Financial Northeastern Companies

Financial Northeastern Securities

2017 Due Diligence Information

Financial Northeastern Corporation
FNC Insurance Services, Inc.
Financial Northeastern Securities, Inc.

Financial Northeastern Companies

Financial Northeastern Securities

2017 Due Diligence Information

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Financial Northeastern Companies

Financial Northeastern Securities

Corporate Résumé

Financial Northeastern Corporation
Incorporated: May 4, 1984

Specializing in obtaining the best available rates in federally insured jumbo CDs issued by institutions nationwide. Terms ranging from 30 days to 20 years.

Financial Northeastern Securities, Inc.
Incorporated: January 17, 1985
Business: Full Service Broker/Dealer
Clearing: Fully disclosed through Pershing LLC.

FINRA member firm offering government and fixed-income securities, mutual funds, equities and retirement plan services. Clients investing over $4 billion annually. Bank Funding and CD Underwriting Division issued over $150 billion over the last 8 years for federally insured institutions.

FNC Insurance Services
Incorporated: October 22, 1996
Business: Insurance Product Sales

Clientele:	*Credit Unions*	*Banks and Savings & Loans*
	Corporations	*Government Agencies*
	Individuals	*Municipal Agencies*
	Trust Departments	*Educational Institutions*
	Hospitals	*Non-Profit Organizations*

Client Services: *Deposit Funding for Banks and Credit Unions*

Product Line:	*Certificates of Deposit*	*Mortgage Backed Securities*
	Government Agency Issues	*US Treasuries*
	Municipal and Corporate Bonds	*Options*
	Zero Coupon Bonds	*Traditional and Roth IRA's*
	Preferred Stocks	*Equities*
	Mutual Funds	*Unit Investment Trusts*

Money Market, Debit Cards and Check Writing*

References available upon request
**The Bank of New York Mellon*

Financial Northeastern Companies

Financial Northeastern Securities

2016 Audited Financial Statements

Financial Northeastern Securities, Inc.

Statement of Financial Condition
and Notes to the Financial Statement
with Report of Independent Registered
Public Accounting Firm

December 31, 2016

Financial Northeastern Securities, Inc.

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December 31, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders of
Financial Northeastern Securities, Inc.

We have audited the accompanying statement of financial condition of Financial Northeastern Securities, Inc. (the "Company"), as of December 31, 2016. This financial statement is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statement referred to above presents fairly, in all material respects, the financial condition of Financial Northeastern Securities, Inc. as of December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

WithumSmith+Brown, PC

February 23, 2017

WithumSmith+Brown, PC 465 South Street, Suite 200, Morristown, New Jersey 07960-6497 T (973) 898 9494 F (973) 898 0686 withum.com

Financial Northeastern Securities, Inc.
Statement of Financial Condition
December 31, 2016

ASSETS

Cash in Banks	$	937,661
Receivable from Broker - Clearance Accounts		11,572,201
Accounts receivable		436,885
Investments, at Fair Value		3,672,834
Property and equipment, net		54,847
Other assets		163,121
	$	16,837,549

LIABILITIES AND STOCKHOLDERS' EQUITY

Liabilities		
Accounts payable and accrued expenses	$	469,879
Investments Sold, not yet Puchased		13,287
Due to Affiliate		17,170
Total liabilities		500,336
Stockholders' equity		
Common stock (no par value, 2500 shares authorized, 20 shares issued outstanding)		1,000
Additional Paid-in-capital		3,077,130
Retained earnings		13,259,083
Total stockholders' equity		16,337,213
	$	16,837,549

See Accompanying Notes to Financial Statement.

1. Nature of Business

Financial Northeastern Securities, Inc. (the "Company") is a full-service broker-dealer that serves institutional investors, credit unions, and individual investors located throughout the United States. The Company is registered under the Securities and Exchange Act of 1934, and is a member of the Financial Industry Regulatory Authority ("FINRA"). The Company's operations consist primarily of engaging in principal transactions and underwriting certificates of deposit.

2. Summary of Significant Accounting Policies

Basis of Accounting

The Company prepares its financial statements in accordance with accounting principles generally accepted in the United States of America, which requires the use of the accrual method of accounting. Under this accounting method, revenues are recognized when earned and expenses are recognized when incurred.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period. Estimates are based on several factors including the facts and circumstances available at the time the estimates are made, historical experience, risk of loss, general economic conditions and trends, and the assessment of the probable future outcome. Some of the more difficult, subjective and significant estimates include determinations of the useful lives of assets, allowance for doubtful accounts and present value assumptions. Estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the statement of income in the period that they are determined. Actual results could differ from those estimates.

Subsequent Events

The Company has evaluated subsequent events for recognition or disclosure through the date of the financial statements issuance.

Cash and Cash Equivalents

For purposes of the statement of financial condition and statement of cash flows, the Company considers all highly liquid investments, consisting mostly of certificates of deposit, which are readily convertible into known amounts of cash and have a maturity of three months or less when acquired to be cash equivalents.

Concentration of Credit Risk

The Company places its cash and cash equivalents with four financial institutions that have offices located in New Jersey and New York. Financial instruments that potentially subject the Company to concentration of credit risk consist principally of cash and cash equivalents. The Company's cash and cash equivalents are placed with high credit quality financial institutions. At times, such balances may exceed federally insured limits of $250,000 per financial institution. The Company has not experienced any losses in such accounts, and it believes it is not exposed to any significant credit risk on cash and cash equivalents.

Customer Receivables

Accounts receivable from customers are recorded at the present value of estimated cash flows on the date the receivables were established. The Company receives collections on its customer receivables based on the length of the certificates of deposit. The present value discounts on the customer receivables are computed using assumptions made by management of the Company regarding the market and ultimate collectability of the receivables. Uncollectible accounts receivable are charged to operations during the period they are determined to be uncollectible. The Company wrote-off $234,145 during 2016. It is management's policy to review the outstanding accounts receivable from its customers and write-off any uncollectible accounts as they arise. At December 31, 2016, there was no allowance for doubtful accounts.

Customer receivables consist of the following:

Receivables due in less than one year	$	309,905
Receivables due in more than one year		135,545
Less discounts to present value (ranging from 0.7% to 2.5%)		(8,565)
Total	$	436,885

Investments

The Company's investments are comprised of certificates of deposit, corporate obligations, preferred equities and mortgage-backed securities.

Investments are bought and held principally for the purpose of selling them in the near term and are classified as trading securities. Trading securities are measured at fair value in the accompanying statement of financial condition.

The Company uses the specific identification method in determining realized gains and losses reflected in revenues under other income in the statement of operations. The unrealized gains and losses are also reflected in revenues under other income in the statement of operations.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. Expenditures for maintenance, repairs and betterments which do not materially prolong the normal useful life of an asset are charged to operations as incurred. Purchases of property and equipment and additions and betterments which substantially extend the useful life of the asset are capitalized at cost. Upon sale or other disposition of assets, the cost and related accumulated depreciation are removed from the accounts and the resulting gain or loss, if any, is reflected in the statement of income. The Company provides for depreciation as follows:

Asset	Estimated Useful Life	Principle Method
Furniture and fixtures	7 years	Straight-line
Office equipment	3 -10 years	Straight-line

Revenue Recognition from Securities Transactions

The Company's revenue is derived from several classes of services summarized as follows:

Underwriting of Certificates of Deposit Revenue

Underwriting revenues are derived from underwriting services provided on the purchase of certificates of deposit and are recorded in accordance with the terms of the respective underwriting agreements.

Principal Transactions Revenue

Principal transactions revenue is derived from the mark up or mark down on securities purchased and re-sold by the Company. Principal transactions and the related revenue are recorded on a settlement-date basis, which is not materially different from trade-date basis.

Write-off of Accounts Receivable from Spread Sales on Certificates of Deposit

Spread Sales on certificates of deposit was derived from the interest rate of a particular certificate of deposit sold to a customer. The customer receives a portion of the interest income based upon the net rate while the remaining portion is paid to the Company. Revenue was recognized on a settlement-date basis, which was not materially different from trade-date basis.

With the announcement of JPMCC's exit from the clearing business, the Company stopped selling custody CDs in October of 2015. Due to the reduction of the Accounts Receivable, combined with the clearing firm change, the Company undertook the effort to produce an actual accounting of the outstanding receipts and reconciled it exactly to JPMCC's records. This resulted in a write-off of the accounts receivable and corresponding present value reserve for a net loss of $220,006.

Commission Revenue

Commission revenues are derived from investment transactions where the Company acts as agent and are recognized on a settlement-date basis, which is not materially different from trade-date basis.

Other Income

Revenue derived from participation in a selling group of corporate note programs and various other corporate underwritings is recognized in accordance with the terms of the respective note programs.

Income Taxes

As an "S" corporation, the Company is not subject to federal, New Jersey and Florida corporate income taxes. The individual shareholders are responsible for the payment of income taxes on the Company's earnings. Accordingly, there is no provision for federal, New Jersey, and Florida income tax in the accompanying financial statements, however, the Company is subject to income taxes in Ohio and the City of Dublin, Ohio.

The Company has evaluated its tax positions and has concluded that there are no unrecognized tax benefits at December 31, 2016. There are no tax related penalties and interest reflected in these financial statements.

Distributions and Dividends Payable

The Company reimburses its stockholders for the individual income tax liability that will be incurred by the stockholders as a result of the "S" corporation earnings. As of December 31, 2016, dividends payable was $0. During 2016, the Company distributed $27,169 to its stockholders toward their individual tax liabilities and other cash distributions.

Commissions Expense

Commissions are paid to various brokers based upon a percentage of sales on the settlement date and are paid at the end of the month following the settlement date.

3. Property and Equipment

Property and equipment consists of the following:

Furniture and fixtures	$	18,452
Office equipment		385,432
Total		403,884
Less accumulated depreciation and amortization		349,037
Net	$	54,847

Depreciation expense for 2016 was $45,582.

4. Investments

The Company measures its investments on a recurring basis at fair value.

Fair value is defined as the price that would be received to sell an asset or the price that would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. The framework that the authoritative guidance establishes for measuring fair value includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs used in determining valuations into three levels. The level in the fair value hierarchy within which the fair value measurement falls is determined based on the lowest level input that is significant to the fair value measurement. The levels of the fair value hierarchy are as follows:

Level 1 – Fair value is based on unadjusted quoted prices in active markets that are accessible to the Company for identical assets. These generally provide the most reliable evidence and are used to measure fair value whenever available.

Level 2 – Fair value is based on significant inputs, other than Level 1 inputs, that are observable either directly or indirectly for substantially the full term of the asset through corroboration with observable market data. Level 2 inputs include quoted market prices in active markets for similar assets, quoted market prices in markets that are not active for identical or similar assets, and other observable inputs.

Level 3 – Fair value would be based on significant unobservable inputs. Examples of valuation methodologies that would result in Level 3 classification include option pricing models, discounted cash flows, and other similar techniques.

As of December 31, 2016, investments include various certificates of deposit and corporate obligations maturing at dates through 2034 at interest rates ranging from 0% to 7%. These items were measured using the following inputs at December 31, 2016:

	Level 1	Level 2	Level 3	Total
Assets				
Certificates of Deposit	$ 2,927,973	$	$	$ 2,927,973
Corporate Obligations	722,866			722,866
Preferred Stocks	18,630			18,630
Mortgage-Backed Securities	3,365			3,365
Total	$ 3,672,834	$ -	$ -	$ 3,672,834

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in methodologies as of December 31, 2016.

Certificates of Deposit: Valued based upon quoted prices from an exchange and liquidation value of direct CD.

Corporate Obligations, Preferred Stocks and Mortgage-backed Securities: Valued at the closing price reported on the active market on which the individual security is traded.

5. Net Capital Requirement

The Company is subject to the Securities and Exchange Commission Uniform Net Capital Rule (Rule 15c3-1), which requires the maintenance of minimum net capital and requires that the ratio of aggregate indebtedness to net capital, both as defined, shall not exceed 15 to 1. Rule 15c3-1 also provides that equity may not be withdrawn or cash dividends paid if the resulting net capital ratio would exceed 10 to 1. At December 31, 2016, the Company had net capital of $15,564,780, which was $15,464,780 in excess of its required net capital of $100,000. The Company's net capital ratio was .0302 to 1.

6. Off-Balance Sheet Risk

The security transactions of the Company's customers are introduced on a fully disclosed basis with a clearing broker-dealer. The Company holds no customer funds or securities. The clearing broker-dealer is responsible for execution, collection of and payment of funds, and receipt and delivery of securities relative to customer transactions. Off-balance-sheet risk exists with respect to these transactions due to the possibility that customers may be unable to fulfill their contractual commitments wherein the clearing broker-dealer may charge any related losses to the Company. The Company seeks to minimize this risk through procedures designed to monitor the creditworthiness of its customers and to ensure that the clearing broker-dealer executes customer transactions properly.

7. Related Party Transactions

Pursuant to an administrative annual cost sharing agreement, renewable on a year-to-year basis, the Company shares the cost of overhead expenses with an affiliated company through common ownership, Financial Northeastern Corporation (the "Affiliate"), based on relative sales levels. The shared overhead expenses pertain to rent, employee compensation and benefits, professional fees, utilities, travel and other miscellaneous expenses. As of December 31, 2016, the affiliate owed the Company $18,170 toward 2016 shared costs. This liability is reflected in the Due to Affiliate on the Statement of Financial Condition offset by a $1,000 receivable from officers. The Company incurred shared costs of $2,482,789 for 2016 from the Affiliate representing 94.07% of the total expenses to be allocated.

8. Commitments and Contingencies

Operating Lease

The Affiliate of the Company have entered into various operating leases for office space located in New Jersey and Ohio through 2017 and 2018, respectively. The Company and its' Affiliate have options to renew its office leases. Minimum annual lease payments subsequent to December 31, 2016 are as follows:

Years ending December 31:

2017	$	307,786
2018		8,522
Total	$	316,308

Rent expense charged to the Company under operating leases was $399,027 during 2016. As described in Note 7, an agreement is in place whereby the Affiliate shares the cost relative to the office space leases with the Company.

9. Pension Plans

Defined Contribution Pension Plan

The Company is a participating employer of a 401K plan that allows for pre-tax employee contributions and a discretionary employer match in addition to a discretionary employer profit sharing contribution. Eligible employees to benefit from employer contributions must meet certain age and service requirements. Full vesting is reached in year three after 33% vesting each in years one and two. The Company's total expense for the defined contribution pension plan for 2016 was $215,724.

Supplemental Executive Retirement Plan

The Affiliate established a non-qualified deferred compensation program and a Supplemental Executive Retirement Plan (SERP) in 2004, both of which were amended and restated effective January 1, 2007. Effective January 1, 2010, the affiliate has suspended contributions to the SERP Plan. Current year expenses for this plan are allocated to the Company in accordance with the Cost Sharing Agreement and are included in Other General and Operating Expenses on the Statement of Operations.

Financial Northeastern Companies

Annual AML Audit

Independent Auditor's Report

To: Jeffrey Zage, CEO
Financial Northeastern Securities, Inc.

The annual AML audit, dated January 11, 2017, was performed for the calendar year 2016 to ensure compliance with the Financial Northeastern Securities, Inc. Anti-Money Laundering (AML) Program. The Firm's Policies and Procedures Manual was reviewed and an audit plan determined. In accordance with the prescribed audit plan, the following items were thoroughly reviewed:

1. **Suspicious Activity Reports (SARs).**
2. **FinCEN Requests Under Patriot Act Section 314.**
3. **Customer Identification and Verification.**
4. **Currency Transaction Reports (CTR).**
5. **Clearing/Introducing Firm Relationship.**
6. **AML training.**
7. **Record Retention.**

All testing proved that Financial Northeastern Securities, Inc. is following the policies and procedures set forth in its' Anti-Money Laundering (AML) Program.

If you have any questions, please let me know.

Patricia M. Schreck
Chief Financial Officer

cc: S. Kiss
F. Millahn

Financial Northeastern Companies

Red Flags Rule Certification

Financial Northeastern Securities hereby certifies that it complies with the Security and Exchange Commission's enforcement of its Fair and Accurate Credit Transactions Act of 2003 (FACT ACT) Red Flags Rule. The Red Flags Rule requires that most securities firms implement a written program to detect, prevent, and mitigate identity theft in connection with the opening or maintenance of covered accounts. These accounts which permit multiple payments or transactions may include retail brokerage accounts, margin accounts, checking or savings accounts, or any other account with a potential risk to our customers for identity theft.

Financial Northeastern Securities has developed and implemented a written Identity Theft Prevention Program after careful assessment of the nature and scope of our business activities. Our program identifies relevant identity theft red flags for our firm, methods for detecting the red flags, and procedures in place to prevent and mitigate identity theft. Our policy also designates members of our senior management who are responsible for the oversight, development, implementation and administration of the Identity Theft Prevention Program.

Our identity theft policies, procedures and internal controls are reviewed and updated periodically to account for changes in both regulations and in our business. Our last review and update was completed in February 8, 2017. If you have any further questions, please feel free to contact our Information Safety Team at (800) 362-9876.

Sincerely,

William Palmer
Director of Information Technology
Information Safety Officer, Ext. 1201

Florence Millahn
Vice President, Compliance/Operations
AML/Information Safety Officer, Ext. 1260

FNC
Financial Northeastern Companies

Financial Northeastern Securities

Pershing Clearing Corp.
(Clearing Firm)
December 31, 2016
Financial Statements

PERSHING LLC
(An Indirect Wholly Owned Subsidiary of
The Bank of New York Mellon Corporation)

Statement of Financial Condition

December 31, 2016

(With Report of Independent Registered Public Accounting Firm)

PERSHING LLC
(An Indirect Wholly Owned Subsidiary of
The Bank of New York Mellon Corporation)

Statement of Financial Condition

December 31, 2016

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KPMG LLP
345 Park Avenue
New York, NY 10154-0102

Report of Independent Registered Public Accounting Firm

The Board of Managers and
Member of Pershing LLC:

We have audited the accompanying statement of financial condition of Pershing LLC as of December 31, 2016 (the financial statement). The financial statement is the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statement based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statement referred to above presents fairly, in all material respects, the financial position of Pershing LLC as of December 31, 2016, in conformity with U.S. generally accepted accounting principles.

KPMG LLP

February 28, 2017

PERSHING LLC
(An Indirect Wholly Owned Subsidiary of
The Bank of New York Mellon Corporation)
Statement of Financial Condition
December 31, 2016
(Dollars in millions)

Assets

Cash and cash equivalents	$	459
Cash and qualified securities segregated for regulatory purposes (cash of $3,382 and qualified securities with a contract value of $2,055)		5,437
Collateralized financing agreements:		
Securities borrowed		7,149
Securities purchased under agreements to resell		1,780
Receivables:		
Customers		12,959
Broker-dealers and clearing organizations		3,610
Affiliates		555
Intangible assets		19
Financial instruments owned, at fair value		33
Other assets		449
Total assets	$	32,450

Liabilities and Member's Equity

Liabilities:		
Drafts payable	$	504
Collateralized financing agreements:		
Securities loaned		1,070
Securities sold under agreements to repurchase		4,725
Payables:		
Customers		19,023
Broker-dealers and clearing organizations		2,610
Affiliates		1,245
Financial instruments sold, not yet purchased, at fair value		1
Accounts payable, accrued expenses and other		363
Total liabilities		29,541
Member's equity:		
Member's contributions		886
Accumulated earnings		2,023
Total member's equity		2,909
Total liabilities and member's equity	$	32,450

See accompanying notes to financial statements.

(1) Organization and Description of Business

Pershing LLC (the Company) is a single member Delaware Limited Liability Company and a wholly owned subsidiary of Pershing Group LLC (the Parent), which is a wholly owned subsidiary of The Bank of New York Mellon Corporation (BNY Mellon).

The Company is registered as a securities broker-dealer with the Securities and Exchange Commission (SEC) authorized to engage in fully disclosed and omnibus clearing, sales and trading and brokerage services. The Company is a member of the New York Stock Exchange, Inc. (NYSE), Financial Industry Regulatory Authority (FINRA), Chicago Board of Options Exchange, Inc., Securities Investor Protection Corporation (SIPC), and other regional exchanges.

(2) Summary of Significant Accounting Policies

The Company's statement of financial condition is prepared in accordance with accounting principles generally accepted in the United States of America which require the use of management's best judgment and estimates. Estimates and assumptions that affect the reported amounts in the statement of financial condition and accompanying notes may vary from actual results.

(a) Cash and Cash Equivalents

The Company defines cash and cash equivalents as highly liquid investments with original maturities of three months or less.

(b) Cash and Qualified Securities Segregated for Regulatory Purposes

The Company defines cash and qualified securities segregated for regulatory purposes as deposits that have been segregated in special reserve bank accounts for the benefit of customers and the proprietary accounts of brokers (PAB) under Rule 15c3-3 of the SEC.

(c) Collateralized Financing Agreements

Securities borrowed and securities loaned are financing arrangements that are recorded at the amount of cash collateral advanced or received. For securities borrowed, the Company deposits cash or other collateral with the lender. For securities loaned, the Company receives cash collateral that typically exceeds the market value of securities loaned.

Securities sold under agreements to repurchase (repurchase agreements) and securities purchased under agreements to resell (resale agreements) are treated as financing arrangements and are carried at their contract amount, the amount at which they will subsequently be resold or repurchased, plus related accrued interest. Repurchase and resale agreements are typically collateralized by cash or government and government agency securities and generally have terms from overnight up to three months. The Company nets repurchase agreements and resale agreements in the statement of financial condition in accordance with Accounting Standards Codification (ASC) Subtopic 210-20, *Balance Sheet Offsetting*.

(continued)

It is the Company's policy to take possession of the underlying collateral, monitor its market value relative to the amounts due under the agreements and, when necessary, require prompt transfer of additional collateral or reduction in the loan balance in order to maintain contractual margin protection. In the event of counterparty default, the financing agreement provides the Company with the right to liquidate the collateral held.

(d) Receivables and Payables – Broker-Dealers and Clearing Organizations

Receivables from broker-dealers and clearing organizations include amounts receivable for securities not delivered by the Company to a purchaser by the settlement date (fails to deliver), deposits with clearing organizations and the Company's introducing brokers' margin loans. Payables to broker-dealers and clearing organizations include amounts payable for securities not received by the Company from a seller by the settlement date (fails to receive), clearing deposits from introducing brokers and amounts payable to the Company's introducing brokers.

(e) Fair Value of Financial Instruments Owned and Sold

ASC Topic 820, *Fair Value Measurements and Disclosures*, defines fair value, establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. ASC Topic 820 defines fair value as "the price that would be received to sell an asset and paid to transfer a liability in an ordinary transaction between market participants at the measurement date." Under ASC Topic 820, fair value is generally based on quoted market prices. If quoted market prices are not available, fair value is determined based on other relevant factors, including price activity for equivalent instruments and valuation pricing models. See Note 4 to statement of financial condition for disclosures with respect to ASC Topic 820.

(f) Fixed Assets and Intangibles

Fixed assets are recorded at cost, net of accumulated depreciation. Depreciation is recorded on a straight-line basis over the useful lives of the related assets, generally two to five years. Leasehold improvements are amortized on a straight-line basis over the lesser of the lease term or 10 years. For internal-use computer software, the Company capitalizes qualifying costs incurred during the application development stage. The resulting asset is amortized using the straight-line method over the expected life, which is generally five years. All other nonqualifying costs incurred in connection with any internal-use software projects are expensed as incurred.

Identifiable intangible assets are amortized on a straight-line basis over their estimated useful life, which is generally 15 years from the date of acquisition and are assessed annually for impairment indicators pursuant to the provision of ASC Topic 350, *Intangibles – Goodwill and Other*, and ASC Topic 360, *Property, Plant & Equipment*.

(g) Receivables and Payables - Customers

Receivables from and payables to customers include amounts due on cash and margin transactions. Securities owned by customers are held as collateral for receivables. Customer securities transactions are recorded on a settlement date basis, which is generally three business days after trade date.

(continued)

Securities owned by customers, including those that collateralize margin or other similar transactions, are not reflected in the statement of financial condition.

(h) Restricted Stock Units

During the year, BNY Mellon issued restricted stock to employees, including certain Company employees. The Company accounts for this plan in accordance with ASC Topic 718, *Compensation – Stock Compensation,* and accordingly compensation cost is measured at the grant date based on the value of the award and is recognized over the vesting period.

(i) Income Taxes

The Company is included in the consolidated federal and combined state and local income tax returns filed by BNY Mellon. In addition, the Company files stand-alone tax returns in certain jurisdictions including New Jersey. Income taxes are calculated using the modified separate return method, and the amount of current tax expense or benefit is either remitted to or received from BNY Mellon, pursuant to a tax sharing agreement between BNY Mellon and the Company.

The Company accounts for income taxes in accordance with ASC Topic 740, *Income Taxes*, which generally requires the recognition of tax benefits or expenses on the temporary differences between the financial reporting and the tax basis of the assets and liabilities. If appropriate, deferred tax assets are adjusted by a valuation allowance, which reflects expectations of the extent to which such assets will be realized.

In accordance with ASC Topic 740, the Company recognizes the effect of the income tax positions only if those positions are more likely than not of being sustained. A tax position that fails to meet a more-likely than-not recognition threshold will result in either a reduction of the current and deferred tax assets, and/or recording of current or deferred tax liabilities.

(3) Receivables from and Payables to Broker-Dealers and Clearing Organizations

Amounts receivable from and payable to broker-dealers and clearing organizations include the following (dollars in millions):

Receivables:		
Brokers and dealers	$	2,804
Securities failed to deliver		590
Clearing organizations		216
Total receivables	$	3,610
Payables:		
Brokers and dealers	$	1,818
Securities failed to receive		792
Total payables	$	2,610

(continued)

(4) Financial Instruments

ASC Topic 820 applies to all financial instruments that are being measured and reported on a fair value basis. This includes those items currently reported in financial instruments owned, at fair value and financial instruments sold, not yet purchased, at fair value on the statement of financial condition.

As defined in ASC Topic 820, fair value is 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. In determining fair value, the Company uses various methods including market and income approaches. Based on these approaches, the Company utilizes certain assumptions that market participants would use in pricing the asset or liability. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based on the observability of the inputs used in the valuation techniques, the Company is required to provide the following information according to the fair value hierarchy. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values. Financial instrument assets and liabilities carried at fair value have been classified and disclosed in one of the following three categories:

Level 1 Quoted market prices in active markets for identical assets or liabilities.

Level 2 Observable market based inputs or unobservable inputs that are derived from or corroborated by market data.

Level 3 Unobservable inputs that are not corroborated by market data.

Level 1 primarily consists of financial instruments whose value is based on quoted market prices such as listed equities.

Level 2 includes those financial instruments that are valued using models or other valuation methodologies calibrated to observable market inputs. These models are primarily industry-standard models that consider various assumptions, including discount margins, credit spreads, discounted anticipated cash flows, the terms and liquidity of the instrument, the financial condition, operating results and credit ratings of the issuer or underlying company, the quoted market price of publicly traded securities with similar duration and yield, time value, yield curve, default rates, as well as other measurements. In order to be classified as Level 2, substantially all of these assumptions would need to be observable in the marketplace and can be derived from observable data or supported by observable levels at which transactions are executed in the marketplace. The Company did not have any assets or liabilities classified as Level 2 at December 31, 2016 and there was no change in Level 2 assets or liabilities during the year.

Level 3 is comprised of financial instruments whose fair value is estimated based on internally developed models or methodologies utilizing significant inputs that are unobservable from objective sources. The Company did not have any assets or liabilities classified as Level 3 at December 31, 2016 and there was no change in Level 3 assets or liabilities during the year.

(continued)

In determining the appropriate levels, the Company performed an analysis of the assets and liabilities that are subject to ASC Topic 820. The following tables present the financial instruments carried at fair value as of December 31, 2016 (dollars in millions):

	Assets at fair value as of December 31, 2016			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial instruments owned, at fair value				
Equity Securities	33	—	—	33
Total assets at fair value	$ 33	—	—	33

	Liabilities at fair value as of December 31, 2016			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial instruments sold, not yet purchased				
Equity Securities	$ 1	—	—	1
Total liabilities at fair value	$ 1	—	—	1

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

The fair values of the other financial assets and liabilities are considered to approximate their carrying amounts because they have limited counterparty credit risk and are short-term, replaceable on demand, or bear interest at market rates.

(continued)

The table below presents the carrying value and fair value of Pershing LLC's financial instruments which are not carried at fair value (dollars in millions). The table below therefore excludes items measured at fair value on a recurring basis presented in the table above. In addition, the table excludes the values of non-financial assets and liabilities (dollars in millions).

	December 31, 2016				
	Level 1	**Level 2**	**Level 3**	**Estimated fair value**	**Carrying value**
Summary of financial instruments:					
Assets:					
Cash and cash equivalents	$ 459	—	—	459	459
Cash and qualified securities segregated for regulatory purposes	3,382	2,055	—	5,437	5,437
Securities borrowed	—	7,149	—	7,149	7,149
Securities purchased under agreements to resell	—	1,780	—	1,780	1,780
Receivables from customers	—	12,959	—	12,959	12,959
Receivables from broker-dealers and clearing organizations	—	3,610	—	3,610	3,610
Due from Affiliates	—	555	—	555	555
Other assets	—	449	—	449	449
Total	$ 3,841	28,557	—	32,398	32,398
Liabilities:					
Drafts payable	$ —	504	—	504	504
Securities loaned	—	1,070	—	1,070	1,070
Securities sold under agreements to repurchase	—	4,725	—	4,725	4,725
Payables to customers	—	19,023	—	19,023	19,023
Payables to broker-dealers and clearing organizations	—	2,610	—	2,610	2,610
Due to Affiliates	—	1,245	—	1,245	1,245
Accounts payable, accrued expenses other	—	363	—	363	363
Total	$ —	29,540	—	29,540	29,540

Fair value can vary from period to period based on changes in a wide range of factors, including interest rates, credit quality, and market perceptions of value and as existing assets and liabilities run off and new transactions are entered into.

(continued)

Offsetting Assets and Liabilities

The following table presents financial instruments that are either subject to an enforceable netting agreement or offset by collateral arrangements. There were no financial instruments subject to a netting agreement for which the Company is not currently netting (dollars in millions).

Financial assets subject to enforceable master netting agreements

December 31, 2016		Gross assets recognized	Gross amounts offset in the statement of financial condition	Net assets recognized on the statement of financial condition	Gross amounts not offset (1) Financial instruments	Gross amounts not offset (1) Cash collateral received	Net amount
Securities borrowed	$	7,149	—	7,149	6,920	—	229
Securities purchased under agreements to resell (2)		4,326	491	3,835	3,831	—	4
Total financial assets subject to enforceable master netting agreement	$	11,475	491	10,984	10,751	—	233

Financial liabilities subject to enforceable master netting agreements

		Gross liabilities recognized	Gross amounts offset in the statement of financial condition	Net liabilities recognized on the statement of financial condition	Gross amounts not offset (1) Financial instruments	Gross amounts not offset (1) Cash collateral pledged	Net amount
Securities loaned	$	1,070	—	1,070	1,036	—	34
Securities sold under agreements to repurchase		5,216	491	4,725	4,725	—	—
Total financial liabilities subject to enforceable master netting agreement	$	6,286	491	5,795	5,761	—	34

(1) The total amount reported in financial instruments is limited to the amount of the related instruments presented in the statement of financial condition and therefore any over-collateralization of these positions is not included.

(2) Including qualified securities with a contract value of $2,055 recognized on the statement of financial condition.

(continued)

Repurchase Agreements and Securities Lending

The following table presents the contract value of repurchase agreements and securities lending transactions accounted for as secured borrowings by the type of collateral provided to counterparties.

Repurchase agreements and securities lending transactions accounted for as secured borrowings at December 31, 2016

	Remaining contractual maturity of the agreements			
(in thousands)	**Overnight and continuous**	**Up to 30 days**	**30 days or more**	**Total**
Repurchase agreements:				
U.S. Treasury	$ 515,448	$ 5,881	$ —	$ 521,329
U.S. Government agencies	497,131	49,044	—	546,175
State and political subdivisions	145,271	—	341,827	487,098
Agency RMBS	1,676,583	345,076	—	2,021,659
Agency commercial MBS	1,500	—	—	1,500
Corporate bonds	283,585	—	667,291	950,876
Other debt securities	—	—	90,854	90,854
Equity securities	396,144	—	177,551	573,695
Money market funds	—	—	22,477	22,477
Total repurchase agreements	$ 3,515,662	$ 400,001	$ 1,300,000	$ 5,215,663
Securities Lending:				
U.S. Government agencies	$ 38,615	$ —	$ —	$ 38,615
Agency RMBS	144,079	—	—	144,079
Agency commercial MBS	1,900	—	—	1,900
Corporate bonds	76,258	—	—	76,258
Sovereign debt/sovereign guaranteed	1,165	—	—	1,165
Equity securities	807,993	—	—	807,993
Total securities loaned	$ 1,070,010	$ —	$ —	$ 1,070,010
Total borrowings	$ 4,585,672	$ 400,001	$ 1,300,000	$ 6,285,673

The Company's repurchase agreements and securities lending transactions primarily encounter risk associated with liquidity. The Company is required to pledge collateral based on predetermined terms within the agreements. If the Company were to experience a decline in the fair value of the collateral pledged for these transactions, additional collateral could be required to be provided to the counterparty, thereby decreasing the amount of assets available for other liquidity needs that may arise.

(continued)

As of December 31, 2016, the Company has $450 million of collateral related to repurchase agreements that had remaining contractual maturities that exceeded 90 days.

(5) Fixed Assets

Fixed assets are included in other assets on the statement of financial condition and consists of the following (dollars in millions):

Capitalized software	$	183
Leasehold improvements		34
Computer software		22
Computer equipment		10
Other		47
Total		296
Less accumulated depreciation		(201)
Total fixed assets, net	$	95

(6) Third Party Bank Loans and Lines of Credit

The Company has $1.5 billion in uncommitted lines of credit with non-affiliated banks as of December 31, 2016. There were no borrowings against these lines of credit at December 31, 2016. Interest on such borrowings is determined at the time each loan is initiated.

(7) Income Taxes

The deferred income taxes reflect the tax effects of temporary differences between the financial reporting and tax bases of asset and liabilities. The Company has a gross deferred tax asset of $20.0 million and a gross deferred tax liability of $20.2 million at December 31, 2016. The deferred tax asset is primarily attributable to stock compensation and the deferred tax liability is primarily attributable to deferred intercompany gain. The net deferred tax liability is $0.2 million. The Company has not recorded a valuation allowance because the Company believes it is more likely than not that the deferred tax assets will be realized.

Federal taxes payable due to BNY Mellon of $45.9 million is included in payables to affiliates and state taxes payable of $0.6 million is included in account payable, accrued expenses and other on the statement of financial condition.

BNY Mellon's federal consolidated income tax returns are closed to examination through 2013. The Company's New York State income tax return examination has been closed through 2012. The Company's New York City income tax return examination has been closed through 2010. The Company's New Jersey income tax returns are closed to examination through 2011.

(continued)

(8) Related Party Transactions

The Company provides clearing, sales and trading, and brokerage related services to indirect wholly owned subsidiaries of BNY Mellon. Balances due from/to these affiliates were approximately $555.4 million and $51.4 million, respectively. They are included in receivables from affiliates and payables to affiliates, respectively, on the statement of financial condition.

The Company has $6.4 billion of unsecured loan facilities with the Parent. At December 31, 2016, there were borrowings against the loan facilities of approximately $840 million included in payables to affiliates. The Company also has loan agreements with three affiliates. At December 31, 2016, there were borrowings against the loans of approximately $126 million, which are included in payables to affiliates.

Balances due to BNY Mellon for taxes, payroll, technology and leased equipment were $143.7 million and are included in payables to affiliates on the statement of financial condition. The Company maintains a collateralized financing arrangement with an affiliate associated with repurchase agreements, with the maximum facility of $200 million. At December 31, 2016, the Company had entered into repurchase agreements with the affiliate totaling $84.2 million, which is included in payables to affiliates on the statement of financial condition.

For the year ended December 31, 2016, the Company leased furniture and fixtures and computer and other communications equipment from an affiliate.

Additionally, the Company contracts through certain related parties acting in their role as agents to facilitate transactions between the Company and certain principal third parties for securities borrowed and tri-party repurchase or reverse repurchase transactions. Any risk assumed in these transactions is solely between the principal third parties and the Company.

(9) Employee Benefit Plans

BNY Mellon sponsors a 401(k) plan (the Plan) for its active employees. The Plan offers the Company's employees the opportunity to plan, save and invest for their future financial needs. The Company makes periodic contributions to the Plan based on the discretion of management.

(continued)

(10) Pledged Assets and Guarantees

Under the Company's collateralized financing arrangements and other business activities, the Company either receives or provides collateral. In many cases, the Company is permitted to sell or repledge these securities held as collateral. At December 31, 2016, the fair value of securities received as collateral where the Company is permitted to sell or repledge the securities was $40,633 million and the fair value of the portion that had been sold or repledged was $20,322 million. The details of these sources and the uses of collateral are noted in the below tables (dollars in millions).

Source of available collateral – received, borrowed or owned:		
Financial instruments owned, at fair value	$	33
Securities borrowed		6,958
Securities purchased under agreements to resell		4,222
Margin securities available to sell or re-pledge		29,420
Total source of collateral	$	40,633
Use of available collateral – re-pledged, loaned or sold:		
Financial instruments sold, not yet purchased, at fair value	$	1
Securities loaned		1,036
Securities sold under agreements to repurchase		5,382
Pledged to clearing corporations		807
Short sale covering		11,045
Qualified securities segregated for regulatory purposes		2,051
Total use of collateral	$	20,322

The Company also conducts a fully paid lending program, in which customers agree to make available their fully paid securities to be loaned to third parties in exchange for a fee. At December 31, 2016, the fair value of the securities borrowed under this program was $116 million and is included in securities borrowed and securities loaned on the statement of financial condition and included in the table above.

Obligations under Guarantees

The Company has adopted the disclosure and recognition requirements for guarantees in accordance with ASC Topic 460, *Guarantees*, whereby the Company will recognize a liability at the inception of a guarantee for obligations it has undertaken in issuing the guarantee, including its ongoing obligation to stand ready to perform over the term of the guarantee in the event that certain events or conditions occur.

The Company provides guarantees to securities clearinghouses and exchanges. Under the standard membership agreement, members are required to guarantee the performance of other members. Under the agreements, if another member becomes unable to satisfy its obligations to the clearinghouse, other members would be required to meet shortfalls. The Company's liability under these arrangements is not quantifiable or limited and could exceed the cash and securities it has posted as collateral. However, management believes the potential for the Company to be required to make payments under these

(continued)

arrangements is remote. Accordingly, no contingent liability is carried on the statement of financial condition for these arrangements.

In connection with its securities clearing business, the Company performs securities execution, clearance and settlement services on behalf of other broker-dealer clients. Management believes the potential for the Company to be required to make unreimbursed payments relating to such services is remote due to the contractual capital requirements associated with clients' activity and the regular review of clients' capital. Accordingly, no contingent liability is carried on the statement of financial condition for these transactions.

(11) Commitments and Contingences

As of December 31, 2016, the Company had commitments with twenty five customers to lend a maximum total of $3.299 billion for various terms. These commitments consisted of outstanding loans of $3.202 billion, and unfunded commitments totaling $97 million.

The Company has non-cancelable leases for office space and equipment that expire on various dates through 2021. At December 31, 2016, minimum future rentals on noncancelable operating leases are as follows (dollars in millions): 2017 $22, 2018 $22, 2019 $21, 2020 $19 and $9 for the years thereafter.

The Company is involved in various legal proceedings arising in connection with the conduct of the Company's business. The Company believes that based on currently available information and the advice of counsel, the results of all such proceedings in the aggregate, will not have a material adverse effect on the Company's financial condition. The Company intends to defend itself vigorously against all claims asserted against it. In accordance with applicable accounting guidance, the Company establishes reserves for litigation and settlements when those matters proceed to a stage where they present loss contingencies that are both probable and reasonably estimable. In such cases, there may be a possible exposure to loss in excess of any amounts accrued. The Company will continue to monitor such matters for developments that will affect the amount of the reserve, and will adjust the reserve amount as appropriate.

(12) Regulatory Requirements

As a registered broker-dealer, the Company is subject to the Uniform Net Capital Rule under Rule 15c3-l of the Securities Exchange Act of 1934 and has elected to use the alternative method of computing regulatory net capital requirements provided for in that Rule. Under the alternative method, the required net capital may not be less than two percent of aggregate debit items arising from customer transactions or $1.5 million, whichever is greater. At December 31, 2016, the Company's regulatory net capital of approximately $2.31 billion was 13.96% of aggregate debit items and in excess of the minimum requirement by approximately $1.98 billion.

Advances to affiliates, repayment of borrowings, dividend payments to Parent and other equity withdrawals are subject to certain notification and other provisions of the Rule 15c3-1 and other regulatory bodies.

Pursuant to Rule 15c3-3 of the SEC, the Company may be required to deposit in a Special Reserve Bank Account, cash or acceptable qualified securities for the exclusive benefit of customers. At December 31,

(continued)

2016, the Company had approximately $5.43 billion of cash and acceptable qualified securities on deposit in such accounts.

As a clearing broker, the Company is required to compute a reserve requirement for the proprietary accounts of broker-dealers (the PAB Reserve Formula). As of December 31, 2016, the Company had approximately $195 thousand of cash deposits in cash accounts designated for the exclusive benefit of PAB pursuant to Rule 15c3-3 of the SEC.

(13) Financial Instruments and Related Risks

(a) Customer Activities

Certain market and credit risks are inherent in the Company's business, primarily in facilitating customers' trading and financing transactions in financial instruments. In the normal course of business, the Company's customer activities include execution, settlement, and financing of various customer securities, which may expose the Company to both on and off-balance sheet risk in the event the customer is unable to fulfill its contractual obligations.

The Company's customer securities activities are transacted on either a cash or margin basis. In margin transactions, the Company extends credit to customers, which is collateralized by cash and/or securities in the customer's account. In connection with these activities, the Company executes and clears customer transactions involving securities sold but not yet purchased and option contracts. The Company seeks to control risks associated with its customer activities by requiring customers to maintain margin collateral in compliance with various regulatory, exchange and internal guidelines. The Company monitors required margin levels daily; pursuant to such guidelines, the Company requires the customer to deposit additional collateral or to reduce positions, when necessary. Such transactions may expose the Company to significant off-balance sheet risk in the event the collateral is not sufficient to fully cover losses which customers may incur. In the event the customer fails to satisfy its obligations, the Company may be required to purchase or sell the collateral at prevailing market prices in order to fulfill the customer's obligations.

The Company's customer financing and securities settlement activities may require the Company to pledge customer securities as collateral in support of various secured financing sources, such as securities loaned. Additionally, the Company pledges customer securities as collateral to satisfy margin deposits of the Options Clearing Corporation. In the event the counterparty is unable to meet its contractual obligation to return customer securities pledged as collateral, the Company may be exposed to the risk of acquiring the securities at prevailing market prices in order to satisfy its obligation. The Company controls this risk by monitoring the market value of securities pledged on a daily basis and by requiring adjustments of collateral levels in the event of excess market exposures.

(b) Credit Risk

As a securities broker and dealer, the Company is engaged in various securities trading and brokerage activities servicing a diverse group of domestic and foreign corporations, governments, and institutional and individual investors. A substantial portion of the Company's transactions is

(continued)

executed with and on behalf of institutional investors including other broker-dealers, banks, U.S. government agencies, mutual funds, hedge funds and other financial institutions.

Credit risk is the potential for loss resulting from the default by a counterparty of its obligations. Exposure to credit risk is generated by securities and currency settlements, contracting derivative and forward transactions with customers and dealers, and the holding in inventory of loans. The Company uses various means to manage its credit risk. The creditworthiness of all counterparties is analyzed at the outset of a credit relationship with the Company. These counterparties are subsequently reviewed on a periodic basis. The Company sets a maximum exposure limit for each counterparty, as well as for groups or classes of counterparties. Furthermore, the Company enters into master netting agreements when feasible and demands collateral from certain counterparties or for certain types of credit transactions.

(c) Market Risk

Market risk is the potential loss the Company may incur as a result of changes in the market or fair value of a particular financial instrument. All financial instruments are subject to market risk. The Company’s exposure to market risk is determined by a number of factors, including size, duration, composition and diversification of positions held, the absolute and relative level of interest rates and foreign currency exchange rates, as well as market volatility and liquidity. The Company manages market risk by setting and monitoring adherence to risk limits.

Financial instruments sold, not yet purchased represent obligations of the Company to deliver the specified security at the contracted price and thereby, create a liability to purchase the security in the market at prevailing prices. Accordingly, these transactions result in off-balance sheet risk, as the Company’s ultimate obligation to satisfy the sale of financial instruments sold, not yet purchased may exceed the amount reflected in the statement of financial condition.

(d) Operational Risk

In providing a comprehensive array of products and services, the Company may be exposed to operational risk. Operational risk may result from, but is not limited to, errors related to transaction processing, breaches of internal control systems and compliance requirements, fraud by employees or persons outside the Company or business interruption due to systems failures or the other events. Operational risk may also include breaches of the Company’s technology and information systems resulting from unauthorized access to confidential information or from internal or external threats, such as cyber attacks. Operational risk also includes potential legal or regulatory actions that could arise as a result of noncompliance with applicable laws and/or regulatory requirements. In the case of an operational event, the Company could suffer a financial loss as well as damage to our reputation.

(e) Financial Instruments with Off-Balance-Sheet Risk

The Company may enter into various transactions involving derivatives and other off-balance sheet financial instruments. These financial instruments may include forward foreign exchange contracts that are used to meet the needs of customers. Generally, forward foreign exchange contracts

(continued)

represent future commitments to purchase or sell foreign currency at specific terms at specified future dates.

(14) Subsequent Events

The Company has evaluated subsequent events from December 31, 2016 through February 28, 2017, the date the Company’s financial statements are available to be issued.

Financial Northeastern Companies

Financial Northeastern Securities

J.P. Morgan Securities LLC and Subsidiaries
(Clearing Firm)
December 31, 2016
Financial Statements

J.P. Morgan Securities LLC and Subsidiaries

(An indirect wholly-owned subsidiary of JPMorgan Chase & Co.)

Consolidated Statement of Financial Condition
December 31, 2016

J.P. Morgan Securities LLC and Subsidiaries
(An indirect wholly-owned subsidiary of JPMorgan Chase & Co.)

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December 31, 2016

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Report of Independent Registered Public Accounting Firm

To Management and the Board of Managers of
J.P. Morgan Securities LLC and Subsidiaries:

In our opinion, the accompanying consolidated statement of financial condition presents fairly, in all material respects, the financial position of J.P. Morgan Securities LLC and its subsidiaries (the "Company") as of December 31, 2016, in conformity with accounting principles generally accepted in the United States of America. The consolidated statement of financial condition is the responsibility of the Company's management. Our responsibility is to express an opinion on the consolidated statement of financial condition based on our audit. We conducted our audit of the consolidated statement of financial condition in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated statement of financial condition is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated statement of financial condition, assessing the accounting principles used and significant estimates made by management, and evaluating the overall presentation of the consolidated statement of financial condition. We believe that our audit provides a reasonable basis for our opinion.

PricewaterhouseCoopers LLP

February 28, 2017

PricewaterhouseCoopers LLP, PricewaterhouseCoopers Center, 300 Madison Avenue, New York, NY 10017
T: (646) 471 3000, F: (813) 286 6000, www.pwc.com/us

Notes to Consolidated Statement of Financial Condition
December 31, 2016

(in millions)	
Assets	
Cash	$ 1,115
Cash and securities segregated under federal and other regulations	26,678
Securities purchased under resale agreements (included $16,157 at fair value)	117,276
Securities borrowed	72,755
Securities received as collateral, at fair value	7,845
Receivables from customers	16,419
Receivables from brokers, dealers, clearing organizations and others	17,689
Financial instruments owned, at fair value (included assets pledged of $72,812)	115,743
Goodwill	1,356
Other assets (included $16 at fair value)	2,479
Total assets[a]	**$ 379,355**
Liabilities	
Commercial paper	$ 11,738
Short-term borrowings (included $221 at fair value)	10,840
Securities sold under repurchase agreements (included $288 at fair value)	169,910
Securities loaned	14,648
Obligation to return securities received as collateral, at fair value	8,649
Payables to customers	88,911
Payables to brokers, dealers, clearing organizations and others	4,585
Financial instruments sold, not yet purchased, at fair value	27,844
Other liabilities and accrued expenses	2,829
Beneficial interests issued by consolidated variable interest entities (“VIE”) (included $72 at fair value)	277
Long-term debt (included $7,177 at fair value)	7,677
Total liabilities[a]	**347,908**
Commitments and contingencies (see Note 17)	
Subordinated liabilities	14,000
Member’s equity	
Member’s interest	6,167
Retained earnings	11,280
Total member’s equity	**17,447**
Total liabilities and member’s equity	**$ 379,355**

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Company at December 31, 2016. The difference between total VIE assets and liabilities represents the Company’s interests in those entities, which were eliminated in consolidation.

(in millions)	
Assets	
Financial instruments owned	$ 308
Total assets	**$ 308**
Liabilities	
Beneficial interests issued by consolidated VIEs	$ 277
Total liabilities	**$ 277**

The assets of 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 the Company.

The accompanying notes are an integral part of this Consolidated Statement of Financial Condition.

1. Organization

The Consolidated Statement of Financial Condition includes the accounts of J.P. Morgan Securities LLC ("JPMorgan Securities") and its subsidiaries (collectively the "Company"). The Company is an indirect wholly-owned 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. For purposes of this report, an "affiliate" is defined as JPMorgan Chase or a direct or indirect subsidiary of JPMorgan Chase. The Company is a registered broker-dealer and investment adviser with the United States Securities and Exchange Commission ("SEC") and a futures commission merchant ("FCM") with the Commodities Futures Trading Commission ("CFTC"). The Company is provisionally registered with the National Futures Association ("NFA") as a swap dealer, and the Company is progressing toward final registration. The Company is also a member of the Securities Investor Protection Corporation ("SIPC"), the New York Stock Exchange ("NYSE") and other exchanges.

Nature of business

The Company acts as a primary dealer in U.S. government securities; makes markets in money market instruments and U.S. government agency securities; underwrites and trades various types of debt and equity securities (including securities issued by JPMorgan Chase or its affiliates); advises clients on business strategies, capital structures and financial strategies; structures derivative transactions to meet client needs; engages in the execution and clearance of exchange-traded futures and options, and clears over-the-counter ("OTC") derivative contracts in connection with JPMorgan Chase's and its affiliates' client-driven market-making and risk management activities. The Company provides securities clearing and customer financing, and enters into securities purchased under resale agreements ("resale agreements") and securities sold under repurchase agreements ("repurchase agreements"). The Company also enters into securities borrowed and loaned transactions to finance securities activities, including through JPMorgan Securities' wholly-owned subsidiary J.P. Morgan Prime Inc. ("JPMorgan Prime") for certain prime brokerage customer transactions. Additionally, the Company acts as a clearing broker carrying and clearing (i) customer cash and margin accounts for correspondents on either a fully disclosed or omnibus basis, and (ii) the proprietary trading accounts of hedge funds, brokers and dealers and other professional trading firms, collectively "clearing clients". The Company also acts as a carrying and clearing broker for certain activities of its affiliates on either a fully disclosed or omnibus basis.

Credit ratings

The credit ratings of the Company as of December 31, 2016, were as follows.

	Long-term issuer	Short-term issuer	Outlook
Moody's Investors Service ("Moody's")	Aa3[(a)]	P-1	Stable
Standard & Poor's (S&P)	A+	A-1	Stable
Fitch Ratings	AA-	F1+	Stable

(a) On February 22, 2017, Moody's published its updated rating methodologies for securities firms. Subsequently, as a result of this action, the Company's long-term issuer rating was downgraded by one notch from Aa3 to A1. The short-term issuer rating was unchanged and the outlook remained stable.

Merger of J. P. Morgan Securities LLC and J.P. Morgan Clearing Corp.

Effective October 1, 2016, JPMorgan Securities merged with J.P. Morgan Clearing Corp. ("Clearing Corp."). Prior to the merger, Clearing Corp. was a wholly-owned subsidiary of and consolidated by JPMorgan Securities. JPMorgan Securities is the surviving legal entity, and its name will remain unchanged. Clearing Corp.'s primary business activity was providing securities and futures clearing, customer financing, securities lending and related services. Following the merger, these services are performed by JPMorgan Securities.

2. Significant accounting policies

The accounting and financial reporting policies of the Company 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.

(a) Accounting and reporting developments

Financial Accounting Standards Board ("FASB") Standards adopted during 2016

Standard	Summary of guidance	Effects on Consolidated Statement of Financial Condition
Amendments to the consolidation analysis	• Eliminates the deferral issued by the FASB in February 2010 of VIE-related accounting requirements for certain investment funds, including mutual funds, private equity funds and hedge funds. • Amends the evaluation of fees paid to a decision-maker or a service provider, and exempts certain money market funds from consolidation.	• Adopted January 1, 2016. • There was no material impact on the Company's Consolidated Statement of Financial Condition.
Improvements to employee share-based payment accounting	• Requires that all excess tax benefits and tax deficiencies that pertain to employee stock-based incentive payments be recognized within income tax expense in the Consolidated Statement of Income.	• Adopted January 1, 2016. • There was no material impact on the Company's Consolidated Statement of Financial Condition.
Measuring the financial assets and financial liabilities of a consolidated collateralized financing entity	• Provides an alternative for consolidated financing VIEs to elect: (1) to measure their financial assets and liabilities separately under existing U.S. GAAP for fair value measurement with any differences in such fair values reflected in earnings; or (2) to measure both their financial assets and liabilities using the more observable of the fair value of the financial assets or the fair value of the financial liabilities.	• Adopted January 1, 2016. • There was no material impact on the Company's Consolidated Statement of Financial Condition as the Company has historically measured the financial assets and liabilities using the more observable fair value.
Recognition and measurement of financial assets and financial liabilities - DVA to OCI	• For financial liabilities where the fair value option has been elected, the portion of the total change in fair value caused by changes in the Company's own credit risk (i.e., debit valuation adjustment ("DVA")) is required to be presented separately in other comprehensive income ("OCI"). • Requires a cumulative effect adjustment to retained earnings as of the beginning of the reporting period of adoption.	• Adopted January 1, 2016. • There was no material impact on the Company's Consolidated Statement of Financial Condition.

FASB Standards issued but not yet adopted

Standard	Summary of guidance	Effects on Consolidated Statement of Financial Condition
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 Statement 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, the Company does not expect the new revenue recognition guidance to have a material impact on the elements of its Consolidated Statement of Income most closely associated with financial instruments, including securities gains, interest income and interest expense. • The Company plans to adopt the revenue recognition guidance in the first quarter of 2018. The Company'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 the Company has not yet identified any material changes in the timing of revenue recognition, the Company's review is ongoing, and it continues to evaluate the presentation of certain contract costs (whether presented gross or offset against noninterest revenue).

(a) Early adoption is permitted.

FASB Standards issued but not yet adopted (continued)

Standard	Summary of guidance	Effects on Consolidated Statement of Financial Condition
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. • The Company is currently evaluating the potential impact on the Consolidated Statement of Financial Condition. The Company'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 Statement of Financial Condition 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] • The Company is currently evaluating the potential impact on the Consolidated Statement of Financial Condition by reviewing its existing lease contracts and service contracts that may include embedded leases. The Company does not expect material changes to the recognition of operating lease expense in its Consolidated Statement of Income.
Classification of certain cash receipts and cash payments on the Consolidated 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.	• Required effective date: January 1, 2018.[a] • The Company is currently evaluating the potential impact on the Consolidated Statement of Financial Condition.
Treatment of restricted cash on the Consolidated Statement of Cash Flows *Issued November 2016*	• Requires inclusion of restricted cash in the cash balances on the Consolidated Statement of Cash Flows. • Requires additional disclosures to supplement the Consolidated Statement of Cash Flows.	• Required effective date: January 1, 2018.[a] • The Company is currently evaluating the potential impact on the Consolidated Statement of Financial Condition.
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, the Company does not expect a material effect on the Consolidated Statement of Financial Condition.

(a) Early adoption is permitted.

(b) Basis of presentation

Consolidation

The Consolidated Statement of Financial Condition includes the accounts of the Company and entities in which the Company has a controlling financial interest as of December 31, 2016. All material intercompany balances and transactions have been eliminated. The Company determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity (“VIE”).

Voting interest entities

Voting interest entities are entities that have sufficient equity and provide the equity investors voting rights that enable them to make significant decisions relating to the entity’s operations. For these types of entities, the Company’s determination of whether it has a controlling interest is primarily based on the amount of voting equity interests held. Entities in which the Company has a controlling financial interest, through ownership of the majority of the entities’ voting equity interests, or through other contractual rights that give the Company control, are consolidated by the Company. Investments in companies in which the Company has significant influence over operating and financing decisions (but does not own a majority of the voting equity interests) are accounted for (i) in accordance with the equity method of accounting (which requires the Company to recognize its proportionate share of the entity's net earnings), or (ii) at fair value if the fair value option was elected. At December 31, 2016, the Company did not have any equity method investments.

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

The most common type of VIE is a special purpose entity ("SPE"). SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. The basic SPE structure involves a company selling assets to the SPE; the SPE funds the purchase of those assets by issuing securities to investors. The legal documents that govern the transaction specify how the cash earned on the assets must be allocated to the SPE's investors and other parties that have rights to those cash flows. SPEs are generally structured to insulate investors from claims on the SPE's assets by creditors of other entities, including the creditors of the seller of the assets.

The primary beneficiary of a VIE (i.e., the party that has a controlling financial interest) is required to consolidate the assets and liabilities of the VIE. The primary beneficiary is the party that has both (1) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance; and (2) through its interests in the VIE, the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE.

To assess whether the Company has the power to direct the activities of a VIE that most significantly impact the VIE's economic performance, the Company considers all facts and circumstances, including its role in establishing the VIE and its ongoing rights and responsibilities. This assessment includes, first, identifying the activities that most significantly impact the VIE's economic performance; and second, identifying which party, if any, has power over those activities. In general, the parties that make the most significant decisions affecting the VIE (such as asset managers, collateral managers, servicers, owners of call options or liquidation rights over the VIE's assets) or have the right to unilaterally remove those decision-makers are deemed to have the power to direct the activities of a VIE.

To assess whether the Company has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE, the Company considers all of its economic interests, including debt and equity investments, derivatives or other arrangements deemed to be variable interests in the VIE. This assessment requires that the Company apply judgment in determining whether these interests, in the aggregate, are considered potentially significant to the VIE. Factors considered in assessing significance include: the design of the VIE, including its capitalization structure; subordination of interests; payment priority; relative share of interests held within the VIE's capital structure; and the reasons why the interests are held by the Company.

The Company performs ongoing reassessments of (1) whether any entities previously evaluated under the majority voting-interest framework have become VIEs, based on certain events, and therefore subject to the VIE consolidation framework; and (2) whether changes in the facts and circumstances regarding the Company's involvement with a VIE cause the Company's consolidation conclusion to change. For further discussion related to VIEs, see Note 13.

Assets held for clients in an agency or fiduciary capacity
Assets owned by customers, including those that collateralize margin or other similar transactions and are held for clients in an agency or fiduciary capacity by the Company, are not assets of the Company and are not included on the Consolidated Statement of Financial Condition.

Use of estimates in the preparation of the Consolidated Statement of Financial Condition
The preparation of the Consolidated Statement of Financial Condition requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and 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 the Consolidated Statement of Financial Condition.

Foreign currency translation
The Company revalues assets and liabilities denominated in non-U.S. currencies into U.S. dollars using applicable exchange rates.

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 Statement of Financial Condition when a legally enforceable master netting agreement exists. U.S. GAAP also permits resale and repurchase agreements to be presented net when specified conditions are met, including the existence of a legally enforceable master netting agreement. The Company has elected to net such balances when the specified conditions are met.

The Company uses master netting agreements to mitigate counterparty credit risk in certain transactions, including derivatives transactions, resale and repurchase agreements, and securities borrowed and loaned agreements. A master netting agreement is a single contract with a counterparty that permits multiple transactions governed by that contract to be terminated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due after expiration of any grace period). Upon the exercise of termination rights by the non-defaulting party, (i) all transactions are terminated, (ii) all transactions are valued and the positive value or "in the money" transactions are netted against the negative value or "out of the money" transactions and (iii) the only remaining payment obligation is of one of the parties to pay the netted termination amount. Upon exercise of repurchase agreement and/or securities loaned default rights in general (i) all securities loaned transactions are terminated and accelerated, (ii) all values of securities or cash held or to be delivered are calculated, and all such sums are netted against each other and (iii) the only remaining payment obligation is of one of the parties to pay the netted termination amount.

Typical master netting agreements for these types of transactions also often contain a collateral/margin agreement that provides for a security interest in or title transfer of securities or cash collateral/margin to the party that has the right to demand margin (the "demanding party"). The collateral/margin agreement typically requires a party to transfer collateral/margin to the demanding party with a value equal to the amount of the margin deficit on a net basis across all transactions governed by the master netting agreement, less any threshold. The collateral/margin agreement grants to the demanding party, upon default by the counterparty, the right to set-off any amounts payable by the counterparty against any posted collateral or the cash equivalent of any posted collateral/margin. It also grants to the demanding party the right to liquidate collateral/margin and to apply the proceeds to an amount payable by the counterparty. For further discussion of the Company's derivative instruments and securities financing activities see Notes 5 and 6, respectively.

(c) Cash and securities segregated under federal and other regulations

The Company is required by its primary regulators, including the SEC and CFTC, to segregate cash and securities to satisfy rules regarding the protection of assets of customers and proprietary accounts of broker-dealers. See Note 18 for further information.

(d) Financial instruments

Financial instruments owned and financial instruments sold, not yet purchased are accounted for at fair value. For further discussion related to the Company's valuation methodologies under fair value measurement, see Note 3. Balances reflect the reduction of securities owned (long positions) by the amount of identical securities sold but not yet purchased (short positions) when the long and short positions have identical Committee on Uniform Security Identification Procedures numbers ("CUSIPs").

(e) Securities transactions

Principal securities transactions in regular way trades are recorded on the trade date, the date on which an agreement is executed to purchase or sell a security. Principal securities transactions in non-regular way trades are recorded on the settlement date (the date on which the payment of funds and delivery of securities are to take place) with changes in value recorded on the Consolidated Statement of Financial Condition between trade and settlement dates. Payables to brokers, dealers, clearing organizations and others included $1.1 billion of net unsettled principal securities transactions.

(f) Customer transactions

Receivables from and payables to customers primarily include amounts arising from securities and margin transactions. These customer securities transactions are recorded on the Consolidated Statement of Financial Condition on a settlement date basis. In the event of fails to deliver or receive securities, the Company records corresponding receivables from customers or payables to customers, respectively.

The Company monitors the market value of collateral held to secure receivables from customers. It is the Company's policy to request and obtain additional collateral when appropriate.

(g) Goodwill

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

Impairment testing

Goodwill impairment testing is performed in two steps. In the first step, the current fair value of the Company is compared with its carrying value, including goodwill. If the fair value is in excess of the carrying value (including goodwill), goodwill is considered not to be impaired. If the fair value is less than the carrying value (including goodwill), then a second step is performed. In the second step, the implied current fair value of goodwill is determined by comparing the fair value of the Company (as determined in step one) to the fair value of the net assets of the Company, as if the Company were being acquired in a business combination. The resulting implied current fair value of goodwill is then compared with the carrying value of the Company's goodwill. If the carrying value of the goodwill exceeds its implied current fair value, then an impairment charge is recognized for the excess. If the carrying value of goodwill is less than its implied current fair value, then no goodwill impairment is recognized. Goodwill was not impaired at December 31, 2016, nor was any goodwill written off due to impairment for the year ended December 31, 2016.

Declines in business performance, increases in equity capital requirements, as well as deterioration in economic or market conditions, adverse estimates of the impact of regulatory or legislative changes or increases in the estimated market cost of equity, could cause the estimated fair value of the Company 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.

(h) Income taxes

The results of operations of the Company are included in the consolidated federal, New York State, New York City and other state income tax returns filed by JPMorgan Chase. Pursuant to a tax sharing agreement, JPMorgan Chase allocates to the Company its share of the consolidated income tax expense or benefit based upon statutory rates applied to the Company's earnings as if it were filing separate income tax returns. The Company uses the asset and liability method to provide for income taxes on all transactions recorded on the Consolidated Statement of Financial Condition. Valuation allowances are established when necessary to reduce deferred tax assets to an amount that, in the opinion of management, is more likely than not to be realized. State and local income taxes are provided on the Company's taxable income at the effective income tax rate applicable to the consolidated JPMorgan Chase entity.

The guidance on accounting for uncertainty in income taxes describes how uncertain tax positions should be recognized, measured, presented and disclosed on the Consolidated Statement of Financial Condition. This guidance requires the evaluation of tax positions taken or expected to be taken in the course of preparing the Company's Consolidated Statement of Financial Condition to determine whether the tax positions are more likely than not to be realized as a tax benefit or expense in the current year. After-tax interest and penalties, as well as the related unrecognized tax benefits, are recognized in income tax expense.

The tax sharing agreement between JPMorgan Chase and the Company allows for intercompany payments to or from JPMorgan Chase for outstanding current tax assets or liabilities.

For further discussion of income taxes, see Note 7.

3. Fair value measurement of financial instruments

The Company carries a portion of its assets and liabilities at fair value. These assets and liabilities are carried at fair value on a recurring basis (i.e., assets and liabilities that are measured and reported at fair value on the Company's Consolidated Statement of Financial Condition).

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 or inputs, where available. If 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, including but not limited to yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value, as described below.

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 judgment and may vary across the Company's businesses and portfolios.

The Company uses various methodologies and assumptions in the determination of fair value. The use of different methodologies or assumptions by other market participants compared with those used by the Company could result in a different estimate of fair value at the reporting date.

Valuation process

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the Consolidated Statement of Financial Condition at fair value. JPMorgan Chase's Valuation Control Group ("VCG"), which is part of JPMorgan Chase'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 Company's positions are recorded at fair value. In addition, JPMorgan Chase's Firmwide Valuation Governance Forum ("VGF") is composed of senior finance and risk executives and is responsible for overseeing the management of risks arising from valuation activities conducted across JPMorgan Chase. The VGF is chaired by the JPMorgan Chase firmwide head of the VCG (under the direction of JPMorgan Chase's Controller), and includes sub-forums covering its lines of business and the Company.

Price verification process

The VCG verifies fair value estimates provided by the risk-taking functions by leveraging independently derived prices, valuation inputs and other market data, where available. Where independent prices or inputs are not available, additional review is performed by the VCG to ensure the reasonableness of estimates, and may include: evaluating the limited market activity including client unwinds; benchmarking of valuation inputs to those for similar instruments; decomposing the valuation of structured instruments into individual components; comparing expected to actual cash flows; reviewing profit and loss trends; and reviewing trends in collateral valuation. There are also additional levels of management review for more significant or complex positions.

The VCG determines any valuation adjustments that may be required to the estimates provided by the risk-taking functions. No adjustments are applied for instruments classified within level 1 of the fair value hierarchy (see below for further information on the fair value hierarchy). For other positions, judgment is required to assess the need for valuation adjustments to appropriately reflect liquidity considerations, unobservable parameters and, for certain portfolios that meet specified criteria, the size of the net open risk position. The determination of such adjustments follows a consistent framework across JPMorgan Chase.

Liquidity valuation adjustments

Liquidity valuation adjustments are considered where an observable external price or valuation parameter exists but is of lower reliability, potentially due to lower market activity. Liquidity valuation adjustments are applied and determined based on current market conditions. Factors that may be considered in determining the liquidity adjustment include analysis of: (1) the estimated bid-offer spread for the instrument being traded; (2) alternative pricing points for similar instruments in active markets; and (3) the range of reasonable values that the price or parameter could take.

The Company manages certain portfolios of financial instruments on the basis of net open risk exposure and, as permitted by U.S. GAAP, has elected to estimate the fair value of such portfolios on the basis of a transfer of the entire net open risk position in an orderly transaction. Where this is the case, valuation adjustments may be necessary to reflect the cost of exiting a larger-than-normal market-size net open risk position. Where applied, such adjustments are based on factors that a relevant market participant would consider in the transfer of the net open risk position including the size of the adverse market move that is likely to occur during the period required to reduce the net open risk position to a normal market-size.

Unobservable parameter valuation adjustments may be made when positions are valued using prices or input parameters to valuation models that are unobservable due to a lack of market activity or because they cannot be implied from observable market data. Such prices or parameters must be estimated and are, therefore, subject to management judgment. Unobservable parameter valuation adjustments are applied to reflect the uncertainty inherent in the resulting valuation estimate.

Where appropriate, the Company also applies adjustments to its estimates of fair value in order to appropriately reflect counterparty credit quality, the Company's own creditworthiness and the impact of funding, applying a consistent framework across the Company.

Valuation model review and approval

If prices or quotes are not available for an instrument or a similar instrument, fair value is generally determined using valuation models that consider relevant transaction data such as maturity and use as inputs market-based or independently sourced parameters. Where this is the case the price verification process described above is applied to the inputs to those models.

The Model Risk function reviews and approves a wide range of models, including risk management, valuation and regulatory capital models used by the Company. The Model Risk function is independent of model users and developers. JPMorgan Chase's Firmwide Model Risk Executive reports to JPMorgan Chase's Chief Risk Officer ("CRO"). When reviewing a model, the Model Risk function analyzes and challenges the model methodology, and the reasonableness of model assumptions and may perform or require additional testing, including back-testing of model outcomes.

The Model Risk function reviews and approves new models, as well as material changes to existing models, prior to implementation in the operating environment. In certain circumstances, the head of the Model Risk function may grant exceptions to the Company's model risk policy to allow a model to be used prior to review or approval. The Model Risk function may also require the user to take appropriate actions to mitigate the model risk if it is to be used in the interim.

Valuation hierarchy

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

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

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

The following is a description of the valuation methodologies generally used by the Company 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	Classifications in the valuation hierarchy
Securities financing agreements	Valuations are based on discounted cash flows, which consider: • Derivative features: for further information refer to the discussion of derivatives below. • Market rates for the respective maturity • Collateral	Predominantly level 2
Financial instruments	Quoted market prices for securities are used where available.	Level 1
	In the absence of quoted market prices, financial instruments are valued based on: • Observable market prices for similar securities (excludes loans) • Observable market prices for loans (circumstances are infrequent) • Relevant broker quotes In addition, the following inputs to discounted cash flows are used for the following products: *Mortgage- and asset-backed securities specific inputs:* • Collateral characteristics • Deal-specific payment and loss allocations • Current market assumptions related to yield, prepayment speed, conditional default rates and loss severity *Collateralized loan obligations ("CLOs") specific inputs:* • Collateral characteristics • Deal-specific payment and loss allocations • Expected prepayment speed, conditional default rates, loss severity • Credit spreads • Credit rating data	Level 2 or 3

Product/instrument	Valuation methodology	Classifications in the valuation hierarchy
Derivatives	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 Company • Market funding levels • Correlation levels In addition, specific inputs used for derivatives valued based on models with significant unobservable inputs are as follows: *Certain long-dated equity option specific inputs include:* • Long-dated equity volatilities *Certain interest rate specific inputs include:* • Interest rate correlation • Interest rate spread volatility • Parameters describing the evolution of underlying interest rates	Level 2 or 3
Private equity direct investments	*Private equity direct investments* Fair value is estimated using all available information and considering the range of potential inputs, including: • Transaction prices • Trading multiples of comparable public companies • Operating performance of the underlying portfolio company • Adjustments as required, since comparable public companies are not identical to the company being valued, and for company-specific issues and lack of liquidity • Additional available inputs relevant to the investment	Level 2 or 3
Beneficial interests issued by consolidated VIEs	Valued using observable market information, where available In the absence of observable market information, valuations are based on the fair value of the underlying assets held by the VIE	Level 2 or 3
Structured notes (included in short-term borrowings and long-term debt)	• Valuations are based on discounted cash flow analyses 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	Level 2 or 3

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

Assets and liabilities measured at fair value on a recurring basis (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Derivative netting adjustments	Total fair value
Securities purchased under resale agreements	$ –	$ 16,157	$ –	$ –	$ 16,157
Securities received as collateral	7,845	–	–	–	7,845
Financial instruments owned:					
Mortgage-backed securities:					
U.S. government agencies - mortgage-backed securities[a]	13	40,512	22	–	40,547
Nonagency - mortgage-backed securities	–	1,968	82	–	2,050
Total - mortgage-backed securities	**13**	**42,480**	**104**	**–**	**42,597**
U.S. Treasury, government agencies and non-U.S. government securities[a]	14,687	5,149	–	–	19,836
Corporate debt securities	–	8,600	124	–	8,724
Equity securities	32,533	160	112	–	32,805
Loans	–	102	–	–	102
Certificates of deposit, bankers' acceptances and commercial paper	–	1,221	4	–	1,225
U.S. state and municipal obligations	–	3,935	–	–	3,935
Asset-backed securities	–	4,555	232	–	4,787
Other	–	313	324	–	637
Total debt and equity instruments[b]	**47,233**	**66,515**	**900**	**–**	**114,648**
Derivative receivables:					
Interest rate	436	3,301	2	(3,294)	445
Credit	–	713	–	(653)	60
Foreign exchange	–	102	–	(81)	21
Equity[c]	3	19,378	1,440	(20,252)	569
Total derivative receivables[d]	**439**	**23,494**	**1,442**	**(24,280)**	**1,095**
Total financial instruments owned	**47,672**	**90,009**	**2,342**	**(24,280)**	**115,743**
Other assets[e]	–	–	16	–	16
Total assets at fair value	**$ 55,517**	**$ 106,166**	**$ 2,358**	**$ (24,280)**	**$ 139,761**
Short-term borrowings	$ –	$ 113	$ 108	$ –	$ 221
Securities sold under repurchase agreements	–	288	–	–	288
Obligation to return securities received as collateral	8,649	–	–	–	8,649
Financial instruments sold, not yet purchased:					
Debt and equity instruments[b]	20,427	6,473	7	–	26,907
Derivative payables:					
Interest rate	361	2,934	54	(2,969)	380
Credit	–	549	–	(436)	113
Foreign exchange	–	126	–	(61)	65
Equity[c]	5	18,487	2,215	(20,328)	379
Total derivative payables[d]	**366**	**22,096**	**2,269**	**(23,794)**	**937**
Total financial instruments sold, not yet purchased	**20,793**	**28,569**	**2,276**	**(23,794)**	**27,844**
Beneficial interests issued by consolidated VIEs	–	72	–	–	72
Long-term debt	–	4,497	2,680	–	7,177
Total liabilities at fair value	**$ 29,442**	**$ 33,539**	**$ 5,064**	**$ (23,794)**	**$ 44,251**

(a) At December 31, 2016, included total U.S. government-sponsored enterprise obligations of $34.0 billion, which was predominantly mortgage-related.
(b) Balances reflect the reduction of financial instruments owned (long positions) by the amount of financials instruments sold, not yet purchased (short positions) when the long and short positions have identical CUSIPs.
(c) Equity derivative receivables and payables in level 3 primarily relate to positions with affiliates.
(d) As permitted under U.S. GAAP, the Company can 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 table above, the Company 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. See Note 5 for further information.
(e) Represents private equity investments.

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

For the year ended December 31, 2016, there were no significant transfers between levels 1 and 2.

During the year ended December 31, 2016, transfers from level 3 to level 2 included the following:

- $297 million of nonagency - commercial mortgage-backed securities driven by greater price transparency as a result of improved vendor pricing quality.
- $821 million of asset-backed securities, specifically student loan auction rate securities, driven by greater price transparency.
- $662 million of equity derivative receivables and $559 million of equity derivative payables, primarily with affiliates, driven by an increase in observability and a reduction of the significance in the unobservable inputs.

During the year ended December 31, 2016, transfers from level 2 to level 3 included the following:

- $286 million of asset-backed securities, specifically student loan senior bonds, driven by a decrease in observability and price transparency.
- $346 million of equity derivative receivables and $230 million of equity derivative payables, primarily with affiliates, driven by a decrease in observability and an increase in the significance in the unobservable inputs.

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

Level 3 valuation

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

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, due to the lack of observability of significant inputs, management must assess all relevant empirical data in deriving valuation inputs including, but not limited to, transaction details, yield curves, interest rates, prepayment speed, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves.

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

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

In the Company's view, the input range and the weighted average value do not reflect the degree of input uncertainty or an assessment of the reasonableness of the company's estimates and assumptions. Rather, they 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 characteristics of the instruments held by the Company at each date of the Consolidated Statement of Financial Condition.

For the Company's derivatives and structured notes positions classified within level 3 at December 31, 2016, interest rate correlation inputs used in estimating fair value were concentrated towards the upper end of the range presented and equity correlation inputs were concentrated at the upper end of the range. In addition, the interest rate volatility inputs used in estimating fair value were distributed across the range presented. The equity volatilities are concentrated in the lower half end of the range.

Level 3 inputs[a]

December 31, 2016 (in millions, except for ratios)

Product/instrument	Fair value	Principal valuation technique	Unobservable inputs	Range of input values			Weighted average
Residential mortgage-backed securities and loans	$ 71	Discounted cash flows	Yield	4%	–	7%	6%
			Prepayment speed	2%	–	13%	8%
			Conditional default rate	1%	–	22%	7%
			Loss severity	30%	–	90%	70%
Commercial mortgage-backed securities and loans	10	Discounted cash flows	Yield	7%	–	25%	14%
			Conditional default rate	0%	–	100%	46%
			Loss severity		40%		40%
Corporate debt securities and other	707	Discounted cash flows	Yield	1%	–	17%	11%
Collateralized loan obligations	112	Market comparables	Price	$1	–	$111	$75
Net interest rate derivatives	(52)	Option pricing	Interest rate correlation		(12)%		
			Interest rate spread volatility	3%	–	38%	
Net equity derivatives	(775)	Option pricing	Equity volatility	20%	–	60%	
Long-term debt and short-term borrowings[b]	$ 2,788	Option pricing	Equity correlation	(50)%	–	80%	

(a) The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the Consolidated Statement of Financial Condition. 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) Long-term debt and short-term borrowings include fully-funded derivatives issued by affiliates of the Company that are predominantly financial instruments containing embedded derivatives. The estimation of the fair value of fully-funded derivatives is predominantly based on the derivative features embedded within the instruments. The significant unobservable inputs are broadly consistent with those presented for derivative payables.

Changes in and ranges of unobservable inputs

The following discussion provides a description of the impact on a 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, and 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.

In addition, the following discussion provides a description of attributes of the underlying instruments and external market factors that affect the range of the inputs used in the valuation of the Company's positions.

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 annualized 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.

The yield and the credit spread of a particular mortgage-backed security primarily reflect the risk inherent in the instrument. The yield is also impacted by the absolute level of the coupon paid by the instrument (which may not correspond directly to the level of inherent risk). Therefore, the range of yield and credit spreads reflects the range of risk inherent in various instruments owned by the Company. The risk inherent in mortgage-backed securities is driven by the subordination of the security being valued and the characteristics of the underlying mortgages within the collateralized pool, including borrower FICO scores, loan-to-value ("LTV") ratios for residential mortgages and the nature of the property and/or any tenants for commercial mortgages. For corporate debt securities and other similar instruments, credit spreads reflect the credit quality of the obligor and the tenor of the obligation.

Prepayment speed - The prepayment speed is a measure of the voluntary unscheduled principal repayments of a prepayable obligation in a collateralized pool. Prepayment speeds generally decline as borrower delinquencies rise. An increase in prepayment speeds, in isolation, would result in a decrease in a fair value measurement of assets valued at a premium to par and an increase in a fair value measurement of assets valued at a discount to par.

Prepayment speeds may vary from collateral pool to collateral pool, and are driven by the type and location of the underlying borrower, the remaining tenor of the obligation as well as the level and type (e.g., fixed or floating) of interest rate being paid by the borrower. Typically collateral pools with higher borrower credit quality have a higher prepayment rate than those with lower borrower credit quality, all other factors being equal.

Conditional default rate – The conditional default rate is a measure of the reduction in the outstanding collateral balance underlying a collateralized obligation as a result of defaults. While there is typically no direct relationship between conditional default rates and prepayment speeds, collateralized obligations for which the underlying collateral have high prepayment speeds will tend to have lower conditional default rates. An increase in conditional default rates would generally be accompanied by an increase in loss severity and an increase in credit spreads. An increase in the conditional default rate, in isolation, would result in a decrease in a fair value measurement. Conditional default rates reflect the quality of the collateral underlying a securitization and the structure of the securitization itself. Based on the types of securities owned in the Company's market-making portfolios, conditional default rates are most typically at the lower end of the range presented.

Loss severity – The loss severity (the inverse of which is termed the recovery rate) is the expected amount of future realized losses resulting from the ultimate liquidation of a particular loan, expressed as the net amount of loss relative to the outstanding loan balance. An increase in loss severity is generally accompanied by an increase in conditional default rates. An increase in the loss severity, in isolation, would result in a decrease in a fair value measurement. The loss severity applied in valuing a mortgage-backed security investment depends on a host of factors relating to the underlying mortgages. This includes the LTV, the nature of the lender's lien on the property and various other instrument-specific factors.

Correlation – Correlation is a measure of the relationship between the movements of the 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 (e.g., interest rate, credit, equity and foreign exchange) 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. The range of correlation inputs between risks within the same asset class are generally narrower than those between underlying risks across asset classes. In addition, the ranges of credit correlation inputs tend to be narrower than those affecting other asset classes.

The level of correlation used in the valuation of derivatives with multiple underlying risks depends on a number of factors including the nature of those risks. For example, the correlation between two credit risk exposures would be different than that between two interest rate risk exposures. Similarly, the tenor of the transaction may also impact the correlation input as the relationship between the underlying risks may be different over different time periods. Furthermore, correlation levels are very much dependent on market conditions and could have a relatively wide range of levels within or across asset classes over time, particularly in volatile market conditions.

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. 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.

The level of volatility used in the valuation of a particular option-based derivative depends on a number of factors, including the nature of the risk underlying the option, the tenor of the derivative as well as the strike price of the option.

Additional disclosures about the fair value of financial instruments that are not carried at fair value on the Consolidated Statement of Financial Condition

U.S. GAAP requires disclosure of the estimated fair value of certain financial instruments, and the methods and significant assumptions used to estimate their fair values. Financial instruments within the scope of these disclosure requirements are included in the following table. Certain financial instruments that are not carried at fair value on the Consolidated Statement of Financial Condition are carried at amounts that approximate fair value due to their short-term nature and generally negligible credit risk. These instruments include cash, cash and securities segregated under federal and other regulations, securities purchased under resale agreements with short-dated maturities, securities borrowed with short-dated maturities, short-term receivables, other assets, commercial paper, short-term borrowings, securities sold under repurchase agreements with short-dated maturities, securities loaned with short-dated maturities, short-term payables, other liabilities and accrued expenses, beneficial interests issued by consolidated VIEs, long-term debt, and subordinated liabilities.

The following table presents by fair value hierarchy classification the carrying values and estimated fair values as of 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.

		Estimated fair value hierarchy			
(in millions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value
Financial assets					
Cash	$ 1,115	$ 1,115	$ –	$ –	$ 1,115
Cash and securities segregated under federal and other regulations	26,678	–	26,678	–	26,678
Securities purchased under resale agreements	101,119	–	101,119	–	101,119
Securities borrowed	72,755	–	72,755	–	72,755
Receivables from customers	16,419	–	16,419	–	16,419
Receivables from brokers, dealers, clearing organizations and others	17,689	–	17,686	3	17,689
Other assets	1,802	–	1,732	83	1,815
Financial liabilities					
Commercial paper	$ 11,738	$ –	$ 11,738	$ –	$ 11,738
Short-term borrowings	10,619	–	10,619	–	10,619
Securities sold under repurchase agreements	169,622	–	169,622	–	169,622
Securities loaned	14,648	–	14,648	–	14,648
Payables to customers	88,911	–	88,911	–	88,911
Payables to brokers, dealers, clearing organizations and others	4,585	–	4,585	–	4,585
Other liabilities and accrued expenses	1,882	–	1,875	7	1,882
Beneficial interests issued by consolidated VIEs	205	–	205	–	205
Long-term debt	500	–	501	–	501
Subordinated liabilities	14,000	–	14,114	–	14,114

4. Fair value option

The fair value option provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities and unrecognized firm commitments.

The Company has elected to measure certain instruments at fair value for several reasons including to mitigate income statement volatility caused by the differences in the measurement basis of elected instruments (e.g. certain instruments elected were previously accounted for on an accrual basis) while the associated risk management arrangements are accounted for on a fair value basis, as well as to better reflect those instruments that are managed on a fair value basis.

The Company's election of fair value includes the following instruments:

- Loans managed on a fair value basis.
- Certain securities financing agreements with an embedded derivative and/or a maturity of greater than one year.
- Certain debt and equity investments to better reflect those which are managed on a fair value basis.
- Structured notes, which are predominantly financial instruments that contain embedded derivatives.
- Certain long-term beneficial interests issued by consolidated securitization trusts where the underlying assets are carried at fair value.

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

The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of December 31, 2016, for loans reported as financial instruments owned, long-term debt and long-term beneficial interests issued by consolidated VIEs for which the fair value option has been elected.

(in millions)	Contractual principal outstanding	Fair value	Fair value over/ (under) contractual principal outstanding
Loans reported as financial instruments owned	**$ 107**	**$ 102**	**$ (5)**
Long-term debt			
Principal-protected debt	$ 114[b]	$ 163	$ 49
Nonprincipal-protected debt[a]	NA	7,014	NA
Total long-term debt	**NA**	**$ 7,177**	**NA**
Long-term beneficial interests issued by consolidated VIEs			
Nonprincipal-protected debt[a]	NA	$ 72	NA
Total long-term beneficial interests issued by consolidated VIEs	**NA**	**$ 72**	**NA**

(a) Remaining contractual principal is not applicable to nonprincipal-protected notes. Unlike principal-protected structured notes, for which the Company is obligated to return a stated amount of principal at the maturity of the note, nonprincipal-protected structured notes do not obligate the Company 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 the Company as issuer for both nonprincipal-protected and principal-protected notes.

(b) Where the Company issues principal-protected zero-coupon or discount notes, the balance reflects the contractual principal payment at maturity or, if applicable, the contractual principal payment at the Company's next call date.

5. Derivative instruments

Derivative contracts derive their value from underlying asset prices, indices, reference rates, other inputs or a combination of these factors and may expose counterparties to risks and rewards of an underlying asset or liability without having to initially invest in, own or exchange the asset or liability. The Company uses derivatives predominantly to manage its own risk exposures.

Risk management derivatives

The Company manages certain market and credit risk exposures using derivative instruments.

Interest rate contracts are used to minimize fluctuations in earnings that are caused by changes in interest rates. Fixed rate assets and liabilities appreciate or depreciate in market value as interest rates change. The Company generally uses interest rate swaps, forwards and futures to manage the impact of interest rate fluctuations on earnings.

Foreign currency forward contracts are used to manage the foreign exchange risk associated with certain foreign currency–denominated (i.e., non-U.S. dollar) assets and liabilities. As a result of fluctuations in foreign currencies, the U.S. dollar–equivalent values of the foreign currency–denominated assets and liabilities increase or decrease.

Commodities contracts are used to manage the price risk of certain commodities-linked exchange-traded fund ("ETF") inventories. Gains or losses on these derivative instruments are expected to substantially offset the depreciation or appreciation of the related inventory.

The Company uses credit derivatives to manage the counterparty credit risk associated with debt-related securities. Credit derivatives compensate the purchaser when the entity referenced in the contract experiences a credit event, such as bankruptcy or a failure to pay an obligation when due. Credit derivatives primarily consist of credit default swaps.

Derivative counterparties and settlement types

The Company enters into OTC derivatives, which are negotiated and settled bilaterally with the derivative counterparty. The Company also enters into, as principal, certain exchange-traded derivatives ("ETD") such as futures and options, and cleared over-the-counter ("OTC-cleared") derivative contracts with central counterparties ("CCPs"). ETD contracts are generally standardized contracts traded on an exchange and cleared by the CCP, which is the counterparty from the inception of the transactions. OTC-cleared derivatives are traded on a bilateral basis and then novated to the CCP for clearing.

Derivative clearing services

The Company provides clearing services for clients where the Company acts as a clearing member with respect to certain derivative exchanges and clearing houses. The Company does not reflect the clients' derivative contracts on its Consolidated Statement of Financial Condition. For further information on the Company's clearing services, see Note 17.

Accounting for derivatives

All free-standing derivatives that the Company executes for its own account are required to be recorded on the Consolidated Statement of Financial Condition at fair value. As permitted under U.S. GAAP, the Company nets derivative assets and liabilities, and the related cash collateral receivables and payables, when a legally enforceable master netting agreement exists between the Company and the derivative counterparty. The accounting for changes in value of a derivative depends on whether or not the transaction has been designated and qualifies for hedge accounting. Derivatives that are not designated as hedges are reported and measured at fair value through earnings. The Company does not have any derivatives that are designated as hedges.

Notional amount of derivative contracts

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

(in millions)	Notional amounts[b]
Interest rate contracts	
Swaps	$ 268,194
Futures and forwards	473,661
Written options	20,232
Purchased options	4,161
Total interest rate contracts	**766,248**
Credit derivatives[a]	**24,001**
Foreign exchange contracts	
Spot, futures and forwards	15,365
Written options	71
Purchased options	183
Total foreign exchange contracts	**15,619**
Equity contracts	
Swaps	104,974
Futures and forwards	28,203
Written options	194,992
Purchased options	158,342
Total equity contracts	**486,511**
Commodity contracts	
Purchased options	177
Total commodity contracts	**177**
Total derivative notional amounts	**$ 1,292,556**

(a) For more information on volumes and types of credit derivative contracts, see the Credit derivative discussion in this Note.
(b) Represents the sum of gross long and gross short third-party and affiliate notional derivative contracts.

While the notional amounts disclosed above give an indication of the volume of the Company’s derivative activity, the notional amounts significantly exceed, in the Company’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 Statement of Financial Condition

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Company’s Consolidated Statement of Financial Condition as of December 31, 2016, by contract type. This includes derivative receivables and payables with affiliates. For further discussion of derivative activities with affiliates, see Note 16.

Derivative receivables and payables[a]

(in millions)	Gross derivative receivables	Net derivative receivables	Gross derivative payables	Net derivative payables
Financial instruments owned and financial instruments sold, not yet purchased				
Interest rate	$ 3,739	$ 445	$ 3,349	$ 380
Credit	713	60	549	113
Foreign exchange	102	21	126	65
Equity	20,821	569	20,707	379
Total fair value of financial instruments owned and financial instruments sold, not yet purchased	**$ 25,375**	**$ 1,095**	**$ 24,731**	**$ 937**

(a) As permitted under U.S. GAAP, the Company 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.

The following table presents, as of December 31, 2016, gross and net derivative receivables and payables by contract and settlement type under U.S. GAAP. Derivative receivables and payables, as well as the related cash collateral from the same counterparty have been netted on the Consolidated Statement of Financial Condition where the Company 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 under U.S. GAAP for netting on the Consolidated Statement of Financial Condition, and those derivative receivables and payables are shown separately in the following table.

In addition to the cash collateral received and transferred that is presented on a net basis with net derivative receivables and payables, the Company receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with the Company's derivative instruments but are not eligible for net presentation, because (a) the collateral consists of non-cash financial instruments (generally U.S. government and agency securities and other government bonds) and cash collateral held at third-party custodians, which are shown separately as "Collateral not nettable on the Consolidated Statement of Financial Condition" up to the fair value exposure amount, (b) the amount of collateral held or transferred exceeds the fair value exposure at the individual counterparty level, as of the date presented, or (c) the collateral held 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.

(in millions)	Derivative Receivables: Gross derivatives	Derivative Receivables: Amounts netted on the Consolidated Statement of Financial Condition[e]	Derivative Receivables: Net derivatives	Derivative Payables: Gross derivatives	Derivative Payables: Amounts netted on the Consolidated Statement of Financial Condition[e]	Derivative Payables: Net derivatives
U.S. GAAP nettable derivatives						
Interest rate contracts:						
OTC	$ 2,651	$ (2,479)	$ 172	$ 2,320	$ (2,154)	$ 166
OTC-cleared	874	(815)	59	815	(815)	–
Exchange-traded[a]	–	–	–	–	–	–
Total interest rate contracts	**3,525**	**(3,294)**	**231**	**3,135**	**(2,969)**	**166**
Credit contracts:						
OTC	709	(653)	56	546	(436)	110
OTC-cleared	–	–	–	–	–	–
Exchange-traded[a]	–	–	–	–	–	–
Total credit contracts	**709**	**(653)**	**56**	**546**	**(436)**	**110**
Foreign exchange contracts:						
OTC	82	(81)	1	77	(61)	16
OTC-cleared	–	–	–	–	–	–
Exchange-traded[a]	–	–	–	–	–	–
Total foreign exchange contracts	**82**	**(81)**	**1**	**77**	**(61)**	**16**
Equity contracts:						
OTC	18,457	(18,401)	56	18,856	(18,477)	379
OTC-cleared	–	–	–	–	–	–
Exchange-traded[a]	2,364	(1,851)	513	1,851	(1,851)	–
Total equity contracts	**20,821**	**(20,252)**	**569**	**20,707**	**(20,328)**	**379**
Derivatives with appropriate legal opinion	**25,137**	**(24,280)**	**857**	**24,465**	**(23,794)**	**671**
Derivatives where an appropriate legal opinion has not been either sought or obtained	**238**		**238**	**266**		**266**
Total derivatives recognized on the Consolidated Statement of Financial Condition	**$ 25,375**		**$ 1,095**	**$ 24,731**		**$ 937**
Collateral not nettable on the Consolidated Statement of Financial Condition[b][c][d]			**(36)**			**(1)**
Net amount			**$ 1,059**			**$ 936**

(a) Exchange-traded derivative amounts that relate to futures contracts are settled daily.
(b) Excludes all collateral related to derivative instruments where an appropriate legal opinion has not been either sought or obtained.
(c) 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.
(d) Derivative payables collateral relates only to OTC and OTC-cleared derivative instruments. Amounts exclude collateral transferred related to exchange-traded.
(e) Derivative receivable netting included cash collateral of $902 million and derivative payable netting included cash collateral of $416 million.

Liquidity risk and credit-related contingent features

In addition to the specific market risks introduced by each derivative contract type, derivatives expose the Company to credit risk – the risk that derivative counterparties may fail to meet their payment obligations under the derivative contracts and the collateral, if any, held by the Company proves to be of insufficient value to cover the payment obligation. It is the policy of the Company to actively pursue, where possible, the use of legally enforceable master netting agreements and collateral agreements to mitigate derivative counterparty credit risk. The amount of derivative receivables reported on the Consolidated Statement of Financial Condition is the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and cash collateral held by the Company.

While derivative receivables expose the Company to credit risk, derivative payables expose the Company to liquidity risk, as the derivative contracts typically require the Company to post cash or securities collateral with counterparties as the fair value of the contracts moves in the counterparties' favor. Where the Company has legally enforceable master netting agreements and margin agreements with its affiliates, any associated derivatives are marked to market daily and the fair value of the related collateral is monitored with margin calls made daily between the Company and the affiliates.

The Company has no derivatives that contain contingent collateral or termination features that may be triggered upon a ratings downgrade of the Company or its affiliates.

Credit derivatives

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

The Company uses credit derivatives primarily to mitigate credit risk associated with its credit market products and mortgage-backed securities.

Credit default swaps

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

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

The following table presents a summary of the notional amounts of credit derivatives the Company sold and purchased as of December 31, 2016.

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

Total credit derivatives

	Maximum payout/Notional amount			
(in millions)	Protection sold	Purchased protection with identical underlyings[b]	Net protection (sold)/ purchased[c]	Other protection purchased[d]
Credit derivatives				
Credit default swaps	$ (11,003)	$ 11,953	$ 950	$ 176
Other credit derivatives[a]	—	—	—	870
Total	**$ (11,003)**	**$ 11,953**	**$ 950**	**$ 1,046**

(a) Represents total return swaps with affiliates.
(b) Represents the notional amount of protection purchased where the underlying reference instrument is identical to the reference instrument on protection sold; the notional amount of protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.
(c) Does not take into account the fair value of the reference obligation at the time of settlement, which would generally reduce the amount the seller of protection pays to the buyer of protection in determining settlement value.
(d) Represents protection purchased by the Company on referenced instruments (portfolio or index) where the Company has not sold any protection on the identical reference instrument.

The following table summarizes the notional and fair value amounts of credit derivatives as of December 31, 2016, where the Company 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 where the Company is the purchaser of protection are comparable to the profile reflected in the following table.

Protection sold – credit derivatives ratings[a]/maturity profile

December 31, 2016 (in millions)	Under 1 year	1 - 5 years	After 5 years	Total notional amount	Fair value receivables[b]	Fair value payables[b]	Net fair value
Risk rating of reference entity							
Investment-grade	$ (70)	$ (53)	$ (4,844)	$ (4,967)	$ 1	$ (72)	$ (71)
Noninvestment-grade	(20)	(26)	(5,990)	(6,036)	6	(465)	(459)
Total	**$ (90)**	**$ (79)**	**$ (10,834)**	**$ (11,003)**	**$ 7**	**$ (537)**	**$ (530)**

(a) The ratings scale is primarily based on external credit ratings defined by S&P and Moody's.
(b) Amounts are shown on a gross basis, before the benefit of legally enforceable master netting agreements and cash collateral received by the Company.

6. Securities financing activities

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

Resale and repurchase agreements are carried on the Consolidated Statement of Financial Condition at the amounts at which the securities will be subsequently sold or repurchased, plus accrued interest, except for amounts reported at fair value. Where appropriate under applicable accounting guidance, resale and repurchase agreements with the same counterparty are reported on a net basis. For further discussion of the offsetting of assets and liabilities, see Note 2.

The Company has elected the fair value option for certain resale and repurchase agreements. For further discussion of the fair value option, see Note 4.

Securities borrowed and securities loaned are generally carried at the amount of cash collateral advanced or received. In accordance with U.S. GAAP, certain securities are borrowed against securities collateral and the borrower is not required to record the transactions on its Consolidated Statement of Financial Condition. In addition, certain securities are loaned against securities collateral and the lender is required to record the securities received and related obligation to return securities received as collateral on its Consolidated Statement of Financial Condition.

Securities financing agreements expose the Company to credit and liquidity risk. To manage these risks, the Company monitors the value of the underlying securities that it has received from or provided to its counterparties compared to the value of cash principal advanced and exchanged collateral, and either requests additional collateral or returns securities or collateral when appropriate. Margin levels are initially established based upon the counterparty, the type of underlying securities, and the permissible collateral, and are monitored on an ongoing basis.

In resale agreements and securities borrowed transactions, the Company is exposed to credit risk to the extent that the value of the securities received is less than initial cash principal advanced and any collateral amounts exchanged. In repurchase agreements and securities loaned transactions, credit risk exposure arises to the extent that the value of underlying securities exceeds the value of the initial cash principal advanced and any collateral amounts exchanged.

Additionally, the Company typically enters into master netting agreements and other similar arrangements with its counterparties, which provide for the right to liquidate the underlying securities and any collateral amounts exchanged in the event of a counterparty default. It is also the Company's policy to take possession, where possible, of the securities underlying resale agreements and securities borrowed transactions.

The following table summarizes the gross and net amounts of the Company's securities financing agreements as of December 31, 2016. When the Company has obtained an appropriate legal opinion with respect to the master netting agreement with a counterparty and where other relevant netting criteria under U.S. GAAP are met, the Company nets, on the Consolidated Statement of Financial Condition, the balances outstanding under its securities financing agreements with the same counterparty. In addition, the Company exchanges securities and/or cash collateral with its counterparties; this collateral also reduces, in the Company's view, the economic exposure with the counterparty. Such collateral, along with securities financing balances that do not meet relevant netting criteria under U.S. GAAP, is presented as “Amounts not nettable on the Consolidated Statement of Financial Condition,” and reduces the “Net amounts” presented in the following table, if the Company 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” in the following table, and related collateral does not reduce the amounts presented.

(in millions)	Gross amounts	Amounts netted on the Consolidated Statement of Financial Condition	Amounts presented on the Consolidated Statement of Financial Condition	Amounts not nettable on the Consolidated Statement of Financial Condition[d]	Net amounts[e]
Assets					
Securities purchased under resale agreements[a][b]	$ 307,230	$ (170,609)	$ 136,621	$ (134,735)	$ 1,886
Securities borrowed	72,755	–	72,755	(44,751)	28,004
Liabilities					
Securities sold under repurchase agreements[b]	$ 340,519	$ (170,609)	$ 169,910	$ (152,748)	$ 17,162
Securities loaned and other[c]	23,297	–	23,297	(23,176)	121

(a) Included $19.3 billion of securities represented on the Consolidated Statement of Financial Condition as cash and securities segregated under federal and other regulations.
(b) Securities purchased under resale agreements included $16.2 billion accounted for at fair value and securities sold under repurchase agreements included $288 million accounted for at fair value.
(c) Included securities-for-securities lending transactions of $8.6 billion when the Company is acting as lender. This amount is reported in obligation to return securities received as collateral on the Consolidated Statement of Financial Condition.
(d) 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.
(e) 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 December 31, 2016, included $334 million of securities purchased under resale agreements; $25.1 billion of securities borrowed; $15.9 billion of securities sold under agreements to repurchase; and $81 million of securities loaned and other.

The following tables present as of 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		
(in millions)		Securities sold under repurchase agreements		Securities loaned and other[a]
Mortgage-backed securities	$	10,403	$	–
U.S. Treasury and government agencies		295,132		1,413
Non-U.S. government securities		134		–
Corporate debt securities		10,023		24
Equity securities		15,721		21,860
U.S. state and municipal obligations		2,491		–
Asset-backed securities		6,615		–
Total	**$**	**340,519**	**$**	**23,297**

	Remaining contractual maturity of the agreements				
(in millions)	Overnight and continuous	Up to 30 days	30-90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	$ 169,602	$ 81,560	$ 61,073	$ 28,284	$ 340,519
Total securities loaned and other[a]	15,182	49	2,401	5,665	23,297

(a) Included securities-for-securities lending transactions of $8.6 billion when the Company is acting as lender. This amount is reported in obligation to return securities received as collateral on the Consolidated Statement of Financial Condition.

7. Income taxes

Deferred income tax expense/(benefit) results from differences between assets and liabilities as measured for financial reporting and income tax return purposes. At December 31, 2016, the Company had a net deferred tax asset of $582 million. The significant components of the deferred tax asset, as of the Consolidated Statement of Financial Condition date, relates primarily to compensation-related benefits, federal and state tax benefits in regards to tax reserves, and reserves for litigation. As of December 31, 2016, management has determined it is more likely than not that the Company will realize its deferred tax assets.

At December 31, 2016, the Company had a current federal income tax receivable of $228 million and a state income tax payable of $73 million to JPMorgan Chase included on the Consolidated Statement of Financial Condition.

The following table presents a reconciliation of the beginning and ending amount of unrecognized tax benefits for the year ended December 31, 2016.

(in millions)		**Unrecognized tax benefits**
Balance at January 1, 2016	**$**	**78**
Increases based on tax positions related to prior periods		4
Decreases related to settlements with taxing authorities		(2)
Balance at December 31, 2016	**$**	**80**

At December 31, 2016, the Company's unrecognized tax benefit, excluding related interest expense and penalties, was $80 million, of which $54 million, if recognized, would reduce the annual effective tax rate.

At December 31, 2016, in addition to the Company's liability for unrecognized tax benefits, the Company had accrued $40 million for income tax-related interest expense and no penalties.

The Company is a member of the JPMorgan Chase consolidated group which is continually under examination by the Internal Revenue Service and by many state and local jurisdictions throughout the U.S. The following table summarizes the status of significant income tax examinations of JPMorgan Chase and its consolidated subsidiaries as of December 31, 2016.

December 31, 2016	Periods under examination	Status
JPMorgan Chase - U.S.	2003 - 2005	Appellate level
JPMorgan Chase - U.S.	2006 - 2010	Field examination of amended returns; certain matters at Appellate level
JPMorgan Chase - U.S.	2011 - 2013	Field examination
JPMorgan Chase - New York State	2008 - 2011	Field examination
JPMorgan Chase - New York City	2008 - 2011	Field examination
JPMorgan Chase - California	2011 - 2012	Field examination

8. Commercial paper

As of December 31, 2016, outstanding commercial paper had maturities ranging from January 2017 to December 2017 that bear interest of 78 to 158 basis points. Issuance is based on a spread to either the one-month or three-month London Interbank Borrowing Offered Rate ("LIBOR") depending on the tenor of issuance.

The maximum face amount of commercial paper outstanding during the year ended December 31, 2016, was $19.2 billion, which was outstanding on February 26, 2016.

9. Short-term borrowings

At December 31, 2016, the Company had $3.4 billion of unsecured short-term borrowings from JPMorgan Chase Holdings LLC ("Chase Holdings") bearing interest at rates approximating the U.S. Federal Funds Effective Rate pursuant to a committed $8.0 billion credit facility. In addition, the Company had non-U.S. dollar unsecured borrowings of $250 million from JPMorgan Chase Bank, National Association bearing interest at the Euro Interbank Offered Rate.

In addition, the Company had issued $221 million of unsecured short-term debt payable to affiliates, which represents fully-funded OTC derivatives that qualify as short-term debt for accounting purposes based on the funding component of the instrument. The Company has elected to measure these instruments at fair value under the fair value option.

The Company also had $6.9 billion of short-term borrowings to third parties of which $6.8 billion represented secured short-term financings that bear interest of 69 to 151 basis points. Issuance is based on a spread to the one-month, three-month or six-month LIBOR depending on the tenor of issuance. These borrowings are secured by a combination of financial instruments owned and securities received in as collateral.

10. Long-term debt

At December 31, 2016, the Company had issued $7.2 billion of unsecured long-term debt payable to affiliates, which represents fully-funded OTC derivatives that qualify as long-term debt for accounting purposes based on the funding component of the instrument. The Company has elected to measure these instruments at fair value under the fair value option.

At December 31, 2016, the Company had issued $500 million of secured long-term debt to third parties that bear interest at 61 basis points over three-month LIBOR which matures in July 2017. The debt is secured by securities received in as collateral.

The following table is a summary of long-term debt carrying values including unamortized premiums and discounts, issuance costs, valuation adjustments and fair value adjustments, where applicable by remaining contractual maturity as of December 31, 2016.

(in millions)		Under 1 year	1 - 5 years	After 5 years	Total
Long-term debt	Variable rate notes	$ 2,880	$ 4,152	$ 645	$ 7,677

11. Subordinated liabilities

On November 29, 2016, the Company terminated and repaid its subordinated liabilities with JPMorgan Chase and simultaneously received commitments from Chase Holdings that provide subordinated liabilities up to a maximum amount of $14.0 billion. At December 31, 2016, $14.0 billion was payable under these subordinated borrowing agreements, and they mature as follows.

(in millions)

Year	Amount
2018	$6,000
2021	8,000
Total subordinated liabilities	**$14,000**

All subordinated liabilities of the Company have been approved by the Financial Industry Regulatory Authority ("FINRA") and the Chicago Mercantile Exchange ("CME"), and therefore, qualify as capital in computing net capital under the SEC's Uniform Net Capital Rule ("Net Capital Rule"). The subordinated debt obligations may only be repaid if the Company is in compliance with the applicable terms of the Net Capital Rule.

The subordinated liabilities bear interest at a spread of 104-148 basis points over one-month LIBOR.

12. Employee compensation and benefits

The Company's employees participate, to the extent they meet minimum eligibility requirements, in various benefit plans sponsored by JPMorgan Chase. The following is a discussion of JPMorgan Chase's significant benefit plans.

Employee stock-based awards

Certain employees of the Company participate in JPMorgan Chase's long-term stock-based incentive plans, which provide for grants of common stock-based awards, including stock options, stock-settled stock appreciation rights ("SARs") and restricted stock units ("RSUs"). Employees receive annual incentive compensation based on their performance, the performance of their business and JPMorgan Chase's consolidated operating results.

U.S. GAAP requires all share-based payments to employees that qualify as equity awards be measured at their grant-date fair values. JPMorgan Chase uses the Black-Scholes valuation model to estimate the fair value of stock options and SARs. JPMorgan Chase separately recognizes compensation expense for each tranche of each award, net of estimated forfeitures, as if it were a separate award with its own vesting date. Generally, for each tranche granted, compensation expense is recognized on a straight-line basis from the grant date until the vesting date of the respective tranche, provided that the employees will not become full-career eligible during the vesting period. For awards with full-career eligibility provisions and awards granted with no future substantive service requirement, JPMorgan Chase accrues the estimated value of awards expected to be awarded to employees as of the grant date, without giving consideration to the impact of post-employment restrictions. For each tranche granted to employees who will become full-career eligible during the vesting period, compensation expense is recognized on a straight-line basis from the grant date until the earlier of the employee's full-career eligibility date or the vesting date of the respective tranche.

JPMorgan Chase RSUs

RSUs are awarded at no cost to the recipient upon their grant. Generally, RSUs are granted annually and vest at a rate of 50% after two years and 50% after three years and are converted into shares of JPMorgan Chase common stock as of the vesting date. In addition, RSUs typically include full-career eligibility provisions, which allow employees to continue to vest upon voluntary termination, subject to post-employment and other restrictions based on age or service-related requirements. All RSUs awards are subject to forfeiture until vested and contain clawback provisions that may result in cancellation under certain specified circumstances. RSUs entitle the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSU is outstanding.

JPMorgan Chase employee stock options and SARs

Employee stock options and SARs have generally been granted with an exercise price equal to the fair value of JPMorgan Chase's common stock on the grant date. JPMorgan Chase periodically grants employee stock options to individual employees. There were no material grants of stock options or SARs in 2016. Prior grants of SARs generally become exercisable ratably over five years (i.e., 20% per year) and contain full-career eligibility provisions and clawback provisions similar to RSUs. SARs generally expire ten years after the grant date.

The following table presents grant and forfeiture activity of JPMorgan Chase stock-based awards to the Company's employees for the year ended December 31, 2016.

(in thousands)	
RSUs	
Granted	8,798
Forfeited	477
Options and SARs	
Granted	3
Forfeited	10

At December 31, 2016, the Company's employees held 20 million unvested RSUs. In addition, 2 million options and SARs were held by the Company's employees at December 31, 2016, of which 242 thousand awards had not vested. In the normal course of business, the employment relationship of certain employees may transfer between the Company and JPMorgan Chase or its subsidiaries which may impact the Company's outstanding awards.

There are no separate plans solely for the employees of the Company and, therefore, the stock-based compensation expense for the Company is determined based upon employee participation in the JPMorgan Chase plans and effected through a charge from JPMorgan Chase, which is cash settled monthly.

For a discussion of the accounting policies and other information relating to employee stock-based compensation, refer to Note 10 of JPMorgan Chase & Co.'s 2016 Annual Report on Form 10-K for the year ended December 31, 2016 ("JPMorgan Chase's 2016 Annual Report").

Pension and other postretirement employee benefits

JPMorgan Chase has various defined benefit pension plans and other postretirement employee benefit ("OPEB") plans that provide benefits to its employees. The Company's employees are eligible to participate in JPMorgan Chase's qualified, noncontributory U.S. defined benefit pension plan and they may also participate in JPMorgan Chase's defined contribution plan. In addition, postretirement medical and life insurance benefits are offered to certain retirees, and postretirement medical benefits are offered to qualifying U.S. employees, through JPMorgan Chase's U.S. OPEB plans. Benefits vary based on the length of an employee's service and their date of hire, and provide for limits on the Company's share of covered medical benefits. The medical and life insurance benefits are both contributory. There are no separate plans solely for employees of the Company and, therefore, pension expense, defined contribution and OPEB expense for the Company is determined based upon employee participation in the JPMorgan Chase plans and are recorded through an intercompany charge from JPMorgan Chase, which is settled in cash monthly.

Consolidated disclosures about the defined benefit pension, defined contribution and OPEB plans of JPMorgan Chase, including their funded status, plan assumptions, investment strategy and asset allocation, fair value measurement of plan assets and liabilities, and other disclosures about the plans are included in Note 9 of JPMorgan Chase's 2016 Annual Report.

13. Variable interest entities

At December 31, 2016, the Company consolidated the assets and liabilities of certain VIEs as it was deemed to be the primary beneficiary as it has both the power to direct the activities of those VIEs that most significantly impacts the VIEs' economic performance and, through its interests in the VIEs, the obligation to absorb losses or the right to receive benefits from the VIEs that could potentially be significant to the VIEs. JPMorgan Chase considers a "sponsored" VIE to include any entity where: (1) JPMorgan Chase is the principal beneficiary of the structure; (2) the VIE is used by JPMorgan Chase to securitize its assets; (3) the VIE issues financial instruments using JPMorgan Chase's name; or (4) the entity is a JPMorgan Chase-administered asset-backed commercial paper conduit.

Mortgage and other securitization trusts sponsored by affiliates

The Company engages in underwriting and trading activities involving securities issued by JPMorgan Chase-sponsored securitization trusts. As a result, the Company at times retains senior and/or subordinated interests (including residual interests) in residential and commercial mortgage securitizations upon securitization, and/or reacquires positions in the secondary market in the normal course of business. In certain instances as a result of the positions retained or reacquired, when considered together with the power to direct the activities of the VIEs, the Company is deemed to be the primary beneficiary of certain securitization trusts.

At December 31, 2016, the Company held $661 million of interests in residential and commercial mortgage securitization VIEs sponsored by affiliates (these VIEs are not consolidated by the Company as it is not the primary beneficiary). Interests held were recorded as financial instruments owned on the Company's Consolidated Statement of Financial Condition and valued at fair value. The principal amount outstanding of assets in nonconsolidated JPMorgan Chase-sponsored securitization VIEs with continuing involvement was $67.4 billion at December 31, 2016.

Residential mortgages
The Company does not consolidate a residential mortgage securitization (affiliate-sponsored or third-party-sponsored) when it does not hold a beneficial interest in the trust that could potentially be significant to the trust or when the Company does not have the power to direct the activities of the VIE. Generally, the Company is not the servicer of these securities and therefore does not have the power to direct the most significant activities of the trust. At December 31, 2016, the Company did not consolidate the assets of certain JPMorgan Chase-sponsored residential mortgage securitization VIEs, in which the Company had continuing involvement, primarily due to the fact that the Company did not hold an interest in these trusts that could potentially be significant to the trusts.

Commercial mortgages and other consumer securitizations
The Company engages in underwriting and trading activities involving securities issued by JPMorgan Chase-sponsored securitization trusts. The Company may retain unsold senior and/or subordinated interests in commercial mortgage securitizations at the time of securitization. The Company does not service the underlying commercial loans, and it does not consolidate the commercial mortgage securitization trusts as it does not have the power to direct the significant activities of the VIE which are generally held by the servicer or investors in a specified class of securities ("controlling class").

Re-securitizations
The Company engages in certain re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. These transfers occur in connection with both agency (Federal National Mortgage Association ("Fannie Mae"), Federal Home Loan Mortgage Company ("Freddie Mac") and Government National Mortgage Association ("Ginnie Mae")), and non-agency (private-label) sponsored VIEs, which may be backed by either residential or commercial mortgages. The Company's consolidation analysis is largely dependent on the Company's role and interests in the re-securitization trusts. During the year ended December 31, 2016, the Company transferred $11.2 billion of securities to agency VIEs and $647 million of securities to private-label VIEs.

Most re-securitizations with which the Company is involved are client-driven transactions in which a specific client or group of clients are seeking a specific return or risk profile. For these transactions, the Company has concluded that the decision-making power of the entity is shared between the Company and its clients, considering the joint effort and decisions in establishing the re-securitization trust and its assets, as well as the significant economic interest the clients hold in the re-securitization trust; therefore, at December 31, 2016, the Company did not consolidate such re-securitization VIEs.

In more limited circumstances, the Company creates a nonagency re-securitization trust independently and not in conjunction with specific clients. In these circumstances, the Company is deemed to have the unilateral ability to direct the most significant activities of the re-securitization trust because of the decisions made during the establishment and design of the trust; therefore, the Company consolidates the re-securitization VIE if it holds an interest that could potentially be significant.

Additionally, the Company may invest in beneficial interests of third-party re-securitizations and generally purchases these interests in the secondary market. In these circumstances, the Company does not have the unilateral ability to direct the most significant activities of the re-securitization trust, either because it wasn't involved in the initial design of the trust, or the Company is involved with an independent third-party-sponsor and demonstrates shared power over the creation of the trust; therefore, at December 31, 2016, the Company did not consolidate such re-securitization VIEs.

As of December 31, 2016, total assets (including the notional amount of interest-only securities) of nonconsolidated JPMorgan Chase-sponsored private-label re-securitization entities in which the Company has continuing involvement was $352 million. The Company held approximately $2.0 billion of interests in nonconsolidated agency re-securitization entities and $41 million of senior and subordinated interests in nonconsolidated private-label re-securitization entities.

As of December 31, 2016, the Company did not consolidate any agency re-securitizations. As of December 31, 2016, the Company consolidated an insignificant amount of assets and liabilities of JPMorgan Chase-sponsored private-label re-securitizations.

Municipal bond vehicles
Municipal bond vehicles or tender option bond ("TOB") trusts allow investors to finance their municipal bond investments at short-term rates. In a typical TOB transaction, the trust purchases highly rated municipal bond(s) of a single issuer and funds the purchase by issuing two types of securities: (1) puttable floating-rate certificates ("Floaters") and (2) inverse

floating-rate residual interests ("Residuals"). The Floaters are typically purchased by money market funds or other short-term investors and may be tendered, with requisite notice, to the TOB trust. The Residuals are retained by the investor seeking to finance its municipal bond investment. TOB transactions where the Residual is held by a third-party investor are typically known as Customer TOB trusts, and Non-Customer TOB trusts are transactions where the Residual is retained by the Company, JPMorgan Chase or an affiliate. The Company serves as sponsor for certain Non-Customer TOB transactions and certain Customer TOB transactions established prior to 2014. The Company may provide various services to a TOB trust, including remarketing agent, liquidity or tender option provider, and/or sponsor.

The Company may serve as a remarketing agent on the Floaters for TOB trusts. The remarketing agent is responsible for establishing the periodic variable rate on the Floaters, conducting the initial placement and remarketing of tendered Floaters. The remarketing agent may, but is not obligated to, make markets in Floaters. At December 31, 2016, the Company held an insignificant amount of these Floaters on its Consolidated Statement of Financial Condition.

The Company often serves as the sole liquidity or tender option provider for the TOB trusts. The liquidity provider's obligation to perform is conditional and is limited by certain events ("Termination Events"), which include bankruptcy or failure to pay by the municipal bond issuer or credit enhancement provider, an event of taxability on the municipal bonds or the immediate downgrade of the municipal bond to below investment-grade. In addition, the liquidity provider's exposure is typically further limited by the high credit quality of the underlying municipal bonds, the excess collateralization in the vehicle, or, in certain transactions, the reimbursement agreements with the Residual holders.

Holders of the Floaters may "put," or tender, their Floaters to the TOB trust. If the remarketing agent cannot successfully remarket the Floaters to another investor, the liquidity provider either provides a loan to the TOB trust for the purchase of or directly purchases the tendered Floaters.

TOB trusts are considered to be variable interest entities. The Company consolidates Non-Customer TOB trusts because as the Residual holder, the Company has the right to make decisions that significantly impact the economic performance of the municipal bond vehicle, and has the right to receive benefits and bear losses that could potentially be significant to the municipal bond vehicle. The Company does not consolidate Customer TOB trusts, since the Company does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle.

Consolidated VIE assets and liabilities

As of December 31, 2016, the Company included the following on its Consolidated Statement of Financial Condition related to consolidated VIEs.

	Assets	Liabilities
(in millions)	Financial instruments owned	Beneficial interests issued by consolidated VIEs
Mortgage securitization entities	$102	$72
Municipal bond vehicles	206	205
Total	**$308**	**$277**

14. Enterprise-wide risk management

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

JPMorgan Chase's Firmwide Risk Management is overseen and managed on an enterprise-wide basis. JPMorgan Chase's approach to risk management covers a broad spectrum of risk areas, such as credit, country, liquidity, market, compliance, conduct, legal, model, operational, and reputation risk, with controls and governance established for each area, as appropriate.

JPMorgan Chase believes that effective risk management requires:

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

The Company is included in this risk management approach.

JPMorgan Chase's Operating Committee, which consists of JPMorgan Chase's Chief Executive Officer ("CEO"), Chief Risk Officer ("CRO"), Chief Operating Officer ("COO"), Chief Financial Officer ("CFO") and other senior executives, is the ultimate management escalation point in JPMorgan Chase, and may refer matters to JPMorgan Chase's Board of Directors. The Operating Committee is responsible and accountable to JPMorgan Chase's Board of Directors.

JPMorgan Chase strives for continual improvement through efforts to enhance controls, ongoing employee training and development, talent retention, and other measures. JPMorgan Chase follows a disciplined and balanced compensation framework with strong internal governance and independent Board oversight. The impact of risk and control issues are carefully considered in JPMorgan Chase's performance evaluation and incentive compensation processes.

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

Credit risk
Credit risk is the risk of loss arising from the default of a customer, client or counterparty. See Note 15 for further information.

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

The Country Risk Management group, part of the independent risk management function, works in close partnership with other risk functions to assess and monitor country risk within JPMorgan Chase. JPMorgan Chase's Firmwide Risk Executive for Country Risk reports to JPMorgan Chase's CRO.

Country Risk Management is responsible for the following functions:

- Developing guidelines and policies consistent with a comprehensive country risk framework.
- Assigning sovereign ratings and assessing country risks.
- Measuring and monitoring country risk exposure and stress across JPMorgan Chase.
- Managing country limits and reporting trends and limit breaches to senior management.
- Developing surveillance tools for early identification of potential country risk concerns.
- Providing country risk scenario analysis.

Liquidity risk
Liquidity risk is the risk that JPMorgan Chase 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.

JPMorgan Chase has a liquidity risk oversight function whose primary objective is to provide assessment, measurement, monitoring, and control of liquidity risk across JPMorgan Chase. Liquidity risk oversight is managed through a dedicated JPMorgan Chase Firmwide Liquidity Risk Oversight group. JPMorgan Chase's Chief Investment Office ("CIO"), Treasury and Corporate ("CTC") CRO, who reports to the CRO, as part of the independent risk management function, has responsibility for JPMorgan Chase Firmwide Liquidity Risk Oversight. Liquidity Risk Oversight's responsibilities include but are not limited to:

- Establishing and monitoring limits, indicators, and thresholds, including liquidity appetite tolerances;
- Defining, monitoring, and reporting internal JPMorgan Chase Firmwide and material legal entity liquidity stress tests, and monitoring and reporting regulatory defined liquidity stress testing;
- Monitoring and reporting liquidity positions, balance sheet variances and funding activities;
- Conducting ad hoc analysis to identify potential emerging liquidity risks.

Market risk

Market risk is the risk of loss arising from potential adverse changes in the value of JPMorgan Chase's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices, implied volatilities or credit spreads.

Market Risk Management monitors market risks throughout JPMorgan Chase and defines market risk policies and procedures. The Market Risk Management function reports to JPMorgan Chase's CRO.

Market Risk Management seeks to manage risk, facilitate efficient risk/return decisions, reduce volatility in operating performance and provide transparency into JPMorgan Chase's market risk profile for senior management, the Board of Directors and regulators. Market Risk Management is responsible for the following functions:

- Establishment of a market risk policy framework.
- Independent measurement, monitoring and control of line of business and JPMorgan Chase market risk.
- Definition, approval and monitoring of limits.
- Performance of stress testing and qualitative risk assessments.

Compliance risk

Compliance risk is the risk of failure to comply with applicable laws, rules, and regulations.

Each line of business is accountable for managing its compliance risk. JPMorgan Chase's Compliance Organization ("Compliance"), which is independent of the lines of business, works closely with senior management to provide independent review, monitoring and oversight of business operations with a focus on compliance with the legal and regulatory obligations applicable to the offering of JPMorgan Chase's products and services to clients and customers.

These compliance risks relate to a wide variety of legal and regulatory obligations, depending on the line of business and the jurisdiction, and include those related to products and services, relationships and interactions with clients and customers, and employee activities.

Conduct risk

Conduct risk is the risk that an employee's action or inaction causes undue harm to JPMorgan Chase's clients and customers, damages market integrity, undermines JPMorgan Chase's reputation, or negatively impacts JPMorgan Chase's culture.

Each line of business or function is accountable for identifying and managing its conduct risk to provide appropriate engagement, ownership and sustainability of a culture consistent with JPMorgan Chase's How We Do Business Principles ("Principles"). The Principles serve as a guide for how employees are expected to conduct themselves. With the Principles serving as a guide, JPMorgan Chase's Code of Conduct ("Code") sets out JPMorgan Chase's expectations for each employee and provides certain information and the resources to help employees conduct business ethically and in compliance with the law everywhere JPMorgan Chase operates.

Legal risk

Legal risk is the risk of loss or imposition of damages, fines, penalties or other liability arising from the failure to comply with a contractual obligation or to comply with laws, rules or regulations to which JPMorgan Chase is subject.

In addition to providing legal services and advice to JPMorgan Chase, and communicating and helping the lines of business adjust to the legal and regulatory changes they face, including the heightened scrutiny and expectations of JPMorgan Chase's regulators, the global Legal function is responsible for working with the businesses and corporate functions to fully understand and assess their adherence to laws, rules and regulations. In particular, Legal assists Oversight & Control, Risk, Finance, Compliance and Internal Audit in their efforts to ensure compliance with all applicable laws and regulations and JPMorgan Chase's corporate standards for doing business. JPMorgan Chase's lawyers also advise JPMorgan Chase on potential legal exposures on key litigation and transactional matters, and perform a significant defense and advocacy role by defending JPMorgan Chase against claims and potential claims and, when needed, pursuing claims against others.

Model risk

Model risk is the potential for adverse consequences from decisions based on incorrect or misused model outputs.

JPMorgan Chase uses models across various businesses and functions. The models are of varying levels of sophistication and are used for many purposes including, for example, the valuation of positions and the measurement of risk, such as assessing regulatory capital requirements, conducting stress testing, and making business decisions.

The Model Risk function reviews and approves a wide range of models, including risk management, valuation and regulatory capital models used by JPMorgan Chase. The Model Risk function is independent of model users and developers. JPMorgan Chase's Firmwide Model Risk Executive reports to JPMorgan Chase's CRO.

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 JPMorgan Chase's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, inappropriate employee behavior, 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 JPMorgan Chase. The goal is to keep operational risk at appropriate levels in light of JPMorgan Chase's financial strength, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

To monitor and control operational risk, JPMorgan Chase has an Operational Risk Management Framework ("ORMF") which is designed to enable JPMorgan Chase 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.

Other operational risks

As mentioned previously, operational risk can manifest itself in various ways. Risks such as Compliance risk, Conduct risk, Legal risk and Model risk as well as other operational risks, can lead to losses which are captured through the Company's operational risk measurement processes. Details on other select operational risks are provided below.

Cybersecurity risk

JPMorgan Chase devotes significant resources to protect the security of its computer systems, software, networks and other technology assets. JPMorgan Chase's 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. JPMorgan Chase continues to make significant investments in enhancing its cyber defense 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 defenses and improve resiliency against cybersecurity threats. Third parties with which JPMorgan Chase does business or that facilitate JPMorgan Chase's business activities (e.g., vendors, exchanges, clearing houses, central depositories, and financial intermediaries) could also be sources of cybersecurity risk to JPMorgan Chase. Third party cybersecurity incidents such as system breakdowns or failures, misconduct by the employees of such parties, or cyberattacks could affect their ability to deliver a product or service to JPMorgan Chase or result in lost or compromised information of JPMorgan Chase or its clients. Clients can also be sources of cybersecurity risk to JPMorgan Chase, particularly when their activities and systems are beyond JPMorgan Chase's own security and control systems. However, where cybersecurity incidents are due to client failure to maintain the security of their own systems and processes, clients will generally be responsible for losses incurred.

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

Payment fraud risk

Payment fraud risk is the risk of external and internal parties unlawfully obtaining personal benefit at the expense of JPMorgan Chase. Over the past year, the risk of payment fraud has increased across the industry, with the number of attempts hitting record highs. The complexities of these attacks along with perpetrators' strategies continue to evolve. A Payments Control Program has been established that includes Cybersecurity, Operations, Technology, Risk and the lines of business to manage the risk, implement controls and provide client education and awareness training. The program monitors and measures payment fraud activity, evaluates JPMorgan Chase's cybersecurity defenses, limits access to sensitive data, and provides training to both employees and clients.

Third-party outsourcing risk

To identify and manage the operational risk inherent in its outsourcing activities, JPMorgan Chase has a Third-Party Oversight ("TPO") framework to assist lines of business and corporate functions in selecting, documenting, onboarding, monitoring and managing their supplier relationships. The objective of the TPO framework is to hold third parties to the same high level of operational performance as is expected of JPMorgan Chase's internal operations. The Third-Party Oversight group is responsible for JPMorgan Chase's Firmwide TPO training, monitoring, reporting and standards.

Business and technology resiliency risk

Business disruptions can occur due to forces beyond JPMorgan Chase's control such as severe weather, power or telecommunications loss, flooding, transit strikes, terrorist threats or infectious disease. The safety of JPMorgan Chase's employees and customers is of the highest priority. JPMorgan Chase's global resiliency program is intended to ensure that JPMorgan Chase has the ability to recover its critical business functions and supporting assets (i.e., staff, technology and facilities) in the event of a business interruption. The program includes corporate governance, awareness and training, as well as strategic and tactical initiatives to identify, assess, and manage business interruption and public safety risks.

The strength and proficiency of JPMorgan Chase's global resiliency program has played an integral role in maintaining JPMorgan Chase's business operations during and quickly after various events.

Reputation risk

Reputation risk is the risk that an action, transaction, investment or event will reduce trust in JPMorgan Chase's integrity or competence by its various constituents, including clients, counterparties, investors, regulators, employees and the broader public. Maintaining JPMorgan Chase's reputation is the responsibility of each individual employee of JPMorgan Chase. JPMorgan Chase's Reputation Risk Governance policy explicitly vests each employee with the responsibility to consider the reputation of JPMorgan Chase when engaging in any activity. Since the types of events that could harm JPMorgan Chase's reputation are so varied across JPMorgan Chase'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 JPMorgan Chase 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 across JPMorgan Chase.

15. Customer activities

Customer credit risks

The Company's activities for both clearing clients and customers, including affiliates (collectively "customers"), involve the execution, settlement and financing of customers' securities, and derivative transactions. Derivative transactions primarily include futures, swaps, contracts for difference, forwards, options and various structured products. The Company provides the ability for customers to execute and settle securities and derivative transactions on listed exchanges, as well as in the OTC markets. Securities and derivative transactions may be settled on a cash basis or financed on a margin basis. The collateral requirements on a margin loan are established based on either regulatory guidelines or internal risk-based requirements for clients that use leverage products offered by the Company.

In connection with certain customer activities, the Company executes and settles customer transactions involving the short sale of securities ("short sales"). When a customer sells a security short, the Company may be required to borrow securities to settle a customer short sale transaction and, as such, these transactions may expose the Company to a potential loss if customers are unable to fulfill their contractual obligations and customers' collateral balances are insufficient to fully cover their losses. In the event customers fail to satisfy their obligations, the Company may be required to purchase financial instruments at prevailing market prices to fulfill the customers' obligations.

It is the policy of the Company to mitigate the risks associated with its customers' activities by requiring customers to maintain margin collateral in compliance with various regulatory and internal guidelines. The Company monitors required margin levels and, pursuant to such guidelines, may require customers to deposit additional cash or other collateral, or to reduce positions, when deemed necessary. The Company also establishes credit limits for customers engaged in derivative activities and monitors credit compliance. Additionally, with respect to the Company's correspondent clearing activities, introducing correspondent firms generally guarantee the contractual obligations of their customers. Further, it is the policy of the Company to reduce credit risk by entering into legally enforceable master netting agreements with customers, which permit receivables and payables with such customers to be offset in the event of a customer default.

In connection with the Company's customer financing and securities settlement activities, the Company may pledge customers' securities as collateral to satisfy the Company's margin deposit requirements with exchanges or to support its various secured financing sources such as borrowings, securities loaned and repurchase agreements. In the event counterparties are unable to meet their contractual obligations to return customers' securities pledged as collateral, the Company may be exposed to the risk of acquiring the securities at prevailing market prices to satisfy its obligations to such customers. The Company seeks to control this risk by monitoring the market values of securities pledged and by requiring adjustments of collateral levels in the event of excess exposure. Moreover, the Company establishes credit limits for such activities and monitors compliance with such credit limits.

Concentrations of credit risks

The Company is engaged in providing securities processing services to a diverse group of individuals and institutional investors, including affiliates. A substantial portion of the Company's transactions are collateralized and may be executed with, or made on behalf of, institutional investors, including other brokers and dealers, commercial banks, insurance companies, pension plans, mutual funds, hedge funds and other financial institutions. The Company's exposure to credit risk associated with the nonperformance of customers in fulfilling their contractual obligations pursuant to securities and derivative transactions can be directly affected by volatile or illiquid trading markets, which may impair customers' ability to satisfy their obligations to the Company. The Company attempts to minimize credit risk associated with these activities by monitoring customers' credit exposure and collateral values and requiring, when deemed necessary, additional collateral to be deposited with the Company.

A significant portion of the Company's securities processing activities include clearing and settling transactions for hedge funds, brokers and dealers and other professional traders, including affiliates. Due to the nature of these operations, which may include significant levels of credit extension such as leveraged purchases, short selling and option writing, the Company may have significant credit exposure should these customers be unable to meet their commitments. In addition, the Company may be subject to concentration risk through providing margin to those customers holding large positions in certain types of securities, securities of a single issuer, including sovereign governments, issuers located in a particular country or geographic area or issuers engaged in a particular industry, where the Company receives such large positions as collateral. The Company seeks to control these risks by monitoring margin collateral levels for compliance with both regulatory and internal guidelines. Additional collateral is obtained when necessary. To further control these risks, the Company has developed automated risk control systems that analyze the customers' sensitivity to major market movements. The Company will require customers to deposit additional margin collateral, or reduce positions, if it is determined that customers' activities may be subject to above normal market risk.

The Company acts as a clearing broker for securities and futures and options activities of certain affiliates on either a fully disclosed or omnibus basis. Such activities are conducted on either a cash or margin basis. The Company requires its affiliates to maintain margin collateral in compliance with various regulatory guidelines. The Company monitors required margin levels and requests additional collateral when deemed appropriate.

16. Related parties

The Company has significant transactions with JPMorgan Chase and its subsidiaries. Various JPMorgan Chase subsidiaries engage the Company to arrange for the purchase or sale of securities, clearing activities, collateralized transactions, manage portfolios of securities, market derivative instruments, structure complex transactions and provide and receive operational support and services. Balances with related parties as of December 31, 2016, are listed in the following table.

(in millions)		
Assets		
Cash	$	613
Cash and securities segregated under federal and other regulations		7,333
Securities purchased under resale agreements		7,007
Securities borrowed		5,079
Receivables from brokers, dealers, clearing organizations and others		1,621
Financial instruments owned, at fair value[(a)]		1,284
Other assets		266
Liabilities		
Short-term borrowings (included $221 at fair value)	$	3,898
Securities sold under repurchase agreements		75,342
Securities loaned		4,263
Payables to customers		9,279
Payables to brokers, dealers, clearing organizations and others		1,308
Financial instruments sold, not yet purchased, at fair value[(a)]		661
Other liabilities and accrued expenses		25
Long-term debt, at fair value		7,177
Subordinated liabilities		14,000

(a) As of December 31, 2016, financial instruments owned included $50 million of derivative receivables from affiliates; the remaining $1.2 billion is comprised of corporate debt and structured notes obligations of its affiliates, as well as common and preferred shares issued by JPMorgan Chase. Financial instruments sold, not yet purchased included $379 million of derivative payables to affiliates; the remaining $282 million is comprised of corporate debt obligations issued by JPMorgan Chase and its affiliates.

17. Commitments, guarantees, pledged assets, collateral and contingencies

The Company provides various commitments and guarantees to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Company should the counterparty draw upon the commitment or the Company be required to fulfill its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Company's view, representative of its actual future credit exposure or funding requirements.

The following table summarizes the contractual amounts and carrying values of commitments and guarantees at December 31, 2016.

	Contractual amount					Carrying value
December 31, 2016 (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	
Commitments and guarantees						
Unsettled securities purchased under resale agreements	$ 3,922	$ –	$ –	$ –	$ 3,922	$ –
Unsettled securities sold under repurchase agreements	3,534	–	–	–	3,534	–
Unfunded commitments to extend credit[(a)]	4,599	–	–	–	4,599	–
Derivatives qualifying as guarantees	357	332	–	–	689	32

(a) Represents collateralized committed facilities.

Unsettled resale and repurchase agreements

In the normal course of business, the Company enters into resale and repurchase agreements that settle at a future date. At settlement, these commitments require that the Company advance cash to and accept securities from the counterparty.

These agreements generally do not meet the definition of a derivative, and therefore, are not recorded on the Consolidated Statement of Financial Condition until settlement date.

Collateralized committed facilities

Collateralized committed facilities are conditional lending commitments issued by the Company for secured financings. The Company has such facilities in place with certain customers and certain clearing houses of which it is a member. The Company does not hold collateral to support undrawn commitments under these facilities. However, before advancing funds the Company takes possession of collateral (generally securities) and continues to monitor the market value of the collateral during the term of the financing, which includes requesting or returning additional collateral when appropriate.

Derivatives qualifying as guarantees

The Company transacts certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. The total contractual amount reported represents the notional value of the derivatives that the Company deems to be guarantees. The notional amount generally represents the Company's maximum exposure to derivatives qualifying as guarantees. The Company reduces exposures to these contracts by entering into offsetting transactions, or by entering into contracts that hedge the market risk related to the derivative guarantees.

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

Clearing services

The Company provides clearing services for clients entering into securities purchases and sales, and derivative transactions with CCPs, including ETDs such as futures and options, as well as OTC-cleared derivative contracts. As a clearing member, the Company stands behind the performance of its clients, collects cash and securities collateral (margin) as well as any settlement amounts due from or to clients, and remits them to the relevant CCP or client in whole or part. There are two types of margin. Variation margin is posted on a daily basis based on the value of clients' derivative contracts. Initial margin which is posted at inception of a derivative contract, generally on the basis of the potential changes in the variation margin requirement for the contract.

As a clearing member, the Company is exposed to the risk of nonperformance by its clients, but is not liable to clients for the performance of the CCP's. Where possible, the Company seeks to mitigate its risks to the client through the collection of appropriate amounts of margin at inception and throughout the life of the transactions. The Company may cease providing clearing services to a client if the client does not adhere to their obligations under the clearing agreement. In the event of nonperformance by a client, the Company would close out the client's positions and access available margin. The CCP would utilize any margin it holds to make itself whole, with any remaining shortfalls required to be paid by the Company as a clearing member.

The Company reflects its exposure to nonperformance risk of the client through the recognition of margin payables or receivables to clients and CCPs, but does not reflect the clients' underlying securities or derivative contracts on its Consolidated Statement of Financial Condition.

It is difficult to estimate the Company's maximum possible exposure through its role as a clearing member, as this would require an assessment of transactions that clients may execute in the future. However, based on credit risk management practices and historical experience, and the credit risk mitigants available to the Company, management believes it is unlikely that the Company will have to make any material payments under these arrangements and the risk of loss is expected to be remote.

For information on the derivatives that the Company executes for its own account and records on its Consolidated Statement of Financial Condition, see Note 5.

Exchange and clearing house guarantees

The Company is a member of several securities and derivative exchanges and clearing houses, both in the U.S. and other countries, and it provides clearing services. Membership in some of these organizations requires the Company to pay a pro rata share of the losses incurred by the organization as a result of the default of another member. Such obligations vary with different organizations. These obligations may be limited to members who dealt with the defaulting member or to the amount (or a multiple of the amount) of the Company's contribution to the guarantee fund maintained by a clearing house or exchange as part of the resources available to cover any losses in the event of a member default. Alternatively, these obligations may be a full pro-rata share of the residual losses after applying the guarantee fund. Additionally, certain clearing houses require the Company as a member to pay a pro rata share of losses resulting from the clearing house's investment of guarantee fund contributions and initial margin, unrelated to and independent of the default of another member. Generally a payment would only be required should such losses exceed the resources of the clearing house or exchange that are contractually required to absorb the losses in the first instance. It is difficult to estimate the Company's maximum possible exposure under these membership agreements, since this would require an assessment of future claims that may be made against the Company that have not yet occurred. However, based on historical experience, management expects the risk of loss to be remote.

The selection of clearing houses, as well as custodians and bank depositories, is reviewed as part of the Company's risk management process.

Guarantees of subsidiaries

In the normal course of business, JPMorgan Securities may guarantee certain of the obligations of its consolidated subsidiaries. The obligations of the consolidated subsidiaries are included on the Company's Consolidated Statement of Financial Condition; therefore, the Company has not recognized a separate liability for these guarantees. The Company believes that the occurrence of any event that would trigger payments under these guarantees is remote.

Lease commitments

The following table presents required future minimum rental payments for office space under noncancelable operating leases that expire after December 31, 2016.

Year ended December 31, 2016 (in millions)	
2017	$3
2018	3
2019	2
2020	1
2021	1
Total minimum payments required	**$10**

Pledged assets

The Company may pledge or otherwise provide financial assets to collateralize repurchase agreements, securities loan agreements and other financing agreements, to cover customer short sales and to satisfy margin deposits at clearing and depository organizations. 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 Statement of Financial Condition. In addition, at December 31, 2016, the Company had pledged $14.8 billion of financial assets that may not be sold or repledged or otherwise used by the secured parties. Total assets pledged do not include assets of consolidated VIEs, which are used to settle the liabilities of those entities.

Collateral

At December 31, 2016, the Company had accepted financial assets as collateral that it could sell or repledge, deliver or otherwise use with a fair value of approximately $535.5 billion. This collateral was generally obtained under resale agreements, securities borrowing agreements, customer margin loans and derivative agreements. In many instances, the Company is permitted to rehypothecate the securities received as collateral, subject to regulations which prohibit the rehypothecation of customer fully-paid and excess margin securities, as set forth in customer protection SEC Rule 15c3-3. Of the collateral received, approximately $521.5 billion was repledged, delivered or otherwise used. Collateral was generally used under repurchase agreements, securities lending agreements or to cover short sales and to collateralize derivative agreements.

Litigation

The Company is a defendant in a number of legal proceedings. The Company has established reserves for certain of its currently outstanding legal proceedings. In accordance with the provisions of U.S. GAAP for contingencies, the Company accrues for a litigation-related liability when it is probable that such a liability has been incurred and the amount of the loss can be reasonably estimated. The Company evaluates its outstanding legal proceedings periodically 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. There is no assurance that the Company'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, the Company cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or impact related to those matters. The Company believes, based upon its current knowledge, after consultation with counsel and after taking into account its current litigation reserves, that the legal proceedings currently pending against it should not have a material adverse effect on the Company's Consolidated Statement of Financial Condition. The Company 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 the Company's operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of the Company's income for that period.

The Company believes it has meritorious defenses to the claims asserted against it in its currently outstanding litigation and, with respect to such litigation, intends to continue to defend itself vigorously, litigating or settling cases according to management's judgement. Many of the Company's litigation matters involve claims made against several of the Company's affiliates and are managed centrally by JPMorgan Chase. For further discussion on certain litigation cases relating to JPMorgan Chase, including the estimate of the range of reasonably possible losses for JPMorgan Chase's litigation portfolio, please refer to Note 31 of JPMorgan Chase’s 2016 Annual Report.

18. Net capital and other regulatory requirements

JPMorgan Securities is a registered broker-dealer and FCM and, accordingly, is subject to SEC Rule 15c3-1 under the Net Capital Rule and Rule 1.17 under the CFTC. The SEC has approved JPMorgan Securities’ use of Appendix E of the Net Capital Rule, which establishes alternative net capital requirements (“net capital”) for broker-dealers that are part of entities subject to consolidated supervision at the ultimate holding company level. Appendix E allows JPMorgan Securities to calculate net capital charges for market risk and derivatives-related credit risk based on mathematical models provided that it holds tentative net capital in excess of $1.0 billion and net capital in excess of $500 million. JPMorgan Securities is also required to notify the SEC in the event that tentative net capital is less than $5.0 billion. Under these rules, JPMorgan Securities is required to maintain minimum net capital, as defined, of not less than the greater of: (i) 2% of aggregate debit items arising from customer transactions, as defined in the Net Capital Rule, plus excess margin collateral on resale agreements; or (ii) 8% of customer risk maintenance margin requirements plus 8% of non-customer risk maintenance margin requirements, all as defined in the capital rules of the CFTC. FINRA may require a member firm to reduce its business if its net capital is less than 4% of aggregate debit items and may prohibit a member firm from expanding its business or paying cash dividends if its net capital is less than 5% of aggregate debit items.

At December 31, 2016, JPMorgan Securities’ net capital of $14.7 billion exceeded the minimum net capital requirement of $2.8 billion by $11.9 billion.

JPMorgan Securities is subject to the customer protection SEC Rule 15c3-3 under the Securities Exchange Act of 1934. As of December 31, 2016, cash and qualified securities segregated in a special reserve account for the exclusive benefit of customers was $19.3 billion. These amounts are included on the Consolidated Statement of Financial Condition in cash and securities segregated under federal and other regulations.

JPMorgan Securities also performs the computation for assets in the proprietary accounts of broker-dealers (“PAB”) in accordance with the PAB reserve computation set forth in SEC Rule 15c3-3 under the Securities Exchange Act of 1934, so as to enable introducing brokers to include PAB assets as allowable assets in their net capital computations (to the extent allowable under the Net Capital Rule). As of December 31, 2016, there was no required deposit for the proprietary accounts of brokers, and therefore no cash or securities were on deposit.

Additionally, JPMorgan Securities, in their capacity as a FCM is required to perform computations of the requirements of Section 4d(2), Regulation 30.7, and Regulation 22.2 under the Commodity Exchange Act. As of December 31, 2016, assets segregated, secured and sequestered by JPMorgan Securities totaled $35.3 billion, which exceeded requirements by $3.0 billion.

19. Subsequent events

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2016, and through February 28, 2017 (the date of the filing of this report). Other than the event disclosed in Note 1, Credit ratings, there have been no material subsequent events that occurred during such period that would require disclosure or recognition on the Consolidated Statement of Financial Condition.

Financial Northeastern Companies

Financial Northeastern Securities

Pershing's Strength, Stability and Focus

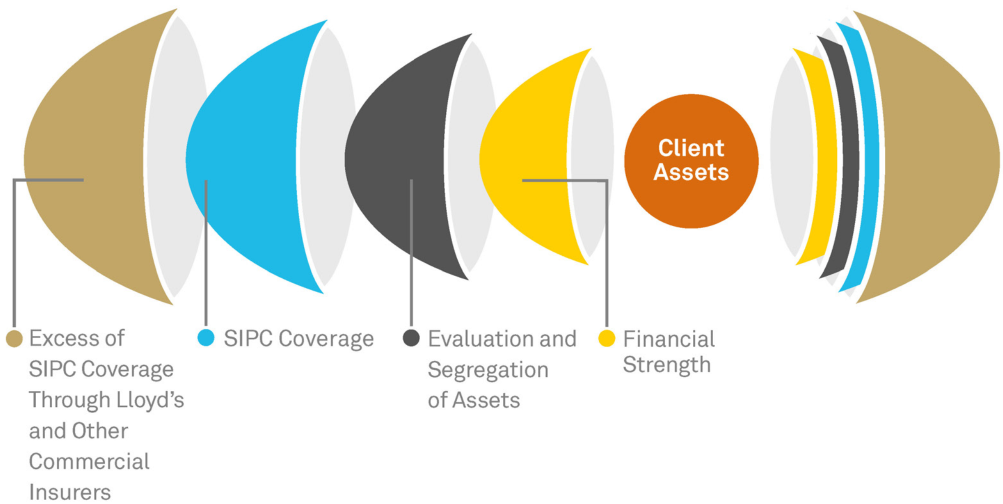
Understanding the Protection of Client Assets

4TH QUARTER 2016

Pershing's Strength, Stability and Focus

Pershing LLC (Pershing), a BNY Mellon company, has been a leading global provider of financial business solutions for over 75 years and serves many of the world's most respected financial organizations. We remain committed to the safekeeping, servicing, segregation and reporting of our global client assets.

The Protection of Client Assets Remains at the Center of Our Focus



Financial Strength—December 31, 2016

Pershing's core financial strength provides the first measure of protection for our global client assets. Our parent company, BNY Mellon, is a global investments company dedicated to helping its clients manage and service their financial assets and is the world's largest global custodian.[1] While financial strength does not protect against loss due to market fluctuation, our internal controls and regulatory oversight help maintain our stability and focus.

Pershing, a BNY Mellon company

- Approximately $1.5 trillion in global client assets[2]
- Net capital of approximately $2.0 billion[3]—well above the minimum requirement

BNY Mellon

- $29.9 trillion in assets under custody and/or administration
- $1.6 trillion in assets under management

[1] *Institutional Investor*, October 2016, Global Custody Rankings

[2] Pershing LLC and its global affiliates

[3] Pershing LLC

Pershing®

BNY MELLON

Segregation and Control of Assets

Pershing protects client assets through rigorous internal control measures. An annual audit by a major independent audit firm and the audit team at our parent company, BNY Mellon, helps to monitor controls that are in place. In addition, a Service Organizations Control report conducted by an independent audit firm provides additional evaluation of the design and operating effectiveness of Pershing's internal controls.

Clients' fully paid-for assets are segregated from our own, with quarterly vault inspections conducted. In addition, we segregate cash and/or qualifying securities in special reserve bank accounts for the exclusive benefit of clients, to protect clients' funds in the unlikely event of Pershing's failure and liquidation.

Pershing is a broker-dealer registered with the U.S. Securities and Exchange Commission, all 50 states as well as the District of Columbia and Commonwealth of Puerto Rico, and certain foreign jurisdictions.

Securities Investor Protection Corporation (SIPC®) Coverage

Pershing is a member of the SIPC, which protects securities customers of its members up to $500,000 (including $250,000 for claims for cash). Explanatory brochure available upon request or at sipc.org.

Excess of SIPC Coverage Through Underwriters at Lloyd's and Other Commercial Insurers

In addition to SIPC protection, Pershing provides coverage in excess of SIPC limits from certain underwriters in Lloyd's insurance market and other commercial insurers. The excess of SIPC coverage is valid through February 10, 2018 for Pershing LLC accounts. It provides the following protection for Pershing LLC's global client assets:

- An aggregate loss limit of $1 billion for eligible securities—over all client accounts
- A per-client loss limit of $1.9 million for cash awaiting reinvestment—within the aggregate loss limit of $1 billion

SIPC and the excess of SIPC coverage do not protect against loss due to market fluctuation.

An excess of SIPC claim would only arise if Pershing failed financially and client assets for covered accounts—as defined by SIPC—cannot be located due to theft, misplacement, destruction, burglary, robbery, embezzlement, abstraction, failure to obtain or maintain possession or control of client securities, or to maintain the special reserve bank account required by applicable rules.

Lloyd's currently holds an A+ rating from Standard & Poor's® (S&P®), an A rating from A.M. Best and an AA- rating from Fitch. These ratings are based on the financial strength of the company and are subject to change by the rating agencies at any time.[4] For more information about Lloyd's, please see lloyds.com.

[4] Ratings as of December 2016.

pershing.com

One Pershing Plaza, Jersey City, NJ 07399

OVR-PER-SSF-4Q16-1-17

Understanding the Protection of Assets

Securities Investor Protection Corporation (SIPC®) Coverage

Pershing is a member of SIPC, which protects securities customers of its members up to $500,000 (including $250,000 for claims for cash). Explanatory brochure available upon request or at sipc.org.

Excess of SIPC Coverage Through Underwriters at Lloyd's and Other Commercial Insurers

In addition to SIPC protection, Pershing provides coverage in excess of SIPC limits from certain underwriters in Lloyd's insurance market and other commercial insurers. The excess of SIPC insurance program is valid through February 10, 2017 for Pershing LLC accounts. It provides the following protection for Pershing LLC's global client assets:

- An aggregate loss limit of $1 billion for eligible securities—over all client accounts
- A per-client loss limit of $1.9 million for cash awaiting reinvestment—within the aggregate loss limit of $1 billion

SIPC and the excess of SIPC insurance policy do not protect against loss due to market fluctuation.

An excess of SIPC claim would only arise if Pershing failed financially and client assets for covered accounts—as defined by SIPC—cannot be located due to theft, misplacement, destruction, burglary, robbery, embezzlement, abstraction, failure to obtain or maintain possession or control of client securities, or to maintain the special reserve bank account required by applicable rules.

Lloyd's currently holds an A+ rating from Standard & Poor's® (S&P®), an A rating from A.M. Best and an AA- rating from Fitch. These ratings are based on the financial strength of the company and are subject to change by the rating agencies at any time.[1] For more information about Lloyd's, please see www.lloyds.com.

[1] Ratings as of December 2015

Financial Northeastern Companies

Financial Northeastern Securities

Evidence of SIPC Insurance

SIPC

SECURITIES INVESTOR PROTECTION CORPORATION
1667 K STREET, N. W., SUITE 1000
WASHINGTON, D.C. 20006-1620
(202) 371-8300
WWW.SIPC.ORG

March 22, 2017

Financial Northeastern
Securities Inc.
1 Greenbrook Corporate Center
100 Passiac Avenue
Fairfield, NJ 0700

Dear Sirs:

In response to your telephone recent request, please be advised that according to SIPC's records, the corporation is registered with the Securities and Exchange Commission as a securities broker or dealer under Section 15(b) of the 1934 Act, (8-34883, 11/22/85). By operation of the Securities Investor Protection Act of 1970, the corporation is a SIPC member unless (i) its principal business, in the determination of SIPC, taking into account business of affiliated entities, is conducted outside the United States and its territories and possessions; (ii) its business as a broker or dealer consists exclusively of (I) the distribution of shares of registered open end investment companies or unit investment trusts, (II) the sale of variable annuities, (III) the business of insurance, or (IV) the business of rendering investment advisory services to one or more registered investment companies or insurance company separate accounts, or (iii) it effects transactions in security futures products only.

Sincerely,

Linda McKenzie Siemers

Linda McKenzie Siemers
Asst. VP – Member Assessments
Human Resources & Facilities

Financial Northeastern Securities

Registration Statement

Organization Registration Status

Organization CRD#: 17007	Organization Name: FINANCIAL NORTHEASTERN SECURITIES, INC.
Organization SEC#: 8-34883	Applicant Name: FINANCIAL NORTHEASTERN SECURITIES, INC.

View IA Record

SEC / SRO / Jurisdiction	Registration Status	Status Effective Date
SEC	Approved -	11/22/1985
FINRA	Approved -	05/15/1987
NQX	Terminated -	07/16/2009
AL	Approved -	02/01/1988
AK	Approved -	01/05/1988
AZ	Approved -	05/20/1988
AR	Approved -	02/08/1989
CA	Approved -	07/06/1987
CO	Approved -	08/10/1987
CT	Approved -	02/09/1988
DE	Approved -	07/30/1987
DC	Approved -	02/03/1988
FL	Approved -	01/07/1988
GA	Approved -	08/14/1987
HI	Approved -	03/10/1988
ID	Approved -	01/01/1988
IL	Approved -	01/04/1988
IN	Approved -	01/01/1988
IA	Approved -	01/22/1988
KS	Approved -	01/04/1988
KY	Approved -	01/01/1988
LA	Approved -	01/04/1988
ME	Approved -	07/21/1987
MD	Approved -	08/10/1987
MA	Approved -	12/28/1987
MI	Approved -	02/03/1988
MN	Approved -	09/15/1987
MS	Approved -	11/09/1987
MO	Approved -	01/01/1988
MT	Approved -	06/29/1987
NE	Approved -	01/01/1988
NV	Approved -	07/01/1987
NH	Approved -	04/22/1992
NJ	Approved -	11/05/1986
NM	Approved -	08/17/1987
NY	Approved -	08/14/1987
NC	Approved -	01/13/1988
ND	Approved -	01/01/1988
OH	Approved -	11/16/1987
OK	Approved -	09/29/1987
OR	Approved -	02/28/1988
PA	Approved -	08/18/1987
PR	Approved -	11/23/1992
RI	Approved -	08/27/1987
SC	Approved -	01/04/1988
SD	Approved -	09/11/1987
TN	Approved -	08/11/1987
TX	Approved -	09/15/1987
UT	Approved -	01/05/1988
VT	Approved -	01/01/1988
VI	Approved -	07/05/2013
VA	Approved -	01/01/1988
WA	Approved -	04/24/1989
WV	Approved -	08/12/1987
WI	Approved -	03/08/1988
WY	Approved -	08/04/1987

Financial Northeastern Companies

Financial Northeastern Securities

Bailment Agreement

Pershing®

One Pershing Plaza
Jersey City, NJ 07399

January 19, 2016

Ms. Sandralin Kiss
Financial Northeastern Securities, Inc.
100 Passaic Avenue
One Greenbrook Corporate Center
Fairfield, NJ 07004

Re: Bailment

Dear Ms. Kiss:

Financial Northeastern Securities, Inc. ("you" or your"), a broker registered under the Securities Exchange Act of 1934, as amended, introduces certain account(s), including, but not limited to, accounts for credit unions ("Credit Unions") to Pershing LLC, ("Custodian") pursuant to a Fully Disclosed Clearing Agreement ("FDCA") dated September 3, 2015.

Pursuant to the FDCA, the Custodian has agreed to act as custodian of certain fully paid securities (the "Securities") for the further benefit of your customers, including the Credit Union customers.

For the avoidance of doubt, your customers, including the Credit Union customers, hold accounts with the Custodian, which is acting in its capacity as clearing agent for you, solely for purpose of the Securities Investor Protection Act and the financial responsibility rules of the Securities and Exchange Commission relating to clearing firms and, for all other purposes they are your customers.

In accordance with applicable laws and regulations, the Custodian shall deliver to you or your customers' securities on deposit upon demand. The Custodian agrees to hold securities on deposit in a segregated account, fully reserved under SEA 15c3-3 and to exercise ordinary care in protecting the securities held. The Securities either shall be held by the Custodian or its designated agent in book entry form in a segregated account for the benefit of Custodian's customers at The Depository Trust & Clearing Corporation or any other similar clearing organization or, in the case of physical securities, may be held in safekeeping by the Custodian or its designated agent.

The Securities are and will remain, and at all-times shall be deemed to be, the sole and exclusive property of your customers, including the Credit Union customers, and the Custodian has no rights in or to the property therein other than the security interest and lien of the Custodian.

This letter agreement shall be governed by the laws of the State of New York without reference to the choice of law doctrine. This letter agreement and its terms shall continue in full force and effect until such time as the FDCA is terminated or your customers terminate their relationship with you.

Very truly yours,

Pershing LLC

By: ____________________
Name: James Roundtree
Title: Relationship Manager, Director

Accepted and Agreed to:
Financial Northeastern Securities, Inc.

By: ____________________
Name: Sandralin Kiss
Title: Executive Vice President, COO

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973.882.8845 Fax

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Miami, FL 33131
800.327.3469
305.377.0199 Fax

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Suite 465
Dublin, OH 43017
877.889.1095
614.793.8114 Fax

Texas
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Austin, TX 78717
973.396.1052
866.328.3560 Fax

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