305**	1,516
Profit before income tax		**3,432**	1,801
Income tax expense	16	**(892)**	(439)
Profit for the period attributable to equity shareholders of the Company		**2,540**	1,362

The profit for the period resulted from continuing operations.

There were no items of other comprehensive income or expense therefore no statement of comprehensive income has been separately presented.

The notes on pages 8 - 22 form an integral part of the financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Statement of changes in equity (unaudited)

	Share capital	Share premium reserve	Legal reserve	Retained earnings	Total equity
	$'000	$'000	$'000	$'000	$'000
Balance at 1 January 2017	26	499,997	2	30,609	530,634
Profit for the period	—	—	—	2,540	2,540
Balance as at 30 June 2017	**26**	**499,997**	**2**	**33,149**	**533,174**
Balance as at 1 January 2016	26	499,997	2	28,906	528,931
Profit for the period	—	—	—	1,362	1,362
Balance as at 30 June 2016	**26**	**499,997**	**2**	**30,268**	**530,293**

The notes on pages 8 - 22 form an integral part of the financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Statement of cash flows

	Notes	**Unaudited 30 June 2017 $'000**	Unaudited 30 June 2016 $'000
Cash flow from operating activities			
Profit before income tax		**3,432**	1,801
Income tax paid		**(592)**	(587)
Net interest income	15	**(305)**	(1,516)
Net foreign exchange loss/(gain)		**64**	(7)
		2,599	(309)
Changes in working capital			
Financial assets held for trading		**(2,713,933)**	(73,987)
Trade and other receivables		**261,203**	(545)
Financial liabilities designated at fair value through profit or loss		**2,713,933**	73,987
Trade and other payables		**(29,554)**	(173,840)
Bank borrowings		**(353,387)**	—
Net cash used in operating activities		**(119,139)**	(174,694)
Cash flow from investing activities			
Interest received	15	**305**	1,516
Net cash generated from investing activities		**305**	1,516
Net decrease in cash and cash equivalents		**(118,834)**	(173,178)
Net cash and cash equivalents at the beginning of the period		**573,938**	137,921
Effect of exchange rate changes on cash and cash equivalents		**(64)**	7
Net cash and cash equivalents at the end of the period	6	**455,040**	(35,250)

The notes on pages 8 - 22 form an integral part of the financial statements.

1. General information

J.P. Morgan Structured Products B.V. (the "Company") was incorporated on 6 November 2006 as a private company with limited liability and domiciled in The Netherlands, with registration number 34259454. The address of the registered office is at Herikerbergweg 238, Luna ArenA, 1101CM, Amsterdam, The Netherlands. The company's immediate parent undertaking is J.P. Morgan International Finance Limited which is incorporated in the state of Delaware in the United States of America. The company's ultimate parent undertaking of the largest group in which the results of the Company are consolidated is J.P. Morgan Chase & Co. (together with its subsidiaries, the "Firm" or "JPMorgan Chase"), which is also incorporated in the state of Delaware in the United States of America. The parent undertaking of the smallest group in which the Company's results are consolidated is J.P. Morgan International Finance Limited. The largest and the smallest group's consolidated financial statements can be obtained from 25 Bank Street, Canary Wharf, London E14 5JP, England.

The Company's main activity is the issuance of structured products comprising certificates, warrants and market participation notes, and the subsequent hedging of the risk associated with these notes through hedging with other JPMorgan Chase companies. The valuation of a structured product will have no impact on the income statement, capital or net assets; as a change in valuation of a structured product will have an equal offsetting change in the value of the hedging transaction with other JPMorgan Chase undertakings.

These financial statements reflect the operations of the Company during the period from 1 January 2017 to 30 June 2017 and have been approved for issue by the Board of Directors on 19 September 2017.

2.1 Basis of preparation

These condensed interim financial statements for the six months ended 30 June 2017 have been prepared in accordance with IAS 34, 'Interim financial reporting', as adopted by the European Union and in accordance with Book 2, Title 9 of the Dutch Civil Code. The condensed interim financial statements should be read in conjunction with the annual financial statements for the year ended 31 December 2016, which have been prepared in accordance with IFRSs as adopted by the European Union. The financial statements have been prepared under the historical cost convention as modified by the revaluation of certain financial assets and financial liabilities measured at fair value through profit or loss.

2.2 Significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are consistent with those adopted by the Company in its annual financial statements for the year ended 31 December 2016. These policies have been applied consistently, unless otherwise stated, and the financial statements have been prepared on a going concern basis.

New and amended standards adopted by the Company

There are no IFRS or IFRIC interpretations that are effective for the first time for the financial year beginning on or after 1 January 2017 that would be expected to have a material impact on the Company.

New standards, amendments and interpretations not yet adopted

IFRS 9 'Financial instruments' ("IFRS 9")

IFRS 9 was issued by the International Accounting Standards Board ("IASB") in July 2014 and replaces the existing guidance in IAS 39 'Financial Instruments: Recognition and Measurement' ("IAS 39"). The standard includes a new model for classification and measurement of financial assets and a single, forward-looking Expected Credit Loss ("ECL") impairment model. The standard also requires entities to provide users of financial statements with more informative and relevant disclosures. IFRS 9 is applicable retrospectively, except where otherwise prescribed by transitional provisions of the standard, and is effective for annual periods beginning on or after 1 January 2018.

The impact of the adoption of IFRS 9 is not expected to be significant on the Company.

Implementation program

The Firm has a centrally managed IFRS 9 project. Overall governance of the program's implementation is through the IFRS 9 Steering Committee which includes representation from Finance, Corporate Accounting Policy, Risk, Technology and Audit.

Classification and Measurement of Financial Assets and Liabilities

IFRS 9 introduces a new 'Business Model Test' and 'Cash Flow Characteristic Test' which is used to determine the classification of financial assets. These tests determine whether the financial asset is measured at amortised cost, fair value through other comprehensive income ("FVOCI") or fair value through profit or loss ("FVTPL").

2.2 Significant accounting policies (continued)

Impairment of Financial Assets

IFRS 9 impairment requirements apply to financial assets that are measured at amortised cost or FVOCI, and off balance sheet lending-related commitments.

The determination of impairment losses and allowance will move from an incurred credit loss model under IAS 39, to an expected loss model under IFRS 9, where provisions are taken upon initial recognition of the financial asset based on expectations of potential credit losses. Credit losses are recognised either over a 12-month period ('12-month expected losses') representing financial assets that have not observed a significant increase in credit risk since initial recognition or over a lifetime period ('lifetime expected losses') representing financial assets that have observed a significant increase in credit risk since initial recognition or were considered credit-impaired at the reporting date. IFRS 9 is estimated to result in an increase in the overall level of allowances for credit losses mainly driven by the requirement to record an allowance equal to 12-month expected credit losses.

IFRS 15 'Revenue from Contracts with Customers' ("IFRS 15")

IFRS 15 was issued by the IASB in May 2014 for retrospective application in annual periods beginning on or after 1 January 2018. IFRS 15 establishes a framework for determining whether, how much and when revenue is recognised. It replaces existing revenue recognition guidance, including IAS 18 'Revenue'. The Firm is currently assessing and quantifying the impact of IFRS 15 on the financial statements.

There are no other IFRS or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Company.

3. Critical accounting estimates and judgements

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Company's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are the same as those applied for the year ended 31 December 2016.

4. Financial assets held for trading

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Financial assets held for trading	21,505,090	18,791,157

Financial assets held for trading include derivatives and fully funded OTC financial instruments with other JPMorgan Chase undertakings, see note 8.

5. Trade and other receivables

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Trade receivables	**193,402**	107,260
Amounts owed by JPMorgan Chase undertakings	**107,851**	455,196
	301,253	562,456

All trade and other receivables are non-interest bearing.

There were no amounts within trade and other receivables that were past due or impaired as at 30 June 2017 (30 June 2016: nil).

6. Cash and cash equivalents

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Cash held with JPMorgan Chase undertakings	**422,430**	586,297
Cash held with third parties	**91,916**	21,591
	514,346	607,888
Bank borrowings		
Cash held with JPMorgan Chase undertakings	**(23,489)**	(26,797)
Cash held with third parties	**(35,817)**	(7,153)
	(59,306)	(33,950)
Cash and cash equivalents as reported for the period/year	**455,040**	573,938

	Unaudited 30 June 2017	Unaudited 30 June 2016
Cash and cash equivalents as reported in the cash flow statement	**455,040**	(35,250)

7. Financial liabilities designated at fair value through profit or loss

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Financial liabilities designated at fair value through profit or loss	21,505,090	18,791,157

Financial liabilities designated at fair value through profit and loss include short term and long term structured notes and market participating warrants. In certain instances, the customers have the rights to exercise put options. Other securities include early redemption clauses. As a result, the notes have been disclosed as having a maturity within one year in the table above. The contractual payments associated with the notes issued by the Company are guaranteed by JPMorgan Chase Bank, N.A. and may be repayable on customer demand. The details of each note are set out in the prospectus for each issuance.

Debit valuation adjustments are necessary to reflect the credit quality of the Firm in the valuation of such liabilities. The directors consider that the Company is fully hedged and that there would, in the normal course of business, be no impact to the results of the Company due to movements in the fair value of the financial liabilities designated at fair value through profit or loss.

The amount of change attributable to changes in its own credit and funding risk in the financial liabilities designated at fair value through profit or loss for the period ended 30 June 2017 is $54.2 million (2016: $42.7 million). This is fully offset by an equal and opposite amount in financial assets held for trading (refer to note 4).

8. Assets and liabilities measured at fair value

Valuation process

The Company carries a portion of its assets and liabilities at fair value on a recurring basis.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices, where available. If listed prices or quotes are not available, fair value is based on models that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters.

The level of precision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Company believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgement and may vary across the Company's businesses and portfolios. The use of different methodologies or assumptions to those used by the Company could result in a different estimate of fair value at the reporting date.

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the balance sheet at fair value. The Firm's valuation control function, which is part of the Firm's Finance function and independent of the risk-taking functions, is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Firm's positions are recorded at fair value. The valuation control function verifies fair value estimates provided by the risk-taking functions by leveraging independently derived prices, valuation inputs and other market data, where available.

Debit valuation adjustments (DVA) are taken to reflect the credit quality of the Company in the valuation of liabilities measured at fair value. The Firm also incorporates the impact of funding in its valuation estimates where there is evidence that a market participant in the principal market would incorporate it in a transfer of the instrument.

Fair value hierarchy

The Company classifies its assets and liabilities according to a valuation hierarchy that reflects the observability of significant market inputs. The three levels are defined as follows:

Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 - one or more inputs to the valuation methodology are unobservable and significant to the fair value measurement.

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

Valuation methodologies

The following table describes the valuation methodologies used by the Firm to measure its more significant products/ instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/ instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Structured notes	• Valuations are based on discounted cash flow analysis that consider the embedded derivative and the terms and payment structure of the note. • The embedded derivative features are considered using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that use observable or unobservable valuation inputs, depending on the embedded derivative. The specific inputs used vary according to the nature of the embedded derivative features, as described in the discussion above regarding derivative valuation. Adjustments are then made to this base valuation to reflect the Company's own creditworthiness ("DVA") and to incorporate the impact of funding ("FVA").	Level 2 or 3
Derivatives and fully funded OTC financial instruments	Exchange-traded derivatives that are actively traded and valued using the exchange price.	Level 1
	Derivatives that are valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models, that use observable or unobservable valuation inputs (e.g. plain vanilla options and interest rate and credit default swaps). Inputs include: • Contractual terms including the period to maturity • Readily observable parameters including interest rates and volatility • Credit quality of the counterparty and of the Firm • Market funding levels • Correlation levels	Level 2 or 3

8. Assets and liabilities measured at fair value (continued)

Valuation methodologies (continued)

The following tables present the assets and liabilities reported at fair value as of 30 June 2017 and 31 December 2016, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

	Level 1	Level 2	Level 3	Total
	$'000	$'000	$'000	$'000
Unaudited at 30 June 2017				
Financial assets held for trading:				
Financial assets held for trading	413,655	15,778,344	5,313,091	21,505,090
Total financial assets	413,655	15,778,344	5,313,091	21,505,090
Financial liabilities designated at fair value through profit or loss				
Structured securities and warrants	—	(14,714,101)	(6,790,989)	(21,505,090)
Total financial liabilities	—	(14,714,101)	(6,790,989)	(21,505,090)

	Level 1	Level 2	Level 3	Total
	$'000	$'000	$'000	$'000
At 31 December 2016				
Financial assets held for trading:				
Financial assets held for trading	414,318	13,739,415	4,637,424	18,791,157
Total financial assets	414,318	13,739,415	4,637,424	18,791,157
Financial liabilities designated at fair value through profit or loss				
Structured securities and warrants	—	(12,471,128)	(6,320,029)	(18,791,157)
Total financial liabilities	—	(12,471,128)	(6,320,029)	(18,791,157)

The Company hedges all structured note issuances by entering into hedging transactions with other JPMorgan Chase companies. On occasions, the hedging transactions are booked as multiple elements in order to ensure the risk associated with the notes is fully hedged. Each of these elements is classified in the fair value hierarchy in line with the requirements of IFRS 13 'Fair Value Measurement', and as such the fair value hierarchy of the structured notes and hedges can differ.

9. Movements in assets and liabilities measured in Level 3

Level 3 valuations

The Firm has established well-documented processes for determining fair value, including for instruments where fair value is estimated using significant unobservable inputs (level 3).

Estimating fair value requires the application of judgement. The type and level of judgement required is largely dependent on the amount of observable market information available to the Company. For instruments valued using internally developed models that use significant unobservable inputs are classified within level 3 of the fair value hierarchy, judgements 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.

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 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 Company's view, the input range and the weighted average value reflect the characteristics of the various instruments held by the Company 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 Company at each balance sheet date.

Unaudited 30 June 2017	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values
	$'000	$'000	$'000			
Derivatives and fully funded OTC financial instruments	5,313,091	(620,604)	4,692,487			
Net interest rate derivative				Option pricing	Interest rate spread volatility	3% - 38%
					Interest rate correlation	(50)% - 97%
					IR-FX correlation	60% - 70%
					Prepayment speed	4% - 15%
Net credit derivatives				Discounted cash flows	Credit correlation	35% - 85%
					Credit spread	6bps - 1,557bps
					Recovery rate	20% - 65%
					Yield	5% - 8%
					Prepayment speed	2% - 14%
					Conditional default rate	2% - 100%
					Loss severity	39% - 100%
Net equity derivatives				Option pricing	Equity volatility	15% - 55%
					Equity correlation	(5)% - 90%
					Equity-FX correlation	(50)% - 25%
					Equity-IR correlation	20% - 35%
Structured notes	—	(6,170,385)	(6,170,385)	Option pricing	Interest rate spread volatility	3% - 38%
					Interest rate correlation	(50)% - 97%
					IR-FX correlation	(50)% - 70%
					Equity correlation	(5)% - 90%
					Equity-FX correlation	(55)% - 25%
					Equity-IR correlation	20% - 35%
Total assets and liabilities	**5,313,091**	**(6,790,989)**	**(1,477,898)**			

The categories presented in the table have been aggregated based upon product type.

9. Movements in assets and liabilities measured in Level 3 (continued)

Level 3 valuations (continued)

At 31 December 2016

Product/Instrument	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values	Weighted average
	$'000	$'000	$'000				
Derivatives and fully funded OTC financial instruments	4,637,424	(619,094)	4,018,330	Discounted cash flows	Credit Spread	40bps - 375bps	96bps
					Yield	1% - 17%	9%
					Price	$0 - $121	$91
				Discounted cash flows	Credit correlation	30% - 85%	
				Option pricing	Foreign exchange correlation	(30)% - 65%	
				Option pricing	Equity volatility	20% - 60%	
				Option pricing	Interest rate correlation	(30)% -100%	
					Interest rate spread volatility	3% - 38%	
Structured notes	—	(5,700,935)	(5,700,935)	Option pricing	Interest rate correlation	(30)% - 100%	
					Interest rate spread volatility	3% - 38%	
					Foreign exchange correlation	(30)% - 65%	
					Equity correlation	(50)% - 80%	
				Discounted cash flows	Credit correlation	30% - 85%	
Total assets and liabilities	**4,637,424**	**(6,320,029)**	**(1,682,605)**				

The categories presented in the table have been aggregated based upon the product type.

9. Movements in assets and liabilities measured in Level 3 (continued)

Changes in and ranges of unobservable inputs

The following discussion provides a description of the impact on fair value measurement of a change in each unobservable input in isolation, and the interrelationship between unobservable inputs, where relevant and significant. The impact of changes in inputs may not be independent as a change in one unobservable input may give rise to a change in another unobservable input; where relationships exist between two unobservable inputs, those relationships are discussed below. Relationships may also exist between observable and unobservable inputs (for example, as observable interest rates rise, unobservable prepayment rates decline); such relationships have not been included in the discussion below. In addition, for each of the individual relationships described below, the inverse relationship would also generally apply.

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

Credit spread - The credit spread is the amount of additional annualised return over the market interest rate that a market participant would demand for taking exposure to the credit risk of an instrument. The credit spread for an instrument forms part of the discount rate used in a discounted cash flow calculation. Generally, an increase in the credit spread would result in a decrease in a fair value measurement. For loans, credit spreads reflect the credit quality of the obligor and the tenor of the obligation.

Correlation - Correlation is a measure of the relationship between the movements of two variables (e.g., how the change in one variable influences the change in the other). Correlation is a pricing input for a derivative product where the payoff is driven by one or more underlying risks. Correlation inputs are related to the type of derivative due to the nature of the underlying risks. When parameters are positively correlated, an increase in one parameter will result in an increase in the other parameter. When parameters are negatively correlated, an increase in one parameter will result in a decrease in the other parameter. An increase in correlation can result in an increase or a decrease in a fair value measurement. Given a short correlation position, an increase in correlation, in isolation, would generally result in a decrease in a fair value measurement.

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

Fair value of financial instruments valued using techniques that incorporate unobservable inputs

Price risk from the issued instruments is matched by entering into equal and offsetting (OTC) transactions with other JPMorgan Chase undertakings so that any price risk is effectively hedged. As at 30 June 2017, the use of alternative inputs would result in no change to the results of the Company. Consequently, no sensitivity analysis for level 3 financial instruments is disclosed.

Financial assets held for trading

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
At 1 January	**4,637,424**	3,454,832
Total gain/(loss) recognised in income statement *	**469,499**	(176,874)
Purchases	**1,988,112**	3,891,081
Settlements	**(1,738,659)**	(2,551,516)
Transfers into level 3	**58,154**	162,383
Transfers out of level 3	**(101,439)**	(142,482)
Total assets at fair value	**5,313,091**	4,637,424
Change in unrealised (loss)/profit related to financial instruments	**9,399**	110,488

9. Movements in assets and liabilities measured in Level 3 (continued)

Financial liabilities designated at fair value through profit and loss

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
At 1 January	**6,320,029**	4,935,285
Total gain/(loss) recognised in income statement *	**351,222**	102,396
Purchases	**25,104**	13,886
Issuances	**3,677,124**	4,729,348
Settlements	**(3,473,423)**	(3,371,836)
Transfers into level 3	**153,555**	358,493
Transfers out of level 3	**(262,622)**	(447,543)
Total assets at fair value	**6,790,989**	6,320,029
Change in unrealised profit/(loss) related to financial instruments	**28,501**	81,794

***** As explained in note 8, the Company's hedging transactions are booked as multiple elements in order to ensure the risk associated with the notes is fully hedged, and as such the levelling of the structured notes and hedges can differ. The gain/(loss) recognised in the income statement as a result of changes in fair value related to level 3 financial instruments, including any changes to unrealised gain/(loss) is offset by an equal and opposite impact as a result of changes in fair value of the related hedging instruments that are classified across multiple levels.

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

For the period ended 30 June 2017, there were no significant transfers between levels 1 and 2.

During the period ended 30 June 2017, there were no significant transfers from level 2 to level 3.

During the period ended 30 June 2017, transfers from level 3 to level 2 included the following:

- $161m of liabilities driven by an increase in observability of structured notes.

Fair value of financial instruments not carried on balance sheet at fair value

Certain financial instruments that are not carried at fair value on balance sheet are carried at amounts that approximate fair value, due to their short term nature and generally negligible credit risk. These instruments include trade and other receivables, cash and cash equivalents, trade and other payables and bank overdraft.

The company has $815,599,000 (31 December 2016: $1,170,344,000) of current financial assets and $282,344,000 (31 December 2016: $639,929,000) of current financial liabilities that are not measured at fair value. Given the short-term nature of these instruments, their carrying amounts in the balance sheet are a reasonable approximation of fair value.

Offsetting financial assets and financial liabilities

No financial assets and liabilities have been offset in the balance sheet as at 30 June 2017 (31 December 2016: nil).

Financial instruments, recognised within financial assets held for trading and financial liabilities held for trading, which were subject to master netting arrangements or other similar agreements but not offset, as at 30 June 2017, amounted to $879,145,000 (31 December 2016: $903,783,000).

10. Trade and other payables

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Trade payables	103,654	189,703
Amounts owed to JPMorgan Chase undertakings	77,569	21,074
	181,223	210,777

Trade and other payables mainly consist of unsettled trades. All trade and other payables are non-interest bearing.

11. Bank borrowings

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Bank borrowings	41,815	395,202
Bank overdraft	59,306	33,950
	101,121	429,152

All bank borrowings and $23,489,000 (2016 : $26,797,000) of bank overdrafts relate to amounts owed to JPMorgan Chase undertakings.

Bank borrowings relate to unsecured daily cash management funding at the Firm's transfer pricing rate.

12. Share capital

	Unaudited 30 June 2017	31 December 2016
	€'000	€'000
Authorised share capital		
90,000 Ordinary shares of €1.00 each	90	90

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Issued and fully paid share capital		
20,000 (2015: 20,000) Ordinary shares of €1.00 each	26	26

In accordance with the requirements of Article 373 Book 2 of the Dutch Civil Code, the Company holds an amount of $2,000 in a legal reserve in respect of revaluation of the Euro denominated share capital.

There has been no change in the amount of authorised share capital during the period.

13. Fees and commissions

All fee and commission income is receivable from other JPMorgan Chase undertakings.

All fee and commission expense are paid by other JPMorgan Chase undertakings and reimbursed by the Company.

13. Fees and commissions (continued)

During the year, certain adjustments were identified in relation to attributions made in prior years from 2009 to 2017. These have been adjusted in the current reporting period resulting in an increase in fees and commission income and trade and other receivables of $3.1 million.

14. Segmental analysis

In the opinion of the directors, the Company's activities comprise only one business segment, namely Corporate and Investment Banking services. The Company issues structured notes, of which the majority are issued within the EMEA. All fee and commission income is received from JPMorgan Chase undertakings within the EMEA region.

15. Net interest income

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Interest income	305	1,516

16. Income tax expense

	Unaudited 30 June 2017	Unaudited 30 June 2016
	$'000	$'000
Current tax	892	437
Adjustments in respect of prior years	—	—
Tax on profit on ordinary activities	892	437
Profit before income tax	3,432	1,801
Tax calculated at applicable tax rates	876	439
Impact of:		
Adjustments in respect of prior years	16	—
Income tax expense	892	439

The standard tax rate in the Netherlands is 25% (2016: 25%). A tax rate of 20% is applied to the first €200,000 (2017: $218,753, 2016: $221,590).

17. Financial risk management

Risk is an inherent part of the Company’s business activities. The Company’s overall objective is to manage its businesses, and the associated risks, in a manner that balances serving the interests of its clients and customers and protects the safety and soundness of the Company.

JPMorgan Chase’s and the Company’s risk management framework seeks to mitigate risk and loss to the Firm and Company. The Firm has established processes and procedures intended to identify, measure, monitor, report and analyse the types of risk to which the Firm is subject. However, as with any risk management framework, there are inherent limitations to the Firm’s risk management strategies because there may exist, or develop in the future, risks that the Firm has not appropriately anticipated or identified.

The Company operates within the Firm's risk management framework. The Board of Directors monitors the Company's financial risks and has responsibility for ensuring effective risk management and control.

17. Financial risk management (continued)

An overview of the key aspects of risk management is provided below. A substantial majority of these risks, which arise from the structured products issued by the Company are offset by simultaneously entering into equal and offsetting OTC transactions with other JPMorgan Chase undertakings so that all such risks are effectively hedged.

A detailed description of the policies and processes adopted by the Firm may be found within JPMorgan Chase & Co. 2016 Annual Report of Form 10-K.

The following sections outline the key risks that are inherent in the Company's business activities.

Risk	Definition
Economic risks	
Credit risk	The risk of loss arising from the default of a customer, client or counterparty.
Liquidity risk	The risk that the Company 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 and liabilities.
Market risk	The risk of loss arising from potential adverse changes in the value of the Company's assets or liabilities or future results, resulting from changes in market variables such as interest rates, foreign exchange rates and equity prices.
Other core risks	
Operational risk	The risk of loss resulting from inadequate or failed processes or systems, human factors, or due to external events that are neither market nor credit related such as cyber and technology related events.
Reputation risk	The risk that an action, transaction, investment or event will reduce trust in the Company and the Firm's integrity or competence by our various constituents, including clients, counterparties and the broader public.

Credit risk

Credit risk refers to the risk of loss arising from the default of a customer, client or counterparty. The Company is exposed to credit risk through lending and capital markets activities.The Company's assets are neither past due nor impaired.

Credit exposures

Balance sheet exposure by financial asset

The table below presents the Company's gross balance sheet exposure to financial assets without taking account of any collateral or economic hedges in place. As stated above, the Company's credit risk is substantially hedged with other JPMorgan Chase undertakings:

	Unaudited 30 June 2017	31 December 2016
	$'000	$'000
Financial assets held for trading	**21,505,090**	18,791,157
Trade and other receivables	**301,253**	562,456
Cash and cash equivalents	**514,346**	607,888
	22,320,689	19,961,501

Included within the above assets, balances held with other JPMorgan Chase undertakings are $22,035,371 (2016: $19,832,650).

All financial assets are considered to be of an investment grade, which is considered to be of high quality.

Liquidity risk

Liquidity risk is the risk that the Company 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 and liabilities.

The Company's issuances are economically hedged with the OTC transactions with other JPMorgan Chase undertakings. To the extent that settlement-related timing differences between issuances and the OTC hedge may result in funding requirements, these are funded by other Firm companies involved in the transactions. The contractual payments associated with the notes issued by the Company are guaranteed by JPMorgan Chase Bank, N.A.

17. Financial risk management (continued)

Liquidity risk (continued)

The following table provides details on the contractual maturity of all liabilities:

	Unaudited 30 June 2017	31 December 2016
	Less than 1 year	**Less than 1 year**
	$'000	**$'000**
Financial liabilities designated at fair value through profit or loss	**21,505,090**	18,791,157
Bank borrowings	**101,121**	429,152
Trade and other payables	**181,223**	210,777
	21,787,434	19,431,086

Financial liabilities designated at fair value through profit or loss are typically redeemable on customer demand.

Market risk

Market risk is the exposure to an adverse change in the market value of financial instruments caused by a change in market parameters. The primary categories of market parameters are:

- Interest Rates - Interest rate risk primarily results from exposure to changes in the level, slope and curvature of the yield curve and the volatility of interest rates;
- Foreign Exchange Rates - Foreign exchange rate risk results from exposure to changes in prices and volatility of currency rates; and
- Equity Prices - Equity price risk arises from exposure to changes in prices and volatility of individual equities, equity baskets and equity indices.

The market risks, including price, foreign exchange and interest rates risk, arising from the Company's issuances are economically hedged by equal and offsetting OTC transactions with other Firm companies. There is no significant residual price, foreign exchange risk and interest rate risk in the Company as at 30 June 2017 and 31 December 2016.

The Company has an immaterial cash flow interest rate risk from interest bearing cash and cash equivalents balances.

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, human factors or due to external events that are neither market- nor credit-related. Operational risk is inherent in the Company’s activities and can manifest itself in various ways, including fraudulent acts, business interruptions, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their arrangements. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Company and the Firm. The goal is to keep operational risk at appropriate levels in light of the Company’s financial strength, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

Risk management

To monitor and control operational risk, the Firm has an Operational Risk Management Framework (“ORMF”) which is designed to enable the Firm to maintain a sound and well-controlled operational environment. The ORMF is comprised of four main components: Governance, Risk Assessment, Measurement, and Monitoring and Reporting.

Cybersecurity risk

The Firm devotes significant resources to protect the security of the Firm and Company’s computer systems, software, networks and other technology assets. These security efforts are intended to protect against cybersecurity attacks by unauthorized parties to obtain access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage. The Firm continues to make significant investments in enhancing its cyber defence capabilities and to strengthen its partnerships with the appropriate government and law enforcement agencies and other businesses in order to understand the full spectrum of cybersecurity risks in the environment, enhance defences and improve resiliency against cybersecurity threats.

To protect the confidentiality, integrity and availability of the Firm and Company’s infrastructure, resources and information, the Firm leverages the ORMF to ensure risks are identified and managed within defined corporate tolerances. The Firm’s Board of Directors and the Audit Committee are regularly briefed on the Firm’s cybersecurity policies and practices as well as its efforts regarding significant cybersecurity events.

17. Financial risk management (continued)

Reputation risk

Reputation risk is the risk that an action, transaction, investment or event will reduce trust in the Company's integrity or competence by our various constituents, including clients, counterparties and the broader public.

Risk management

The types of events that could harm the Firm's reputation are so varied across the Firm's lines of business, each line of business has a separate reputation risk governance infrastructure in place, which consists of three key elements: clear, documented escalation criteria appropriate to the business; a designated primary discussion forum - in most cases, one or more dedicated reputation risk committees; and a list of designated contacts, to whom questions relating to reputation risk should be referred. Line of business reputation risk governance is overseen by a Firmwide Reputation Risk Governance function, which provides oversight of the governance infrastructure and process to support the consistent identification, escalation, management and monitoring of reputation risk issues Firmwide.

18. Managed capital

Total equity of $533,174,000 (2016: $530,634,000) constitutes the managed capital of the Company, which consists entirely of issued share capital, share premium reserve, legal reserve and retained earnings.

The directors are responsible for setting the objectives, policies and processes relating to the management of the Company's capital and maintain a set of policy documents to assist in discharging their responsibilities.

The Company is not subject to any externally imposed capital requirements.

19. Related party transactions

Related parties comprise:

(a) Directors and shareholders of the Company and companies in which they have an ownership interest;

(b) Other JPMorgan Chase undertakings.

None of the Directors received remuneration from the Company during the period (2016: $nil). The Company did not employ any staff in 2017 or 2016.

The Company's parent undertaking is detailed in note 19. There were no transactions with the parent undertaking during the period.

Related party transactions, outstanding balances at period end, and income and expenses for the period, relating to normal business activities are as follows:

(i) Outstanding balances at period end

	Unaudited JPMorgan Chase undertakings 30 June 2017 $'000	JPMorgan Chase undertakings 31 December 2016 $'000
Financial assets held for trading	21,505,090	18,791,157
Trade and other receivables	107,851	455,196
Cash and cash equivalents	422,430	586,297
Financial liabilities designated at fair value through profit or loss	(2,316,628)	(2,511,510)
Trade and other payables	(77,569)	(21,074)
Bank borrowings	(65,304)	(421,999)

19. Related party transactions (continued)

(ii) Income and expenses

	Unaudited JPMorgan Chase undertakings	Unaudited JPMorgan Chase undertakings
	30 June 2017	30 June 2016
	$'000	$'000
Fees and commission income	6,703	1,850
Fees and commission expense	(2,436)	(1,250)
Interest income	305	2,032

20. Proposed appropriation of net results

Management propose to appropriate the current year profit to the retained earnings. No dividend was paid or proposed during the year.

By order of the Board of Directors

W.H. Kamphuijs

J.C.P. van Uffelen

Date:

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Other information

Profit appropriation according to the Articles of Association

The Articles of Association of the Company require that the allocation of profits be determined in a general meeting of the shareholders. The Management Board may resolve to pay interim dividends up to an amount which does not exceed the amount of the distributable part of the net assets. Dividends shall be paid after adoption of the annual financial statements from which it appears that payment of dividends is permissible.

Proposed appropriation of net results

Management propose to appropriate the current period profit to retained earnings. No dividend was paid or proposed during the period.

CONSOLIDATED FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED 30 JUNE 2017 RELATING TO THE GUARANTOR

This section sets out the guarantor's consolidated financial statements for the six months ended 30 June 2017 (the guarantor's 2017 interim financial statements). You can read and inspect a copy of the guarantor's 2017 interim financial statements by going to the offices of J.P. Morgan Securities (Asia Pacific) Limited at 25/F, Chater House, 8 Connaught Road Central, Hong Kong.

References to page numbers in the guarantor's 2017 interim financial statements refer to the original page numbers of the guarantor's 2017 interim financial statements.

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

(in millions)	Six months ended June 30, 2017	Six months ended June 30, 2016
Revenue		
Investment banking fees	**$ 1,722**	$ 1,148
Principal transactions	**5,619**	4,949
Lending- and deposit-related fees	**2,934**	2,808
Asset management, administration and commissions[(a)]	**5,746**	5,500
Securities gains/(losses)	**(37)**	71
Mortgage fees and related income	**810**	1,356
Card income	**2,203**	2,138
Other income	**2,596**	2,570
Noninterest revenue	**21,593**	20,540
Interest income	**22,912**	20,347
Interest expense	**3,004**	2,292
Net interest income	**19,908**	18,055
Total net revenue	**41,501**	38,595
Provision for credit losses	**869**	1,877
Noninterest expense		
Compensation expense	**12,571**	12,045
Occupancy expense	**1,720**	1,618
Technology, communications and equipment expense	**3,472**	3,062
Professional and outside services	**2,327**	2,400
Marketing	**493**	411
Other expense[(a)]	**5,132**	3,918
Total noninterest expense	**25,715**	23,454
Income before income tax expense	**14,917**	13,264
Income tax expense	**4,644**	4,271
Net income	**$ 10,273**	$ 8,993

(a) The prior period amounts have been revised to conform with the current period presentation. The revision had no impact on JPMorgan Chase Bank, N.A.'s net income.

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

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of comprehensive income (unaudited)

	Six months ended June 30,	
(in millions)	**2017**	2016
Net income	**$ 10,273**	$ 8,993
Other comprehensive income, after-tax		
Unrealized gains on investment securities	**708**	1,283
Translation adjustments, net of hedges	**(7)**	2
Cash flow hedges	**146**	(156)
Defined benefit pension and other postretirement employee benefit ("OPEB") plans	**(41)**	28
Debit valuation adjustment ("DVA") on fair value option elected liabilities	**(14)**	28
Total other comprehensive income, after-tax	**792**	1,185
Comprehensive income	**$ 11,065**	$ 10,178

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

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

(in millions, except share data)	Jun 30, 2017	Dec 31, 2016
Assets		
Cash and due from banks	**$ 19,991**	$ 21,202
Deposits with banks	**454,119**	388,655
Federal funds sold and securities purchased under resale agreements (included **$3,969** and $5,349 at fair value)	**156,244**	172,607
Securities borrowed (included **$1,590** and $0 at fair value)	**27,652**	32,497
Trading assets (included assets pledged of **$58,387** and $51,303)	**268,039**	245,329
Securities (included **$212,012** and $234,870 at fair value and assets pledged of **$20,667** and $19,116)	**259,773**	285,038
Loans (included **$1,978** and $2,228 at fair value)	**808,973**	792,119
Allowance for loan losses	**(10,123)**	(10,715)
Loans, net of allowance for loan losses	**798,850**	781,404
Accrued interest and accounts receivable	**50,502**	40,805
Premises and equipment	**13,536**	13,491
Goodwill	**27,142**	27,130
Mortgage servicing rights	**5,753**	6,096
Other intangible assets	**147**	170
Other assets (included **$0** and $41 at fair value and assets pledged of **$1,337** and $1,429)	**70,258**	68,379
Total assets[(a)]	**$ 2,152,006**	$ 2,082,803
Liabilities		
Deposits (included **$17,800** and $13,965 at fair value)	**$ 1,539,823**	$ 1,480,238
Federal funds purchased and securities loaned or sold under repurchase agreements (included **$1,968** and $399 at fair value)	**92,982**	74,778
Other borrowed funds (included **$5,031** and $5,571 at fair value)	**12,067**	12,179
Trading liabilities	**106,631**	111,700
Accounts payable and other liabilities (included **$7,607** and $7,494 at fair value)	**82,592**	84,239
Beneficial interests issued by consolidated variable interest entities	**5,062**	7,451
Long-term debt (included $**18,520** and $14,936 at fair value)	**102,697**	107,131
Total liabilities[(a)]	**1,941,854**	1,877,716
Commitments and contingencies (see Notes 20, 21 and 22)		
Stockholder's equity		
Preferred stock ($1 par value; authorized 15,000,000 shares; issued **0** shares)	**–**	–
Common stock ($12 par value; authorized 200,000,000 shares; issued **148,761,243** shares)	**1,785**	1,785
Additional paid-in capital	**94,125**	94,125
Retained earnings	**112,585**	108,312
Accumulated other comprehensive income	**1,657**	865
Total stockholder's equity	**210,152**	205,087
Total liabilities and stockholder's equity	**$ 2,152,006**	$ 2,082,803

(a) The following table presents information on assets and liabilities related to variable interest entities ("VIEs") that are consolidated by JPMorgan Chase Bank, N.A. at June 30, 2017, and December 31, 2016. The difference between total VIE assets and liabilities represents JPMorgan Chase Bank, N.A.'s interests in those entities, which were eliminated in consolidation.

(in millions)	Jun 30, 2017	Dec 31, 2016
Assets		
Trading assets	**$ 2,475**	$ 2,655
Loans	**29,015**	29,695
All other assets	**1,761**	2,150
Total assets	**$ 33,251**	$ 34,500
Liabilities		
Beneficial interests issued by consolidated VIEs	**$ 5,062**	$ 7,451
All other liabilities	**332**	377
Total liabilities	**$ 5,394**	$ 7,828

The assets of the consolidated VIEs are used to settle the liabilities of those entities. The holders of the beneficial interests do not have recourse to the general credit of JPMorgan Chase Bank, N.A. At both June 30, 2017, and December 31, 2016, JPMorgan Chase Bank, N.A. provided limited program-wide credit enhancements of $2.4 billion related to its JPMorgan Chase Bank, N.A.-administered multi-seller conduits, which are eliminated in consolidation. For further discussion, see Note 14.

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

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of changes in stockholder's equity (unaudited)

	Six months ended June 30,	
(in millions)	**2017**	2016
Common stock		
Balance at January 1 and June 30	**$ 1,785**	$ 1,785
Additional paid-in capital		
Balance at January 1 and June 30	**94,125**	92,782
Retained earnings		
Balance at January 1	**108,312**	98,951
Cumulative effect of change in accounting principle	**—**	(11)
Net income	**10,273**	8,993
Dividends declared to JPMorgan Chase & Co.	**(6,000)**	(5,000)
Balance at June 30	**112,585**	102,933
Accumulated other comprehensive income		
Balance at January 1	**865**	2,020
Cumulative effect of change in accounting principle	**—**	11
Other comprehensive income/(loss)	**792**	1,185
Balance at June 30	**1,657**	3,216
Total stockholder's equity	**$ 210,152**	$ 200,716

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

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of cash flows (unaudited)

	Six months ended June 30,	
(in millions)	**2017**	2016
Operating activities		
Net income	**$ 10,273**	$ 8,993
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	**869**	1,877
Depreciation and amortization	**2,813**	2,465
Deferred tax expense/(benefit)	**111**	(730)
Other	**37**	(71)
Originations and purchases of loans held-for-sale	**(58,119)**	(24,963)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	**52,984**	22,355
Net change in:		
Trading assets	**(13,229)**	(41,190)
Securities borrowed	**4,935**	(8,944)
Accrued interest and accounts receivable	**(9,944)**	(12,821)
Other assets	**4,014**	(13,254)
Trading liabilities	**(14,740)**	31,186
Accounts payable and other liabilities	**(3,089)**	4,032
Other operating adjustments	**4,827**	5,982
Net cash used in operating activities	**(18,258)**	(25,083)
Investing activities		
Net change in:		
Deposits with banks	**(65,464)**	(31,516)
Federal funds sold and securities purchased under resale agreements	**16,426**	(23,062)
Held-to-maturity securities:		
Proceeds from paydowns and maturities	**2,289**	2,718
Purchases	**–**	(134)
Available-for-sale securities:		
Proceeds from paydowns and maturities	**29,137**	32,895
Proceeds from sales	**42,920**	21,523
Purchases	**(45,567)**	(41,014)
Proceeds from sales and securitizations of loans held-for-investment	**7,762**	5,599
Other changes in loans, net	**(25,439)**	(48,376)
All other investing activities, net	**193**	(152)
Net cash used in investing activities	**(37,743)**	(81,519)
Financing activities		
Net change in:		
Deposits	**48,409**	111,711
Federal funds purchased and securities loaned or sold under repurchase agreements	**18,119**	15,874
Other borrowed funds	**(744)**	(15,797)
Beneficial interests issued by consolidated variable interest entities	**(805)**	143
Proceeds from long-term borrowings	**10,753**	24,831
Payments of long-term borrowings	**(16,302)**	(26,162)
Dividends paid to JPMorgan Chase & Co.	**(6,000)**	(5,000)
All other financing activities, net	**1,263**	330
Net cash provided by financing activities	**54,693**	105,930
Effect of exchange rate changes on cash and due from banks	**97**	27
Net decrease in cash and due from banks	**(1,211)**	(645)
Cash and due from banks at the beginning of the period	**21,202**	19,359
Cash and due from banks at the end of the period	**$ 19,991**	$ 18,714
Cash interest paid	**$ 2,903**	$ 2,119
Cash income taxes paid, net	**986**	930

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

Note 1 – Overview and basis of presentation

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

The JPMorgan Chase Bank, N.A. Board of Directors is responsible for the oversight of the management of JPMorgan Chase Bank, N.A. The JPMorgan Chase Bank, N.A. Board accomplishes this function acting directly and through the principal standing committees of JPMorgan Chase's Board of Directors. Risk and controls oversight on behalf of JPMorgan Chase Bank N.A. is primarily the responsibility of the Directors' Risk Policy Committee ("DRPC") and Audit Committee of JPMorgan Chase's Board of Directors and, with respect to compensation and other management-related matters, the Compensation & Management Development Committee of JPMorgan Chase's Board of Directors.

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

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 Bank, N.A.'s 2016 Annual Financial Statements.

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

Consolidation

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

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

JPMorgan Chase Bank, N.A. determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a VIE.

For a further description of JPMorgan Chase Bank, N.A.'s accounting policies regarding consolidation, see Notes 1 and 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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. JPMorgan Chase Bank, N.A. 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 Bank, N.A.'s 2016 Annual Financial Statements.

Note 2 – Accounting and reporting developments

Financial Accounting Standards Board ("FASB") Standards Issued but not yet Adopted

Standard	Summary of guidance	Effects on financial statements
Revenue recognition – revenue from contracts with customers *Issued May 2014*	• 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. • Changes the accounting for certain contract costs, including whether they may be offset against revenue in the Consolidated statements of income, and requires additional disclosures about revenue and contract costs. • May be adopted using a full retrospective approach or a modified, cumulative effect 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.	• Required effective date: January 1, 2018.[a] • 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, JPMorgan Chase Bank, N.A. does not expect the new revenue recognition guidance to have a material impact on the elements of its Consolidated statements of income most closely associated with financial instruments, including securities gains, interest income and interest expense. • JPMorgan Chase Bank, N.A. plans to adopt the revenue recognition guidance in the first quarter of 2018 using the modified retrospective method of adoption. JPMorgan Chase Bank, N.A.'s implementation efforts include the identification of revenue within the scope of the guidance, as well as the evaluation of revenue contracts and related accounting policies. While JPMorgan Chase Bank, N.A. has not yet identified any material changes in the timing of revenue recognition, JPMorgan Chase Bank, N.A.'s review is ongoing, and it continues to evaluate the presentation of certain contract costs (whether presented gross or offset against noninterest revenue). JPMorgan Chase Bank, N.A. plans to expand its qualitative disclosures within the noninterest revenue and noninterest expense note to the Consolidated Financial Statements.
Recognition and measurement of financial assets and financial liabilities *Issued January 2016*	• Requires that certain equity instruments be measured at fair value, with changes in fair value recognized in earnings. • Generally requires a cumulative-effect adjustment to retained earnings as of the beginning of the reporting period of adoption.	• Required effective date: January 1, 2018.[a] • JPMorgan Chase Bank, N.A. early adopted the provisions of this guidance related to presenting DVA in other comprehensive income ("OCI") for financial liabilities where the fair value option has been elected, effective January 1, 2016. JPMorgan Chase Bank, N.A. plans to adopt the portions of the guidance that were not eligible for early adoption in the first quarter of 2018. • JPMorgan Chase Bank, N.A. is currently evaluating the additional impacts on the Consolidated Financial Statements. JPMorgan Chase Bank, N.A.'s implementation efforts include the identification of securities within the scope of the guidance, the evaluation of the measurement alternative available for equity securities without a readily determinable fair value, and the related impact to accounting policies, presentation, and disclosures.
Leases *Issued February 2016*	• Requires lessees to recognize all leases longer than twelve months on the Consolidated balance sheets as lease liabilities with corresponding right-of-use assets. • Requires lessees and lessors to classify most leases using principles similar to existing lease accounting, but eliminates the "bright line" classification tests. • Expands qualitative and quantitative disclosures regarding leasing arrangements. • Requires adoption using a modified cumulative effect approach wherein the guidance is applied to all periods presented.	• Required effective date: January 1, 2019.[a] • JPMorgan Chase Bank, N.A. is currently evaluating the potential impact on the Consolidated Financial Statements by reviewing its existing lease contracts and service contracts that may include embedded leases. JPMorgan Chase Bank, N.A. expects to recognize lease liabilities and corresponding right of-use assets (at their present value) related to predominantly all of the $9 billion of future minimum payments required under operating leases as disclosed in Note 28 of JPMorgan Chase Bank, N.A.'s 2016 Consolidated Financial Statements. However, the population of contracts subject to balance sheet recognition and their initial measurement remains under evaluation. JPMorgan Chase Bank, N.A. does not expect material changes to the recognition of operating lease expense in its Consolidated statements of income. • JPMorgan Chase Bank, N.A. plans to adopt the new guidance in the first quarter of 2019.

FASB Standards Issued but not yet Adopted (continued)

Standard	Summary of guidance	Effects on financial statements
Financial instruments - credit losses *Issued June 2016*	• Replaces existing incurred loss impairment guidance and establishes a single allowance framework for financial assets carried at amortized cost (including held-to-maturity ("HTM") securities), which will reflect management's estimate of credit losses over the full remaining expected life of the financial assets. • Eliminates existing guidance for purchase credit-impaired ("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.	• Required effective date: January 1, 2020.[a] • JPMorgan Chase Bank, N.A has begun its implementation efforts by establishing a firmwide, cross-discipline governance structure. JPMorgan Chase Bank, N.A is currently identifying key interpretive issues, and is assessing existing credit loss forecasting models and processes against the new guidance to determine what modifications may be required. JPMorgan Chase Bank, N.A. is also evaluating the timing of adoption, as early adoption is permitted as of January 1, 2019. • JPMorgan Chase Bank, N.A. expects that the new guidance will result in an increase in its allowance for credit losses due to several factors, including: 1. The allowance related to JPMorgan Chase Bank, N.A.'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 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 JPMorgan Chase Bank, N.A.'s portfolio at the adoption date, and the macroeconomic conditions and forecasts at that date.
Classification of certain cash receipts and cash payments in the Statement of cash flows *Issued August 2016*	• Provides targeted amendments to the classification of certain cash flows, including treatment of cash payments for settlement of zero-coupon debt instruments and distributions received from equity method investments. • Requires retrospective application to all periods presented.	• Required effective date: January 1, 2018.[a] • No material impact is expected because JPMorgan Chase Bank, N.A. is either already in compliance with the new guidance or the balances to which it would be applied are immaterial. JPMorgan Chase Bank, N.A. plans to adopt the new guidance in the first quarter of 2018.
Treatment of restricted cash on the statement of cash flows *Issued November 2016*	• Requires inclusion of restricted cash in the cash and cash equivalents balances in the Consolidated statements of cash flows. • Requires additional disclosures to supplement the Consolidated statements of cash flows. • Requires retrospective application to all periods presented.	• Required effective date: January 1, 2018.[a] • The guidance will have no impact on the JPMorgan Chase Bank, N.A.'s Consolidated statements of income or Consolidated balance sheets, but will result in reclassification of restricted cash balances and associated changes on the Consolidated statements of cash flows. • JPMorgan Chase Bank, N.A. plans to adopt the new guidance in the first quarter of 2018.
Definition of a business *Issued January 2017*	• Narrows the definition of a business and clarifies that, to be considered a business, the fair value of the gross assets acquired (or disposed of) may not be substantially all concentrated in a single identifiable asset or a group of similar assets. • In addition, in order to be considered a business, a set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs.	• Required effective date: January 1, 2018.[a] • No material impact is expected because the guidance is to be applied prospectively, although it is anticipated that after adoption, fewer transactions will be treated as acquisitions or dispositions of a business. JPMorgan Chase Bank, N.A. plans to adopt the new guidance in the first quarter of 2018.
Goodwill *Issued January 2017*	• Requires an impairment loss to be recognized when the estimated fair value of a reporting unit falls below its carrying value. • Eliminates the second condition in the current guidance that requires an impairment loss to be recognized only if the estimated implied fair value of the goodwill is below its carrying value.	• Required effective date: January 1, 2020.[a] • Based on current impairment test results, JPMorgan Chase Bank, N.A. does not expect a material effect on the Consolidated Financial Statements. • After adoption, the guidance may result in more frequent goodwill impairment losses due to the removal of the second condition. • JPMorgan Chase Bank, N.A. is evaluating the timing of adoption.

FASB Standards Issued but not yet Adopted (continued)

Standard	Summary of guidance	Effects on financial statements
Presentation of net periodic pension cost and net periodic postretirement benefit cost *Issued March 2017*	• Requires the service cost component of net periodic pension and postretirement benefit cost to be reported separately in the consolidated results of operations from the other components (e.g., expected return on assets, interest costs, amortization of gains/losses and prior service costs). • Requires presentation in the consolidated results of operations of the service cost component in the same line item as other employee compensation costs and presentation of the other components in a different line item from the service cost component.	• Required effective date: January 1, 2018.[a] • The guidance will have no impact on JPMorgan Chase Bank, N.A.'s net income, but based on recent trends, JPMorgan Chase Bank, N.A. expects that the guidance will result in an increase in compensation expense and a reduction in other expense. JPMorgan Chase Bank, N.A. plans to adopt the new guidance in the first quarter of 2018.
Premium amortization on purchased callable debt securities *Issued March 2017*	• Requires amortization of premiums to the earliest call date on debt securities with call features that are explicit, noncontingent and callable at fixed prices and on preset dates. • Does not impact securities held at a discount; the discount continues to be amortized to the contractual maturity. • Requires adoption on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption.	• Required effective date: January 1, 2019.[a] • JPMorgan Chase Bank, N.A. is currently evaluating the impact on the Consolidated Financial Statements as well as the timing of adoption. At adoption, the guidance is expected to result in a cumulative effect adjustment which will reduce retained earnings with a corresponding increase to accumulated other comprehensive income ("AOCI") for available-for-sale ("AFS") securities. Post-adoption, it will result in reduced interest income prior to the call date on callable debt securities held at a premium because those premiums will be amortized over a shorter time period. • JPMorgan Chase Bank, N.A.'s implementation efforts include identifying the population of debt securities subject to the new guidance (primarily obligations of U.S. states and municipalities) and quantifying the expected impact.

(a) Early adoption is permitted.

Note 3 – Fair value measurement

For a discussion of JPMorgan Chase Bank, N.A.'s valuation methodologies for assets, liabilities and lending-related commitments measured at fair value and the fair value hierarchy, see Note 4 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table presents the assets and liabilities reported at fair value as of June 30, 2017, and December 31, 2016, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

	Fair value hierarchy			Derivative netting adjustments	
June 30, 2017 (in millions)	Level 1	Level 2	Level 3		Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 3,969	$ –	$ –	$ 3,969
Securities borrowed	–	1,590	–	–	1,590
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies[a]	–	63	335	–	398
Residential – nonagency	–	817	11	–	828
Commercial – nonagency	–	84	10	–	94
Total mortgage-backed securities	–	964	356	–	1,320
U.S. Treasury and government agencies[a]	14,622	57	–	–	14,679
Obligations of U.S. states and municipalities	–	3,786	15	–	3,801
Certificates of deposit, bankers' acceptances and commercial paper	–	652	–	–	652
Non-U.S. government debt securities	31,443	31,988	37	–	63,468
Corporate debt securities	–	17,702	270	–	17,972
Loans	–	31,422	4,088	–	35,510
Asset-backed securities	–	714	29	–	743
Total debt instruments	46,065	87,285	4,795	–	138,145
Equity securities	61,006	27	130	–	61,163
Physical commodities[b]	82	–	–	–	82
Other	–	11,185	302	–	11,487
Total debt and equity instruments[c]	107,153	98,497	5,227	–	210,877
Derivative receivables:					
Interest rate	136	525,638	1,816	(500,897)	26,693
Credit	–	23,986	1,289	(24,347)	928
Foreign exchange	852	174,679	556	(159,448)	16,639
Equity	–	51,883	3,522	(48,432)	6,973
Commodity	–	32,146	73	(26,342)	5,877
Total derivative receivables[d]	988	808,332	7,256	(759,466)	57,110
Total trading assets[e]	108,141	906,829	12,483	(759,466)	267,987
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies[a]	4	67,913	–	–	67,917
Residential – nonagency	–	13,877	1	–	13,878
Commercial – nonagency	–	6,277	–	–	6,277
Total mortgage-backed securities	4	88,067	1	–	88,072
U.S. Treasury and government agencies[a]	28,158	–	–	–	28,158
Obligations of U.S. states and municipalities	–	30,173	–	–	30,173
Certificates of deposit	–	57	–	–	57
Non-U.S. government debt securities	19,291	11,280	–	–	30,571
Corporate debt securities	–	4,132	–	–	4,132
Asset-backed securities:					
Collateralized loan obligations	–	23,780	547	–	24,327
Other	–	6,483	–	–	6,483
Equity securities	39	–	–	–	39
Total available-for-sale securities	47,492	163,972	548	–	212,012
Loans	–	1,674	304	–	1,978
Mortgage servicing rights ("MSRs")	–	–	5,753	–	5,753
Other assets	–	–	–	–	–
Total assets measured at fair value on a recurring basis	$ 155,633	$ 1,078,034	$ 19,088	$ (759,466)	$ 493,289
Deposits	$ –	$ 15,664	$ 2,136	$ –	$ 17,800
Federal funds purchased and securities loaned or sold under repurchase agreements	–	1,968	–	–	1,968
Other borrowed funds	–	3,765	1,266	–	5,031
Trading liabilities:					
Debt and equity instruments[c]	48,206	16,751	34	–	64,991
Derivative payables:					
Interest rate	87	490,553	1,504	(483,057)	9,087
Credit	–	24,176	1,334	(24,047)	1,463
Foreign exchange	983	176,945	1,313	(164,871)	14,370
Equity	–	55,344	4,889	(50,535)	9,698
Commodity	–	32,851	188	(26,017)	7,022
Total derivative payables[d]	1,070	779,869	9,228	(748,527)	41,640
Total trading liabilities	49,276	796,620	9,262	(748,527)	106,631
Accounts payable and other liabilities	7,607	–	–	–	7,607
Long-term debt	–	9,146	9,374	–	18,520
Total liabilities measured at fair value on a recurring basis	$ 56,883	$ 827,163	$ 22,038	$ (748,527)	$ 157,557

December 31, 2016 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Derivative netting adjustments	Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 5,349	$ –	$ –	$ 5,349
Securities borrowed	–	–	–	–	–
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. government agencies[a]	–	74	369	–	443
Residential – nonagency	–	818	11	–	829
Commercial – nonagency	–	89	6	–	95
Total mortgage-backed securities	–	981	386	–	1,367
U.S. Treasury and government agencies[a]	13,516	52	–	–	13,568
Obligations of U.S. states and municipalities	–	3,897	19	–	3,916
Certificates of deposit, bankers' acceptances and commercial paper	–	245	–	–	245
Non-U.S. government debt securities	28,443	22,994	46	–	51,483
Corporate debt securities	–	14,158	318	–	14,476
Loans	–	28,758	4,325	–	33,083
Asset-backed securities	–	696	70	–	766
Total debt instruments	41,959	71,781	5,164	–	118,904
Equity securities	51,480	19	89	–	51,588
Physical commodities[b]	1,102	–	–	–	1,102
Other	–	9,486	281	–	9,767
Total debt and equity instruments[c]	94,541	81,286	5,534	–	181,361
Derivative receivables:					
Interest rate	289	607,393	2,658	(582,320)	28,020
Credit	–	27,759	1,390	(27,916)	1,233
Foreign exchange	816	233,854	928	(212,279)	23,319
Equity	–	47,816	3,089	(45,879)	5,026
Commodity	158	34,774	358	(28,970)	6,320
Total derivative receivables[d]	1,263	951,596	8,423	(897,364)	63,918
Total trading assets[e]	95,804	1,032,882	13,957	(897,364)	245,279
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. government agencies[a]	–	64,005	–	–	64,005
Residential – nonagency	–	14,442	1	–	14,443
Commercial – nonagency	–	8,691	–	–	8,691
Total mortgage-backed securities	–	87,138	1	–	87,139
U.S. Treasury and government agencies[a]	44,072	29	–	–	44,101
Obligations of U.S. states and municipalities	–	28,897	–	–	28,897
Certificates of deposit	–	106	–	–	106
Non-U.S. government debt securities	22,793	12,495	–	–	35,288
Corporate debt securities	–	4,958	–	–	4,958
Asset-backed securities:					
Collateralized loan obligations	–	26,738	663	–	27,401
Other	–	6,926	–	–	6,926
Equity securities	54	–	–	–	54
Total available-for-sale securities	66,919	167,287	664	–	234,870
Loans	–	1,660	568	–	2,228
Mortgage servicing rights	–	–	6,096	–	6,096
Other assets	–	–	41	–	41
Total assets measured at fair value on a recurring basis	$ 162,723	$ 1,207,178	$ 21,326	$ (897,364)	$ 493,863
Deposits	$ –	$ 11,844	$ 2,121	$ –	$ 13,965
Federal funds purchased and securities loaned or sold under repurchase agreements	–	399	–	–	399
Other borrowed funds	–	4,552	1,019	–	5,571
Trading liabilities:					
Debt and equity instruments[c]	50,393	12,636	36	–	63,065
Derivative payables:					
Interest rate	184	575,305	1,657	(566,601)	10,545
Credit	–	27,042	1,294	(27,038)	1,298
Foreign exchange	932	232,508	2,459	(215,433)	20,466
Equity	–	50,262	4,577	(46,307)	8,532
Commodity	173	34,773	323	(27,475)	7,794
Total derivative payables[d]	1,289	919,890	10,310	(882,854)	48,635
Total trading liabilities	51,682	932,526	10,346	(882,854)	111,700
Accounts payable and other liabilities	7,494	–	–	–	7,494
Long-term debt	–	7,274	7,662	–	14,936
Total liabilities measured at fair value on a recurring basis	$ 59,176	$ 956,595	$ 21,148	$ (882,854)	$ 154,065

(a) At June 30, 2017, and December 31, 2016, included total U.S. government-sponsored enterprise obligations of $51.8 billion and $46.3 billion, respectively, which were predominantly mortgage-related.

(b) Physical commodities inventories are generally accounted for at the lower of cost or net realized value. "Net realized value" is a term defined in U.S. GAAP as not exceeding fair value less costs to sell ("transaction costs"). Transaction costs for JPMorgan Chase Bank, N.A.'s physical commodities inventories are either not applicable or immaterial to the value of the inventory. Therefore, net realized value approximates fair value for JPMorgan Chase Bank, N.A.'s physical commodities inventories. When fair value hedging has been applied (or when net realized value is below cost), the carrying value of physical commodities approximates fair value, because under fair value hedge accounting, the cost basis is adjusted for changes in fair value. For a further discussion of JPMorgan Chase Bank, N.A.'s hedge accounting relationships, see Note 5. To provide consistent fair value disclosure information, all physical commodities inventories have been included in each period presented.

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

(d) As permitted under U.S. GAAP, JPMorgan Chase Bank, N.A. has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists. For purposes of the tables above, JPMorgan Chase Bank, N.A. does not reduce derivative receivables and derivative payables balances for this netting adjustment, either within or across the levels of the fair value hierarchy, as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset or liability. The level 3 balances would be reduced if netting were applied, including the netting benefit associated with cash collateral. Additionally, includes derivative receivables and payables with affiliates on a net basis. See Note 17 for information regarding our derivative activities with affiliates.

(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, 2017, and December 31, 2016, the fair values of these investments, which include certain hedge funds, private equity funds, real estate and other funds, were $52 million and $50 million, respectively.

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

For the six months ended June 30, 2017, there were no individually significant transfers.

During the six months ended June 30, 2016, transfers from level 2 into level 3 included $1.3 billion of equity derivative receivables and $1.3 billion of equity derivative payables as a result of a decrease in observability of valuation inputs and price transparency.

All transfers are based on changes in the observability of the valuation inputs and are assumed to occur at the beginning of the interim reporting period in which they occur.

Level 3 valuations

For further information on JPMorgan Chase Bank, N.A.'s valuation process and a detailed discussion of the determination of fair value for individual financial instruments, see Note 4 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

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

In JPMorgan Chase Bank, N.A.'s view, the input range and the weighted average value do not reflect the degree of input uncertainty or an assessment of the reasonableness of JPMorgan Chase Bank, N.A.'s estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by JPMorgan Chase Bank, N.A. and the relative distribution of instruments within the range of characteristics. 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 JPMorgan Chase Bank, N.A. at each balance sheet date.

For JPMorgan Chase Bank, N.A.'s derivatives and structured notes positions classified within level 3 at June 30, 2017, interest rate correlation inputs used in estimating fair value were concentrated towards the upper end of the range presented; equity correlation and equity-FX and equity-IR correlation inputs were concentrated in the middle of the range; commodity correlation inputs were concentrated towards the lower end of the range; credit correlation inputs were distributed across the range; and the interest rate-foreign exchange ("IR-FX") correlation inputs were concentrated towards the lower end of the range. In addition, the interest rate spread volatility inputs used in estimating fair value were distributed across the range presented; equity volatilities and commodity volatilities were concentrated towards the lower end of the range; and forward commodity prices used in estimating the fair value of commodity derivatives were concentrated in the middle of the range presented. Recovery rate, yield, prepayment speed, conditional default rate and loss severity inputs used in estimating the fair value of credit derivatives were distributed across the range; and credit spreads were concentrated towards the lower end of the range.

Level 3 inputs[a]

June 30, 2017 (in millions, except for ratios and basis points)

Product/Instrument	Fair value	Principal valuation technique	Unobservable inputs[g]	Range of input values			Weighted average
Residential mortgage-backed securities and loans[b]	$ 2,533	Discounted cash flows	Yield	5%	-	18%	5%
			Prepayment speed	0%	-	13%	8%
			Conditional default rate	0%	-	5%	2%
			Loss severity	0%	-	100%	2%
Commercial mortgage-backed securities and loans[c]	879	Market comparables	Price	$ 2	-	$ 100	$ 94
Obligations of U.S. states and municipalities	15	Market comparables	Price	$ 58	-	$ 100	$ 97
Corporate debt securities	270	Market comparables	Price	$ 0	-	$ 109	$ 90
Loans[d]	1,337	Market comparables	Price	$ 10	-	$ 103	$ 85
Asset-backed securities	547	Discounted cash flows	Credit spread	246bps	-	461bps	260bps
			Prepayment speed		20%		20%
			Conditional default rate		2%		2%
			Loss severity		30%		30%
	29	Market comparables	Price	$1	-	$101	$ 69
Net interest rate derivatives	248	Option pricing	Interest rate spread volatility	3%	-	38%	
			Interest rate correlation	(50)%	-	97%	
			IR-FX correlation	60%	-	70%	
	64	Discounted cash flows	Prepayment speed	4%	-	15%	
Net credit derivatives	(45)	Discounted cash flows	Credit correlation	35%	-	85%	
			Credit spread	6bps	-	1,557bps	
			Recovery rate	20%	-	65%	
			Yield	5%	-	8%	
			Prepayment speed	2%	-	14%	
			Conditional default rate	2%	-	100%	
			Loss severity	39%	-	100%	
Net foreign exchange derivatives	(561)	Option pricing	IR-FX correlation	(50)%	-	70%	
	(196)	Discounted cash flows	Prepayment speed		7%		
Net equity derivatives	(1,367)	Option pricing	Equity volatility	15%	-	55%	
			Equity correlation	(5)%	-	90%	
			Equity-FX correlation	(55)%	-	25%	
			Equity-IR correlation	20%	-	35%	
Net commodity derivatives	(115)	Option pricing	Forward commodity price	$41	-	$54 per barrel	
			Commodity volatility	22%	-	50%	
			Commodity correlation	15%	-	97%	
MSRs	5,753	Discounted cash flows	Refer to Note 15				
Other assets	302	Discounted cash flows	Credit spread	40bps	-	90bps	65bps
			Yield	0%	-	10%	8%
Long-term debt, other borrowed funds, and deposits[e]	12,776	Option pricing	Interest rate spread volatility	3%	-	38%	
			Interest rate correlation	(50)%	-	97%	
			IR-FX correlation	(50)%	-	70%	
			Equity correlation	(5)%	-	90%	
			Equity-FX correlation	(55)%	-	25%	
			Equity-IR correlation	20%	-	35%	
Other level 3 assets and liabilities, net[f]	133						

(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. Furthermore, the inputs presented for each valuation technique in the table are, in some cases, not applicable to every instrument valued using the technique as the characteristics of the instruments can differ.
(b) Includes U.S. government agency securities of $335 million, nonagency securities of $12 million and trading loans of $2.2 billion.
(c) Includes nonagency securities of $10 million, trading loans of $565 million and non-trading loans of $304 million.
(d) Includes trading loans of $1.3 billion.
(e) Long-term debt, other borrowed funds and deposits include structured notes issued by JPMorgan Chase Bank, N.A. that are predominantly financial instruments containing embedded derivatives. The estimation of the fair value of structured notes includes the derivative features embedded within the instrument. The significant unobservable inputs are broadly consistent with those presented for derivative receivables.
(f) Includes level 3 assets and liabilities that are insignificant both individually and in aggregate.
(g) Price is a significant unobservable input for certain instruments. When quoted market prices are not readily available, reliance is generally placed on price-based internal valuation techniques. The price input is expressed assuming a par value of $100.

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 JPMorgan Chase Bank, N.A.'s positions see Note 4 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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 JPMorgan Chase Bank, N.A. within level 3 of the fair value hierarchy for the six months ended June 30, 2017 and 2016. When a determination is made to classify a financial instrument within level 3, the determination is based on the significance of the unobservable parameters to the overall fair value measurement. However, level 3 financial instruments typically include, in addition to the unobservable or level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, JPMorgan Chase Bank, N.A. risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains or losses in the following tables do not reflect the effect of JPMorgan Chase Bank, N.A.'s risk management activities related to such level 3 instruments.

Six months ended June 30, 2017 (in millions)	Fair value measurements using significant unobservable inputs								Change in unrealized gains/(losses) related to financial instruments held at June 30, 2017
	Fair value at January 1, 2017	Total realized/ unrealized gains/ (losses)	Purchases[f]	Sales	Settlements[g]	Transfers into level 3[h]	Transfers (out of) level 3[h]	Fair value at June 30, 2017	
Assets:									
Federal funds sold and securities purchased under resale agreements	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. government agencies	$ 369	$ (8)	$ 155	$ (149)	$ (32)	$ –	$ –	$ 335	$ (16)
Residential – nonagency	11	1	1	–	(3)	4	(3)	11	1
Commercial – nonagency	6	(1)	1	–	–	4	–	10	(1)
Total mortgage-backed securities	386	(8)	157	(149)	(35)	8	(3)	356	(16)
Obligations of U.S. states and municipalities	19	–	–	–	(4)	–	–	15	–
Non-U.S. government debt securities	46	3	175	(179)	–	27	(35)	37	3
Corporate debt securities	318	4	187	(122)	(19)	17	(115)	270	5
Loans	4,325	148	1,412	(972)	(642)	316	(499)	4,088	109
Asset-backed securities	70	7	6	(10)	(3)	–	(41)	29	1
Total debt instruments	5,164	154	1,937	(1,432)	(703)	368	(693)	4,795	102
Equity securities	89	17	43	(2)	–	–	(17)	130	11
Other	281	95	53	(3)	(120)	7	(11)	302	33
Total trading assets – debt and equity instruments	5,534	266 (c)	2,033	(1,437)	(823)	375	(721)	5,227	146 (c)
Net derivative receivables:[a]									
Interest rate	1,001	(25)	118	(165)	(464)	35	(188)	312	(215)
Credit	96	(97)	4	(3)	(62)	17	–	(45)	(41)
Foreign exchange	(1,531)	43	3	(17)	646	24	75	(757)	22
Equity	(1,488)	(239)	1,019	(238)	(515)	21	73	(1,367)	(163)
Commodity	35	(155)	–	–	(3)	7	1	(115)	27
Total net derivative receivables	(1,887)	(473) (c)	1,144	(423)	(398)	104	(39)	(1,972)	(370) (c)
Available-for-sale securities:									
Asset-backed securities	663	12	–	(50)	(78)	–	–	547	10
Other	1	–	–	–	–	–	–	1	–
Total available-for-sale securities	664	12 (d)	–	(50)	(78)	–	–	548	10 (d)
Loans	568	24 (c)	1	–	(289)	–	–	304	16 (c)
Mortgage servicing rights	6,096	(157) (e)	371	(138)	(419)	–	–	5,753	(157) (e)
Other assets	41	9 (f)	–	(13)	(37)	–	–	–	–

Six months ended June 30, 2017 (in millions)	Fair value measurements using significant unobservable inputs									Change in unrealized (gains)/losses related to financial instruments held at June 30, 2017
	Fair value at January 1, 2017	Total realized/ unrealized (gains)/ losses	Purchases	Sales	Issuances	Settlements[g]	Transfers into level 3[h]	Transfers (out of) level 3[h]	Fair value at June 30, 2017	
Liabilities:[b]										
Deposits	$ 2,121	$ 33 (c)	$ –	$ –	$ 563	$ (117)	$ –	$ (464)	$ 2,136	$ 65 (c)
Federal funds purchased and securities loaned or sold under repurchase agreements	–	–	–	–	–	–	–	–	–	–
Other borrowed funds	1,019	62 (c)	–	–	1,226	(1,033)	41	(49)	1,266	51 (c)
Trading liabilities – debt and equity instruments	36	(1) (c)	(7)	2	–	1	3	–	34	–
Beneficial interests issued by consolidated VIEs	–	–	–	–	–	–	–	–	–	–
Long-term debt	7,662	661 (c)	–	–	4,297	(3,190)	40	(96)	9,374	648 (c)

Six months ended June 30, 2016 (in millions)	Fair value at January 1, 2016	Total realized/ unrealized gains/ (losses)	Purchases[f]	Sales	Settlements[g]	Transfers into level 3[h]	Transfers (out of) level 3[h]	Fair value at June 30, 2016	Change in unrealized gains/ (losses) related to financial instruments held at June 30, 2016
	Fair value measurements using significant unobservable inputs								
Assets:									
Federal funds sold and securities purchased under resale agreements	$ –	$ –	–	$ –	$ –	4	(4)	–	$ –
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. government agencies	$ 664	$ (76)	$ 78	$ (159)	$ (57)	$ –	$ –	$ 450	$ (79)
Residential – nonagency	19	(2)	6	(4)	(2)	–	(1)	16	(2)
Commercial – nonagency	6	–	–	(1)	–	–	–	5	1
Total mortgage-backed securities	689	(78)	84	(164)	(59)	–	(1)	471	(80)
Obligations of U.S. states and municipalities	26	–	–	–	(6)	–	–	20	–
Non-U.S. government debt securities	74	8	51	(79)	–	–	(17)	37	(14)
Corporate debt securities	482	(29)	195	(133)	(118)	52	(128)	321	1
Loans	5,364	(181)	822	(1,074)	(491)	732	(240)	4,932	(211)
Asset-backed securities	78	10	263	(162)	(48)	–	(1)	140	2
Total debt instruments	6,713	(270)	1,415	(1,612)	(722)	784	(387)	5,921	(302)
Equity securities	88	(6)	26	(7)	(9)	11	–	103	13
Other	342	122	435	(372)	(129)	25	(102)	321	46
Total trading assets – debt and equity instruments	7,143	(154) (c)	1,876	(1,991)	(860)	820	(489)	6,345	(243) (c)
Net derivative receivables:[a]									
Interest rate	605	447	76	(99)	(450)	6	43	628	(96)
Credit	535	(441)	–	(2)	141	41	15	289	(405)
Foreign exchange	(898)	(257)	59	(118)	(130)	(45)	19	(1,370)	(82)
Equity	(1,223)	(517)	1,406	(1,374)	24	1	(62)	(1,745)	(400)
Commodity	(1,324)	883	7	–	(89)	1	(8)	(530)	262
Total net derivative receivables	(2,305)	115 (c)	1,548	(1,593)	(504)	4	7	(2,728)	(721) (c)
Available-for-sale securities:									
Asset-backed securities	779	–	–	–	(12)	–	–	767	(14)
Other	1	–	–	–	–	–	–	1	–
Total available-for-sale securities	780	–	–	–	(12)	–	–	768	(14) (d)
Loans	1,408	(13) (c)	184	–	(525)	–	(313)	741	(16) (c)
Mortgage servicing rights	6,608	(1,209) (e)	220	(67)	(480)	–	–	5,072	(1,209) (e)
Other assets	5,670	(15) (f)	30	(1,541)	(1,672)	1	–	2,473	(4) (f)

Six months ended June 30, 2016 (in millions)	Fair value at January 1, 2016	Total realized/ unrealized (gains)/ losses	Purchases	Sales	Issuances	Settlements[g]	Transfers into level 3[h]	Transfers (out of) level 3[h]	Fair value at June 30, 2016	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2016
	Fair value measurements using significant unobservable inputs									
Liabilities:[b]										
Deposits	$ 2,970	$ 110 (c)	$ –	$ –	$ 481	$ (671)	$ –	$ (457)	$ 2,433	$ 29 (c)
Federal funds purchased and securities loaned or sold under repurchase agreements	–	–	–	–	–	–	4	(4)	–	–
Other borrowed funds	636	(160) (c)	–	–	755	(416)	50	(29)	836	37 (c)
Trading liabilities – debt and equity instruments	48	(17) (c)	7	23	–	(11)	2	(4)	48	–
Beneficial interests issued by consolidated VIEs	–	(6) (c)	–	–	157	(4)	–	–	147	(6) (c)
Long-term debt	6,783	148 (c)	–	–	2,968	(2,093)	335	(811)	7,330	363 (c)

(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 JPMorgan Chase Bank, N.A. liabilities accounted for at fair value (including liabilities measured at fair value on a nonrecurring basis) were 14% at both June 30, 2017 and December 31, 2016.

(c) Predominantly reported in principal transactions revenue, except for changes in fair value for consumer & community banking business mortgage loans, lending-related commitments originated with the intent to sell, and mortgage loan purchase commitments, which are reported in mortgage fees and related income.
(d) Realized gains/(losses) on AFS securities, as well as other-than-temporary impairment losses that are recorded in earnings, are reported in securities gains. Unrealized gains/(losses) are reported in OCI. Realized gains/(losses) and foreign exchange hedge accounting adjustments recorded in income on AFS securities were zero for the six months ended June 30, 2017 and 2016, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were $12 million and $(1) million for the six months ended June 30, 2017 and 2016, respectively.
(e) Changes in fair value for the consumer & community banking business's mortgage servicing rights are reported in mortgage fees and related income.
(f) Loan originations are included in purchases.
(g) Includes financial assets and liabilities that have matured, been partially or fully repaid, impacts of modifications, deconsolidation associated with beneficial interests in VIEs, and other items.
(h) All transfers into and/or out of level 3 are based on changes in the observability of the valuation inputs and are assumed to occur at the beginning of the interim reporting period in which they occur.

Level 3 analysis

Consolidated balance sheets changes

Level 3 assets (including assets measured at fair value on a nonrecurring basis) were 0.9% of total JPMorgan Chase Bank, N.A. assets and 4.0% of total assets measured at fair value at June 30, 2017, compared with 1.1% and 4.5%, respectively, at December 31, 2016. The following describes significant changes to level 3 assets since December 31, 2016, 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 20.

Six months ended June 30, 2017

Level 3 assets at June 30, 2017 decreased by $2.2 billion from December 31, 2016, largely due to the following:

- $1.5 billion decrease in trading assets driven by lower levels of interest rate and foreign exchange derivative receivables, predominantly driven by settlements and transfers from level 3 to level 2 as a result of increased observability of certain valuation inputs.

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 17-19.

Six months ended June 30, 2017

$319 million of net losses on assets and $755 million of net losses on liabilities, none of which were individually significant.

Six months ended June 30, 2016

$1.3 billion of net losses on assets driven by $1.2 billion loss on MSRs. For further details see Note 15.

Assets and liabilities measured at fair value on a nonrecurring basis

The following table presents the assets and liabilities reported on a nonrecurring basis at fair value as of June 30, 2017 and 2016, by major product category and fair value hierarchy.

	Fair value hierarchy			
June 30, 2017 (in millions)	Level 1	Level 2	Level 3	Total fair value
Loans	**$ –**	**$ 292**	**$ 430** [(a)]	**$ 722**
Other assets	**–**	**8**	**244**	**252**
Total assets measured at fair value on a nonrecurring basis	**–**	**300**	**674** [(a)]	**974**
Accounts payable and other liabilities	**–**	**1**	**2**	**3**
Total liabilities measured at fair value on a nonrecurring basis	**$ –**	**$ 1**	**$ 2**	**$ 3**

	Fair value hierarchy			
June 30, 2016 (in millions)	Level 1	Level 2	Level 3	Total fair value
Loans	$ –	$ 248	$ 364	$ 612
Other assets	–	–	91	91
Total assets measured at fair value on a nonrecurring basis	–	248	455	703
Accounts payable and other liabilities	–	2	–	2
Total liabilities measured at fair value on a nonrecurring basis	$ –	$ 2	$ –	$ 2

(a) Of the $674 million in level 3 assets measured at fair value on a nonrecurring basis as of June 30, 2017, $146 million related to residential real estate loans carried 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 JPMorgan Chase Bank, N.A.'s experience with actual liquidation values. These discounts to the broker price opinions ranged from 20% to 48% with a weighted average of 29%.

Nonrecurring fair value changes

The following table presents the total change in value of assets and liabilities for which a fair value adjustment has been included in the Consolidated statements of income for the six months ended June 30, 2017 and 2016, related to financial instruments held at those dates.

	Six months ended June 30,	
(in millions)	**2017**	2016
Loans	**$ (109)**	$ (102)
Other Assets	**(44)**	(23)
Accounts payable and other liabilities	**(1)**	(2)
Total nonrecurring fair value gains/ (losses)	**$ (154)**	$ (127)

For further information about the measurement of impaired collateral-dependent loans, and other loans where the carrying value is based on the fair value of the underlying collateral (e.g., residential mortgage loans charged off in accordance with regulatory guidance), see Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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 by fair value hierarchy classification the carrying values and estimated fair values at June 30, 2017, and December 31, 2016, of financial assets and liabilities, excluding financial instruments that 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 4 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

	June 30, 2017					December 31, 2016				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value
Financial assets										
Cash and due from banks	**$ 20.0**	**$ 20.0**	**$ –**	**$ –**	**$ 20.0**	$ 21.2	$ 21.2	$ –	$ –	$ 21.2
Deposits with banks	**454.1**	**413.3**	**40.8**	**–**	**454.1**	388.7	352.4	36.3	–	388.7
Accrued interest and accounts receivable	**50.5**	**–**	**49.7**	**0.1**	**49.8**	40.8	–	40.7	–	40.7
Federal funds sold and securities purchased under resale agreements	**152.3**	**–**	**152.3**	**–**	**152.3**	167.3	–	167.1	0.2	167.3
Securities borrowed	**26.1**	**–**	**26.1**	**–**	**26.1**	32.5	–	32.5	–	32.5
Securities, held-to-maturity	**47.8**	**–**	**48.8**	**–**	**48.8**	50.1	–	50.9	–	50.9
Loans, net of allowance for loan losses[(a)]	**796.9**	**–**	**35.7**	**759.7**	**795.4**	779.2	–	29.3	744.9	774.2
Other	**49.5**	**–**	**40.6**	**8.7**	**49.3**	48.4	–	39.2	9.0	48.2
Financial liabilities										
Deposits	**$ 1,522.0**	**$ –**	**$ 1,522.1**	**$ –**	**$ 1,522.1**	$1,466.2	$ –	$ 1,466.4	$ –	$ 1,466.4
Federal funds purchased and securities loaned or sold under repurchase agreements	**91.0**	**–**	**91.0**	**–**	**91.0**	74.4	–	74.4	–	74.4
Other borrowed funds	**7.0**	**–**	**7.0**	**–**	**7.0**	6.6	–	6.6	–	6.6
Accounts payable and other liabilities	**56.1**	**–**	**53.4**	**2.7**	**56.1**	52.7	–	49.7	3.0	52.7
Beneficial interests issued by consolidated VIEs	**5.1**	**–**	**5.1**	**–**	**5.1**	7.5	–	7.4	–	7.4
Long-term debt and junior subordinated deferrable interest debentures	**84.2**	**–**	**81.6**	**2.5**	**84.1**	92.2	–	90.1	2.0	92.1

(a) Fair value is typically estimated using a discounted cash flow model that incorporates the characteristics of the underlying loans (including principal, contractual interest rate and contractual fees) and other key inputs, including expected lifetime credit losses, interest rates, prepayment rates, and primary origination or secondary market spreads. For certain loans, the fair value is measured based on the value of the underlying collateral. The difference between the estimated fair value and carrying value of a financial asset or liability is the result of the different methodologies used to determine fair value as compared with carrying value. For example, credit losses are estimated for a financial asset's remaining life in a fair value calculation but are estimated for a loss emergence period in the allowance for loan loss calculation; future loan income (interest and fees) is incorporated in a fair value calculation but is generally not considered in the allowance for loan losses. For a further discussion of JPMorgan Chase Bank, N.A.'s methodologies for estimating the fair value of loans and lending-related commitments, see Valuation hierarchy on pages 21-24 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

	June 30, 2017					December 31, 2016				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value[(a)]	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value[(a)]	Level 1	Level 2	Level 3	Total estimated fair value
Wholesale lending-related commitments	**$ 1.1**	**$ –**	**$ –**	**$ 1.6**	**$ 1.6**	$ 1.1	$ –	$ –	$ 2.1	$ 2.1

(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.

JPMorgan Chase Bank, N.A. does not estimate the fair value of consumer lending-related commitments. In many cases, JPMorgan Chase Bank, N.A. can reduce or cancel these commitments by providing the borrower notice or, in some cases as permitted by law, without notice. For a further discussion of the valuation of lending-related commitments, see page 22 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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 5 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Changes in fair value under the fair value option election

The following table presents the changes in fair value included in the Consolidated statements of income for the six months ended June 30, 2017 and 2016 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.

	Six months ended June 30,					
	2017			2016		
(in millions)	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	**$ 63**	**$ –**	**$ 63**	$ (6)	$ –	$ (6)
Securities borrowed	**90**	**–**	**90**	1	–	1
Trading assets:						
Debt and equity instruments, excluding loans	**696**	**2** [(c)]	**698**	(80)	–	(80)
Loans reported as trading assets:						
Changes in instrument-specific credit risk	**225**	**15** [(c)]	**240**	90	14 [(c)]	104
Other changes in fair value	**83**	**352** [(c)]	**435**	177	523 [(c)]	700
Loans:						
Changes in instrument-specific credit risk	**(1)**	**–**	**(1)**	13	–	13
Other changes in fair value	**1**	**3**	**4**	4	–	4
Other assets	**–**	**3** [(d)]	**3**	(6)	1 [(d)]	(5)
Deposits[(a)]	**(249)**	**–**	**(249)**	(600)	–	(600)
Federal funds purchased and securities loaned or sold under repurchase agreements	**(85)**	**–**	**(85)**	(16)	–	(16)
Other borrowed funds[(a)]	**(633)**	**–**	**(633)**	237	–	237
Trading liabilities	**(1)**	**–**	**(1)**	2	–	2
Beneficial interests issued by consolidated VIEs	**–**	**–**	**–**	–	–	–
Other liabilities	**–**	**–**	**–**	–	–	–
Long-term debt[(a)(b)]	**(486)**	**–**	**(486)**	(58)	–	(58)

(a) Unrealized gains/(losses) due to instrument-specific credit risk (DVA) for liabilities for which the fair value option has been elected is recorded in OCI, while realized gains/(losses) are recorded in principal transactions revenue. Realized gains/(losses) due to instrument-specific risk recorded in principal transaction revenue were not material for the six months ended June 30, 2017 and 2016, respectively.
(b) Long-term debt measured at fair value predominantly relates to structured notes. Although the risk associated with the structured notes is actively managed, the gains/(losses) reported in this table do not include the income statement impact of the risk management instruments used to manage such risk.
(c) Reported in mortgage fees and related income.
(d) Reported in other income.

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, 2017, and December 31, 2016, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

	June 30, 2017			December 31, 2016		
(in millions)	Contractual principal outstanding	Fair value	Fair value over/ (under) contractual principal outstanding	Contractual principal outstanding	Fair value	Fair value over/ (under) contractual principal outstanding
Loans[a]						
Nonaccrual loans						
Loans reported as trading assets	**$ 2,444**	**$ 900**	**$ (1,544)**	$ 1,986	$ 477	$ (1,509)
Loans	**39**	**–**	**(39)**	–	–	–
Subtotal	**2,483**	**900**	**(1,583)**	1,986	477	(1,509)
All other performing loans						
Loans reported as trading assets	**34,934**	**34,610**	**(324)**	33,736	32,606	(1,130)
Loans	**1,995**	**1,978**	**(17)**	2,259	2,228	(31)
Total loans	**$ 39,412**	**$ 37,488**	**$ (1,924)**	$ 37,981	$ 35,311	$ (2,670)
Long-term debt						
Principal-protected debt	**$ 5,709** [c]	**$ 5,460**	**$ (249)**	$ 3,577 [c]	$ 3,280	$ (297)
Nonprincipal-protected debt[b]	**NA**	**13,060**	**NA**	NA	11,656	NA
Total long-term debt	**NA**	**$ 18,520**	**NA**	NA	$ 14,936	NA
Long-term beneficial interests						
Nonprincipal-protected debt[b]	**NA**	**$ –**	**NA**	NA	$ –	NA
Total long-term beneficial interests	**NA**	**$ –**	**NA**	NA	$ –	NA

(a) There were no performing loans that were ninety days or more past due as of June 30, 2017, and December 31, 2016, respectively.

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

(c) Where JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s next call date.

At June 30, 2017, and December 31, 2016, the contractual amount of lending-related commitments for which the fair value option was elected was $4.5 billion and $4.6 billion, with a corresponding fair value of $(110) million and $(131) million, respectively. For further information regarding off-balance sheet lending-related financial instruments, see Note 27 of JPMorgan Chase Bank, N.A.'s 2016 Annual Report, and Note 20 of these Consolidated Financial Statements.

Note 5 – Derivative instruments

JPMorgan Chase Bank, N.A. makes markets in derivatives for clients and also uses derivatives to hedge or manage its own risk exposures. For a further discussion of JPMorgan Chase Bank, N.A.'s use of and accounting policies regarding derivative instruments, see Note 7 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

JPMorgan Chase Bank, N.A.'s disclosures are based on the accounting treatment and purpose of these derivatives. A limited number of JPMorgan Chase Bank, N.A.'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 JPMorgan Chase Bank, N.A.'s market-making businesses or for other purposes.

The following table outlines JPMorgan Chase Bank, N.A.'s primary uses of derivatives and the related hedge accounting designation or disclosure category.

Type of Derivative	Use of Derivative	Designation and disclosure	Page reference
Manage specifically identified risk exposures in qualifying hedge accounting relationships:			
◦ Interest rate	Hedge fixed rate assets and liabilities	Fair value hedge	30
◦ Interest rate	Hedge floating-rate assets and liabilities	Cash flow hedge	31
◦ Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	30
◦ Foreign exchange	Hedge forecasted revenue and expense	Cash flow hedge	31
◦ Foreign exchange	Hedge the value of JPMorgan Chase Bank, N.A.'s investments in non-U.S. subsidiaries	Net investment hedge	32
◦ Commodity	Hedge commodity inventory	Fair value hedge	30
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	32
◦ Credit	Manage the credit risk of wholesale lending exposures	Specified risk management	32
◦ Commodity	Manage the risk of certain commodities-related contracts and investments	Specified risk management	32
◦ Interest rate and foreign exchange	Manage the risk of certain other specified assets and liabilities	Specified risk management	32
Market-making derivatives and other activities:			
◦ Various	Market-making and related risk management	Market-making and other	32
◦ Various	Other derivatives	Market-making and other	32

Notional amount of derivative contracts

The following table summarizes the notional amount of derivative contracts outstanding as of June 30, 2017, and December 31, 2016.

	Notional amounts[b]	
(in billions)	**June 30, 2017**	December 31, 2016
Interest rate contracts		
Swaps	**$ 22,422**	$ 22,261
Futures and forwards	**5,372**	4,917
Written options	**3,619**	3,101
Purchased options	**4,062**	3,514
Total interest rate contracts	**35,475**	33,793
Credit derivatives[a]	**1,799**	2,010
Foreign exchange contracts		
Cross-currency swaps	**3,852**	3,379
Spot, futures and forwards	**6,416**	5,385
Written options	**825**	735
Purchased options	**821**	721
Total foreign exchange contracts	**11,914**	10,220
Equity contracts		
Swaps	**410**	360
Futures and forwards	**78**	47
Written options	**577**	442
Purchased options	**550**	415
Total equity contracts	**1,615**	1,264
Commodity contracts		
Swaps	**505**	448
Spot, futures and forwards	**148**	131
Written options	**98**	98
Purchased options	**102**	109
Total commodity contracts	**853**	786
Total derivative notional amounts	**$ 51,656**	$ 48,073

(a) For more information on volumes and types of credit derivative contracts, see the Credit derivatives discussion on page 33.
(b) Represents the sum of gross long and gross short notional derivative contracts with third parties and JPMorgan Chase affiliates. For additional information on related party derivatives, see Note 17.

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

Impact of derivatives on the Consolidated balance sheets

The tables below include derivative receivables and payables with affiliates on a net basis. See Note 17 for information regarding our derivative activities with affiliates.

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on JPMorgan Chase Bank, N.A.'s Consolidated balance sheets as of June 30, 2017, and December 31, 2016, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables[(a)]

	Gross derivative receivables				Gross derivative payables			
June 30, 2017 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[(b)]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[(b)]
Trading assets and liabilities								
Interest rate	**$ 526,413**	**$ 1,178**	**$ 527,591**	**$ 26,693**	**$ 491,196**	**$ 947**	**$ 492,143**	**$ 9,087**
Credit	**25,275**	**—**	**25,275**	**928**	**25,512**	**—**	**25,512**	**1,463**
Foreign exchange	**175,723**	**364**	**176,087**	**16,639**	**178,159**	**1,082**	**179,241**	**14,370**
Equity	**55,405**	**—**	**55,405**	**6,973**	**60,232**	**—**	**60,232**	**9,698**
Commodity	**32,218**	**—**	**32,218**	**5,877**	**33,039**	**—**	**33,039**	**7,022**
Total fair value of trading assets and liabilities	**$ 815,034**	**$ 1,542**	**$ 816,576**	**$ 57,110**	**$ 788,138**	**$ 2,029**	**$ 790,167**	**$ 41,640**

	Gross derivative receivables				Gross derivative payables			
December 31, 2016 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[(b)]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[(b)]
Trading assets and liabilities								
Interest rate	$ 608,615	$ 1,725	$ 610,340	$ 28,020	$ 575,626	$ 1,520	$ 577,146	$ 10,545
Credit	29,149	—	29,149	1,233	28,336	—	28,336	1,298
Foreign exchange	234,301	1,297	235,598	23,319	235,409	490	235,899	20,466
Equity	50,905	—	50,905	5,026	54,839	—	54,839	8,532
Commodity	35,287	3	35,290	6,320	35,268	1	35,269	7,794
Total fair value of trading assets and liabilities	$ 958,257	$ 3,025	$ 961,282	$ 63,918	$ 929,478	$ 2,011	$ 931,489	$ 48,635

(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, JPMorgan Chase Bank, N.A. has elected to net derivative receivables and derivative payables and the related cash collateral receivables and payables when a legally enforceable master netting agreement exists.

Derivatives netting

The following tables present, as of June 30, 2017, and December 31, 2016, 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 JPMorgan Chase Bank, N.A. has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, 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, JPMorgan Chase Bank, N.A. receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with JPMorgan Chase Bank, N.A.'s derivative instruments, but are not eligible for net presentation:

- collateral that consists of non-cash financial instruments (generally U.S. government and agency securities and other Group of Seven Nations ("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; and
- 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, 2017			December 31, 2016		
(in millions)	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables
U.S. GAAP nettable derivative receivables						
Interest rate contracts:						
Over-the-counter ("OTC")	$ 325,005	$ (303,492)	$ 21,513	$ 368,159	$ (347,647)	$ 20,512
OTC-cleared	197,359	(197,297)	62	234,525	(234,446)	79
Exchange-traded[a]	167	(108)	59	241	(227)	14
Total interest rate contracts	522,531	(500,897)	21,634	602,925	(582,320)	20,605
Credit contracts:						
OTC	17,558	(17,324)	234	22,638	(22,177)	461
OTC-cleared	7,088	(7,023)	65	5,746	(5,739)	7
Total credit contracts	24,646	(24,347)	299	28,384	(27,916)	468
Foreign exchange contracts:						
OTC	171,242	(158,015)	13,227	228,427	(211,087)	17,340
OTC-cleared	1,507	(1,424)	83	1,238	(1,165)	73
Exchange-traded[a]	95	(9)	86	104	(27)	77
Total foreign exchange contracts	172,844	(159,448)	13,396	229,769	(212,279)	17,490
Equity contracts:						
OTC	40,819	(39,125)	1,694	39,097	(38,298)	799
OTC-cleared	–	–	–	–	–	–
Exchange-traded[a]	11,587	(9,307)	2,280	9,075	(7,581)	1,494
Total equity contracts	52,406	(48,432)	3,974	48,172	(45,879)	2,293
Commodity contracts:						
OTC	26,710	(21,628)	5,082	28,255	(22,206)	6,049
OTC-cleared	–	–	–	–	–	–
Exchange-traded[a]	5,165	(4,714)	451	6,792	(6,764)	28
Total commodity contracts	31,875	(26,342)	5,533	35,047	(28,970)	6,077
Derivative receivables with appropriate legal opinion	804,302	(759,466) [b]	44,836	944,297	(897,364) [b]	46,933
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	12,274		12,274	16,985		16,985
Total derivative receivables recognized on the Consolidated balance sheets	$ 816,576		$ 57,110	$ 961,282		$ 63,918
Collateral not nettable on the Consolidated balance sheets[c][d]			(15,316)			(18,594)
Net amounts			$ 41,794			$ 45,324

(in millions)	June 30, 2017 Gross derivative payables	June 30, 2017 Amounts netted on the Consolidated balance sheets	June 30, 2017 Net derivative payables	December 31, 2016 Gross derivative payables	December 31, 2016 Amounts netted on the Consolidated balance sheets	December 31, 2016 Net derivative payables
U.S. GAAP nettable derivative payables						
Interest rate contracts:						
OTC	**$ 297,021**	**$ (289,935)**	**$ 7,086**	$ 345,931	$ (336,778)	$ 9,153
OTC–cleared	**193,154**	**(193,011)**	**143**	229,649	(229,648)	1
Exchange-traded[(a)]	**127**	**(111)**	**16**	196	(175)	21
Total interest rate contracts	**490,302**	**(483,057)**	**7,245**	575,776	(566,601)	9,175
Credit contracts:						
OTC	**17,691**	**(17,081)**	**610**	21,944	(21,397)	547
OTC–cleared	**6,966**	**(6,966)**	**–**	5,641	(5,641)	–
Total credit contracts	**24,657**	**(24,047)**	**610**	27,585	(27,038)	547
Foreign exchange contracts:						
OTC	**173,649**	**(163,494)**	**10,155**	229,290	(214,266)	15,024
OTC–cleared	**1,370**	**(1,369)**	**1**	1,158	(1,158)	–
Exchange-traded[(a)]	**87**	**(8)**	**79**	328	(9)	319
Total foreign exchange contracts	**175,106**	**(164,871)**	**10,235**	230,776	(215,433)	15,343
Equity contracts:						
OTC	**45,774**	**(41,228)**	**4,546**	43,013	(38,743)	4,270
OTC–cleared	**–**	**–**	**–**	–	–	–
Exchange-traded[(a)]	**10,106**	**(9,307)**	**799**	8,154	(7,564)	590
Total equity contracts	**55,880**	**(50,535)**	**5,345**	51,167	(46,307)	4,860
Commodity contracts:						
OTC	**27,911**	**(21,305)**	**6,606**	27,729	(20,624)	7,105
OTC–cleared	**–**	**–**	**–**	–	–	–
Exchange-traded[(a)]	**4,797**	**(4,712)**	**85**	7,089	(6,851)	238
Total commodity contracts	**32,708**	**(26,017)**	**6,691**	34,818	(27,475)	7,343
Derivative payables with appropriate legal opinions	**778,653**	**(748,527)** [(b)]	**30,126**	920,122	(882,854) [(b)]	37,268
Derivative payables where an appropriate legal opinion has not been either sought or obtained	**11,514**		**11,514**	11,367		11,367
Total derivative payables recognized on the Consolidated balance sheets	**$ 790,167**		**$ 41,640**	$ 931,489		$ 48,635
Collateral not nettable on the Consolidated balance sheets[(c)(d)(e)]			**(5,701)**			(8,926)
Net amounts			**$ 35,939**			$ 39,709

(a) Exchange-traded derivative balances that relate to futures contracts are settled daily.
(b) Net derivatives receivable included cash collateral netted of $59.3 billion and $71.4 billion at June 30, 2017 and December 31, 2016, respectively. Net derivatives payable included cash collateral netted of $48.3 billion and $56.9 billion related to OTC and OTC-cleared derivatives at June 30, 2017, and December 31, 2016, 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 JPMorgan Chase Bank, N.A.'s derivative contracts, see Note 7 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table shows the aggregate fair value of net derivative payables related to OTC and OTC-cleared derivatives that contain contingent collateral or termination features that may be triggered upon a ratings downgrade, and the associated collateral JPMorgan Chase Bank, N.A. has posted in the normal course of business, at June 30, 2017, and December 31, 2016.

OTC and OTC-cleared derivative payables containing downgrade triggers

(in millions)	**June 30, 2017**	December 31, 2016
Aggregate fair value of net derivative payables	**$ 12,392**	$ 21,200
Collateral posted	**10,091**	19,195

The following table shows the impact of a single-notch and two-notch downgrade of the long-term issuer ratings of JPMorgan Chase Bank, N.A. and its subsidiaries at June 30, 2017, and December 31, 2016, 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

	June 30, 2017		December 31, 2016	
(in millions)	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade[(a)]	**$ 104**	**$ 1,994**	$ 560	$ 2,489
Amount required to settle contracts with termination triggers upon downgrade[(b)]	**247**	**751**	606	1,049

(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 JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. generally accounts for such transfers as collateralized financing transactions as described in Note 11, but in limited circumstances they may qualify to be accounted for as a sale and a derivative under U.S. GAAP. There were no such transfers accounted for as a sale where the associated derivative was outstanding at June 30, 2017, and such transfers at December 31, 2016 were not material.

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. See Note 17 for information regarding our derivative activities with affiliates.

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 six months ended June 30, 2017 and 2016, respectively. JPMorgan Chase Bank, N.A. includes gains/(losses) on the hedging derivative and the related hedged item in the same line item in the Consolidated statements of income.

	Gains/(losses) recorded in income			Income statement impact due to:	
Six months ended June 30, 2017 (in millions)	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness[e]	Excluded components[f]
Contract type					
Interest rate[a][b]	**$ (240)**	**$ 139**	**$ (101)**	**$ 16**	**$ (117)**
Foreign exchange[c]	**(2,086)**	**2,243**	**157**	**—**	**157**
Commodity[d]	**(43)**	**51**	**8**	**—**	**8**
Total	**$ (2,369)**	**$ 2,433**	**$ 64**	**$ 16**	**$ 48**

	Gains/(losses) recorded in income			Income statement impact due to:	
Six months ended June 30, 2016 (in millions)	Derivatives	Hedged items	Total income statement impact	Hedge ineffectiveness[e]	Excluded components[f]
Contract type					
Interest rate[a][b]	$ (2,270)	$ 2,123	$ (147)	$ (7)	$ (140)
Foreign exchange[c]	200	(83)	117	—	117
Commodity[d]	(32)	32	—	—	—
Total	$ (2,102)	$ 2,072	$ (30)	$ (7)	$ (23)

(a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate ("LIBOR")) interest rate risk of fixed-rate AFS securities. Gains and losses were recorded in net interest income.

(b) Excludes the amortization expense associated with the inception hedge accounting adjustment applied to the hedged item. This expense is recorded in net interest income and substantially offsets the income statement impact of the excluded components.

(c) Primarily consists of hedges of the foreign currency risk of 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.

(d) Consists of overall fair value hedges of physical commodities inventories that are generally carried at the lower of cost or net realizable value (net realizable value approximates fair value). Gains and losses were recorded in principal transactions revenue.

(e) Hedge ineffectiveness is the amount by which the gain or loss on the designated derivative instrument does not exactly offset the gain or loss on the hedged item attributable to the hedged risk.

(f) The assessment of hedge effectiveness excludes certain components of the changes in fair values of the derivatives and hedged items such as forward points on foreign exchange forward contracts and time values.

Cash flow hedge gains and losses

The following tables present derivative instruments, by contract type, used in cash flow hedge accounting relationships, and the pre-tax gains/(losses) recorded on such derivatives, for the six months ended June 30, 2017 and 2016,respectively. JPMorgan Chase Bank, N.A. includes the gain/(loss) on the hedging derivative and the change in cash flows on the hedged item in the same line item in the Consolidated statements of income.

	Gains/(losses) recorded in income and other comprehensive income/(loss)				
Six months ended June 30, 2017 (in millions)	Derivatives – effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income[(c)]	Total income statement impact	Derivatives – effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate[(a)]	**$ (17)**	**$ –**	**$ (17)**	**$ 12**	**$ 29**
Foreign exchange[(b)]	**(134)**	**–**	**(134)**	**71**	**205**
Total	**$ (151)**	**$ –**	**$ (151)**	**$ 83**	**$ 234**

	Gains/(losses) recorded in income and other comprehensive income/(loss)				
Six months ended June 30, 2016 (in millions)	Derivatives – effective portion reclassified from AOCI to income	Hedge ineffectiveness recorded directly in income[(c)]	Total income statement impact	Derivatives – effective portion recorded in OCI	Total change in OCI for period
Contract type					
Interest rate[(a)]	$ (40)	$ –	$ (40)	$ (100)	$ (60)
Foreign exchange[(b)]	(63)	–	(63)	(254)	(191)
Total	$ (103)	$ –	$ (103)	$ (354)	$ (251)

(a) Primarily consists of benchmark interest rate hedges of LIBOR-indexed floating-rate assets and floating-rate liabilities. Gains and losses were recorded in net interest income.
(b) Primarily consists of hedges of the foreign currency risk of non-U.S. dollar-denominated revenue and expense. The income statement classification of gains and losses follows the hedged item – primarily noninterest revenue and compensation expense.
(c) Hedge ineffectiveness is the amount by which the cumulative gain or loss on the designated derivative instrument exceeds the present value of the cumulative expected change in cash flows on the hedged item attributable to the hedged risk.

JPMorgan Chase Bank, N.A. did not experience any forecasted transactions that failed to occur for the six months ended June 30, 2017 and 2016.

Over the next 12 months, JPMorgan Chase Bank, N.A. expects that approximately $22 million (after-tax) of net gains recorded in AOCI at June 30, 2017, 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 6 years. For open cash flow hedges, the maximum length of time over which forecasted transactions are hedged is approximately 1 year. JPMorgan Chase Bank, N.A.'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 six months ended June 30, 2017 and 2016.

	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	2017		2016	
Six months ended June 30 (in millions)	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI	Excluded components recorded directly in income[(a)]	Effective portion recorded in OCI
Foreign exchange derivatives	**$ (107)**	**$ (614)**	$ (120)	$ (721)

(a) Certain components of hedging derivatives are permitted to be excluded from the assessment of hedge effectiveness, such as forward points on foreign exchange forward contracts. Amounts related to excluded components are recorded in other income. JPMorgan Chase Bank, N.A. measures the ineffectiveness of net investment hedge accounting relationships based on changes in spot foreign currency rates, and therefore there was no significant ineffectiveness for net investment hedge accounting relationships during the six months ended June 30, 2017 and 2016.

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.

	Derivatives gains/(losses) recorded in income	
	Six months ended June 30,	
(in millions)	**2017**	2016
Contract type		
Interest rate[(a)]	**$ 221**	$ 1,644
Credit[(b)]	**(52)**	(161)
Foreign exchange[(c)]	**(38)**	5
Total	**$ 131**	$ 1,488

(a) Primarily represents interest rate derivatives used to hedge the interest rate risk inherent in the mortgage pipeline, warehouse loans and MSRs, as well as written commitments to originate warehouse loans. Gains and losses were recorded predominantly in mortgage fees and related income.

(b) Relates to credit derivatives used to mitigate credit risk associated with lending exposures in JPMorgan Chase Bank, N.A.'s wholesale businesses. 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.

(c) Primarily relates to derivatives used to mitigate foreign exchange risk of specified foreign currency-denominated assets and liabilities. Gains and losses were recorded in principal transactions revenue.

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

JPMorgan Chase Bank, N.A. makes markets in derivatives in order to meet the needs of customers and uses derivatives to manage certain risks associated with net open risk positions from its market-making activities, including the counterparty credit risk arising from derivative receivables. 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 7 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements. JPMorgan Chase Bank, N.A. does not use notional amounts of credit derivatives as the primary measure of risk management for such derivatives, because the notional amount does not take into account the probability of the occurrence of a credit event, the recovery value of the reference obligation, or related cash instruments and economic hedges, each of which reduces, in JPMorgan Chase Bank, N.A.'s view, the risks associated with such derivatives.

Total credit derivatives and credit-related notes

	Maximum payout/Notional amount			
June 30, 2017 (in millions)	Protection sold	Protection purchased with identical underlyings[(b)]	Net protection (sold)/purchased[(c)]	Other protection purchased[(d)]
Credit derivatives				
Credit default swaps	**$ (834,105)**	**$ 851,619**	**$ 17,514**	**$ 9,664**
Other credit derivatives[(a)]	**(46,396)**	**44,431**	**(1,965)**	**13,091**
Total credit derivatives	**(880,501)**	**896,050**	**15,549**	**22,755**
Credit-related notes	**(37)**	**–**	**(37)**	**5,455**
Total	**$ (880,538)**	**$ 896,050**	**$ 15,512**	**$ 28,210**

	Maximum payout/Notional amount			
December 31, 2016 (in millions)	Protection sold	Protection purchased with identical underlyings[(b)]	Net protection (sold)/purchased[(c)]	Other protection purchased[(d)]
Credit derivatives				
Credit default swaps	$ (950,474)	$ 962,598	$ 12,123	$ 7,935
Other credit derivatives[(a)]	(37,415)	38,671	1,256	13,179
Total credit derivatives	(987,889)	1,001,269	13,379	21,114
Credit-related notes	(36)	–	(36)	4,113
Total	$ (987,925)	$ 1,001,269	$ 13,343	$ 25,227

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

The following tables summarize the notional amounts by the ratings, maturity profile, and total fair value, of credit derivatives and credit-related notes as of June 30, 2017, and December 31, 2016, where JPMorgan Chase Bank, N.A. is the seller of protection. The maturity profile is based on the remaining contractual maturity of the credit derivative contracts. The ratings profile is based on the rating of the reference entity on which the credit derivative contract is based. The ratings and maturity profile of credit derivatives and credit-related notes where JPMorgan Chase Bank, N.A. is the purchaser of protection are comparable to the profile reflected below.

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

June 30, 2017 (in millions)	<1 year	1-5 years	>5 years	Total notional amount	Fair value of receivables[(b)]	Fair value of payables[(b)]	Net fair value
Risk rating of reference entity							
Investment-grade	**$ (234,908)**	**$ (316,304)**	**$ (33,556)**	**$ (584,768)**	**$ 8,841**	**$ (1,128)**	**$ 7,713**
Noninvestment-grade	**(104,208)**	**(174,745)**	**(16,817)**	**(295,770)**	**8,748**	**(5,886)**	**2,862**
Total	**$ (339,116)**	**$ (491,049)**	**$ (50,373)**	**$ (880,538)**	**$ 17,589**	**$ (7,014)**	**$ 10,575**

December 31, 2016 (in millions)	<1 year	1-5 years	>5 years	Total notional amount	Fair value of receivables[(b)]	Fair value of payables[(b)]	Net fair value
Risk rating of reference entity							
Investment-grade	$ (274,489)	$ (383,580)	$ (34,440)	$ (692,509)	$ 7,838	$ (2,981)	$ 4,857
Noninvestment-grade	(107,933)	(170,021)	(17,462)	(295,416)	8,175	(8,255)	(80)
Total	$ (382,422)	$ (553,601)	$ (51,902)	$ (987,925)	$ 16,013	$ (11,236)	$ 4,777

(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 JPMorgan Chase Bank, N.A.

Note 6 – Noninterest revenue and noninterest expense

Noninterest revenue

For a discussion of the components of and accounting policies for JPMorgan Chase Bank, N.A.'s noninterest revenue, see Note 8 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Investment banking fees

The following table presents the components of investment banking fees.

(in millions)	Six months ended June 30, 2017	2016
Underwriting		
Equity	**$ 278**	$ 192
Debt	**1,103**	642
Total underwriting	**1,381**	834
Advisory	**341**	314
Total investment banking fees	**$ 1,722**	$ 1,148

Principal transactions

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 JPMorgan Chase Bank, N.A.'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. JPMorgan Chase Bank, N.A.'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)	Six months ended June 30, 2017	2016
Trading revenue by instrument type		
Interest rate	**$ 1,793**	$ 1,526
Credit	**395**	585
Foreign exchange	**1,694**	1,306
Equity	**1,534**	1,306
Commodity	**201**	137
Total trading revenue	**5,617**	4,860
Private equity gains	**2**	89
Principal transactions	**$ 5,619**	$ 4,949

Lending- and deposit-related fees

The following table presents the components of lending- and deposit-related fees.

(in millions)	Six months ended June 30, 2017	2016
Lending-related fees	**$ 548**	$ 549
Deposit-related fees	**2,386**	2,259
Total lending- and deposit-related fees	**$ 2,934**	$ 2,808

Asset management, administration and commissions

The following table presents the components of JPMorgan Chase Bank, N.A. asset management, administration and commissions.

(in millions)	Six months ended June 30, 2017	2016
Asset management fees		
Investment management fees[(a)]	**$ 1,004**	$ 999
All other asset management fees[(b)]	**25**	31
Total asset management fees	**1,029**	1,030
Total administration fees[(c)]	**986**	966
Commission and other fees		
Brokerage commissions	**555**	508
All other commissions and fees[(d)(e)]	**3,176**	2,996
Total commissions and fees	**3,731**	3,504
Total asset management, administration and commissions	**$ 5,746**	$ 5,500

(a) Represents fees earned from managing assets on behalf of JPMorgan Chase Bank, N.A.'s clients, including investors in JPMorgan Chase Bank, N.A.-sponsored funds and owners of separately managed investment accounts.
(b) Represents fees for services that are ancillary to investment management services, such as commissions earned on the sales or distribution of mutual funds to clients.
(c) Predominantly includes fees for custody, securities lending, funds services and securities clearance.
(d) Includes fees earned by JPMorgan Chase Bank, N.A. for shared services provided to related party affiliates of $2.2 billion and $2.0 billion for the six months ended June 30, 2017 and 2016, respectively.
(e) The prior period amounts have been revised to conform with the current presentation.

Other income

Other income on JPMorgan Chase Bank, N.A.'s Consolidated statements of income included the following:

(in millions)	Six months ended June 30, 2017	2016
Operating lease income	**$ 1,693**	$ 1,259

Other income also included a legal benefit of $645 million recorded in the corporate business related to a settlement with the FDIC receivership for Washington Mutual and with Deutsche Bank as trustee to certain Washington Mutual trusts.

Noninterest expense

Other expense

Other expense on JPMorgan Chase Bank, N.A.'s Consolidated statements of income included the following:

(in millions)	Six months ended June 30, 2017	2016
Legal expense/(benefit)	**$ (87)**	$ (473)
FDIC-related expense	**708**	522

Note 7 – Interest income and Interest expense

For a description of JPMorgan Chase Bank, N.A.'s accounting policies regarding interest income and interest expense, see Note 9 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table presents the components of interest income and interest expense:

(in millions)	Six months ended June 30, 2017	2016
Interest income		
Loans[(a)]	**$ 14,538**	$ 12,848
Taxable securities	**2,832**	2,811
Nontaxable securities[(b)]	**862**	815
Total securities	**3,694**	3,626
Trading assets	**2,254**	2,218
Federal funds sold and securities purchased under resale agreements	**538**	702
Securities borrowed[(c)]	**21**	(12)
Deposits with banks	**1,670**	850
Other assets	**197**	115
Total interest income	**22,912**	20,347
Interest expense		
Interest-bearing deposits	**1,504**	791
Federal funds purchased and securities loaned or sold under repurchase agreements	**150**	236
Trading liabilities - debt, short-term and other liabilities	**674**	679
Long-term debt	**625**	537
Beneficial interests issued by consolidated VIEs	**51**	49
Total interest expense	**3,004**	2,292
Net interest income	**19,908**	18,055
Provision for credit losses	**869**	1,877
Net interest income after provision for credit losses	**$ 19,039**	$ 16,178

(a) Includes the amortization of purchase price discounts or premiums, as well as net deferred loan fees or costs.
(b) Represents securities which are tax-exempt for U.S. federal income tax purposes.
(c) Negative interest income for 2016 is related to 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.

Note 8 – Pension and other postretirement employee benefit plans

For a discussion of JPMorgan Chase Bank, N.A.'s pension and OPEB plans, see Note 10 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

	Pension plans			
	U.S.		Non-U.S.	
Six months ended June 30, (in millions)	**2017**	2016	**2017**	2016
Components of net periodic benefit cost				
Benefits earned during the period	**$ 1**	$ 1	**$ 14**	$ 18
Interest cost on benefit obligations	**2**	2	**39**	50
Expected return on plan assets	**—**	—	**(67)**	(70)
Amortization:				
Net (gain)/loss	**2**	2	**14**	10
Prior service cost/(credit)	**—**	—	**(1)**	(1)
Settlement (gain)/loss	**—**	—	**(3)**	—
Net periodic defined benefit cost	**5**	5	**(4)**	7
Other defined benefit pension plans[(a)]	**6**	6	**—**	2
Total defined benefit plans	**11**	11	**(4)**	9
Total defined contribution plans	**189**	193	**142**	144
Total pension and OPEB cost included in compensation expense	**$200**	$204	**$138**	$153

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

The following table presents the fair values of plan assets for the material non-U.S. defined benefit pension plans:

(in billions)	June 30, 2017	December 31, 2016
Fair value of plan assets		
Material non-U.S. defined benefit pension plans	**$ 3.7**	$ 3.4

See Note 18 for further information on unrecognized amounts (i.e., net (gain)/loss and prior service costs/(credit)) reflected in AOCI for the six month periods ended June 30, 2017 and 2016.

JPMorgan Chase charged JPMorgan Chase Bank, N.A. $98 million and $90 million for the six months ended June 30, 2017 and 2016, respectively, for its share of the U.S. qualified defined benefit pension plan expense. JPMorgan Chase charged JPMorgan Chase Bank, N.A. $0.1 million for both the six months ended June 30, 2017 and 2016, for its share of the U.S. OPEB plan expense.

Consolidated disclosures of information about the pension and OPEB plans of JPMorgan Chase are included in Note 9 of JPMorgan Chase's 2016 Annual Report on Form 10-K and in Note 7 of JPMorgan Chase's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017.

Note 9 – Employee stock-based incentives

Certain employees of JPMorgan Chase Bank, N.A. participate in JPMorgan Chase's long-term stock-based incentive plans, which provide grants of common stock-based awards, including stock options, stock appreciation rights ("SARs"), restricted stock units ("RSUs") and performance share units ("PSUs"). For a discussion of the accounting policies and other information relating to employee stock-based incentives, see Note 11 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements and Note 10 of JPMorgan Chase's 2016 Annual Report on Form 10-K.

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

	Six months ended June 30,	
(in millions)	**2017**	2016
Cost of prior grants of RSUs, SARs and PSUs that are amortized over their applicable vesting periods	**$ 419**	$ 363
Accrual of estimated costs of stock-based awards to be granted in future periods including those to full-career eligible employees	**352**	324
Total compensation expense related to employee stock-based incentive plans	**$ 771**	$ 687

During the six month period ended June 30, 2017, in connection with its annual incentive grant for the 2016 performance year, JPMorgan Chase granted employees of JPMorgan Chase Bank, N.A. 16 million RSUs and 675 thousand PSUs, all with a weighted-average grant date fair value of $84.25.

Note 10 – Securities

Securities are classified as trading, AFS or HTM. Securities classified as trading assets are discussed in Note 3. Predominantly all of JPMorgan Chase Bank, N.A.'s AFS and HTM securities are held within the investment securities portfolio in connection with JPMorgan Chase Bank, N.A.'s asset-liability management objectives. At June 30, 2017, 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 13 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

	June 30, 2017				December 31, 2016			
(in millions)	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale debt securities								
Mortgage-backed securities:								
U.S. government agencies[(a)]	**$ 67,253**	**$ 1,053**	**$ 389**	**$ 67,917**	$ 63,367	$ 1,112	$ 474	$ 64,005
Residential:								
U.S.[(b)]	**9,418**	**193**	**15**	**9,596**	8,171	100	28	8,243
Non-U.S.	**4,134**	**149**	**1**	**4,282**	6,049	158	7	6,200
Commercial	**6,184**	**99**	**6**	**6,277**	8,602	108	19	8,691
Total mortgage-backed securities	**86,989**	**1,494**	**411**	**88,072**	86,189	1,478	528	87,139
U.S. Treasury and government agencies[(a)]	**28,247**	**192**	**281**	**28,158**	44,822	75	796	44,101
Obligations of U.S. states and municipalities	**28,531**	**1,708**	**66**	**30,173**	27,769	1,311	183	28,897
Certificates of deposit	**57**	**—**	**—**	**57**	106	—	—	106
Non-U.S. government debt securities	**30,007**	**591**	**27**	**30,571**	34,497	836	45	35,288
Corporate debt securities	**4,047**	**91**	**6**	**4,132**	4,916	64	22	4,958
Asset-backed securities:								
Collateralized loan obligations	**24,285**	**47**	**5**	**24,327**	27,352	75	26	27,401
Other	**6,422**	**74**	**13**	**6,483**	6,913	59	46	6,926
Total available-for-sale debt securities	**208,585**	**4,197**	**809**	**211,973**	232,564	3,898	1,646	234,816
Available-for-sale equity securities	**39**	**—**	**—**	**39**	42	12	—	54
Total available-for-sale securities	**208,624**	**4,197**	**809**	**212,012**	232,606	3,910	1,646	234,870
Held-to-maturity debt securities								
Mortgage-backed securities:								
U.S. government agencies[(c)]	**27,558**	**655**	**35**	**28,178**	29,910	638	37	30,511
Commercial	**5,766**	**2**	**70**	**5,698**	5,783	—	129	5,654
Total mortgage-backed securities	**33,324**	**657**	**105**	**33,876**	35,693	638	166	36,165
Obligations of U.S. states and municipalities	**14,437**	**556**	**73**	**14,920**	14,475	374	125	14,724
Total held-to-maturity debt securities	**47,761**	**1,213**	**178**	**48,796**	50,168	1,012	291	50,889
Total securities	**$ 256,385**	**$ 5,410**	**$ 987**	**$ 260,808**	$ 282,774	$ 4,922	$ 1,937	$ 285,759

(a) Included total U.S. government-sponsored enterprise obligations with fair values of $51.3 billion and $45.8 billion at June 30, 2017, and December 31, 2016, respectively, which were predominantly mortgage-related.
(b) Prior period amounts have been revised to conform with current period presentation.
(c) Included total U.S. government-sponsored enterprise obligations with an amortized cost of $23.7 billion and $25.6 billion at June 30, 2017, and December 31, 2016, respectively, which were mortgage-related.

Securities impairment

The following tables present the fair value and gross unrealized losses for investment securities by aging category at June 30, 2017, and December 31, 2016.

	Securities with gross unrealized losses					
	Less than 12 months		12 months or more			
June 30, 2017 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale debt securities						
Mortgage-backed securities:						
U.S. government agencies	$ 27,165	$ 378	$ 609	$ 11	$ 27,774	$ 389
Residential:						
U.S.[a]	620	3	944	12	1,564	15
Non-U.S.	–	–	505	1	505	1
Commercial	1,009	2	848	4	1,857	6
Total mortgage-backed securities	28,794	383	2,906	28	31,700	411
U.S. Treasury and government agencies	5,464	260	2,485	21	7,949	281
Obligations of U.S. states and municipalities	3,494	64	38	2	3,532	66
Certificates of deposit	–	–	–	–	–	–
Non-U.S. government debt securities	3,317	25	198	2	3,515	27
Corporate debt securities	640	2	165	4	805	6
Asset-backed securities:						
Collateralized loan obligations	–	–	801	5	801	5
Other	–	–	1,614	13	1,614	13
Total available-for-sale debt securities	41,709	734	8,207	75	49,916	809
Available-for-sale equity securities	–	–	–	–	–	–
Held-to-maturity securities						
Mortgage-backed securities						
U.S. government agencies	2,477	35	–	–	2,477	35
Commercial	5,274	70	–	–	5,274	70
Total mortgage-backed securities	7,751	105	–	–	7,751	105
Obligations of U.S. states and municipalities	2,758	65	199	8	2,957	73
Total held-to-maturity securities	10,509	170	199	8	10,708	178
Total securities with gross unrealized losses	$ 52,218	$ 904	$ 8,406	$ 83	$ 60,624	$ 987

(a) Prior period amounts have been revised to conform with current period presentation.

December 31, 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	$ 29,856	$ 463	$ 506	$ 11	$ 30,362	$ 474
Residential:						
U.S. [a]	1,373	6	1,073	22	2,446	28
Non-U.S.	–	–	886	7	886	7
Commercial	2,328	16	1,056	3	3,384	19
Total mortgage-backed securities	33,557	485	3,521	43	37,078	528
U.S. Treasury and government agencies	23,543	796	–	–	23,543	796
Obligations of U.S. states and municipalities	7,147	180	55	3	7,202	183
Certificates of deposit	–	–	–	–	–	–
Non-U.S. government debt securities	4,436	36	421	9	4,857	45
Corporate debt securities	797	2	829	20	1,626	22
Asset-backed securities:						
Collateralized loan obligations	766	2	5,263	24	6,029	26
Other	739	6	1,992	40	2,731	46
Total available-for-sale debt securities	70,985	1,507	12,081	139	83,066	1,646
Available-for-sale equity securities	–	–	–	–	–	–
Held-to-maturity debt securities						
Mortgage-backed securities						
U.S. government agencies	3,129	37	–	–	3,129	37
Commercial	5,163	114	441	15	5,604	129
Total mortgage-backed securities	8,292	151	441	15	8,733	166
Obligations of U.S. states and municipalities	4,702	125	–	–	4,702	125
Total held-to-maturity securities	12,994	276	441	15	13,435	291
Total securities with gross unrealized losses	$ 83,979	$ 1,783	$ 12,522	$ 154	$ 96,501	$ 1,937

(a) Prior period amounts have been revised to conform with current period presentation.

Gross unrealized losses

JPMorgan Chase Bank, N.A. has recognized unrealized losses on securities it intends to sell as other-than-temporary impairment ("OTTI"). JPMorgan Chase Bank, N.A. does not intend to sell any of the remaining securities with an unrealized loss in AOCI as of June 30, 2017, and it is not likely that JPMorgan Chase Bank, N.A. will be required to sell these securities before recovery of their amortized cost basis. Except for the securities for which credit losses have been recognized in income, JPMorgan Chase Bank, N.A. believes that the securities with an unrealized loss in AOCI as of June 30, 2017, are not other-than-temporarily impaired. For additional information on OTTI, see Note 13 of the JPMorgan Chase Bank, N.A. 2016 Annual Financial Statements.

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)	Six months ended June 30,	
	2017	2016
Realized gains	**$ 542**	$ 188
Realized losses	**(572)**	(79)
OTTI losses[a]	**(7)**	(38)
Net securities gains	**$ (37)**	$ 71
OTTI losses		
Credit-related losses recognized in income	**$ –**	$ (1)
Securities JPMorgan Chase Bank, N.A. intends to sell[a]	**(7)**	(37)
Total OTTI losses recognized in income	**$ (7)**	$ (38)

(a) Excludes realized losses on securities sold of $5 million for both the six months ended June 30, 2017 and 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 JPMorgan Chase Bank, N.A. does not intend to sell was not material as of and during the six month periods ended June 30, 2017 and 2016.

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at June 30, 2017, of JPMorgan Chase Bank, N.A.'s investment securities portfolio by contractual maturity.

By remaining maturity June 30, 2017 (in millions)	Due in one year or less	Due after one year through five years	Due after five years through 10 years	Due after 10 years[c]	Total
Available-for-sale debt securities					
Mortgage-backed securities[a]					
Amortized cost	$ 961	$ 1,681	$ 6,427	$ 77,920	$ 86,989
Fair value	966	1,714	6,617	78,775	88,072
Average yield[b]	1.40%	2.33%	3.14%	3.29%	3.24%
U.S. Treasury and government agencies					
Amortized cost	$ 146	$ –	$ 25,005	$ 3,096	$ 28,247
Fair value	146	–	24,895	3,117	28,158
Average yield[b]	0.59%	–%	1.52%	1.50%	1.51%
Obligations of U.S. states and municipalities					
Amortized cost	$ 73	$ 643	$ 905	$ 26,910	$ 28,531
Fair value	73	654	959	28,487	30,173
Average yield[b]	2.61%	2.77%	6.17%	6.51%	6.40%
Certificates of deposit					
Amortized cost	$ 57	$ –	$ –	$ –	$ 57
Fair value	57	–	–	–	57
Average yield[b]	0.50%	–%	–%	–%	0.50%
Non-U.S. government debt securities					
Amortized cost	$ 4,593	$ 14,229	$ 11,133	$ 52	$ 30,007
Fair value	4,597	14,480	11,444	50	30,571
Average yield[b]	2.64%	1.61%	1.04%	0.79%	1.55%
Corporate debt securities					
Amortized cost	$ 1,402	$ 1,105	$ 1,441	$ 99	$ 4,047
Fair value	1,404	1,136	1,487	105	4,132
Average yield[b]	2.78%	3.31%	3.39%	3.58%	3.16%
Asset-backed securities					
Amortized cost	$ –	$ 813	$ 20,777	$ 9,117	$ 30,707
Fair value	–	814	20,811	9,185	30,810
Average yield[b]	–%	1.34%	2.54%	2.15%	2.39%
Total available-for-sale debt securities					
Amortized cost	$ 7,232	$ 18,471	$ 65,688	$ 117,194	$ 208,585
Fair value	7,243	18,798	66,213	119,719	211,973
Average yield[b]	2.44%	1.81%	2.02%	3.89%	3.07%
Available-for-sale equity securities					
Amortized cost	$ –	$ –	$ –	$ 39	$ 39
Fair value	–	–	–	39	39
Average yield[b]	–%	–%	–%	0.24%	0.24%
Total available-for-sale securities					
Amortized cost	$ 7,232	$ 18,471	$ 65,688	$ 117,233	$ 208,624
Fair value	7,243	18,798	66,213	119,758	212,012
Average yield[b]	2.44%	1.81%	2.02%	3.89%	3.07%
Held-to-maturity debt securities					
Mortgage-backed securities[a]					
Amortized cost	$ –	$ –	$ –	$ 33,324	$ 33,324
Fair value	–	–	–	33,876	33,876
Average yield[b]	–%	–%	–%	3.29%	3.29%
Obligations of U.S. states and municipalities					
Amortized cost	$ –	$ 29	$ 1,664	$ 12,744	$ 14,437
Fair value	–	29	1,727	13,164	14,920
Average yield[b]	–%	6.77%	5.12%	5.69%	5.63%
Total held-to-maturity securities					
Amortized cost	$ –	$ 29	$ 1,664	$ 46,068	$ 47,761
Fair value	–	29	1,727	47,040	48,796
Average yield[b]	–%	6.77%	5.12%	3.95%	4.00%

(a) As of June 30, 2017, mortgage-backed securities issued by Fannie Mae exceeded 10% of JPMorgan Chase Bank, N.A.'s total stockholder's equity; the amortized cost and fair value of such securities was $59.9 billion and $61.1 billion, respectively.

(b) Average yield is computed using the effective yield of each security owned at the end of the period, weighted based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts, and the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable. The effective yield excludes unscheduled principal prepayments; and accordingly, actual maturities of securities may differ from their contractual or expected maturities as certain securities may be prepaid.
(c) Includes securities with no stated maturity. Substantially all of JPMorgan Chase Bank, N.A.'s residential mortgage-backed securities ("MBS") and collateralized mortgage obligations are due in 10 years or more, based on contractual maturity. The estimated weighted-average life, which reflects anticipated future prepayments, is approximately 7 years for agency residential MBS, 3 years for agency residential collateralized mortgage obligations and 3 years for nonagency residential collateralized mortgage obligations.

Note 11 – Securities financing activities

For a discussion of accounting policies relating to securities financing activities, see Note 14 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements. 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 21.

The table below summarizes the gross and net amounts of JPMorgan Chase Bank, N.A.'s securities financing agreements as of June 30, 2017 and December 31, 2016. When JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. nets, on the Consolidated balance sheets, the balances outstanding under its securities financing agreements with the same counterparty. In addition, JPMorgan Chase Bank, N.A. exchanges securities and/or cash collateral with its counterparties; this collateral also reduces, in JPMorgan Chase Bank, N.A.'s view, the economic exposure with the counterparty. Such collateral, along with securities financing balances that do not meet all these 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 JPMorgan Chase Bank, N.A. 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, 2017				
(in millions)	Gross amounts	Amounts netted on the Consolidated balance sheets	Amounts presented on the Consolidated balance sheets[b]	Amounts not nettable on the Consolidated balance sheets[c]	Net amounts[d]
Assets					
Securities purchased under resale agreements	$ **328,671**	$ **(172,783)**	$ **155,888**	$ **(147,208)**	$ **8,680**
Securities borrowed	**30,170**	**(2,518)**	**27,652**	**(25,868)**	**1,784**
Liabilities					
Securities sold under repurchase agreements	$ **254,173**	$ **(172,783)**	$ **81,390**	$ **(76,986)**	$ **4,404**
Securities loaned and other[a]	**20,126**	**(2,518)**	**17,608**	**(16,449)**	**1,159**

	December 31, 2016				
(in millions)	Gross amounts	Amounts netted on the Consolidated balance sheets	Amounts presented on the Consolidated balance sheets[b]	Amounts not nettable on the Consolidated balance sheets[c]	Net amounts[d]
Assets					
Securities purchased under resale agreements	$ 320,678	$ (148,236)	$ 172,442	$ (165,651)	$ 6,791
Securities borrowed	32,497	–	32,497	(30,175)	2,322
Liabilities					
Securities sold under repurchase agreements	$ 214,823	$ (148,236)	$ 66,587	$ (64,082)	$ 2,505
Securities loaned and other[a]	14,996	–	14,996	(14,093)	903

(a) Includes securities-for-securities lending transactions of \$7.6 billion and \$7.5 billion at June 30, 2017 and December 31, 2016, respectively, accounted for at fair value, where JPMorgan Chase Bank, N.A. is acting as lender. These amounts are presented within other liabilities in the Consolidated balance sheets.
(b) Includes securities financing agreements accounted for at fair value. At June 30, 2017 and December 31, 2016, included securities purchased under resale agreements of \$4.0 billion and \$5.3 billion, respectively and securities sold under agreements to repurchase of \$2.0 billion and \$399 million, respectively. There were \$1.6 billion of securities borrowed at June 30, 2017, and there were no securities borrowed at December 31, 2016. There were no securities loaned accounted for at fair value in either period.
(c) In some cases, collateral exchanged with a counterparty exceeds the net asset or liability balance with that counterparty. In such cases, the amounts reported in this column are limited to the related asset or liability with that counterparty.
(d) 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, 2017 and December 31, 2016, included \$6.1 billion and \$4.5 billion, respectively, of securities purchased under resale agreements; \$1.1 billion and \$1.9 billion, respectively, of securities borrowed; \$431 million and \$523 million, respectively, of securities sold under agreements to repurchase; and \$98 million and \$11 million, respectively, of securities loaned and other.

The tables below present as of June 30, 2017 and December 31, 2016 the types of financial assets pledged in securities financing agreements and the remaining contractual maturity of the securities financing agreements.

	Gross liability balance			
	June 30, 2017		December 31, 2016	
(in millions)	Securities sold under repurchase agreements	Securities loaned and other[a]	Securities sold under repurchase agreements	Securities loaned and other[a]
Mortgage-backed securities	**$ 4,566**	**$ –**	$ 2,364	$ –
U.S. Treasury and government agencies	**57,047**	**7,150**	52,657	7,036
Non-U.S. government debt	**183,299**	**3,744**	150,599	1,617
Corporate debt securities	**8,028**	**447**	8,097	466
Asset-backed securities	**1,233**	–	1,106	–
Equity securities	**–**	**8,785**	–	5,877
Total	**$ 254,173**	**$ 20,126**	$ 214,823	$ 14,996

	Remaining contractual maturity of the agreements				
June 30, 2017 (in millions)	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	**$ 78,687**	**$ 121,763**	**$ 36,298**	**$ 17,425**	**$ 254,173**
Total securities loaned and other[a]	**17,142**	**1,414**	**213**	**1,357**	**20,126**

	Remaining contractual maturity of the agreements				
December 31, 2016 (in millions)	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	$ 31,776	$ 122,979	$ 39,398	$ 20,670	$ 214,823
Total securities loaned and other[a]	12,880	1,388	520	208	14,996

(a) Includes securities-for-securities lending transactions of $7.6 billion and $7.5 billion at June 30, 2017 and December 31, 2016, respectively, accounted for at fair value, where JPMorgan Chase Bank, N.A. 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, 2017 and December 31, 2016, JPMorgan Chase Bank, N.A. held $4.9 billion and $5.8 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 12 – Loans

Loan accounting framework

The accounting for a loan depends on management's strategy for the loan, and on whether the loan was credit-impaired at the date of acquisition. JPMorgan Chase Bank, N.A. accounts for loans based on the following categories:

- Originated or purchased loans held-for-investment (i.e., "retained"), other than 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 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements. See Note 4 of these Consolidated Financial Statements for further information on JPMorgan Chase Bank, N.A.'s elections of fair value accounting under the fair value option. See Note 3 of these Consolidated Financial Statements for information on loans carried at fair value and classified as trading assets.

Loan portfolio

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

Consumer, excluding credit card(a)	Credit card	Wholesale(g)
Residential real estate – excluding PCI • Home equity(b) • Residential mortgage(c) Other consumer loans • Auto(d) • Consumer & business banking(d)(e) • Student Residential real estate – PCI • Home equity • Prime mortgage • Subprime mortgage • Option adjustable rate mortgages ("ARMs")	• Credit card loans(f)	• Commercial and industrial • Real estate • Financial institutions • Government agencies • Other(h)

(a) Includes loans held in the consumer & community banking business, prime mortgage and home equity loans held in the asset & wealth management business and prime mortgage loans held in the corporate business.
(b) Includes senior and junior lien home equity loans.
(c) Predominantly 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 the consumer & community banking business, and therefore, for consistency in presentation, are included with the other consumer loan classes.
(e) Predominantly includes business banking loans.
(f) Predominantly includes credit card loans acquired pursuant to a participation agreement with Chase Bank USA, N.A., a related-party, and subsequent draws on revolving credit lines associated with the participation agreement.
(g) Includes loans held in the corporate & investment banking, commercial banking and asset & wealth management businesses and in the corporate business. Excludes prime mortgage and home equity loans held in the asset & wealth management businesses and prime mortgage loans held in the corporate business. Classes are internally defined and may not align with regulatory definitions.
(h) Includes loans to: individuals; special purpose entities ("SPEs"); and private education and civic organizations. For more information on SPEs, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

June 30, 2017 (in millions)	Consumer, excluding credit card	Credit card[a]	Wholesale	Total
Retained	**$ 365,075**	**$ 37,058**	**$ 397,650**	**$ 799,783** [b]
Held-for-sale	**256**	**106**	**6,850**	**7,212**
At fair value	**–**	**–**	**1,978**	**1,978**
Total	**$ 365,331**	**$ 37,164**	**$ 406,478**	**$ 808,973**

December 31, 2016 (in millions)	Consumer, excluding credit card	Credit card[a]	Wholesale	Total
Retained	$ 364,360	$ 35,773	$ 387,132	$ 787,265 [b]
Held-for-sale	238	105	2,283	2,626
At fair value	–	–	2,228	2,228
Total	$ 364,598	$ 35,878	$ 391,643	$ 792,119

(a) Includes accrued interest and fees net of an allowance for the uncollectible portion of accrued interest and fee income.
(b) Loans (other than PCI loans and loans for which the fair value option has been elected) are presented net of unearned income, unamortized discounts and premiums, and net deferred loan costs. These amounts were not material as of June 30, 2017, and December 31, 2016.

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

	2017				2016			
Six months ended June 30, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	**$ 1,566** [a][b]	**$ –**	**$ 878**	**$ 2,444**	$ 2,089 [a][b]	$ –	$ 693	$ 2,782
Sales	**1,353**	**–**	**4,824**	**6,177**	1,665	–	3,746	5,411
Retained loans reclassified to held-for-sale	**6,340** [c]	**–**	**768**	**7,108**	83	–	616 [d]	699

(a) Purchases predominantly represent JPMorgan Chase Bank, N.A.'s voluntary repurchase of certain delinquent loans from loan pools as permitted by Government National Mortgage Association ("Ginnie Mae") guidelines. JPMorgan Chase Bank, N.A. typically elects to repurchase these delinquent loans as it continues to service them and/or manage the foreclosure process in accordance with applicable requirements of Ginnie Mae, the Federal Housing Administration ("FHA"), Rural Housing Services ("RHS"), and/or the U.S. Department of Veterans Affairs ("VA").
(b) Excludes purchases of retained loans sourced through the correspondent origination channel and underwritten in accordance with JPMorgan Chase Bank, N.A.'s standards. Such purchases were $11.3 billion and $17.1 billion for the six months ended June 30, 2017 and 2016, respectively.
(c) Includes JPMorgan Chase Bank N.A.'s student loan portfolio, which was transferred to held-for-sale in the first half of 2017. For additional information see Note 23.
(d) Prior period results were revised to conform with the current period presentation.

The following table provides information about gains and losses on loan sales, including lower of cost or fair value adjustments, by portfolio segment.

	Six months ended June 30,	
(in millions)	**2017**	2016
Net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)[a]		
Consumer, excluding credit card[b]	**$ (214)**	$ 117
Credit card	**(2)**	(4)
Wholesale	**19**	(2)
Total net gains/(losses) on sales of loans (including lower of cost or fair value adjustments)	**$ (197)**	$ 111

(a) Excludes sales related to loans accounted for at fair value.
(b) Includes JPMorgan Chase Bank N.A.'s student loan portfolio, which was transferred to held-for-sale in the first half of 2017. For additional information see Note 23.

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, consumer and business banking loans, and student 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 the first half of 2017, JPMorgan Chase Bank, N.A. transferred the student loan portfolio to held-for-sale. For additional information see Note 23.

(in millions)	June 30, 2017	December 31, 2016
Residential real estate – excluding PCI		
Home equity	**$ 35,989**	$ 39,049
Residential mortgage[(a)]	**205,352**	192,455
Other consumer loans		
Auto	**65,627**	65,814
Consumer & business banking[(a)]	**25,043**	24,306
Student[(a)]	**—**	7,057
Residential real estate – PCI		
Home equity	**11,838**	12,902
Prime mortgage	**7,023**	7,602
Subprime mortgage	**2,771**	2,941
Option ARMs	**11,432**	12,234
Total retained loans	**$ 365,075**	$ 364,360

(a) Certain loan portfolios have been reclassified. The prior period amounts have been revised to conform with current period presentation.

For further information on consumer credit quality indicators, see Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

	Home equity		Residential mortgage[g]		Total residential real estate – excluding PCI	
(in millions, except ratios)	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Dec 31, 2016
Loan delinquency[a]						
Current	**$ 35,050**	$ 37,927	**$ 198,238**	$ 184,109	**$ 233,288**	$ 222,036
30–149 days past due	**535**	646	**3,281**	3,824	**3,816**	4,470
150 or more days past due	**404**	476	**3,833**	4,522	**4,237**	4,998
Total retained loans	**$ 35,989**	$ 39,049	**$ 205,352**	$ 192,455	**$ 241,341**	$ 231,504
% of 30+ days past due to total retained loans[b]	**2.61%**	2.87%	**0.63%**	0.75%	**0.92%**	1.11%
90 or more days past due and government guaranteed[c]	**$ –**	$ –	**$ 3,957**	$ 4,856	**$ 3,957**	$ 4,856
Nonaccrual loans	**1,645**	1,844	**2,087**	2,253	**3,732**	4,097
Current estimated loan-to-value ("LTV") ratios[d][e]						
Greater than 125% and refreshed FICO scores:						
Equal to or greater than 660	**$ 18**	$ 70	**$ 25**	$ 30	**$ 43**	$ 100
Less than 660	**7**	15	**39**	48	**46**	63
101% to 125% and refreshed FICO scores:						
Equal to or greater than 660	**370**	668	**58**	135	**428**	803
Less than 660	**119**	220	**128**	177	**247**	397
80% to 100% and refreshed FICO scores:						
Equal to or greater than 660	**2,137**	2,960	**3,329**	4,025	**5,466**	6,985
Less than 660	**692**	945	**555**	717	**1,247**	1,662
Less than 80% and refreshed FICO scores:						
Equal to or greater than 660	**26,392**	27,307	**184,115**	169,570	**210,507**	196,877
Less than 660	**4,135**	4,380	**6,986**	6,753	**11,121**	11,133
No FICO/LTV available	**2,119**	2,484	**1,545**	1,649	**3,664**	4,133
U.S. government-guaranteed	**–**	–	**8,572**	9,351	**8,572**	9,351
Total retained loans	**35,989**	39,049	**205,352**	192,455	**$ 241,341**	$ 231,504
Geographic region						
California	**$ 7,050**	$ 7,641	**$ 64,827**	$ 59,802	**$ 71,877**	$ 67,443
New York	**7,375**	7,975	**26,476**	24,912	**33,851**	32,887
Illinois	**2,704**	2,946	**13,883**	13,125	**16,587**	16,071
Texas	**2,123**	2,224	**11,692**	10,771	**13,815**	12,995
Florida	**1,973**	2,132	**9,175**	8,393	**11,148**	10,525
New Jersey	**2,090**	2,252	**6,734**	6,374	**8,824**	8,626
Colorado	**630**	677	**6,865**	6,306	**7,495**	6,983
Washington	**1,121**	1,228	**6,177**	5,450	**7,298**	6,678
Massachusetts	**332**	371	**6,060**	5,834	**6,392**	6,205
Arizona	**1,598**	1,771	**3,899**	3,595	**5,497**	5,366
All other[f]	**8,993**	9,832	**49,564**	47,893	**58,557**	57,725
Total retained loans	**$ 35,989**	$ 39,049	**$ 205,352**	$ 192,455	**$ 241,341**	$ 231,504

(a) Individual delinquency classifications include mortgage loans insured by U.S. government agencies as follows: current included $2.8 billion and $2.5 billion; 30–149 days past due included $2.6 billion and $3.1 billion; and 150 or more days past due included $3.2 billion and $3.8 billion at June 30, 2017, and December 31, 2016, respectively.
(b) At June 30, 2017, and December 31, 2016, residential mortgage loans excluded mortgage loans insured by U.S. government agencies of $5.8 billion and $6.9 billion, respectively, that are 30 more days past due. These amounts have been excluded based upon the government guarantee.
(c) 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, 2017, and December 31, 2016, these balances included $1.9 billion and $2.2 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 that were not guaranteed by U.S. government agencies that are 90 or more days past due and still accruing interest at June 30, 2017, and December 31, 2016.
(d) 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.
(e) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by JPMorgan Chase Bank, N.A. on at least a quarterly basis.
(f) At June 30, 2017, and December 31, 2016, included mortgage loans insured by U.S. government agencies of $8.6 billion and $9.4 billion, respectively.
(g) Certain loan portfolios have been reclassified. The prior period amounts have been revised to conform with the current period presentation.

The following table represents JPMorgan Chase Bank, N.A.'s delinquency statistics for junior lien home equity loans and lines as of June 30, 2017, and December 31, 2016.

	Total loans		Total 30+ day delinquency rate	
(in millions, except ratios)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
HELOCs:[(a)]				
Within the revolving period[(b)]	**$ 7,946**	$ 10,297	**0.79%**	1.27%
Beyond the revolving period	**13,566**	13,265	**2.76**	3.05
HELOANs	**1,599**	1,861	**2.69**	2.85
Total	**$ 23,111**	$ 25,423	**2.08%**	2.32%

(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) JPMorgan Chase Bank, N.A. manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are experiencing financial difficulty.

Home equity lines of credit ("HELOCs") beyond the revolving period and home equity loans ("HELOANs") have higher delinquency rates than 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 JPMorgan Chase Bank, N.A.'s allowance for loan losses.

Impaired loans

The table below sets forth information about JPMorgan Chase Bank, N.A.'s residential real estate impaired loans, excluding PCI loans. These loans are considered to be impaired as they have been modified in a troubled debt restructuring ("TDR"). All impaired loans are evaluated for an asset-specific allowance as described in Note 16 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

	Home equity		Residential mortgage		Total residential real estate – excluding PCI	
(in millions)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Impaired loans						
With an allowance	**$ 1,241**	$ 1,266	**$ 4,523**	$ 4,681	**$ 5,764**	$ 5,947
Without an allowance[(a)]	**921**	998	**1,274**	1,341	**2,195**	2,339
Total impaired loans[(b)(c)]	**$ 2,162**	$ 2,264	**$ 5,797**	$ 6,022	**$ 7,959**	$ 8,286
Allowance for loan losses related to impaired loans	**$ 126**	$ 121	**$ 67**	$ 68	**$ 193**	$ 189
Unpaid principal balance of impaired loans[(d)]	**3,804**	3,846	**7,987**	8,274	**11,791**	12,120
Impaired loans on nonaccrual status[(e)]	**1,056**	1,116	**1,682**	1,752	**2,738**	2,868

(a) Represents collateral-dependent residential real estate loans that are charged off to the fair value of the underlying collateral less cost to sell. JPMorgan Chase Bank, N.A. reports, in accordance with regulatory guidance, residential real estate loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status. At June 30, 2017, Chapter 7 residential real estate loans included approximately 11% of home equity and 13% of residential mortgages that were 30 days or more past due.
(b) At June 30, 2017, and December 31, 2016, $3.8 billion and $3.4 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.
(d) Represents the contractual amount of principal owed at June 30, 2017, and December 31, 2016. The unpaid principal balance differs from the impaired loan balances due to various factors, including charge-offs; net deferred loan fees or costs; and unamortized discounts or premiums on purchased loans.
(e) As of June 30, 2017, and December 31, 2016, nonaccrual loans included $2.2 billion and $2.3 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 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

Six months ended June 30,	Average impaired loans		Interest income on impaired loans[(a)]		Interest income on impaired loans on a cash basis[(a)]	
(in millions)	**2017**	2016	**2017**	2016	**2017**	2016
Home equity	**$ 2,245**	$ 2,349	**$ 61**	$ 63	**$ 38**	$ 41
Residential mortgage	**5,913**	6,524	**141**	155	**33**	39
Total residential real estate – excluding PCI	**$ 8,158**	$ 8,873	**$ 202**	$ 218	**$ 71**	$ 80

(a) Generally, interest income on loans modified in TDRs is recognized on a cash basis until such time as the borrower has made a minimum of six payments under the new terms, unless the loan is deemed to be collateral-dependent.

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 JPMorgan Chase Bank, N.A.

	Six months ended June 30,	
(in millions)	**2017**	2016
Home equity	**$ 150**	$ 196
Residential mortgage	**168**	121
Total residential real estate – excluding PCI	**$ 318**	$ 317

Nature and extent of modifications

The U.S. Treasury's Making Home Affordable programs, as well as JPMorgan Chase Bank, N.A.'s proprietary modification programs, generally provide various concessions to financially troubled borrowers including, but not limited to, interest rate reductions, term or payment extensions and deferral of principal and/or interest payments that would otherwise have been required under the terms of the original agreement.

The following table provides information about how residential real estate loans, excluding PCI loans, were modified under JPMorgan Chase Bank, N.A.'s loss mitigation programs described above during the periods presented. This table excludes Chapter 7 loans where the sole concession granted is the discharge of debt.

	Home equity		Residential mortgage		Total residential real estate - excluding PCI	
Six months ended June 30,	**2017**	2016	**2017**	2016	**2017**	2016
Number of loans approved for a trial modification	**1,308**	1,721	**845**	1,127	**2,153**	2,848
Number of loans permanently modified	**2,800**	2,641	**1,440**	1,699	**4,240**	4,340
Concession granted:[(a)]						
Interest rate reduction	**71%**	71%	**76%**	72%	**72%**	71%
Term or payment extension	**84**	88	**86**	90	**84**	89
Principal and/or interest deferred	**13**	18	**14**	19	**14**	18
Principal forgiveness	**9**	10	**19**	27	**12**	17
Other[(b)]	**13**	1	**27**	21	**18**	9

(a) 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) Predominantly represents variable interest rate to fixed interest rate modifications.

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the various concessions granted in modifications of residential real estate loans, excluding PCI, under the loss mitigation programs described above 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 table presents only the financial effects of permanent modifications. This table also excludes Chapter 7 loans where the sole concession granted is the discharge of debt.

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	
	2017	2016	**2017**	2016	**2017**	2016
Weighted-average interest rate of loans with interest rate reductions – before TDR	**4.82%**	5.13%	**5.25%**	5.60%	**5.06%**	5.41%
Weighted-average interest rate of loans with interest rate reductions – after TDR	**2.42**	2.46	**3.01**	2.91	**2.74**	2.73
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	**23**	18	**24**	25	**23**	22
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	**38**	38	**38**	38	**38**	38
Charge-offs recognized upon permanent modification	**$ 1**	$ 1	**$ 1**	$ 2	**$ 2**	$ 3
Principal deferred	**7**	12	**7**	19	**14**	31
Principal forgiven	**5**	4	**11**	25	**16**	29
Balance of loans that redefaulted within one year of permanent modification[(a)]	**$ 21**	$ 20	**$ 58**	$ 48	**$ 79**	$ 68

(a) Represents loans permanently modified in TDRs that experienced a payment default in the periods presented, and for which the payment default occurred within one year of the modification. The dollar amounts presented represent the balance of such loans at the end of the reporting period in which such loans defaulted. For residential real estate loans modified in TDRs, payment default is deemed to occur when the loan becomes two contractual payments past due. In the event that a modified loan redefaults, it is probable that the loan will ultimately be liquidated through foreclosure or another similar type of liquidation transaction. Redefaults of loans modified within the last 12 months may not be representative of ultimate redefault levels.

At June 30, 2017, the weighted-average estimated remaining lives of residential real estate loans, excluding PCI loans, permanently modified in TDRs were 10 years for home equity and 13 years for residential mortgage. 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, 2017, and December 31, 2016, JPMorgan Chase Bank, N.A. had non-PCI residential real estate loans, excluding those insured by U.S. government agencies, with a carrying value of $796 million and $931 million, 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 and business banking loans. This table excludes student loans as a result of the transfer of the student loan portfolio to held-for-sale and its subsequent sale in the first half of 2017.

	Auto		Consumer & business banking[c]	
(in millions, except ratios)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Loan delinquency[a]				
Current	**$ 65,050**	$ 65,029	**$ 24,745**	$ 23,919
30–119 days past due	**568**	773	**150**	247
120 or more days past due	**9**	12	**148**	140
Total retained loans	**$ 65,627**	$ 65,814	**$ 25,043**	$ 24,306
% of 30+ days past due to total retained loans	**0.88%**	1.19%	**1.19%**	1.59%
Nonaccrual loans[a]	**158**	214	**301**	287
Geographic region				
California	**$ 8,347**	$ 7,975	**$ 4,731**	$ 4,426
Texas	**6,807**	7,041	**2,929**	2,954
New York	**3,974**	4,078	**4,066**	3,979
Illinois	**4,052**	3,984	**1,867**	1,758
Florida	**3,369**	3,374	**1,263**	1,195
Ohio	**2,126**	2,194	**1,412**	1,402
Arizona	**2,132**	2,209	**1,305**	1,307
Michigan	**1,552**	1,567	**1,350**	1,343
New Jersey	**2,044**	2,031	**658**	623
Louisiana	**1,712**	1,814	**951**	979
All other	**29,512**	29,547	**4,511**	4,340
Total retained loans	**$ 65,627**	$ 65,814	**$ 25,043**	$ 24,306
Loans by risk ratings[b]				
Noncriticized	**$ 14,863**	$ 13,899	**$ 17,465**	$ 16,858
Criticized performing	**119**	201	**750**	816
Criticized nonaccrual	**56**	94	**227**	217

(a) There were no loans that were 90 or more days past due and still accruing interest at June 30, 2017, and December 31, 2016.
(b) 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.
(c) Certain loan portfolios have been reclassified. The prior period amounts have been revised to conform with the current period presentation.

Other consumer impaired loans and loan modifications

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

(in millions)		June 30, 2017		December 31, 2016
Impaired loans				
With an allowance	**$**	**345**	$	614
Without an allowance[(a)]		**29**		30
Total impaired loans[(b)(c)]	**$**	**374**	$	644
Allowance for loan losses related to impaired loans	**$**	**103**	$	119
Unpaid principal balance of impaired loans[(d)]		**462**		753
Impaired loans on nonaccrual status		**331**		508

(a) When discounted cash flows, collateral value or market price equals or exceeds the recorded investment in the loan, the loan does not require an allowance. This typically occurs when the impaired loans have been partially charged off and/or there have been interest payments received and applied to the loan balance.
(b) Predominantly all other consumer impaired loans are in the U.S.
(c) Other consumer average impaired loans were $501 million and $596 million for the six months ended June 30, 2017 and 2016, respectively. The related interest income on impaired loans, including those on a cash basis, was not material for the six months ended June 30, 2017 and 2016.
(d) Represents the contractual amount of principal owed at June 30, 2017, and December 31, 2016. 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 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements for further information on other consumer loans modified in TDRs.

The following table provides information about JPMorgan Chase Bank, N.A.'s other consumer loans modified in TDRs. New TDRs were not material for the six months ended June 30, 2017 and 2016.

(in millions)		June 30, 2017		December 31, 2016
Loans modified in TDRs[(a)(b)]	**$**	**119**	$	362
TDRs on nonaccrual status		**76**		226

(a) The impact of these modifications was not material to JPMorgan Chase Bank, N.A. for the six months ended June 30, 2017 and 2016.
(b) Additional commitments to lend to borrowers whose loans have been modified in TDRs as of June 30, 2017, and December 31, 2016, were immaterial.

Purchased credit-impaired loans

For a detailed discussion of PCI loans, including the related accounting policies, see Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Residential real estate – PCI loans

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

	Home equity		Prime mortgage		Subprime mortgage		Option ARMs		Total PCI	
(in millions, except ratios)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Carrying value[(a)]	**$11,838**	$12,902	**$ 7,023**	$ 7,602	**$ 2,771**	$ 2,941	**$11,432**	$12,234	**$33,064**	$35,679
Related allowance for loan losses[(b)]	**1,133**	1,433	**903**	829	**150**	–	**79**	49	**2,265**	2,311
Loan delinquency (based on unpaid principal balance)										
Current	**$11,396**	$12,423	**$ 6,367**	$ 6,840	**$ 2,914**	$ 3,005	**$10,443**	$11,074	**$31,120**	$33,342
30–149 days past due	**268**	291	**296**	336	**292**	361	**466**	555	**1,322**	1,543
150 or more days past due	**434**	478	**384**	451	**188**	240	**774**	917	**1,780**	2,086
Total loans	**$12,098**	$13,192	**$ 7,047**	$ 7,627	**$ 3,394**	$ 3,606	**$11,683**	$12,546	**$34,222**	$36,971
% of 30+ days past due to total loans	**5.80%**	5.83%	**9.65%**	10.32%	**14.14%**	16.67%	**10.61%**	11.73%	**9.06%**	9.82%
Current estimated LTV ratios (based on unpaid principal balance)[(c)(d)]										
Greater than 125% and refreshed FICO scores:										
Equal to or greater than 660	**$ 44**	$ 69	**$ 6**	$ 6	**$ 5**	$ 7	**$ 6**	$ 12	**$ 61**	$ 94
Less than 660	**23**	39	**16**	17	**25**	31	**13**	18	**77**	105
101% to 125% and refreshed FICO scores:										
Equal to or greater than 660	**365**	555	**27**	52	**26**	39	**61**	83	**479**	729
Less than 660	**175**	256	**56**	84	**94**	135	**91**	144	**416**	619
80% to 100% and refreshed FICO scores:										
Equal to or greater than 660	**1,480**	1,860	**292**	442	**146**	214	**376**	558	**2,294**	3,074
Less than 660	**678**	804	**289**	381	**356**	439	**463**	609	**1,786**	2,233
Lower than 80% and refreshed FICO scores:										
Equal to or greater than 660	**6,461**	6,676	**3,781**	3,967	**936**	919	**6,438**	6,754	**17,616**	18,316
Less than 660	**2,159**	2,183	**2,209**	2,287	**1,641**	1,645	**3,691**	3,783	**9,700**	9,898
No FICO/LTV available	**713**	750	**371**	391	**165**	177	**544**	585	**1,793**	1,903
Total unpaid principal balance	**$12,098**	$13,192	**$ 7,047**	$ 7,627	**$ 3,394**	$ 3,606	**$11,683**	$12,546	**$34,222**	$36,971
Geographic region (based on unpaid principal balance)										
California	**$ 7,218**	$ 7,899	**$ 4,034**	$ 4,396	**$ 846**	$ 899	**$ 6,626**	$ 7,128	**$18,724**	$20,322
Florida	**1,224**	1,306	**465**	501	**313**	332	**971**	1,026	**2,973**	3,165
New York	**653**	697	**487**	515	**347**	363	**660**	711	**2,147**	2,286
Washington	**603**	673	**151**	167	**64**	68	**263**	290	**1,081**	1,198
New Jersey	**259**	280	**196**	210	**119**	125	**373**	401	**947**	1,016
Illinois	**294**	314	**215**	226	**169**	178	**269**	282	**947**	1,000
Massachusetts	**88**	94	**159**	173	**104**	110	**321**	346	**672**	723
Maryland	**60**	64	**138**	144	**138**	145	**248**	267	**584**	620
Arizona	**219**	241	**113**	124	**63**	68	**167**	181	**562**	614
Virginia	**71**	77	**132**	142	**53**	56	**296**	314	**552**	589
All other	**1,409**	1,547	**957**	1,029	**1,178**	1,262	**1,489**	1,600	**5,033**	5,438
Total unpaid principal balance	**$12,098**	$13,192	**$ 7,047**	$ 7,627	**$ 3,394**	$ 3,606	**$11,683**	$12,546	**$34,222**	$36,971

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

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

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

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

Approximately 24% of the PCI home equity portfolio are senior lien loans; the remaining balance are junior lien HELOANs or HELOCs. The following table sets forth delinquency statistics for PCI junior lien home equity loans and lines of credit based on the unpaid principal balance as of June 30, 2017, and December 31, 2016.

	Total loans		Total 30+ day delinquency rate	
(in millions, except ratios)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
HELOCs:[(a)]				
Within the revolving period[(b)]	**$ 787**	$ 2,126	**3.94%**	3.67%
Beyond the revolving period[(c)]	**7,957**	7,452	**3.97**	4.03
HELOANs	**409**	465	**4.65**	5.38
Total	**$ 9,153**	$ 10,043	**4.00%**	4.01%

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

The table below sets forth the accretable yield activity for JPMorgan Chase Bank, N.A.'s PCI consumer loans for the six months ended June 30, 2017 and 2016, and represents JPMorgan Chase Bank, N.A.'s estimate of gross interest income expected to be earned over the remaining life of the PCI loan portfolios. The table excludes the cost to fund the PCI portfolios, and therefore the accretable yield does not represent net interest income expected to be earned on these portfolios.

	Total PCI	
	Six months ended June 30,	
(in millions, except ratios)	**2017**	2016
Beginning balance	**$ 11,768**	$ 13,491
Accretion into interest income	**(716)**	(802)
Changes in interest rates on variable-rate loans	**167**	101
Other changes in expected cash flows[(a)]	**1,420**	(489)
Balance at June 30	**$ 12,639**	$ 12,301
Accretable yield percentage	**4.45%**	4.36%

(a) Other changes in expected cash flows may vary from period to period as JPMorgan Chase Bank, N.A. continues to refine its cash flow model, for example cash flows expected to be collected due to the impact of modifications and changes in prepayment assumptions.

Active and suspended foreclosure

At June 30, 2017, and December 31, 2016, JPMorgan Chase Bank, N.A. had PCI residential real estate loans with an unpaid principal balance of $1.5 billion and $1.7 billion, respectively, that were not included in REO, but were in the process of active or suspended foreclosure.

Credit card loan portfolio

The credit card portfolio predominantly includes credit card loans acquired pursuant to a participation agreement with Chase Bank USA, N.A., a related-party, and subsequent draws on revolving credit lines associated with the participation agreement. The table below sets forth information about JPMorgan Chase Bank, N.A.'s credit card loans.

(in millions, except ratios)		June 30, 2017		December 31, 2016
Loan delinquency				
Current and less than 30 days past due and still accruing	$	**36,411**	$	35,137
30–89 days past due and still accruing		**319**		315
90 or more days past due and still accruing		**328**		321
Total retained credit card loans	$	**37,058**	$	35,773
Loan delinquency ratios				
% of 30+ days past due to total retained loans		**1.75%**		1.78%
% of 90+ days past due to total retained loans		**0.89**		0.90
Credit card loans by geographic region				
California	$	**5,755**	$	5,483
Texas		**3,735**		3,574
New York		**3,357**		3,197
Florida		**2,313**		2,238
Illinois		**2,093**		2,022
New Jersey		**1,610**		1,574
Ohio		**1,160**		1,145
Pennsylvania		**1,150**		1,140
Colorado		**1,035**		971
Michigan		**904**		889
All other		**13,946**		13,540
Total retained credit card loans	$	**37,058**	$	35,773
Percentage of portfolio based on carrying value with estimated refreshed FICO scores				
Equal to or greater than 660		**84.4%**		84.7%
Less than 660		**14.2**		13.9
No FICO available		**1.4**		1.4

Credit card impaired loans and loan modifications

For a detailed discussion of impaired credit card loans, including credit card loan modifications, see Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

(in millions)		June 30, 2017		December 31, 2016
Impaired credit card loans with an allowance[(a)(b)]				
Credit card loans with modified payment terms[(c)]	$	**263**	$	254
Modified credit card loans that have reverted to pre-modification payment terms[(d)]		**28**		31
Total impaired credit card loans[(e)]	$	**291**	$	285
Allowance for loan losses related to impaired credit card loans	$	**89**	$	83

(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, 2017, and December 31, 2016, $20 million and $22 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 $8 million and $9 million at June 30, 2017, and December 31, 2016, respectively, of these loans are to borrowers who have successfully completed a short-term modification program. JPMorgan Chase Bank, N.A. continues to report these loans as TDRs since the borrowers' credit lines remain closed.
(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)	Six months ended June 30, 2017	2016
Average impaired credit card loans	$ 291	$ 293
Interest income on impaired credit card loans	7	7

Loan modifications

JPMorgan Chase Bank, N.A. 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 $85 million and $64 million, for the six months ended June 30, 2017 and 2016, respectively. For additional information about credit card loan modifications, see Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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)	Six months ended June 30, 2017	2016
Weighted-average interest rate of loans – before TDR	16.35%	15.54%
Weighted-average interest rate of loans – after TDR	4.78	4.82
Loans that redefaulted within one year of modification[(a)]	$ 11	$ 8

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

For credit card loans modified in TDRs, payment default is deemed to have occurred when the loans become two payments past due. A substantial portion of these loans is expected to be charged-off in accordance with JPMorgan Chase Bank, N.A.'s standard charge-off policy. Based on historical experience, the estimated weighted-average default rate for modified credit card loans was expected to be 30.70% and 28.87% as of June 30, 2017, and December 31, 2016, 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 15 and Note 16 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

Effective in the first half of 2017, JPMorgan Chase revised its methodology for the assignment of industry classifications, to better monitor and manage concentrations. This largely resulted in the re-assignment of holding companies from Other to the industry of risk category based on the primary business activity of the holding company's underlying companies or enterprises. In the tables below, the prior period amounts have been revised to conform with the current period presentation.

	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other[d]		Total retained loans	
(in millions, except ratios)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Loans by risk ratings												
Investment-grade	**$ 67,485**	$ 64,832	**$ 93,465**	$ 88,649	**$28,670**	$ 29,403	**$ 14,829**	$ 15,053	**$101,746**	$ 95,317	**$306,195**	$ 293,254
Noninvestment-grade:												
Noncriticized	**46,702**	47,330	**15,455**	16,149	**11,516**	10,961	**369**	423	**9,383**	9,708	**83,425**	84,571
Criticized performing	**5,160**	6,187	**826**	798	**316**	200	**—**	6	**94**	162	**6,396**	7,353
Criticized nonaccrual	**1,176**	1,490	**152**	200	**30**	9	**—**	—	**276**	255	**1,634**	1,954
Total noninvestment-grade	**53,038**	55,007	**16,433**	17,147	**11,862**	11,170	**369**	429	**9,753**	10,125	**91,455**	93,878
Total retained loans	**$120,523**	$119,839	**$109,898**	$105,796	**$40,532**	$ 40,573	**$ 15,198**	$ 15,482	**$111,499**	$105,442	**$397,650**	$ 387,132
% of total criticized exposure to total retained loans	**5.26%**	6.41%	**0.89%**	0.94%	**0.85%**	0.52%	**—%**	0.04%	**0.33%**	0.40%	**2.02%**	2.40%
% of criticized nonaccrual to total retained loans	**0.98**	1.24	**0.14**	0.19	**0.07**	0.02	**—**	—	**0.25**	0.24	**0.41**	0.50
Loans by geographic distribution[a]												
Total non-U.S.	**$ 29,632**	$ 30,564	**$ 2,936**	$ 3,303	**$15,161**	$ 15,138	**$ 3,634**	$ 3,726	**$ 41,987**	$ 38,774	**$ 93,350**	$ 91,505
Total U.S.	**90,891**	89,275	**106,962**	102,493	**25,371**	25,435	**11,564**	11,756	**69,512**	66,668	**304,300**	295,627
Total retained loans	**$120,523**	$119,839	**$109,898**	$105,796	**$40,532**	$ 40,573	**$ 15,198**	$ 15,482	**$111,499**	$105,442	**$397,650**	$ 387,132
Loan delinquency[b]												
Current and less than 30 days past due and still accruing	**$119,069**	$117,995	**$109,606**	$105,390	**$40,412**	$ 40,518	**$ 15,191**	$ 15,371	**$110,287**	$104,591	**$394,565**	$ 383,865
30–89 days past due and still accruing	**192**	268	**130**	204	**74**	25	**1**	107	**932**	582	**1,329**	1,186
90 or more days past due and still accruing[c]	**86**	86	**10**	2	**16**	21	**6**	4	**4**	14	**122**	127
Criticized nonaccrual	**1,176**	1,490	**152**	200	**30**	9	**—**	—	**276**	255	**1,634**	1,954
Total retained loans	**$120,523**	$119,839	**$109,898**	$105,796	**$40,532**	$ 40,573	**$ 15,198**	$ 15,482	**$111,499**	$105,442	**$397,650**	$ 387,132

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.
(b) The credit quality of wholesale loans is assessed primarily through ongoing review and monitoring of an obligor's ability to meet contractual obligations rather than relying on the past due status, which is generally a lagging indicator of credit quality. For further discussion, see Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.
(c) Represents loans that are considered well-collateralized and therefore still accruing interest.
(d) Includes loans to: individuals; SPEs; and private education and civic organizations. For more information on exposures to SPEs, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

(in millions, except ratios)	Multifamily		Other commercial		Total real estate loans	
	Jun 30, 2017	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Real estate retained loans	**$ 75,542**	$ 72,143	**$ 34,356**	$ 33,653	**$ 109,898**	$ 105,796
Criticized exposure	**457**	539	**521**	459	**978**	998
% of total criticized exposure to total real estate retained loans	**0.60%**	0.75%	**1.52%**	1.36%	**0.89%**	0.94%
Criticized nonaccrual	**$ 45**	$ 57	**$ 107**	$ 143	**$ 152**	$ 200
% of criticized nonaccrual loans to total real estate retained loans	**0.06%**	0.08%	**0.31%**	0.42%	**0.14%**	0.19%

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 16 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

(in millions)	Commercial and industrial		Real estate		Financial institutions		Government agencies		Other		Total retained loans	
	Jun 30, 2017	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Impaired loans												
With an allowance	**$ 942**	$ 1,127	**$ 84**	$ 124	**$ 5**	$ 9	**$ —**	$ —	**$ 211**	$ 180	**$ 1,242**	$ 1,440
Without an allowance[(a)]	**369**	414	**75**	87	**9**	—	**—**	—	**65**	76	**518**	577
Total impaired loans	**$ 1,311**	$ 1,541	**$ 159**	$ 211	**$ 14**	$ 9	**$ —**	$ —	**$ 276**	$ 256	**$ 1,760** [(c)]	$ 2,017 [(c)]
Allowance for loan losses related to impaired loans	**$ 259**	$ 258	**$ 9**	$ 18	**$ 14**	$ 3	**$ —**	$ —	**$ 63**	$ 63	**$ 345**	$ 342
Unpaid principal balance of impaired loans[(b)]	**1,566**	1,754	**237**	295	**14**	12	**—**	—	**214**	284	**2,031**	2,345

(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, 2017, and December 31, 2016. 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 JPMorgan Chase Bank, N.A.'s average impaired loans for the periods indicated.

(in millions)	Six months ended June 30,	
	2017	2016
Commercial and industrial	**$ 982**	$ 1,411
Real estate	**161**	225
Financial institutions	**4**	11
Government agencies	**—**	—
Other	**205**	189
Total[(a)]	**$ 1,352**	$ 1,836

(a) The related interest income on accruing impaired loans and interest income recognized on a cash basis were not material for the six months ended June 30, 2017 and 2016.

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 table above. TDRs were $745 million and $733 million as of June 30, 2017, and December 31, 2016, respectively.

Note 13 – Allowance for credit losses

For detailed discussion of the allowance for credit losses and the related accounting policies, see Note 16 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements. During the first half of 2017, JPMorgan Chase Bank, N.A. refined its loss estimates relating to the wholesale portfolio by incorporating the use of internal historical data versus external credit rating agency default statistics to estimate Probability of Default. In addition, an adjustment to the modeled loss estimates for wholesale lending-related commitments was incorporated similar to the adjustment applied for wholesale loans. The impacts of these refinements were not material to the allowance for credit losses.

Allowance for credit losses and loans and lending-related commitments by impairment methodology

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.

	2017				2016			
Six months ended June 30 (in millions)	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,	$ 5,195	$ 1,042	$ 4,478	$ 10,715	5,803	$ 727	$ 4,277	$ 10,807
Gross charge-offs	1,104	600	100	1,804	687	464	228	1,379
Gross recoveries	(306)	(52)	(70)	(428)	(299)	(45)	(15)	(359)
Net charge-offs/(recoveries)	798	548	30	1,376	388	419	213	1,020
Write-offs of PCI loans[a]	46	–	–	46	88	–	–	88
Provision for loan losses	449	713	(332)	830	317	626	760	1,703
Other	(1)	–	1	–	–	–	(1)	(1)
Ending balance at June 30,	$ 4,799	$ 1,207	$ 4,117	$ 10,123	$ 5,644	$ 934	$ 4,823	$ 11,401
Allowance for loan losses by impairment methodology								
Asset-specific[b]	$ 296	$ 89 [c]	$ 345	$ 730	$ 365	$ 79 [c]	$ 524	$ 968
Formula-based	2,238	1,118	3,772	7,128	2,625	855	4,299	7,779
PCI	2,265	–	–	2,265	2,654	–	–	2,654
Total allowance for loan losses	$ 4,799	$ 1,207	$ 4,117	$ 10,123	$ 5,644	$ 934	$ 4,823	$ 11,401
Loans by impairment methodology								
Asset-specific	$ 8,333	$ 291	$ 1,760	$ 10,384	$ 9,359	$ 287	$ 2,140	$ 11,786
Formula-based	323,678	36,767	395,887	756,332	313,281	33,710	374,746	721,737
PCI	33,064	–	3	33,067	38,360	–	4	38,364
Total retained loans	$ 365,075	$ 37,058	$397,650	$ 799,783	$ 361,000	$ 33,997	$ 376,890	$ 771,887
Impaired collateral-dependent loans								
Net charge-offs	$ 37	$ –	$ 16	$ 53	$ 43	$ –	$ 5	$ 48
Loans measured at fair value of collateral less cost to sell	2,233	–	296	2,529	2,429	–	295	2,724
Allowance for lending-related commitments								
Beginning balance at January 1,	$ 26	$ –	$ 1,052	$ 1,078	$ 14	$ –	$ 772	$ 786
Provision for lending-related commitments	6	–	33	39	–	–	174	174
Ending balance at June 30,	$ 32	$ –	$ 1,085	$ 1,117	$ 14	$ –	$ 946	$ 960
Allowance for lending-related commitments by impairment methodology								
Asset-specific	$ –	$ –	$ 211	$ 211	$ –	$ –	$ 143	$ 143
Formula-based	32	–	874	906	14	–	803	817
Total allowance for lending-related commitments	$ 32	$ –	$ 1,085	$ 1,117	$ 14	$ –	$ 946	$ 960
Lending-related commitments by impairment methodology								
Asset-specific	$ –	$ –	$ 750	$ 750	$ –	$ –	$ 460	$ 460
Formula-based	58,368	11,470	362,965	432,803	59,434	10,743	351,705	421,882
Total lending-related commitments	$ 58,368	$ 11,470	$363,715	$ 433,553	$ 59,434	$ 10,743	$ 352,165	$ 422,342

Note: In the first half of 2017, JPMorgan Chase Bank, N.A. transferred the student loan portfolio to held-for-sale. For additional information see Note 23.

(a) Write-offs of PCI loans are recorded against the allowance for loan losses when actual losses for a pool exceed estimated losses that were recorded as purchase accounting adjustments at the time of acquisition. 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.

(c) The asset-specific credit card allowance for loan losses is related to loans that have been modified in a TDR; such allowance is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.

Note 14 – Variable interest entities

For a further description of JPMorgan Chase Bank, N.A.'s accounting policies regarding consolidation of VIEs, see Note 1 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table summarizes the most significant types of JPMorgan Chase Bank, N.A.-sponsored VIEs by business.

JPMorgan Chase Bank, N.A. business	*Transaction Type*	*Activity*	*Consolidated Financial Statements page reference*
Consumer & community banking	Mortgage securitization trusts	Servicing and securitization of both originated and purchased residential mortgages	59-61
Corporate & investment banking	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, and student loans	59-61
	Multi-seller conduits Investor intermediation activities	Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to meet investor needs	61

JPMorgan Chase Bank, N.A. also invests in and provides financing and other services to VIEs sponsored by third parties, as described on page 62 of this Note.

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

Mortgage and other securitization trusts

JPMorgan Chase Bank, N.A. securitizes (or has securitized) originated and purchased residential mortgages, commercial mortgages and other consumer loans (including student loans) primarily in its consumer & community banking and corporate & investment banking businesses. Depending on the particular transaction, as well as the respective business involved, JPMorgan Chase Bank, N.A. may act as the servicer of the loans and/or retain certain beneficial interests in the securitization trusts.

For a detailed discussion of JPMorgan Chase Bank, N.A.'s involvement with JPMorgan Chase Bank, N.A.-sponsored mortgage and other securitization trusts, as well as the accounting treatment relating to such trusts, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table presents the total unpaid principal amount of assets held in JPMorgan Chase Bank, N.A.-sponsored private-label securitization entities, including those in which JPMorgan Chase Bank, N.A. has continuing involvement, and those that are consolidated by JPMorgan Chase Bank, N.A. Continuing involvement includes servicing the loans, holding senior interests or subordinated interests, recourse or guarantee arrangements, and derivative transactions. In certain instances, JPMorgan Chase Bank, N.A.'s only continuing involvement is servicing the loans. See Securitization activity on page 63 of this Note for further information regarding JPMorgan Chase Bank, N.A.'s cash flows with and interests retained in nonconsolidated VIEs, and page 63 of this Note for information on JPMorgan Chase Bank, N.A.'s loan sales to U.S. government agencies.

	Principal amount outstanding			JPMorgan Chase Bank, N.A. interest in securitized assets in nonconsolidated VIEs[c][d]		
June 30, 2017 (in millions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase Bank, N.A
Securitization-related[a]						
Residential mortgage:						
Prime/Alt-A and option ARMs	**$ 49,600**	**$ 3,927**	**$ 39,506**	**$ 161**	**$ 1,007**	**$ 1,168**
Subprime	**13,472**	**—**	**12,687**	**—**	**—**	**—**
Commercial and other[b]	**87,973**	**95**	**16,452**	**—**	**1,251**	**1,251**
Total	**$ 151,045**	**$ 4,022**	**$ 68,645**	**$ 161**	**$ 2,258**	**$ 2,419**

	Principal amount outstanding			JPMorgan Chase Bank, N.A. interest in securitized assets in nonconsolidated VIEs[c][d]		
December 31, 2016 (in millions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	AFS securities	Total interests held by JPMorgan Chase Bank, N.A.
Securitization-related[a]						
Residential mortgage:						
Prime/Alt-A and option ARMs	$ 52,258	$ 4,209	$ 42,881 [e]	$ 124	$ 1,203	$ 1,327
Subprime	14,260	—	13,421	—	—	—
Commercial and other[b]	91,084	107	22,989 [e]	3	1,712	1,715
Total	$ 157,602	$ 4,316	$ 79,291 [e]	$ 127	$ 2,915	$ 3,042

(a) Excludes U.S. government agency securitizations, which are not JPMorgan Chase Bank, N.A.-sponsored. See page 63 of this Note for information on JPMorgan Chase Bank, N.A.'s loan sales to U.S. government agencies.
(b) Consists of securities backed by commercial loans (predominantly real estate) and non-mortgage-related consumer receivables purchased from third parties.
(c) Excludes the following: retained servicing (see Note 15 for a discussion of MSRs); securities retained from loan sales to U.S. government agencies; and 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). There were no senior and subordinated securities purchased in connection with the corporate & investment banking business's secondary market-making activities at June 30, 2017, and December 31, 2016, respectively.
(d) As of June 30, 2017, and December 31, 2016, 95% and 88%, respectively, of JPMorgan Chase Bank, N.A.'s retained securitization interests, which are carried at fair value and include amounts required to be held pursuant to credit risk retention rules, were risk-rated "A" or better, on an S&P-equivalent basis. The retained interests in prime residential mortgages consisted of $1.2 billion and $1.3 billion of investment-grade and $11 million and $44 million of noninvestment-grade retained interests at June 30, 2017, and December 31, 2016, respectively. The retained interests in commercial and other securitizations trusts consisted of $1.3 billion and $1.7 billion of investment-grade at June 30, 2017, and December 31, 2016, respectively, and zero noninvestment-grade for both periods.
(e) Prior period results were revised to conform with the current period presentation.

Residential mortgage
JPMorgan Chase Bank, N.A. securitizes residential mortgage loans originated by consumer & community banking business, as well as residential mortgage loans purchased from third parties by either consumer & community banking or corporate & investment banking business. For a more detailed description of JPMorgan Chase Bank, N.A.'s involvement with residential mortgage securitizations, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements. See the table on page 62 of this Note for more information on the consolidated residential mortgage securitizations, and the table on the previous page of this Note for further information on interests held in nonconsolidated residential mortgage securitizations.

Commercial mortgages and other consumer securitizations
The corporate & investment banking business originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts. For a more detailed description of JPMorgan Chase Bank, N.A.'s involvement with commercial mortgage and other consumer securitizations, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements. See the table on page 62 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.

Credit card securitizations
For a more detailed discussion of JPMorgan Chase Bank, N.A.'s involvement with credit card securitizations, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Multi-seller conduits
For a more detailed description of JPMorgan Chase Bank, N.A.'s principal involvement with JPMorgan Chase Bank, N.A.-administered multi-seller conduits, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

In the normal course of business, JPMorgan Chase Bank, N.A. makes markets in and invests in commercial paper issued by JPMorgan Chase Bank, N.A.-administered multi-seller conduits. JPMorgan Chase Bank, N.A. held $22.1 billion and $21.2 billion of the commercial paper issued by JPMorgan Chase Bank, N.A.-administered multi-seller conduits at June 30, 2017, and December 31, 2016, which have been eliminated in consolidation. JPMorgan Chase Bank, N.A.'s investments reflect JPMorgan Chase Bank, N.A.'s funding needs and capacity and were not driven by market illiquidity. Other than the amounts required to be held pursuant to credit risk retention rules, JPMorgan Chase Bank, N.A. is not obligated under any agreement to purchase the commercial paper issued by JPMorgan Chase Bank, N.A.-administered multi-seller conduits.

JPMorgan Chase Bank, N.A. provides deal-specific liquidity as well as program-wide liquidity and credit enhancement to its administered multi-seller conduits, which have been eliminated in consolidation. The administered multi-seller conduits then provide certain of their clients with lending-related commitments. The unfunded commitments were $8.2 billion and $7.4 billion at June 30, 2017, and December 31, 2016, respectively, and are reported as off-balance sheet lending-related commitments. For more information on off-balance sheet lending-related commitments, see Note 20.

VIEs associated with investor intermediation activities

Municipal bond vehicles
For a more detailed description of JPMorgan Chase Bank, N.A.'s investor intermediation activities, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

JPMorgan Chase Bank, N.A.'s maximum exposure as a liquidity provider to nonconsolidated JPMorgan Chase Bank, N.A.-sponsored municipal bond VIEs at June 30, 2017 and December 31, 2016, was $161 million and $662 million, respectively.

VIEs sponsored by third parties

JPMorgan Chase Bank, N.A. enters into transactions with VIEs structured by other parties. These include, for example, acting as a derivative counterparty, liquidity provider, investor, underwriter, placement agent, trustee or custodian. These transactions are conducted at arm's-length, and individual credit decisions are based on the analysis of the specific VIE, taking into consideration the quality of the underlying assets. Where JPMorgan Chase Bank, N.A. 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, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. as of June 30, 2017, and December 31, 2016.

	Assets				Liabilities		
June 30, 2017 (in millions)	Trading assets	Loans	Other[d]	Total assets[e]	Beneficial interests in VIE assets[f]	Other[g]	Total liabilities
VIE program type[a]							
JPMorgan Chase Bank, N.A.-administered multi-seller conduits	**$ 2**	**$ 25,039**	**$ 43**	**$ 25,084**	**$ 2,928**	**$ 55**	**$ 2,983**
Municipal bond vehicles	**2,415**	**—**	**6**	**2,421**	**1,660**	**2**	**1,662**
Mortgage securitization entities[b]	**—**	**3,976**	**72**	**4,048**	**335**	**273**	**608**
Student loan securitization entities[c]	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Other	**58**	**—**	**1,640**	**1,698**	**139**	**2**	**141**
Total	**$ 2,475**	**$ 29,015**	**$ 1,761**	**$ 33,251**	**$ 5,062**	**$ 332**	**$ 5,394**

	Assets				Liabilities		
December 31, 2016 (in millions)	Trading assets	Loans	Other[d]	Total assets[e]	Beneficial interests in VIE assets[f]	Other[g]	Total liabilities
VIE program type[a]							
JPMorgan Chase Bank, N.A.-administered multi-seller conduits	$ —	$ 23,760	$ 43	$ 23,803	$ 2,719	$ 56	$ 2,775
Municipal bond vehicles	2,540	—	5	2,545	2,673	2	2,675
Mortgage securitization entities[b]	—	4,246	103	4,349	355	313	668
Student loan securitization entities[c]	—	1,689	59	1,748	1,527	4	1,531
Other	115	—	1,940	2,055	177	2	179
Total	$ 2,655	$ 29,695	$ 2,150	$ 34,500	$ 7,451	$ 377	$ 7,828

(a) Excludes intercompany transactions which were eliminated in consolidation.
(b) Includes residential and commercial mortgage securitizations.
(c) JPMorgan Chase Bank, N.A. deconsolidated the student loan securitization entities in the first half of 2017 as it no longer had a controlling financial interest in these entities as a result of the sale of the student loan portfolio. For additional information see Note 23.
(d) Includes assets classified as cash, and other assets on the Consolidated balance sheets.
(e) The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those entities. The difference between total assets and total liabilities recognized for consolidated VIEs represents JPMorgan Chase Bank, N.A.'s interest in the consolidated VIEs for each program type.
(f) The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item on the Consolidated balance sheets titled, "Beneficial interests issued by consolidated variable interest entities." The holders of these beneficial interests do not have recourse to the general credit of JPMorgan Chase Bank, N.A. Included in beneficial interests in VIE assets are long-term beneficial interests of $473 million and $2.1 billion at June 30, 2017, and December 31, 2016, respectively. The maturities of the long-term beneficial interests as of June 30, 2017, were as follows: $39 million under one year, $99 million between one and five years, and $335 million over five years.
(g) Includes liabilities classified as accounts payable and other liabilities on the Consolidated balance sheets.

Loan securitizations

JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s accounting policies regarding securitizations, see Note 17 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Securitization activity

The following table provides information related to JPMorgan Chase Bank, N.A.'s securitization activities for the six months ended June 30, 2017 and 2016, related to assets held in JPMorgan Chase Bank, N.A.-sponsored securitization entities that were not consolidated by JPMorgan Chase Bank, N.A., and where sale accounting was achieved based on the accounting rules in effect at the time of the securitization.

	Six months ended June 30,					
	2017			2016		
(in millions)	Credit card[b]	Residential mortgage[c]	Commercial and other[d]	Credit card[b]	Residential mortgage[c]	Commercial and other[d]
Principal securitized	**$ –**	**$ 2,049**	**$ 3,312**	$ 1,530	$ 413	$ 2,358
All cash flows during the period:						
Proceeds received from loan sales as cash	**$ –**	**$ 2,083**	**$ 3,377**	$ 1,530	$ 413	$ 2,371
Proceeds received from loan sales as securities in Level 2	**–**	**–**	**–**	–	–	–
Total proceeds received from loan sales	**–**	**2,083**	**3,377**	1,530	413	2,371
Servicing fees collected	**–**	**267**	**1**	–	223	1
Proceeds from collections reinvested in revolving securitizations	**–**	**–**	**–**	21,768	–	–
Purchases of previously transferred financial assets (or the underlying collateral)[a]	**–**	**1**	**–**	–	37	–
Cash flows received on interests	**–**	**224**	**416**	6,442	189	349

(a) Includes cash paid by JPMorgan Chase Bank, N.A. to reacquire assets from off-balance sheet, nonconsolidated entities – for example, loan repurchases due to representation and warranties and servicer clean-up calls.
(b) For the six months ended June 30, 2016, includes securitization activity related to JPMorgan Chase Bank, N.A.'s undivided interest in credit card securitization trusts. On November 1, 2016, JPMorgan Chase Bank, N.A. sold its undivided interests in the Trusts to an affiliate.
(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.

Loans and excess MSRs 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, JPMorgan Chase Bank, N.A., in the normal course of business, sells originated and purchased mortgage loans and certain originated excess MSRs on a nonrecourse basis, predominantly to U.S. government-sponsored enterprises ("U.S. GSEs"). These loans and excess MSRs 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). JPMorgan Chase Bank, N.A. also sells loans into securitization transactions pursuant to Ginnie Mae guidelines; these loans are typically insured or guaranteed by another U.S. government agency. JPMorgan Chase Bank, N.A. does not consolidate the securitization vehicles underlying these transactions as it is not the primary beneficiary. For a limited number of loan sales, JPMorgan Chase Bank, N.A. is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. See Note 20 of these Consolidated Financial Statements, and Note 27 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements for additional information about JPMorgan Chase Bank, N.A.'s loan sales- and securitization-related indemnifications. See Note 15 for additional information about the impact of JPMorgan Chase Bank, N.A.'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.

	Six months ended June 30,	
(in millions)	**2017**	2016
Carrying value of loans sold	**$ 28,880**	$ 17,836
Proceeds received from loan sales as cash	**13**	238
Proceeds received from loans sales as securities[a]	**28,589**	17,503
Total proceeds received from loan sales[b]	**$ 28,602**	$ 17,741
Gains on loan sales[c][d]	**$ 73**	$ 114

(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.
(c) Gains on loan sales include the value of MSRs.
(d) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale.

Options to repurchase delinquent loans
In addition to JPMorgan Chase Bank, N.A.'s obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 20, JPMorgan Chase Bank, N.A. also has the option to repurchase delinquent loans that it services for Ginnie Mae loan pools, as well as for other U.S. government agencies under certain arrangements. JPMorgan Chase Bank, N.A. typically elects to repurchase delinquent loans from Ginnie Mae loan pools as it continues to service them and/or manage the foreclosure process in accordance with the applicable requirements, and such loans continue to be insured or guaranteed. When JPMorgan Chase Bank, N.A.'s repurchase option becomes exercisable, such loans must be reported on the Consolidated balance sheets as a loan with a corresponding liability. For additional information, refer to Note 12 of these Consolidated Financial Statements and Note 15 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table presents loans JPMorgan Chase Bank, N.A. repurchased or had an option to repurchase, real estate owned, and foreclosed government-guaranteed residential mortgage loans recognized on JPMorgan Chase Bank, N.A.'s balance sheet as of June 30, 2017 and December 31, 2016. Substantially all of these loans and real estate are insured or guaranteed by U.S. government agencies.

(in millions)	June 30, 2017	December 31, 2016
Loans repurchased or option to repurchase[a]	$ 8,731	$ 9,543
Real estate owned	105	142
Foreclosed government-guaranteed residential mortgage loans[b]	762	1,007

(a) Predominantly all of these amounts relate to loans that have been repurchased from Ginnie Mae loan pools.
(b) Relates to voluntary repurchases of loans, which are included in accrued interest and accounts receivable.

Loan delinquencies and liquidation losses
The table below includes information about components of nonconsolidated securitized financial assets held in JPMorgan Chase Bank, N.A.-sponsored private-label securitization entities, in which JPMorgan Chase Bank, N.A. has continuing involvement, and delinquencies as of June 30, 2017, and December 31, 2016.

					Liquidation losses	
	Securitized assets		90 days past due		Six months ended June 30,	
(in millions)	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Dec 31, 2016	2017	2016
Securitized loans						
Residential mortgage:						
Prime / Alt-A & option ARMs	$ 39,506	$ 42,881 (a)	$ 3,531	$ 4,026 (a)	$ 270	$ 374 (a)
Subprime	12,687	13,421	2,291	2,635	235	408
Commercial and other	16,452	22,989 (a)	111	653 (a)	1	344 (a)
Total loans securitized	$ 68,645	$ 79,291	$ 5,933	$ 7,314	$ 506	$ 1,126

(a) Prior period results were revised to conform with the current period presentation.

Note 15 – Goodwill and Mortgage servicing rights

For a discussion of the accounting policies related to goodwill and mortgage servicing rights, see Note 18 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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

	Six months ended June 30,	
(in millions)	2017	2016
Balance at beginning of period[a]	$ 27,130	$ 27,100
Changes during the period from:		
Other[b]	12	42
Balance at June 30,[a]	$ 27,142	$ 27,142

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

Impairment testing
Goodwill was not impaired at June 30, 2017, or December 31, 2016.

Declines in business performance, increases in credit losses, increases in equity capital requirements, as well as deterioration in economic or market conditions, estimates of adverse regulatory or legislative changes or increases in the estimated market cost of equity, could cause the estimated fair values of JPMorgan Chase Bank, N.A., or its 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 18 of JPMorgan Chase Bank, N.A. Chase's 2016 Annual Financial Statements and Note 3 of these Consolidated Financial Statements.

The following table summarizes MSR activity for the six months ended June 30, 2017 and 2016.

	As of or for the six months ended June 30,	
(in millions, except where otherwise noted)	**2017**	2016
Fair value at beginning of period	**$ 6,096**	$ 6,608
MSR activity:		
Originations of MSRs	**371**	220
Purchase of MSRs	**—**	—
Disposition of MSRs[a]	**(138)**	(67)
Net additions	**233**	153
Changes due to collection/realization of expected cash flows	**(419)**	(480)
Changes in valuation due to inputs and assumptions:		
Changes due to market interest rates and other[b]	**(121)**	(1,195)
Changes in valuation due to other inputs and assumptions:		
Projected cash flows (e.g., cost to service)	**14**	(7)
Discount rates	**(19)**	7
Prepayment model changes and other[c]	**(31)**	(14)
Total changes in valuation due to other inputs and assumptions	**(36)**	(14)
Total changes in valuation due to inputs and assumptions	**(157)**	(1,209)
Fair value at June 30,	**$ 5,753**	$ 5,072
Change in unrealized gains/(losses) included in income related to MSRs held at June 30,	**$ (157)**	$ (1,209)
Contractual service fees, late fees and other ancillary fees included in income	**$ 964**	$ 1,106
Third-party mortgage loans serviced at June 30, (in billions)	**$ 569**	$ 632
Net servicer advances at June 30, (in billions)[d]	**$ 4.1**	$ 5.6

(a) Includes excess MSRs transferred to agency-sponsored trusts in exchange for stripped mortgage backed securities ("SMBS"). In each transaction, a portion of the SMBS was acquired by third parties at the transaction date; JPMorgan Chase Bank, N.A. acquired the remaining balance of those SMBS as trading securities.

(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 JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A.'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, JPMorgan Chase Bank, N.A. maintains the right to stop payment to investors if the collateral is insufficient to cover the advance. However, certain of these servicer advances may not be recoverable if they were not made in accordance with applicable rules and agreements.

The table below outlines the key economic assumptions used to determine the fair value of JPMorgan Chase Bank, N.A.'s MSRs at June 30, 2017, and December 31, 2016, and outlines the sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

(in millions, except rates)		**Jun 30, 2017**		Dec 31, 2016
Weighted-average prepayment speed assumption ("CPR")		**9.62%**		9.41%
Impact on fair value of 10% adverse change	**$**	**(216)**	$	(231)
Impact on fair value of 20% adverse change		**(415)**		(445)
Weighted-average option adjusted spread		**9.18%**		8.55%
Impact on fair value of a 100 basis point adverse change	**$**	**(232)**	$	(248)
Impact on fair value of a 200 basis point adverse change		**(446)**		(477)

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 16 – Deposits

For further discussion on deposits, see Note 20 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

At June 30, 2017, and December 31, 2016, noninterest-bearing and interest-bearing deposits were as follows.

(in millions)		**June 30, 2017**		December 31, 2016
U.S. offices				
Noninterest-bearing	**$**	**399,267**	$	405,536
Interest-bearing (included **$14,331** and $12,298 at fair value)[(a)]		**870,850**		830,735
Total deposits in U.S. offices		**1,270,117**		1,236,271
Non-U.S. offices				
Noninterest-bearing		**17,716**		15,072
Interest-bearing (included **$3,469** and $1,667 at fair value)[(a)]		**251,990**		228,895
Total deposits in non-U.S. offices		**269,706**		243,967
Total deposits	**$**	**1,539,823**	$	1,480,238

(a) Includes structured notes classified as deposits for which the fair value option has been elected. For further discussion, see Note 5 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Note 17 – Related party transactions

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

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

(in millions)	Six months ended June 30, 2017	2016
Interest income	**$ 431**	$ 255
Interest expense	**565**	292
Noninterest revenue[(a)]	**2,884**	3,533
Noninterest expense[(a)]	**2,932**	2,479

(a) The prior period amounts have been revised to conform with the current presentation.

Significant balances with related parties are listed below.

(in millions)	June 30, 2017	December 31, 2016
Assets		
Deposits with banks[(a)]	**$ 39,506**	$ 32,500
Federal funds sold and securities purchased under resale agreements	**41,058**	72,097
Accrued interest and accounts receivable	**13,083**	11,936
All other assets	**12,869**	12,305
Liabilities		
Deposits[(b)]	**102,450**	107,749
Federal funds purchased and securities loaned or sold under repurchase agreements	**16,436**	14,501
Accounts payable and other liabilities	**11,290**	12,118
Long-term debt	**21,161**	21,630

(a) Primarily includes deposits placed with Chase Bank USA, N.A.

(b) Includes $20.0 billion at both June 30, 2017 and December 31, 2016, pledged to support extensions of credit and other transactions requiring collateral with affiliates as defined by Section 23A under the Federal Reserve Act, which defines the constraints that apply to U.S. banks in certain of their interactions with affiliates.

Derivative transactions

In addition to the information presented in the tables above, JPMorgan Chase Bank, N.A. executes derivative transactions with affiliates as part of its client driven market-making activities and to facilitate hedging certain risks for its affiliates. To accomplish this, JPMorgan Chase Bank, N.A. enters into substantially offsetting derivative transactions with third-parties and records both the third party and related-party gains and losses in noninterest revenue. The following table summarizes information on derivative receivables and payables with affiliates before and after netting adjustments for legally enforceable master netting agreements as of June 30, 2017 and December 31, 2016.

	June 30, 2017		December 31, 2016	
(in millions)	Gross derivative receivable/payable	Net derivative receivable/payable	Gross derivative receivable/payable	Net derivative receivable/payable
Derivative receivables from affiliates	**$ 45,952**	**$ 2,153**	$ 44,023	$ 1,363
Derivative payables to affiliates	**46,069**	**2,271**	44,185	1,524

Servicing agreements and fee arrangements

Through servicing agreements, JPMorgan Chase Bank, N.A. provides and receives operational support and services to and from JPMorgan Chase and its subsidiaries. These servicing agreements cover certain occupancy, marketing, communication and technology services, and other shared corporate service costs. JPMorgan Chase Bank, N.A. is allocated or allocates a share of the cost of the services over the relevant service period based on the agreed methodology. Fees earned by JPMorgan Chase Bank, N.A. for services provided to affiliates are recorded in all other income, and fees incurred by JPMorgan Chase Bank, N.A. for services from affiliates are recorded in noninterest expense.

Note 18 – 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 JPMorgan Chase Bank, N.A.'s defined benefit pension and OPEB plans.

As of or for the six months ended June 30, 2017 (in millions)	Unrealized gains/ (losses) on investment securities[b]	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, 2017	**$ 1,396**	**$ (36)**	**$ (100)**	**$ (355)**	**$ (40)**	**$ 865**
Net change	**708**	**(7)**	**146**	**(41)**	**(14)**	**792**
Balance at June 30, 2017	**$ 2,104**	**$ (43)**	**$ 46**	**$ (396)**	**$ (54)**	**$ 1,657**

As of or for the six months ended June 30, 2016 (in millions)	Unrealized gains/ (losses) on investment securities[a]	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	$ 2,433	$ (40)	$ (45)	$ (328)	NA	$ 2,020
Cumulative effect of change in accounting principle[a]	–	–	–	–	11	11
Net change	1,283	2	(156)	28	28	1,185
Balance at June 30, 2016	$ 3,716	$ (38)	$ (201)	$ (300)	39	$ 3,216

(a) Effective January 1, 2016, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A.'s own credit risk (DVA) to be presented separately in OCI; previously these amounts were recognized in net income.

(b) 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.

The following table presents the pre-tax and after-tax changes in the components of OCI.

	2017			2016		
Six months ended June 30, (in millions)	Pre-tax	Tax effect	After-tax	Pre-tax	Tax effect	After-tax
Unrealized gains/(losses) on investment securities:						
Net unrealized gains/(losses) arising during the period	**$ 1,082**	**$ (397)**	**$ 685**	$ 2,126	$ (799)	$ 1,327
Reclassification adjustment for realized (gains)/losses included in net income[(a)]	**37**	**(14)**	**23**	(71)	27	(44)
Net change	**1,119**	**(411)**	**708**	2,055	(772)	1,283
Translation adjustments:[(b)]						
Translation	**612**	**(233)**	**379**	726	(270)	456
Hedges	**(614)**	**228**	**(386)**	(721)	267	(454)
Net change	**(2)**	**(5)**	**(7)**	5	(3)	2
Cash flow hedges:						
Net unrealized gains/(losses) arising during the period	**83**	**(31)**	**52**	(354) [(e)]	134 [(e)]	(220) [(e)]
Reclassification adjustment for realized (gains)/losses included in net income[(c)]	**151**	**(57)**	**94**	103 [(e)]	(39) [(e)]	64 [(e)]
Net change	**234**	**(88)**	**146**	(251)	95	(156)
Defined benefit pension and OPEB plans:						
Net gains/(losses) arising during the period	**(45)**	**17**	**(28)**	(2)	1	(1)
Reclassification adjustments included in net income[(d)]:						
Amortization of net loss	**16**	**(6)**	**10**	12	(5)	7
Prior service costs/(credits)	**(1)**	**—**	**(1)**	(1)	—	(1)
Settlement (gain)/loss	**(3)**	**1**	**(2)**	—	—	—
Foreign exchange and other	**(30)**	**10**	**(20)**	37	(14)	23
Net change	**(63)**	**22**	(41)	46	(18)	28
DVA on fair value option elected liabilities, net change:	**$ (21)**	**$ 7**	**$ (14)**	$ 44	$ (16)	$ 28
Total other comprehensive income/(loss)	**$ 1,267**	**$ (475)**	**$ 792**	$ 1,899	$ (714)	$ 1,185

(a) The pre-tax amount is reported in securities gains/(losses) in the Consolidated statements of income.
(b) Reclassifications of pre-tax realized gains/(losses) on translation adjustments and related hedges are reported in 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.
(d) The pre-tax amount is reported in compensation expense in the Consolidated statements of income.
(e) Prior period results were revised to conform with the current period presentation.

Note 19 – Regulatory capital

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

Basel III overview

Capital rules under Basel III establish minimum capital ratios and overall capital adequacy standards for large and internationally active U.S. banks, including JPMorgan Chase Bank, N.A., Basel III sets forth two comprehensive approaches for calculating RWA: a standardized approach ("Basel III Standardized"), and an advanced approach ("Basel III Advanced"). 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").

Definition of capital

There are three categories of risk-based capital under the Basel III Transitional rules: CET1 capital, Tier 1 capital and Tier 2 capital. CET1 capital predominantly includes common stockholder's 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 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.

Risk-weighted assets

Basel III establishes two comprehensive methodologies for calculating risk-weighted asset ("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. In addition to the RWA calculated under these methodologies, JPMorgan Chase Bank, N.A. may supplement such amounts to incorporate management judgment and feedback from its bank regulators.

Supplementary leverage ratio ("SLR")

Basel III also includes a requirement for Advanced Approach banking organizations to calculate a SLR. The SLR is defined as Tier 1 capital under Basel III divided by JPMorgan Chase Bank, N.A.'s total leverage exposure. Total leverage exposure is calculated by taking JPMorgan Chase Bank, N.A.'s total average on-balance sheet assets, less amounts permitted to be deducted for Tier 1 capital, and adding certain off-balance sheet exposures, such as undrawn commitments and derivatives potential future exposure. JPMorgan Chase Bank, N.A. is required to have a minimum SLR of at least 6%, beginning January 1, 2018.

Risk-based capital regulatory minimums

The capital adequacy of JPMorgan Chase Bank, N.A., both during the transitional period and upon full phase-in, is evaluated against the lower of the two ratios as calculated under the Basel III approaches (Standardized or Advanced) as required by the Collins Amendment of the Dodd-Frank Act (the "Collins Floor").

The Basel III rules include minimum capital ratio requirements that are subject to phase-in periods through the end of 2018. In addition to having to maintain the common equity tier 1 ("CET1") minimum capital ratio of 4.5%, JPMorgan Chase Bank, N.A. is 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, JPMorgan Chase Bank, N.A. could be limited in the amount of capital that may be distributed. The capital conservation buffer is to be phased-in over time, beginning January 1, 2016 through January 1, 2019. When fully phased-in, JPMorgan Chase Bank, N.A. will be required to hold a 2.5% capital conservation buffer.

The countercyclical capital buffer takes into account the macro financial environment in which large, internationally active banks function. As of October 24, 2016 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.

Under the risk-based capital guidelines of the OCC, JPMorgan Chase Bank, N.A. is required to maintain minimum ratios of CET1, Tier 1 and Total capital to RWA, 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 OCC to take action. In addition, JPMorgan Chase Bank, N.A. must maintain a minimum 6.5% CET1, 8% Tier 1 capital, 10% Total capital and 5% Tier 1 leverage requirement to meet the definition of "well-capitalized" under the regulations issued by the Federal Reserve and the Prompt Corrective Action ("PCA") requirements of the FDIC Improvement Act ("FDICIA"). The following table presents the minimum and well-capitalized ratios to which JPMorgan Chase Bank, N.A. is subject as of June 30, 2017.

	Minimum capital ratios[(a)(c)]	Well-capitalized ratios[(b)]
Capital ratios		
CET1	5.75%	6.5%
Tier 1	7.25	8.0
Total	9.25	10.0
Tier 1 leverage	4.0	5.0

Note: The table above is as defined by the regulations issued by the OCC and FDIC and to which JPMorgan Chase Bank, N.A. and its subsidiaries are subject.

(a) Represents requirements for JPMorgan Chase Bank, N.A. The CET1 minimum capital ratio includes 1.25% resulting from the phase in of the 2.5% capital conservation buffer that is applicable to banking subsidiaries. JPMorgan Chase Bank, N.A. is not subject to the globally systemically important banks ("GSIB") surcharge, which applies to JPMorgan Chase.

(b) Represents requirements for bank subsidiaries pursuant to regulations issued under the FDIC Improvement Act.

(c) For the period ended December 31, 2016 the CET1, Tier 1, Total and Tier 1 leverage minimum capital ratios applicable to JPMorgan Chase Bank, N.A. were 5.125%, 6.625%, 8.625% and 4.0% respectively.

As of June 30, 2017, and December 31, 2016, JPMorgan Chase Bank, N.A. was well-capitalized and met all capital requirements to which it was subject.

The following table presents the risk-based and leverage-based capital metrics for JPMorgan Chase Bank, N.A. under both the Basel III Standardized Transitional and Basel III Advanced Transitional approaches at June 30, 2017, and December 31, 2016.

	Basel III Standardized Transitional		Basel III Advanced Transitional	
(in millions, except ratios)	**Jun 30, 2017**	Dec 31, 2016	**Jun 30, 2017**	Dec 31, 2016
Regulatory capital				
CET1 capital	**$ 184,141**	$ 179,319	**$ 184,141**	$ 179,319
Tier 1 capital[(a)]	**184,141**	179,341	**184,141**	179,341
Total capital	**195,851**	191,662	**189,381**	184,637
Assets				
Risk-weighted	**1,304,939**	1,293,203	**1,245,670**	1,262,613
Adjusted average[(b)]	**2,107,302**	2,088,851	**2,107,302**	2,088,851
Capital ratios[(c)]				
CET1	**14.1%**	13.9%	**14.8%**	14.2%
Tier 1[(a)]	**14.1**	13.9	**14.8**	14.2
Total	**15.0**	14.8	**15.2**	14.6
Tier 1 leverage[(d)]	**8.7**	8.6	**8.7**	8.6

(a) 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, 2017, and December 31, 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 net operating loss ("NOL") and tax credit carryforwards.

(c) For each of the risk-based capital ratios, the capital adequacy of JPMorgan Chase Bank, N.A. is evaluated against the lower of the two ratios as calculated under Basel III approaches (Standardized or Advanced) as required by the Collins Amendment of the Dodd-Frank Act (the "Collins Floor").

(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.

Note 20 – Off–balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase Bank, N.A. provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to JPMorgan Chase Bank, N.A. should the counterparty draw upon the commitment or JPMorgan Chase Bank, N.A. be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees are refinanced, extended, cancelled, or expire without being drawn upon or a default occurring. As a result, the total contractual amount of these instruments is not, in JPMorgan Chase Bank, N.A.'s view, representative of its expected future credit exposure or funding requirements. For further discussion of lending-related commitments and guarantees, and JPMorgan Chase Bank, N.A.'s related accounting policies, see Note 27 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

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 13 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, 2017, and December 31, 2016. The amounts in the table below for credit card and home equity lending-related commitments represent the total available credit for these products. JPMorgan Chase Bank, N.A. has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. JPMorgan Chase Bank, N.A. can reduce or cancel credit card lines of credit by providing the borrower notice or, in some cases as permitted by law, without notice. In addition, JPMorgan Chase Bank, N.A. typically closes credit card lines when the borrower is 60 days or more past due. JPMorgan Chase Bank, N.A. may reduce or close HELOCs 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[h]	
	June 30, 2017					Dec 31, 2016	Jun 30, 2017	Dec 31, 2016
By remaining maturity (in millions)	Expires in 1 year or less	Expires after 1 year through 3 years	Expires after 3 years through 5 years	Expires after 5 years	Total	Total		
Lending-related								
Consumer, excluding credit card:								
Home equity	**$ 3,927**	**$ 1,929**	**$ 1,287**	**$ 14,169**	**$ 21,312**	$ 21,713	**$ 11**	$ 12
Residential mortgage[a][b]	**14,828**	**–**	**–**	**11**	**14,839**	11,882	**–**	–
Auto	**7,182**	**996**	**173**	**78**	**8,429**	8,476	**2**	2
Consumer & business banking[b]	**12,221**	**938**	**111**	**518**	**13,788**	12,940	**19**	12
Total consumer, excluding credit card	**38,158**	**3,863**	**1,571**	**14,776**	**58,368**	55,011	**32**	26
Credit card	**11,470**	**–**	**–**	**–**	**11,470**	11,198	**–**	–
Total consumer[c]	**49,628**	**3,863**	**1,571**	**14,776**	**69,838**	66,209	**32**	26
Wholesale:								
Other unfunded commitments to extend credit[d][e]	**67,401**	**111,945**	**137,165**	**10,585**	**327,096**	324,221	**904**	905
Standby letters of credit and other financial guarantees[d][f]	**15,472**	**9,930**	**6,988**	**1,140**	**33,530**	36,170	**621**	586
Other letters of credit[d]	**2,754**	**233**	**101**	**1**	**3,089**	3,570	**4**	2
Total wholesale	**85,627**	**122,108**	**144,254**	**11,726**	**363,715**	363,961	**1,529**	1,493
Total lending-related	**$ 135,255**	**$ 125,971**	**$ 145,825**	**$ 26,502**	**$ 433,553**	$ 430,170	**$ 1,561**	$ 1,519
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees[f]	**$ 175,897**		**$ –**	**$ –**	**$ 175,897**	$ 149,533	**$ –**	
Derivatives qualifying as guarantees	**4,182**	**277**	**10,606**	**39,779**	**54,844**	51,278	**397**	48
Unsettled reverse repurchase and securities borrowing agreements	**90,908**	**–**	**–**	**–**	**90,908**	46,801	–	–
Unsettled repurchase and securities lending agreements	**72,922**	–	–	–	**72,922**	23,429	–	
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	**NA**	**NA**	**NA**	**NA**	**NA**	NA	**127**	129
Loans sold with recourse	**NA**	**NA**	**NA**	**NA**	**1,386**	2,274	**17**	31
Other guarantees and commitments[g]	**5,552**	**3,474**	**12,187**	**1,074**	**22,287**	25,962	**(110)**	(131)

(a) Includes certain commitments to purchase loans from correspondents.
(b) Certain loan portfolios have been reclassified. The prior period amounts have been revised to conform with current period presentation.
(c) Predominantly all consumer lending-related commitments are in the U.S.
(d) At June 30, 2017, and December 31, 2016, reflected the contractual amount net of risk participations totaling $361 million and $328 million, respectively, for other unfunded commitments to extend credit; $10.7 billion and $11.1 billion, respectively, for standby letters of credit and other financial guarantees; and $334 million and $265 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.
(e) At both June 30, 2017 and December 31, 2016, included commitments to affiliates of $16 million.
(f) At June 30, 2017, and December 31, 2016, collateral held by JPMorgan Chase Bank, N.A. in support of securities lending indemnification agreements was $184.5 billion and $155.9 billion, respectively. Securities lending collateral primarily consists of 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, 2017, and December 31, 2016, included guarantees of the obligations of affiliates of $17.7 billion and $21.3 billion, which predominantly relate to obligations arising under the affiliates' borrowing facilities at the FHLBs; and unfunded equity investment commitments of $21 million and $15 million, at June 30, 2017, and December 31, 2016, respectively. In addition, at June 30, 2017, and December 31, 2016, included letters of credit hedged by derivative transactions and managed on a market risk basis of $4.5 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. JPMorgan Chase Bank, N.A. also issues commitments under multipurpose facilities which could be drawn upon in several forms, including the issuance of a standby letter of credit.

JPMorgan Chase Bank, N.A. acts as a settlement and custody bank in the U.S. tri-party repurchase transaction market. In its role as settlement and custody bank, JPMorgan Chase Bank, N.A. 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 JPMorgan Chase Bank, N.A. extends to its clients (i.e., cash borrowers); these facilities contractually limit JPMorgan Chase Bank, N.A.'s intra-day credit risk to the facility amount and must be repaid by the end of the day. As of June 30, 2017, and December 31, 2016, the maximum outstanding commitment under the secured clearance advance facility was $3.6 billion and $4.4 billion, respectively.

Standby letters of credit and other financial guarantees

Standby letters of credit and other financial guarantees are conditional lending commitments issued by JPMorgan Chase Bank, N.A. to guarantee the performance of a customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade and similar transactions.

The following table summarizes the standby letters of credit and other letters of credit arrangements as of June 30, 2017, and December 31, 2016.

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

	June 30, 2017		December 31, 2016	
(in millions)	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade[a]	**$ 26,592**	**$ 2,245**	$ 28,245	$ 2,781
Noninvestment-grade[a]	**6,938**	**844**	7,702	789
Total contractual amount	**$ 33,530**	**$ 3,089**	$ 35,947	$ 3,570
Allowance for lending-related commitments	**$ 177**	**$ 4**	$ 145	$ 2
Guarantee liability	**444**	**–**	441	–
Total carrying value	**$ 621**	**$ 4**	$ 586	$ 2
Commitments with collateral	**$ 17,878**	**$ 894**	$ 19,346	$ 940

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

Derivatives qualifying as guarantees

JPMorgan Chase Bank, N.A. transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. For further information on these derivatives, see Note 27 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The following table summarizes the derivatives qualifying as guarantees as of June 30, 2017, and December 31, 2016.

(in millions)		June 30, 2017		December 31, 2016
Total notional value of derivatives[(a)]	$	**54,844**	$	51,278
Notional amount of stable value contracts[(b)]		**28,892**		28,665
Maximum exposure to loss on stable value contracts		**3,031**		3,012
Fair value[(c)]				
Derivative payables		**412**		64
Derivative receivables		**15**		16

(a) The notional amount generally represents JPMorgan Chase Bank, N.A.'s maximum exposure to derivatives qualifying as guarantees.
(b) Exposure to certain stable value contracts is contractually limited to a substantially lower percentage of the notional amount.
(c) The fair value of the contracts reflect the probability, in JPMorgan Chase Bank, N.A.'s view, of whether JPMorgan Chase Bank, N.A. will be required to perform under the contract.

JPMorgan Chase Bank, N.A. reduces exposures to these contracts by entering into offsetting transactions, or by entering into contracts that hedge the market risk related to the derivative guarantees.

In addition to derivative contracts that meet the characteristics of a guarantee, JPMorgan Chase Bank, N.A. is both a purchaser and seller of credit protection in the credit derivatives market. For a further discussion of credit derivatives, see Note 5.

Loan sales- and securitization-related indemnifications

In connection with JPMorgan Chase Bank, N.A.'s mortgage loan sale and securitization activities with GSEs and in certain private label transactions, JPMorgan Chase Bank, N.A. has made representations and warranties that the loans sold meet certain requirements, and that may require JPMorgan Chase Bank, N.A. to repurchase the mortgage loans and/or indemnify the loan purchaser if such representations and warranties are breached by JPMorgan Chase Bank, N.A.' In addition, although JPMorgan Chase Bank, N.A.'s securitizations are predominantly nonrecourse, JPMorgan Chase Bank, N.A. 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 27 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

The liability related to repurchase demands associated with private label securitizations is separately evaluated by the JPMorgan Chase Bank, N.A. in establishing its litigation reserves. For additional information regarding litigation, see Note 22 of these Consolidated Financial Statements and Note 29 of JPMorgan Chase Bank, N.A. 2016 Annual Financial Statements.

Note 21 – Pledged assets and collateral

For a discussion of JPMorgan Chase Bank, N.A.'s pledged assets and collateral, see Note 28 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Pledged assets

JPMorgan Chase Bank, N.A. 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, collateralize repurchase and other securities financing agreements, and cover customer short sales and borrowings of affiliates. 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.

The following table presents JPMorgan Chase Bank, N.A.'s pledged assets.

(in billions)		June 30, 2017		December 31, 2016
Assets that may be sold or repledged or otherwise used by secured parties	$	**80.4**	$	71.8
Assets that may not be sold or repledged or otherwise used by secured parties		**40.2**		37.8
Assets pledged at Federal Reserve banks and FHLBs		**422.6**		388.7
Total assets pledged	$	**543.2**	$	498.3

Total assets pledged do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. See Note 14 for additional information on assets and liabilities of consolidated VIEs. For additional information on JPMorgan Chase Bank, N.A.'s securities financing activities, see Note 11. For additional information on JPMorgan Chase Bank, N.A.'s long-term debt, see Note 21 of JPMorgan Chase Bank, N.A.'s 2016 Annual Financial Statements.

Collateral

JPMorgan Chase Bank, N.A. had accepted financial assets as collateral that it could sell or repledge, deliver or otherwise use. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. Collateral was generally used under repurchase agreements, securities lending agreements or to cover customer short sales and to collateralize deposits and derivative agreements.

The following table presents the fair value of collateral accepted.

(in billions)		June 30, 2017		December 31, 2016
Collateral that could be sold or repledged, delivered, or otherwise used	$	**565.3**	$	540.8
Collateral sold, repledged, delivered or otherwise used		**443.0**		396.6

Note 22 – Litigation

Contingencies

As of June 30, 2017, JPMorgan Chase and its subsidiaries, including but not limited to JPMorgan Chase Bank, N.A., are defendants or putative defendants in numerous legal proceedings, including private, civil litigations and regulatory/government investigations. The litigations range from individual actions involving a single plaintiff to class action lawsuits with potentially millions of class members. Investigations involve both formal and informal proceedings, by both governmental agencies and self-regulatory organizations. These legal proceedings are at varying stages of adjudication, arbitration or investigation, and involve each of JPMorgan Chase's lines of business and geographies and a wide variety of claims (including common law tort and contract claims and statutory antitrust, securities and consumer protection claims), some of which present novel legal theories.

JPMorgan Chase believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for JPMorgan Chase's legal proceedings is from $0 to approximately $1.9 billion at June 30, 2017. This estimated aggregate range of reasonably possible losses was based upon currently available information for those proceedings in which JPMorgan Chase believes that an estimate of reasonably possible loss can be made. For certain matters, JPMorgan Chase does not believe that such an estimate can be made, as of that date. JPMorgan Chase'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 JPMorgan Chase and JPMorgan Chase Bank, N.A.) whose share of liability has yet to be determined, the numerous yet-unresolved issues in many of the proceedings (including issues regarding class certification and the scope of many of the claims) and the attendant uncertainty of the various potential outcomes of such proceedings, including where JPMorgan Chase has made assumptions concerning future rulings by the court or other adjudicator, or about the behavior or incentives of adverse parties or regulatory authorities, and those assumptions prove to be incorrect. In addition, the outcome of a particular proceeding may be a result which JPMorgan Chase did not take into account in its estimate because JPMorgan Chase had deemed the likelihood of that outcome to be remote. Accordingly, JPMorgan Chase's estimate of the aggregate range of reasonably possible losses will change from time to time, and actual losses may vary significantly.

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

Foreign Exchange Investigations and Litigation. JPMorgan Chase 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 JPMorgan Chase is cooperating with those matters. In May 2015, JPMorgan Chase pleaded guilty to a single violation of federal antitrust law. In January 2017, JPMorgan Chase was sentenced, with judgment entered thereafter. The Department of Labor granted JPMorgan Chase a temporary one-year waiver of disqualification, effective upon entry of judgment, that allows JPMorgan Chase and its affiliates to continue to rely on the Qualified Professional Asset Manager exemption under the Employee Retirement Income Security Act ("ERISA"). JPMorgan Chase's application for a lengthier exemption is pending. Separately, in February 2017 the South Africa Competition Commission referred its FX investigation JPMorgan Chase and other banks to the South Africa Competition Tribunal, which has initiated civil proceedings.

JPMorgan Chase 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, JPMorgan Chase 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 action"), participants or beneficiaries of qualified ERISA plans (the "ERISA actions"), and purported indirect purchasers of FX instruments (the "indirect purchaser action"). Since then, JPMorgan Chase 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 District Court has dismissed one of the ERISA actions, and the plaintiffs have filed an appeal. The consumer action, a second ERISA action and the indirect purchaser action remain pending in the District Court.

In September 2015, two class actions were filed in Canada against JPMorgan Chase 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 sought to represent all persons in Canada who transacted any FX instrument. The second action was filed in the province of Quebec, and sought authorization to represent only those persons in Quebec who engaged in FX transactions. In late

2016, JPMorgan Chase settled the Canadian class actions, and both settlements have received judicial approval.

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 connection with that additional collateral, a trial in the Bankruptcy Court regarding the value of certain representative assets concluded in May 2017, and a ruling is pending. 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 JPMorgan Chase's share is approximately 20%) and an amount equal to ten basis points of credit card interchange for a period of eight months to be measured from a date within 60 days of the end of the opt-out period. The agreement also provided 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, in June 2016, vacated the District Court's certification of the class action and reversed the approval of the class settlement. Both the plaintiffs and the defendants filed petitions seeking review by the U.S. Supreme Court of the Second Circuit's decision, and those petitions were denied in March 2017. The case has been remanded to the District Court for further proceedings consistent with the appellate decision.

In addition, certain merchants have filed individual actions raising similar allegations against Visa and MasterCard, as well as against JPMorgan Chase and other banks, and those actions are proceeding.

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 U.S. Department of Justice ("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 ("ComCo") 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. JPMorgan Chase is responding to and continuing to cooperate with these inquiries. As previously reported, JPMorgan Chase has resolved EC inquiries relating to Yen LIBOR and Swiss Franc LIBOR. In December 2016, JPMorgan Chase resolved ComCo inquiries relating to these same rates. ComCo's investigation relating to EURIBOR, to which JPMorgan Chase and other banks are subject, continues. In December 2016, the EC issued a decision against JPMorgan Chase and other banks finding an infringement of European antitrust rules relating to EURIBOR. JPMorgan Chase has filed an appeal with the European General Court. In June 2016, the DOJ informed JPMorgan Chase that the DOJ had closed its inquiry into LIBOR and other benchmark rates with respect to JPMorgan Chase without taking action. Other inquiries have been discontinued without any action against JPMorgan Chase, including by the SEC, FCA and the Canadian Competition Bureau.

In addition, JPMorgan Chase 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. These actions have been filed, or consolidated for pre-trial purposes, in the United States District Court for the Southern District of New York. In these actions, 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"), Singapore Swap Offer Rate ("SOR") and/or the Bank Bill Swap Reference Rate ("BBSW") 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, SOR or BBSW and assert a variety of claims including antitrust claims seeking treble damages. These matters are in various stages of litigation.

JPMorgan Chase has agreed to settle the putative class actions related to Yen LIBOR, Euroyen TIBOR and Swiss franc LIBOR. Those settlements are subject to further documentation and approval by the Court.

In the EURIBOR action, the District Court dismissed all claims except a single antitrust claim and two common law claims, and dismissed all defendants except JPMorgan Chase and Citibank.

In the U.S. dollar LIBOR-related actions, the District 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. In July 2016, JPMorgan Chase and other defendants again moved in the District Court to dismiss the antitrust claims, and in December 2016, the District Court granted in part and denied in part defendants' motion, finding that certain plaintiffs lacked standing to assert antitrust claims. Those plaintiffs have filed an appeal. In May 2017, plaintiffs in three putative class actions moved in the District Court for class certification, and JPMorgan Chase and other defendants have opposed that motion.

JPMorgan Chase 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, JPMorgan Chase 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 alleged violations of the federal securities law, as well as other state and federal claims. The New Jersey court granted a transfer motion to the United States District Court for the Southern District of New York. The New York court granted JPMorgan Chase's motion to dismiss, and the United States Court of Appeals for the Second Circuit has affirmed that dismissal. Plaintiffs have until September 2017 to file a petition for writ of certiorari with the United States Supreme Court. 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 JPMorgan Chase's motion to dismiss the case, the United States Court of Appeals for the Eleventh Circuit affirmed the dismissal, and the United States Supreme Court denied plaintiffs' petition for writ of certiorari. In addition, the same plaintiffs have re-filed their dismissed state claims in Florida state court, where the action is stayed pending resolution of the federal court matters.

Mortgage-Backed Securities and Repurchase Litigation and Related Regulatory Investigations. JPMorgan Chase 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 MBS. The remaining civil cases include one investor action and actions for repurchase of mortgage loans. JPMorgan Chase and certain of its current and former officers and Board members have also been sued in a shareholder derivative action relating to JPMorgan Chase's MBS activities, which remains pending.

Issuer Litigation – Individual Purchaser Actions. With the exception of one remaining action, JPMorgan Chase has resolved 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).

Repurchase Litigation. JPMorgan Chase 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. JPMorgan Chase has reached a settlement with Deutsche Bank National Trust Company, acting as trustee for various MBS trusts, and the Federal Deposit Insurance Corporation (the "FDIC") in connection with the litigation related to 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, are in various stages of litigation.

In addition, JPMorgan Chase 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 has received final approval from the court.

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.

In actions against JPMorgan Chase involving offerings of MBS issued by JPMorgan Chase, JPMorgan Chase has contractual rights to indemnification from sellers of mortgage loans that were securitized in such offerings. However, certain of those indemnity rights may prove effectively unenforceable in various situations, such as where the loan sellers are now defunct.

JPMorgan Chase 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 JPMorgan Chase will not be named as a defendant in additional MBS-related litigation.

Derivative Action. A shareholder derivative action against JPMorgan Chase, as nominal defendant, and certain of its current and former officers and members of its Board of Directors relating to JPMorgan Chase's MBS activities is pending in California federal court. In June 2017, the court granted defendants' motion to dismiss the cause of action that alleged material misrepresentations and omissions in JPMorgan Chase's proxy statement, found that the court did not have personal jurisdiction over the individual defendants with respect to the remaining causes of action, and transferred that remaining portion of the case to the United States District Court for the Southern District of New York without ruling on the merits.

Government Enforcement Investigations and Litigation. JPMorgan Chase is responding to an ongoing investigation being conducted by the DOJ's Criminal Division and two United States Attorney's Offices relating to MBS offerings securitized and sold by JPMorgan Chase and its subsidiaries.

Mortgage-Related Investigations and Litigation. In January 2017, a Consent Order was entered by the United States District Court for the Southern District of New York resolving allegations by the Civil Division of the United States Attorney's Office for the Southern District of New York that JPMorgan Chase violated the Fair Housing Act and Equal Credit Opportunity Act by giving pricing discretion to independent mortgage brokers in its wholesale lending origination channel which, according to the government's model, may have charged higher fees and interest rates to African-American and Hispanic borrowers than non-Hispanic White borrowers during the period between 2006 and 2009. JPMorgan Chase denied liability, but agreed to pay a total of approximately $55 million to resolve this matter. In addition, three municipalities have commenced litigation against JPMorgan Chase 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. Two of the municipal actions were stayed pending an appeal to the United States Supreme Court. In May 2017, the Supreme Court held that the City of Miami has standing to bring claims under the Fair Housing Act, and remanded the case to the lower court to determine whether the City sufficiently alleged that the defendant's conduct proximately caused the alleged damages. In the two stayed municipal actions against JPMorgan Chase, one remains stayed pending the resolution of the City of Miami case on remand, and in the other, the municipality has moved to reopen the case, which JPMorgan Chase has opposed. The third municipal action against JPMorgan Chase was stayed pending an appeal by the City of Los Angeles to the United States Court of Appeals for the Ninth Circuit in a related action. In May 2017, the Court of Appeals affirmed judgments against the City of Los Angeles and in favor of the defendants, and following that decision, the court has not yet lifted the stay in the action against JPMorgan Chase.

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

Petters Bankruptcy and Related Matters. JPMorgan Chase and certain of its affiliates, including One Equity Partners ("OEP"), have been named as defendants in several actions filed in connection with the receivership and bankruptcy proceedings pertaining to Thomas J. Petters and certain affiliated entities (collectively, "Petters") and the Polaroid

Corporation. The principal actions against JPMorgan Chase and its affiliates have been brought by a court-appointed receiver for Petters and the trustees in bankruptcy proceedings for three Petters entities. These actions generally seek to avoid certain 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. In January 2017, the Court substantially denied the defendants' motion to dismiss an amended complaint filed by the plaintiffs, and defendants' motion for leave to appeal that decision is pending.

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 JPMorgan Chase's sale and use of proprietary products, such as J.P. Morgan mutual funds, in JPMorgan Chase's CCB and AWM 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. JPMorgan Chase settled with an additional government authority in July 2016, and continues to cooperate with inquiries from other government authorities concerning disclosure of conflicts associated with JPMorgan Chase'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. The dismissal was affirmed on appeal. Plaintiffs have filed a petition for writ of certiorari with the United States Supreme Court, to which JPMorgan Chase will respond.

Referral Hiring Practices Investigations. In November 2016, JPMorgan Chase entered into settlements with DOJ, the SEC and the Board of Governors of the Federal Reserve System (the "Federal Reserve") to resolve those agencies' respective investigations relating to a former hiring program for candidates referred by clients, potential clients and government officials in the Asia Pacific region. Other related investigations are ongoing, and JPMorgan Chase continues to cooperate 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 JPMorgan Chase 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.

JPMorgan Chase 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").

JPMorgan Chase, Deutsche Bank National Trust Company and the FDIC signed a settlement agreement to resolve (i) 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 (ii) JPMorgan Chase Bank, N.A.'s outstanding indemnification claims pursuant to the terms of the Purchase & Assumption Agreement. Deutsche Bank National Trust Company filed a judicial approval proceeding, and the court has approved the settlement.

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. JPMorgan Chase has cooperated with the investigation. The investigating judges issued an *ordonnance de renvoi* in November 2016, referring JPMorgan Chase Bank, N.A. to the French *tribunal correctionnel* for alleged complicity in tax fraud. No date for trial has been set by the court. JPMorgan Chase has been successful in legal challenges made to the Court of Cassation, France's highest court, which have been referred back to and remain pending before the Paris Court of Appeal. 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.

* * *

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries, including in certain cases, JPMorgan Chase Bank, N.A., are named as defendants or are otherwise involved in a substantial number of other legal proceedings. JPMorgan Chase and JPMorgan Chase Bank, N.A. each believes it has meritorious defenses to the claims asserted against it in its currently outstanding legal proceedings and it intends to defend itself vigorously. Additional legal proceedings may be initiated from time to time in the future.

JPMorgan Chase Bank, N.A. has established reserves for several hundred of its currently outstanding legal proceedings. In accordance with the provisions of U.S. GAAP for contingencies, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upwards or downward, as appropriate, based on management's best judgment after consultation with counsel. JPMorgan Chase Bank N.A.'s legal expense was a benefit of $(87) million and $(473) million for the six months ended June 30, 2017 and 2016, respectively. Where a particular litigation matter involves one or more subsidiaries or affiliates of JPMorgan Chase, JPMorgan Chase determines the appropriate allocation of legal expense among those subsidiaries or affiliates (including, where applicable, JPMorgan Chase Bank, N.A.). There is no assurance that JPMorgan Chase Bank, N.A.'s litigation reserves will not need to be adjusted in the future.

In view of the inherent difficulty of predicting the outcome of legal proceedings, particularly where the claimants seek very large or indeterminate damages, or where the matters present novel legal theories, involve a large number of parties or are in early stages of discovery, JPMorgan Chase and JPMorgan Chase Bank, N.A. cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or consequences related to those matters. JPMorgan Chase Bank, N.A. believes, based upon its current knowledge, after consultation with counsel and after taking into account its current litigation reserves, that the legal proceedings currently pending against it should not have a material adverse effect on JPMorgan Chase's Bank, N.A.'s consolidated financial condition. JPMorgan Chase Bank, N.A. notes, however, that in light of the uncertainties involved in such proceedings, there is no assurance that the ultimate resolution of these matters will not significantly exceed the reserves it has currently accrued or that a matter will not have material reputational consequences. As a result, the outcome of a particular matter may be material to JPMorgan Chase Bank, N.A.'s operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of JPMorgan Chase Bank, N.A.'s income for that period.

Note 23 – Business changes and developments

Business events and subsequent events

Student loan portfolio transfer and sale

JPMorgan Chase Bank, N.A. transferred the student loan portfolio to held-for-sale in the first quarter of 2017. The transfer resulted in a write-down of the portfolio to the estimated fair value at the time of the transfer. This write-down was recognized predominantly as a $467 million charge-off, resulting in a $218 million increase in the provision for credit losses after utilization of the allowance for loan losses of $249 million in the first quarter of 2017. JPMorgan Chase Bank, N.A. sold substantially all of the portfolio in the second quarter of 2017, and the sale event did not have a material impact on JPMorgan Chase Bank, N.A.'s Consolidated Financial Statements.

Subsequent events

In preparing these consolidated financial statements, JPMorgan Chase Bank, N.A. performed an evaluation of material events subsequent to June 30, 2017, and through August 2, 2017, the date these financial statements were available to be issued.

2016 Annual Financial Statements: Consolidated Financial Statements for the year ended December 31, 2016

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

AOCI: Accumulated other comprehensive income/(loss)

ARM(s): Adjustable rate mortgage(s)

Beneficial interests issued by consolidated VIEs: represents the interest of third-party holders of debt, equity securities, or other obligations, issued by VIEs that JPMorgan Chase Bank, N.A. consolidates.

Benefit obligation: refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

CDS: Credit default swaps

CET1 Capital: Common Equity Tier 1 Capital

CFTC: Commodity Futures Trading Commission

CLO: Collateralized loan obligations

CLTV: Combined loan-to-value

Collateral-dependent: A loan is considered to be collateral-dependent when repayment of the loan is expected to be provided solely by the underlying collateral, rather than by cash flows from the borrower's operations, income or other resources.

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 International Swaps and Derivatives Association ("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.

DVA: Debit valuation adjustment

EC: European Commission

FASB: Financial Accounting Standards Board

Fannie Mae: Federal National Mortgage Association

FCA: Financial Conduct Authority

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

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.

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

HELOAN: Home equity loan

HELOC: Home equity line of credit

Home equity – senior lien: represents loans and commitments where JPMorgan Chase Bank, N.A. holds the first security interest on the property.

Home equity – junior lien: represents loans and commitments where JPMorgan Chase Bank, N.A. holds a security interest that is subordinate in rank to other liens.

HTM: Held-to-maturity

Impaired loan: Impaired loans are loans measured at amortized cost, for which it is probable that JPMorgan Chase Bank, N.A. 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

Investment-grade: An indication of credit quality based on JPMorgan Chase Bank, N.A.'s internal risk assessment system. "Investment grade" generally represents a risk profile similar to a rating of a "BBB-"/"Baa3" or better, as defined by independent rating agencies.

ISDA: International Swaps and Derivatives Association

JPMorgan Chase: JPMorgan Chase & Co.

JPMorgan Chase Bank, N.A.: JPMorgan Chase Bank, National Association

LLC: Limited Liability Company

LIBOR: London Interbank Offered Rate

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 metropolitan statistical area ("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.

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

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 JPMorgan Chase Bank, N.A.'s Alt-A loans are those where a borrower does not provide complete documentation of his or her assets or the amount or source of his or her income.

Option ARMs

The option ARM real estate loan product is an adjustable-rate mortgage loan that provides the borrower with the option each month to make a fully amortizing, interest-only or minimum payment. The minimum payment on an option ARM loan is based on the interest rate charged during the introductory period. This introductory rate is usually significantly below the fully indexed rate. The fully indexed rate is calculated using an index rate plus a margin. Once the introductory period ends, the contractual interest rate charged on the loan increases to the fully indexed rate and adjusts monthly to reflect movements in the index. The minimum payment is typically insufficient to cover interest accrued in the prior month, and any unpaid interest is deferred and added to the principal balance of the loan. Option ARM loans are subject to payment recast, which converts the loan to a variable-rate fully amortizing loan upon meeting specified loan balance and anniversary date triggers.

Prime

Prime mortgage loans are made to borrowers with good credit records 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.

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 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.

OCC: Office of the Comptroller of the Currency

OCI: Other comprehensive income/(loss)

OEP: One Equity Partners

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

PCA: Prompt corrective action

Principal transactions revenue: Principal transactions revenue is driven by many factors, including the bid-offer spread, which is the difference between the price at which JPMorgan Chase Bank, N.A. is willing to buy a financial or other instrument and the price at which JPMorgan Chase Bank, N.A. is willing to sell that instrument. It also consists of realized (as a result of closing out or termination of transactions, or interim cash payments) and unrealized (as a result of changes in valuation) gains and losses on financial and other instruments (including those accounted for under the fair value option) primarily used in client-driven market-making activities and on private equity investments. In connection with its client-driven market-making activities, JPMorgan Chase Bank, N.A. transacts in debt and equity instruments, derivatives and commodities (including physical commodities inventories and financial instruments that reference commodities). 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 specific risk management purposes, primarily to mitigate credit risk, foreign exchange risk and commodity risk, and (c) other derivatives.

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.

PSU(s): Performance share units

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.

RSU(s): Restricted stock units

S&P: Standard and Poor's 500 Index

SAR(s): Stock appreciation rights

SEC: Securities and Exchange Commission

Short sale: is a sale of real estate in which proceeds from selling the underlying property are less than the amount owed JPMorgan Chase Bank, N.A. 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

SPEs: Special purpose entities

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.

TDR: "Troubled debt restructuring" is deemed to occur when JPMorgan Chase Bank, N.A. modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty.

U.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. GSE(s): "U.S. government-sponsored enterprises": 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. Treasury: U.S. Department of the Treasury

VA: U.S. Department of Veterans Affairs

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.

CHANGES TO EXECUTIVE OFFICERS AND OUR AUTHORISED REPRESENTATIVES

1. Executive Officers

The following persons are the Executive Officers of JPMorgan Chase Bank, N.A. as of the date of this supplemental disclosure document.

Name	Title
James Dimon	Chief Executive Officer and President
Ashley Bacon	Chief Risk Officer
John L. Donnelly	Head of Human Resources
Mary Callahan Erdoes	Chief Executive Officer of Asset Management
Stacey Friedman	General Counsel
Marianne Lake	Chief Financial Officer
Lori A. Beer	Chief Information Officer
Douglas B. Petno	Chief Executive Officer of Commercial Banking
Daniel E. Pinto	Chief Executive Officer of Corporate & Investment Bank
Gordon A. Smith	Chief Executive Officer of Consumer & Community Banking

2. The paragraph headed "OUR AUTHORISED REPRESENTATIVES" on page 228 of the base listing document shall be replaced in its entirety with the following paragraph:

Our authorised representatives are Elaine Hue Mei Chan, Vice President (who can be contacted at J.P. Morgan Securities (Asia Pacific) Limited, 25/F, Chater House, 8 Connaught Road Central, Hong Kong) and Lauren Butchart, Executive Director (who can be contacted at J.P. Morgan Securities (Asia Pacific) Limited, One Island East, 33/F, 18 Westlands Road, Quarry Bay, Island East, Hong Kong). The guarantor's authorised representative is Camille Modiano, Managing Director who can be contacted at J.P. Morgan Securities (Asia Pacific) Limited, 25/F, Chater House, 8 Connaught Road Central, Hong Kong.

STATUTORY AND GENERAL INFORMATION ABOUT US AND THE GUARANTOR

Statutory consents

As a national banking association organised under the federal laws of the United States of America, the guarantor is empowered to give guarantees. Each issue of structured products will have the benefit of the guarantee.

No material adverse change and litigation

Save as disclosed in the listing documents, there has been no material adverse change in our or the guarantor's financial position since the date of the most recently published audited financial statements of us or of the guarantor on a consolidated basis respectively, as the case may be, that would have a material adverse effect on our ability to perform our obligations, or the guarantor's ability to perform its obligations respectively in the context of any issue of structured products.

Save as disclosed in the listing documents, we and the guarantor are not aware, to the best of our and the guarantor's knowledge and belief, of any litigation or claims of material importance in the context of any issue of structured products pending or threatened against us or the guarantor.

Credit ratings of the guarantor

As of the day immediately preceding the date of this supplemental disclosure document, the guarantor's long-term debt credit ratings are A+ (stable outlook) by S&P Global Ratings and Aa3 (stable outlook) by Moody's Investors Service, Inc.

Financial information about the issuer and the guarantor

PricewaterhouseCoopers Accountants N.V., our auditor, has given and has not withdrawn its written consent to the inclusion in the first supplemental disclosure document of its audit report dated 11 April 2017 (which relates to our annual financial statements for the year ended 31 December 2016) in the form and context in which it is included. Its report was not prepared exclusively for incorporation in the first supplemental disclosure document.

PricewaterhouseCoopers LLP, auditor of the guarantor, has given and has not withdrawn its written consent to the inclusion in the base listing document of its audit report dated 28 February 2017 (which relates to the guarantor's audited financial statements for the year ended 31 December 2016 comprising consolidated balance sheets at 31 December 2016 and 2015 and the related consolidated statements of income, changes in stockholder's equity, comprehensive income and cash flows for each of the three years ended 31 December 2016) in the form and context in which they are included. Its report was not prepared exclusively for incorporation in the base listing document.

Neither PricewaterhouseCoopers Accountants N.V. nor PricewaterhouseCoopers LLP has any shareholding in us or any member of our group nor of our group nor do they have the right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for our securities or securities of any member of our group.

PARTIES

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