

PIPER JAFFRAY COMPANIES
Form 10-Q
November 05, 2018

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

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

For the Quarterly Period Ended September 30, 2018

OR

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

For the transition period from _____ to _____

Commission File No. 001-31720

PIPER JAFFRAY COMPANIES

(Exact Name of Registrant as specified in its Charter)

DELAWARE

(State or Other Jurisdiction of Incorporation or Organization)

800 Nicollet Mall, Suite 1000

Minneapolis, Minnesota

(Address of Principal Executive Offices)

30-0168701

(IRS Employer Identification No.)

55402

(Zip Code)

(612) 303-6000

(Registrant's Telephone Number, Including Area Code)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer Accelerated filer

Non-accelerated filer Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of October 31, 2018, the registrant had 14,827,021 shares of Common Stock outstanding.

Piper Jaffray Companies
Index to Quarterly Report on Form 10-Q

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS.

Piper Jaffray Companies

Consolidated Statements of Financial Condition

	September 30, 2018	December 31, 2017
	(Unaudited)	
(Amounts in thousands, except share data)		
Assets		
Cash and cash equivalents	\$ 68,774	\$ 33,793
Receivables from brokers, dealers and clearing organizations	174,065	145,394
Financial instruments and other inventory positions owned	635,893	663,330
Financial instruments and other inventory positions owned and pledged as collateral	162,227	720,047
Total financial instruments and other inventory positions owned	798,120	1,383,377
Fixed assets (net of accumulated depreciation and amortization of \$61,897 and \$55,944, respectively)	31,267	25,179
Goodwill	81,855	81,855
Intangible assets (net of accumulated amortization of \$93,262 and \$85,417, respectively)	14,989	22,834
Investments	152,380	176,212
Net deferred income tax assets	103,287	101,205
Other assets	68,699	54,834
Total assets	\$ 1,493,436	\$ 2,024,683
Liabilities and Shareholders' Equity		
Short-term financing	\$ 49,957	\$ 289,937
Senior notes	125,000	125,000
Payables to brokers, dealers and clearing organizations	6,371	19,392
Financial instruments and other inventory positions sold, but not yet purchased	254,585	399,227
Accrued compensation	252,448	400,092
Other liabilities and accrued expenses	57,660	49,800
Total liabilities	746,021	1,283,448
Shareholders' equity:		
Common stock, \$0.01 par value:		
Shares authorized: 100,000,000 at September 30, 2018 and December 31, 2017;		
Shares issued: 19,517,285 at September 30, 2018 and 19,512,914 at December 31, 2017;		
Shares outstanding: 13,366,703 at September 30, 2018 and 12,911,149 at December 31, 2017	195	195
Additional paid-in capital	801,417	791,970
Retained earnings (1)	169,894	176,270
Less common stock held in treasury, at cost: 6,150,582 shares at September 30, 2018 and 6,601,765 shares at December 31, 2017	(270,046)	(273,824)
Accumulated other comprehensive loss	(1,249)	(1,279)
Total common shareholders' equity	700,211	693,332
Noncontrolling interests	47,204	47,903

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Total shareholders' equity	747,415	741,235
Total liabilities and shareholders' equity	\$ 1,493,436	\$ 2,024,683

(1) Includes the cumulative effect adjustment upon adoption of ASU 2014-09, as amended. See Note 2 for further discussion.

See Notes to the Consolidated Financial Statements

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Consolidated Statements of Operations
(Unaudited)

(Amounts in thousands, except per share data)	Three Months Ended		Nine Months Ended	
	September 30, 2018	2017	September 30, 2018	2017
Revenues:				
Investment banking	\$ 166,458	\$ 190,482	\$ 411,203	\$ 461,260
Institutional brokerage	31,738	34,873	92,415	111,083
Asset management	13,377	12,818	38,706	44,011
Interest	6,592	7,164	25,183	22,649
Investment income/(loss)	3,068	(422)	6,706	15,406
Total revenues	221,233	244,915	574,213	654,409
Interest expense	3,705	4,348	14,142	15,568
Net revenues	217,528	240,567	560,071	638,841
Non-interest expenses:				
Compensation and benefits	139,151	169,469	369,895	438,161
Outside services	9,521	7,495	29,024	27,612
Occupancy and equipment	8,967	8,127	26,476	24,846
Communications	7,561	7,136	24,112	22,025
Marketing and business development	6,718	6,683	21,702	22,512
Deal-related expenses	7,671	—	18,888	—
Trade execution and clearance	2,049	2,125	6,240	5,864
Restructuring costs	—	—	3,770	—
Goodwill impairment	—	114,363	—	114,363
Intangible asset amortization	2,615	3,822	7,845	11,466
Back office conversion costs	—	1,293	—	3,027
Other operating expenses	3,640	2,290	9,187	8,525
Total non-interest expenses	187,893	322,803	517,139	678,401
Income/(loss) before income tax expense/(benefit)	29,635	(82,236)	42,932	(39,560)
Income tax expense/(benefit)	7,365	(31,423)	5,351	(26,912)
Net income/(loss)	22,270	(50,813)	37,581	(12,648)
Net income/(loss) applicable to noncontrolling interests	247	(1,100)	(1,271)	3,217
Net income/(loss) applicable to Piper Jaffray Companies	\$ 22,023	\$ (49,713)	\$ 38,852	\$ (15,865)
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders	\$ 19,377	\$ (50,415) ₍₁₎	\$ 33,650	\$ (18,106) ₍₁₎
Earnings/(loss) per common share				

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Basic	\$1.45	\$(3.91)	\$2.54	\$(1.42)
Diluted	\$1.43	\$(3.91) ⁽²⁾	\$2.50	\$(1.42) ⁽²⁾
Dividends declared per common share	\$0.38	\$0.31	\$2.75	\$0.94
Weighted average number of common shares outstanding				
Basic	13,343	12,898	13,248	12,774
Diluted	13,508	12,975	⁽²⁾ 13,444	12,945 ⁽²⁾

(1) No allocation of undistributed income was made due to loss position. See Note 14.

(2) Earnings per diluted common share is calculated using the basic weighted average number of common shares outstanding for periods in which a loss is incurred.

See Notes to the Consolidated Financial Statements

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Piper Jaffray Companies

Consolidated Statements of Comprehensive Income

(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
(Amounts in thousands)				
Net income/(loss)	\$22,270	\$(50,813)	\$37,581	\$(12,648)
Other comprehensive income/(loss), net of tax:				
Foreign currency translation adjustment	(102)	142	30	1,137
Comprehensive income/(loss)	22,168	(50,671)	37,611	(11,511)
Comprehensive income/(loss) applicable to noncontrolling interests	247	(1,100)	(1,271)	3,217
Comprehensive income/(loss) applicable to Piper Jaffray Companies	\$21,921	\$(49,571)	\$38,882	\$(14,728)

See Notes to the Consolidated Financial Statements

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Consolidated Statements of Cash Flows
(Unaudited)

	Nine Months Ended September 30,	
(Dollars in thousands)	2018	2017
Operating Activities:		
Net income/(loss)	\$37,581	\$(12,648)
Adjustments to reconcile net income/(loss) to net cash provided by operating activities:		
Depreciation and amortization of fixed assets	6,199	5,343
Deferred income taxes	(2,082)	(47,984)
Stock-based compensation	32,046	26,459
Goodwill impairment	—	114,363
Amortization of intangible assets	7,845	11,466
Amortization of forgivable loans	3,789	5,207
Decrease/(increase) in operating assets:		
Receivables:		
Customers	—	31,917
Brokers, dealers and clearing organizations	(28,671)	131,850
Securities purchased under agreements to resell	—	159,697
Net financial instruments and other inventory positions owned	440,615	18,021
Investments	23,832	(11,470)
Other assets	(17,439)	7,185
Increase/(decrease) in operating liabilities:		
Payables:		
Customers	—	(29,352)
Brokers, dealers and clearing organizations	(13,021)	13,423
Securities sold under agreements to repurchase	—	(15,046)
Accrued compensation	(134,470)	4,666
Other liabilities and accrued expenses	4,178	7,864
Net cash provided by operating activities	360,402	420,961
Investing Activities:		
Purchases of fixed assets, net	(12,329)	(4,310)
Net cash used in investing activities	(12,329)	(4,310)

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Piper Jaffray Companies

Consolidated Statements of Cash Flows – Continued

(Unaudited)

(Dollars in thousands)	Nine Months Ended	
	September 30, 2018	2017
Financing Activities:		
Decrease in short-term financing	\$(239,980)	\$(342,035)
Repayment of senior notes	—	(50,000)
Payment of cash dividend	(41,631)	(14,217)
Increase/(decrease) in noncontrolling interests	572	(11,714)
Repurchase of common stock	(31,664)	(25,065)
Proceeds from stock option exercises	—	1,703
Net cash used in financing activities	(312,703)	(441,328)
Currency adjustment:		
Effect of exchange rate changes on cash	(389)	1,235
Net increase/(decrease) in cash, cash equivalents and restricted cash (1)	34,981	(23,442)
Cash, cash equivalents and restricted cash at beginning of period (1)	33,793	70,374
Cash, cash equivalents and restricted cash at end of period (1)	\$68,774	\$46,932
Supplemental disclosure of cash flow information –		
Cash paid during the period for:		
Interest	\$14,586	\$15,397
Income taxes	\$16,638	\$7,781

(1) Upon adoption of ASU 2016-18, restricted cash includes cash and cash equivalents previously segregated for regulatory purposes. See Note 2 for further discussion.

See Notes to the Consolidated Financial Statements

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Notes to the Consolidated Financial Statements

(Unaudited)

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

Note 1 Organization and Basis of Presentation

Organization

Piper Jaffray Companies is the parent company of Piper Jaffray & Co. ("Piper Jaffray"), a securities broker dealer and investment banking firm; Piper Jaffray Ltd., a firm providing securities brokerage and mergers and acquisitions services in Europe; Piper Jaffray Finance LLC, which facilitates corporate debt underwriting in conjunction with affiliated credit vehicles; Advisory Research, Inc. ("ARI"), which provides asset management services to separately managed accounts, closed-end and open-end funds and partnerships; Piper Jaffray Investment Group Inc. and PJC Capital Management LLC, which consist of entities providing alternative asset management services; Piper Jaffray Financial Products Inc. and Piper Jaffray Financial Products II Inc., entities that facilitate derivative transactions; and other immaterial subsidiaries.

Effective August 7, 2017, Piper Jaffray transitioned from a self clearing securities broker dealer to a fully disclosed clearing model. Pershing LLC ("Pershing") is Piper Jaffray's clearing broker dealer responsible for the clearance and settlement of firm and customer cash and security transactions.

Piper Jaffray Companies and its subsidiaries (collectively, the "Company") operate in two reporting segments: Capital Markets and Asset Management. A summary of the activities of each of the Company's business segments is as follows:

Capital Markets

The Capital Markets segment provides investment banking services and institutional sales, trading and research services. Investment banking services include financial advisory services, management of and participation in underwritings and public finance activities. Revenues are generated through the receipt of advisory and financing fees. Institutional sales, trading and research services focus on the trading of equity and fixed income products with institutions, government and non-profit entities. Revenues are generated through commissions and sales credits earned on equity and fixed income institutional sales activities, net interest revenues on trading securities held in inventory, and profits and losses from trading these securities. Also, the Company generates revenue through strategic trading and investing activities, which focus on investments in municipal bonds, U.S. government agency securities, and merchant banking activities involving equity investments in late stage private companies. The Company has created alternative asset management funds in merchant banking, energy and senior living in order to invest firm capital and to manage capital from outside investors. The Company receives management and performance fees for managing these funds.

Asset Management

The Asset Management segment provides traditional asset management services with product offerings in master limited partnerships and equity securities to institutions and individuals. Revenues are generated in the form of management and performance fees. Revenues are also generated through investments in the partnerships and funds that the Company manages.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") for interim financial information and the rules and regulations of the Securities and Exchange Commission ("SEC"). Pursuant to this guidance, certain information and disclosures have been omitted that are included within complete annual financial statements. Except as disclosed herein, there have been no material changes in the information reported in the financial statements and related disclosures in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

The consolidated financial statements include the accounts of Piper Jaffray Companies, its wholly owned subsidiaries, and all other entities in which the Company has a controlling financial interest. Noncontrolling interests represent equity interests in consolidated entities that are not attributable, either directly or indirectly, to Piper Jaffray Companies. Noncontrolling interests include the minority equity holders' proportionate share of the equity in the Company's alternative asset management funds. All material intercompany balances have been eliminated.

Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Although these estimates and assumptions are based on the best information available, actual results could differ from those estimates.

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

Note 2 Accounting Policies and Pronouncements

Summary of Significant Accounting Policies

Refer to the Company's Annual Report on Form 10-K for the year ended December 31, 2017 for a full description of the Company's significant accounting policies. Changes to the Company's significant accounting policies are described below.

Revenue Recognition

Investment Banking – Investment banking revenues, which include advisory and underwriting fees, are recorded when the performance obligation for the transaction is satisfied under the terms of each engagement. Expenses associated with such transactions are deferred until the related revenue is recognized or the engagement is otherwise concluded. Investment banking revenues are presented gross of related client reimbursed deal expenses. Expenses for completed deals are reported separately in deal-related expenses on the consolidated statements of operations. Expenses related to investment banking deals not completed are recognized as non-interest expenses on the consolidated statements of operations.

The Company's advisory fees generally consist of a nonrefundable up-front fee and a success fee. The nonrefundable fee is recorded as deferred revenue upon receipt and recognized at a point in time when the performance obligation is satisfied, or when the transaction is deemed by management to be terminated. Management's judgment is required in determining when a transaction is considered to be terminated.

The substantial majority of the Company's advisory and underwriting fees (i.e., the success related advisory fee) are considered variable consideration and recognized when it is probable that the variable consideration will not be reversed in a future period. The variable consideration is considered to be constrained until satisfaction of the performance obligation. The Company's performance obligation is generally satisfied at a point in time upon the closing of a strategic transaction, completion of a financing or underwriting arrangement, or some other defined outcome (e.g., providing a fairness opinion). At this time, the Company has transferred control of the promised service and the customer obtains control. As these arrangements represent a single performance obligation, allocation of the transaction price is not necessary. The Company has elected to apply the following optional exemptions regarding disclosure of its remaining performance obligations: (i) the Company's performance obligation is part of a contract that has an original expected duration of one year or less and/or (ii) the variable consideration is allocated entirely to a wholly unsatisfied promise to transfer a distinct service that forms part of a single performance obligation.

Institutional Brokerage – Institutional brokerage revenues include (i) commissions received from customers for the execution of brokerage transactions in listed and over-the-counter (OTC) equity, fixed income and convertible debt securities, which are recognized at a point in time on the trade date because the customer has obtained the rights to the underlying security provided by the trade execution service, (ii) trading gains and losses, recorded on changes in the fair value of long and short security positions in the reporting period and (iii) fees received by the Company for equity research, which are generally recognized in the period received. The Company permits institutional customers to allocate a portion of their gross commissions to pay for research products and other services provided by third parties. The amounts allocated for those purposes are commonly referred to as soft dollar arrangements. As the Company is not acting as a principal in satisfying the performance obligation for these arrangements, expenses relating to soft dollars are netted against commission revenues and included in other liabilities and accrued expenses on the consolidated statements of financial condition.

Asset Management – Asset management fees include revenues the Company receives in connection with management and investment advisory services performed for separately managed accounts and various funds and partnerships. The performance obligation related to the transfer of these services is satisfied over time and the related fees are recognized under the output method, which reflects the fees that the Company has a right to invoice based on the services provided during the period. Fees are defined in client contracts as a percentage of portfolio assets under management. Amounts related to remaining performance obligations are not disclosed as the Company applies the output method.

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

Asset management revenues may also include performance fees. Performance fees, if earned, are recognized when it is probable that such revenue will not be reversed in a future period. For the Company's alternative asset management funds, management will consider such factors as the remaining assets and residual life of the fund to conclude whether it is probable that a significant reversal of revenue will not occur in the future. For the Company's traditional asset management funds, performance fees are earned when the investment return on assets under management exceeds certain benchmark targets or other performance targets over a specified measurement period (e.g., monthly, quarterly or annually). These performance fees are typically annual performance hurdles and recognized in the fourth quarter of the applicable year, or upon client liquidation.

See Note 15 for revenues from contracts with customers disaggregated by major business activity.

Adoption of New Accounting Standards

Revenue Recognition

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09"), which supersedes previous revenue recognition guidance, including most industry-specific guidance. ASU 2014-09, as amended, requires a company to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods and services, and also requires enhanced disclosures.

The Company adopted this guidance effective as of January 1, 2018 under the modified retrospective method, in which the cumulative effect of applying the standard was recognized at the date of initial application. The cumulative effect adjustment that the Company recognized upon adoption as of January 1, 2018 was a decrease to retained earnings of \$3.6 million, net of tax. The Company applied the guidance only to those contracts that were not completed at the date of initial application.

The previous broker dealer industry treatment of netting deal expenses with investment banking revenues was superseded under the new guidance. As a result of adopting ASU 2014-09, the Company now presents investment banking revenues gross of related client reimbursed deal expenses and deal-related expenses as non-interest expenses on the consolidated statements of operations, rather than the previous presentation of netting deal expenses incurred for completed investment banking deals within revenues. For the three and nine months ended September 30, 2018, the Company reported higher investment banking revenues and higher non-compensation expenses of \$7.7 million and \$18.9 million, respectively. This change did not impact earnings. In addition, the Company now defers the recognition of performance fees on its merchant banking, energy and senior living alternative asset management funds until such fees are no longer subject to reversal, which will cause a delay in the recognition of these fees as revenue. For the nine months ended September 30, 2018, the amount of asset management revenue from performance fees that the Company would have recognized if not for this change was not material. With the exception of the above, the Company's previous methods of recognizing investment banking revenues were not significantly impacted by the new guidance.

Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" ("ASU 2016-01"). The amendments in ASU 2016-01

address certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. ASU 2016-01 became effective for the Company as of January 1, 2018. There was no material impact to the Company's results of operations, financial position or disclosures upon adoption as the Company's financial instruments are already recorded at fair value.

Statement of Cash Flows

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" ("ASU 2016-15"). ASU 2016-15 clarifies how entities should classify certain cash receipts and cash payments on the statement of cash flows. The amendments in ASU 2016-15 became effective for the Company as of January 1, 2018, with retrospective application. There was no material impact to the Company's presentation of its consolidated statements of cash flows upon adoption of ASU 2016-15.

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

In November 2016, the FASB issued ASU No. 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash" ("ASU 2016-18"). Under ASU 2016-18, restricted cash will be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period amounts shown on the consolidated statements of cash flows. ASU 2016-18 became effective for the Company as of January 1, 2018, with retrospective application. As a registered broker dealer, Piper Jaffray is subject to Rule 15c3-3 of the Securities Exchange Act of 1934, which requires broker dealers carrying customer accounts to maintain cash or qualified securities in a segregated reserve account for the exclusive benefit of its customers. These accounts were previously classified as cash and cash equivalents segregated for regulatory purposes on the consolidated statements of financial condition. Subsequent to transitioning to a fully disclosed clearing model in 2017, Piper Jaffray no longer carries customer accounts and is no longer subject to Rule 15c3-3. The following table provides a reconciliation of cash, cash equivalents and restricted cash for all periods presented on the consolidated statements of cash flows:

	December 31, 2017	September 30, 2017	December 31, 2016
(Dollars in thousands)			
Cash and cash equivalents	\$ 33,793	\$ 40,916	\$ 41,359
Cash and cash equivalents segregated for regulatory purposes	—	6,016	29,015
Cash, cash equivalents and restricted cash	\$ 33,793	\$ 46,932	\$ 70,374

Future Adoption of New Applicable Accounting Standards

Leases

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)" ("ASU 2016-02"). ASU 2016-02 requires lessees to recognize a right-of-use asset and lease liability on the consolidated statements of financial position and disclose key information about leasing arrangements. The recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessee have not significantly changed from current U.S. GAAP. ASU 2016-02 is effective for the Company as of January 1, 2019. As of September 30, 2018, the Company had approximately 65 operating leases for office space with aggregate minimum lease commitments of \$71.1 million. Upon adoption, lease commitments will be reflected on the statement of financial condition as a right-of-use asset and a lease commitment liability. The Company has identified its arrangements that are within the scope of the new guidance, and continues to evaluate their potential impact on the consolidated statements of financial condition and related disclosures. Upon adoption of ASU 2016-02, the Company does not expect material changes to the recognition of rent expense in its consolidated statements of operations. The new guidance is not expected to materially impact Piper Jaffray's net capital position.

Financial Instruments – Credit Losses

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" ("ASU 2016-13"). The new guidance requires an entity to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts as opposed to delaying recognition until the loss was probable of occurring. ASU 2016-13 is effective for annual and interim periods beginning after December 15, 2019. Early adoption is permitted for annual and interim periods beginning after December 15, 2018. The Company does not expect the adoption of ASU 2016-13 to have a material impact on its consolidated financial statements.

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Piper Jaffray Companies
Notes to the Consolidated Financial Statements
(Unaudited)

Note 3 Financial Instruments and Other Inventory Positions Owned and Financial Instruments and Other Inventory Positions Sold, but Not Yet Purchased

(Dollars in thousands)	September 30, 2018	December 31, 2017
Financial instruments and other inventory positions owned:		
Corporate securities:		
Equity securities	\$ 21,473	\$ 51,896
Convertible securities	126,641	74,456
Fixed income securities	42,976	30,145
Municipal securities:		
Taxable securities	41,766	67,699
Tax-exempt securities	226,702	744,241
Short-term securities	150,090	62,251
Mortgage-backed securities	16	481
U.S. government agency securities	173,477	317,318
U.S. government securities	1,561	9,317
Derivative contracts	13,418	25,573
Total financial instruments and other inventory positions owned	\$ 798,120	\$ 1,383,377
Financial instruments and other inventory positions sold, but not yet purchased:		
Corporate securities:		
Equity securities	\$ 116,712	\$ 101,517
Fixed income securities	31,187	30,292
U.S. government agency securities	37,245	49,077
U.S. government securities	65,205	213,312
Derivative contracts	4,236	5,029
Total financial instruments and other inventory positions sold, but not yet purchased	\$ 254,585	\$ 399,227

At September 30, 2018 and December 31, 2017, financial instruments and other inventory positions owned in the amount of \$162.2 million and \$720.0 million, respectively, had been pledged as collateral for short-term financings.

Financial instruments and other inventory positions sold, but not yet purchased represent obligations of the Company to deliver the specified security at the contracted price, thereby creating a liability to purchase the security in the market at prevailing prices. The Company is obligated to acquire the securities sold short at prevailing market prices, which may exceed the amount reflected on the consolidated statements of financial condition. The Company economically hedges changes in the market value of its financial instruments and other inventory positions owned using inventory positions sold, but not yet purchased, interest rate derivatives, credit default swap index contracts, U.S. treasury bond futures and exchange traded options.

Derivative Contract Financial Instruments

The Company uses interest rate swaps, interest rate locks, credit default swap index contracts, U.S. treasury bond futures and equity option contracts as a means to manage risk in certain inventory positions. The Company also enters into interest rate swaps to facilitate customer transactions. The following describes the Company's derivatives by the type of transaction or security the instruments are economically hedging.

Customer matched-book derivatives: The Company enters into interest rate derivative contracts in a principal capacity as a dealer to satisfy the financial needs of its customers. The Company simultaneously enters into an interest rate derivative contract with a third party for the same notional amount to hedge the interest rate and credit risk of the initial client interest rate derivative contract. In certain limited instances, the Company has only hedged interest rate risk with a third party, and retains uncollateralized credit risk as described below. The instruments use interest rates based upon either the London Interbank Offer Rate ("LIBOR") index or the Securities Industry and Financial Markets Association ("SIFMA") index.

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Trading securities derivatives: The Company enters into interest rate derivative contracts and uses U.S. treasury bond futures to hedge interest rate and market value risks associated with its fixed income securities. These instruments use interest rates based upon the Municipal Market Data ("MMD") index, LIBOR or the SIFMA index. The Company also enters into credit default swap index contracts to hedge credit risk associated with its taxable fixed income securities and option contracts to hedge market value risk associated with its convertible securities.

Derivatives are reported on a net basis by counterparty (i.e., the net payable or receivable for derivative assets and liabilities for a given counterparty) when a legal right of offset exists and on a net basis by cross product when applicable provisions are stated in master netting agreements. Cash collateral received or paid is netted on a counterparty basis, provided a legal right of offset exists. The total absolute notional contract amount, representing the absolute value of the sum of gross long and short derivative contracts, provides an indication of the volume of the Company's derivative activity and does not represent gains and losses. The following table presents the gross fair market value and the total absolute notional contract amount of the Company's outstanding derivative instruments, prior to counterparty netting, by asset or liability position:

Derivative Category	September 30, 2018			December 31, 2017		
	Derivative Assets	Derivative Liabilities	Notional Amount	Derivative Assets	Derivative Liabilities	Notional Amount
	(1)	(2)		(1)	(2)	
Interest rate						
Customer matched-book	\$ 159,244	\$ 147,944	\$ 2,602,498	\$ 239,224	\$ 225,890	\$ 2,819,006
Trading securities	1,714	368	243,175	126	4,459	399,450
Equity options						
Trading securities	—	—	—	6	—	9,635
	\$ 160,958	\$ 148,312	\$ 2,845,673	\$ 239,356	\$ 230,349	\$ 3,228,091

(1) Derivative assets are included within financial instruments and other inventory positions owned on the consolidated statements of financial condition.

(2) Derivative liabilities are included within financial instruments and other inventory positions sold, but not yet purchased on the consolidated statements of financial condition.

The Company's derivative contracts do not qualify for hedge accounting, therefore, unrealized gains and losses are recorded on the consolidated statements of operations. The gains and losses on the related economically hedged inventory positions are not disclosed below as they are not in qualifying hedging relationships. The following table presents the Company's unrealized gains/(losses) on derivative instruments:

Derivative Category	Operations Category	Three Months Ended		Nine Months Ended	
		September 30,		September 30,	
		2018	2017	2018	2017
Interest rate derivative contract	Investment banking	\$(301)	\$(300)	\$(1,567)	\$(1,076)
Interest rate derivative contract	Institutional brokerage	980	1,627	5,212	(16,028)
Credit default swap index contract	Institutional brokerage	—	4,304	—	4,482
		\$ 679	\$ 5,631	\$ 3,645	\$ (12,622)

Credit risk associated with the Company's derivatives is the risk that a derivative counterparty will not perform in accordance with the terms of the applicable derivative contract. Credit exposure associated with the Company's derivatives is driven by uncollateralized market movements in the fair value of the contracts with counterparties and is monitored regularly by the Company's financial risk committee. The Company considers counterparty credit risk in

determining derivative contract fair value. The majority of the Company's derivative contracts are substantially collateralized by its counterparties, who are major financial institutions. The Company has a limited number of counterparties who are not required to post collateral. Based on market movements, the uncollateralized amounts representing the fair value of the derivative contract can become material, exposing the Company to the credit risk of these counterparties. As of September 30, 2018, the Company had \$13.5 million of uncollateralized credit exposure with these counterparties (notional contract amount of \$178.6 million), including \$10.8 million of uncollateralized credit exposure with one counterparty.

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Note 4 Fair Value of Financial Instruments

Based on the nature of the Company's business and its role as a "dealer" in the securities industry or as a manager of alternative asset management funds, the fair values of its financial instruments are determined internally. The Company's processes are designed to ensure that the fair values used for financial reporting are based on observable inputs wherever possible. In the event that observable inputs are not available, unobservable inputs are developed based on an evaluation of all relevant empirical market data, including prices evidenced by market transactions, interest rates, credit spreads, volatilities and correlations and other security-specific information. Valuation adjustments related to illiquidity or counterparty credit risk are also considered. In estimating fair value, the Company may utilize information provided by third party pricing vendors to corroborate internally-developed fair value estimates.

The Company employs specific control processes to determine the reasonableness of the fair value of its financial instruments. The Company's processes are designed to ensure that the internally-estimated fair values are accurately recorded and that the data inputs and the valuation techniques used are appropriate, consistently applied, and that the assumptions are reasonable and consistent with the objective of determining fair value. Individuals outside of the trading departments perform independent pricing verification reviews as of each reporting date. The Company has established parameters which set forth when the fair value of securities are independently verified. The selection parameters are generally based upon the type of security, the level of estimation risk of a security, the materiality of the security to the Company's financial statements, changes in fair value from period to period, and other specific facts and circumstances of the Company's securities portfolio. In evaluating the initial internally-estimated fair values made by the Company's traders, the nature and complexity of securities involved (e.g., term, coupon, collateral, and other key drivers of value), level of market activity for securities, and availability of market data are considered. The independent price verification procedures include, but are not limited to, analysis of trade data (both internal and external where available), corroboration to the valuation of positions with similar characteristics, risks and components, or comparison to an alternative pricing source, such as a discounted cash flow model. The Company's valuation committee, comprised of members of senior management and risk management, provides oversight and overall responsibility for the internal control processes and procedures related to fair value measurements.

The following is a description of the valuation techniques used to measure fair value.

Cash Equivalents

Cash equivalents include highly liquid investments with original maturities of 90 days or less. Actively traded money market funds are measured at their net asset value and classified as Level I.

Financial Instruments and Other Inventory Positions Owned

The Company records financial instruments and other inventory positions owned and financial instruments and other inventory positions sold, but not yet purchased at fair value on the consolidated statements of financial condition with unrealized gains and losses reflected on the consolidated statements of operations.

Equity securities – Exchange traded equity securities are valued based on quoted prices from the exchange for identical assets or liabilities as of the period-end date. To the extent these securities are actively traded and valuation adjustments are not applied, they are categorized as Level I. Non-exchange traded equity securities (principally hybrid preferred securities) are measured primarily using broker quotations, prices observed for recently executed market

transactions and internally-developed fair value estimates based on observable inputs and are categorized within Level II of the fair value hierarchy.

Convertible securities – Convertible securities are valued based on observable trades, when available. Accordingly, these convertible securities are categorized as Level II.

Corporate fixed income securities – Fixed income securities include corporate bonds which are valued based on recently executed market transactions of comparable size, internally-developed fair value estimates based on observable inputs, or broker quotations. Accordingly, these corporate bonds are categorized as Level II.

Taxable municipal securities – Taxable municipal securities are valued using recently executed observable trades or market price quotations and therefore are generally categorized as Level II.

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Tax-exempt municipal securities – Tax-exempt municipal securities are valued using recently executed observable trades or market price quotations and therefore are generally categorized as Level II. Certain illiquid tax-exempt municipal securities are valued using market data for comparable securities (maturity and sector) and management judgment to infer an appropriate current yield or other model-based valuation techniques deemed appropriate by management based on the specific nature of the individual security and are therefore categorized as Level III.

Short-term municipal securities – Short-term municipal securities include auction rate securities, variable rate demand notes, and other short-term municipal securities. Variable rate demand notes and other short-term municipal securities are valued using recently executed observable trades or market price quotations and therefore are generally categorized as Level II. Auction rate securities with limited liquidity are categorized as Level III and are valued using discounted cash flow models with unobservable inputs such as the Company's expected recovery rate on the securities.

Mortgage-backed securities – Mortgage-backed securities are valued using observable trades, when available. Certain mortgage-backed securities are valued using models where inputs to the model are directly observable in the market, or can be derived principally from or corroborated by observable market data. To the extent we hold, these mortgage-backed securities are categorized as Level II. Certain mortgage-backed securities collateralized by residential mortgages are valued using cash flow models that utilize unobservable inputs including credit default rates, prepayment rates, loss severity and valuation yields. As judgment is used to determine the range of these inputs, these mortgage-backed securities are categorized as Level III.

U.S. government agency securities – U.S. government agency securities include agency debt bonds and mortgage bonds. Agency debt bonds are valued by using either direct price quotes or price quotes for comparable bond securities and are categorized as Level II. Mortgage bonds include bonds secured by mortgages, mortgage pass-through securities, agency collateralized mortgage-obligation ("CMO") securities and agency interest-only securities. Mortgage pass-through securities, CMO securities and interest-only securities are valued using recently executed observable trades or other observable inputs, such as prepayment speeds and therefore are generally categorized as Level II. Mortgage bonds are valued using observable market inputs, such as market yields on spreads over U.S. treasury securities, or models based upon prepayment expectations. These securities are categorized as Level II.

U.S. government securities – U.S. government securities include highly liquid U.S. treasury securities which are generally valued using quoted market prices and therefore categorized as Level I. The Company does not transact in securities of countries other than the U.S. government.

Derivatives – Derivative contracts include interest rate swaps, interest rate locks, credit default swap index contracts, U.S. treasury bond futures and equity option contracts. These instruments derive their value from underlying assets, reference rates, indices or a combination of these factors. The Company's equity option derivative contracts are valued based on quoted prices from the exchange for identical assets or liabilities as of the period-end date. To the extent these contracts are actively traded and valuation adjustments are not applied, they are categorized as Level I. The Company's credit default swap index contracts are valued using market price quotations and are classified as Level II. The majority of the Company's interest rate derivative contracts, including both interest rate swaps and interest rate locks, are valued using market standard pricing models based on the net present value of estimated future cash flows. The valuation models used do not involve material subjectivity as the methodologies do not entail significant judgment and the pricing inputs are market observable, including contractual terms, yield curves and measures of volatility. These instruments are classified as Level II within the fair value hierarchy. Certain interest rate locks transact in less active markets and were valued using valuation models that included the previously mentioned

observable inputs and certain unobservable inputs that required significant judgment, such as the premium over the MMD curve. These instruments are classified as Level III.

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Investments

The Company's investments valued at fair value include equity investments in private companies and partnerships, investments in registered mutual funds and private company debt. Investments in registered mutual funds are valued based on quoted prices on active markets and classified as Level I. Investments in private companies are valued based on an assessment of each underlying security, considering rounds of financing, third party transactions and market-based information, including comparable company transactions, trading multiples (e.g., multiples of revenue and earnings before interest, taxes, depreciation and amortization ("EBITDA")) and changes in market outlook, among other factors. These securities are generally categorized as Level III.

Fair Value Option – The fair value option permits the irrevocable fair value option election on an instrument-by-instrument basis at initial recognition of an asset or liability or upon an event that gives rise to a new basis of accounting for that instrument. The fair value option was elected for certain merchant banking and other investments at inception to reflect economic events in earnings on a timely basis. Merchant banking and other equity investments of \$3.3 million and \$14.1 million, included within investments on the consolidated statements of financial condition, are accounted for at fair value and are classified as Level III assets at September 30, 2018 and December 31, 2017, respectively. The realized and unrealized net gains from fair value changes included in earnings as a result of electing to apply the fair value option to certain financial assets were \$0.9 million and \$1.4 million for the nine months ended September 30, 2018 and 2017, respectively.

The following table summarizes quantitative information about the significant unobservable inputs used in the fair value measurement of the Company's Level III financial instruments as of September 30, 2018:

	Valuation Technique	Unobservable Input	Range	Weighted Average (1)
Assets:				
Financial instruments and other inventory positions owned:				
Derivative contracts:				
Interest rate locks	Discounted cash flow	Premium over the MMD curve in basis points ("bps") (2)	1 - 11 bps	8.7 bps
Investments at fair value:				
Equity securities in private companies	Market approach	Revenue multiple (3)	2 - 6 times	4.8 times
		EBITDA multiple (3)	13 - 16 times	14.4 times
Liabilities:				
Financial instruments and other inventory positions sold, but not yet purchased:				
Derivative contracts:				
Interest rate locks	Discounted cash flow	Premium over the MMD curve in bps (2)	7 - 16 bps	8.9 bps

Uncertainty of fair value measurements:

(1) Unobservable inputs were weighted by the relative fair value of the financial instruments.

- (2) Significant increase/(decrease) in the unobservable input in isolation would have resulted in a significantly lower/(higher) fair value measurement.
- (3) Significant increase/(decrease) in the unobservable input in isolation would have resulted in a significantly higher/(lower) fair value measurement.

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The following table summarizes the valuation of the Company's financial instruments by pricing observability levels defined in FASB Accounting Standards Codification Topic 820, "Fair Value Measurement" ("ASC 820") as of September 30, 2018:

(Dollars in thousands)	Level I	Level II	Level III	Counterparty and Cash Collateral Netting (1)	Total
Assets:					
Financial instruments and other inventory positions owned:					
Corporate securities:					
Equity securities	\$266	\$21,207	\$—	\$—	\$21,473
Convertible securities	—	126,641	—	—	126,641
Fixed income securities	—	42,976	—	—	42,976
Municipal securities:					
Taxable securities	—	41,766	—	—	41,766
Tax-exempt securities	—	226,702	—	—	226,702
Short-term securities	—	150,045	45	—	150,090
Mortgage-backed securities	—	—	16	—	16
U.S. government agency securities	—	173,477	—	—	173,477
U.S. government securities	1,561	—	—	—	1,561
Derivative contracts	—	159,685	1,273	(147,540)	13,418
Total financial instruments and other inventory positions owned	1,827	942,499	1,334	(147,540)	798,120
Cash equivalents	40,793	—	—	—	40,793
Investments at fair value	39,501	—	104,285	(2)—	143,786
Total assets	\$82,121	\$942,499	\$105,619	\$(147,540)	\$982,699
Liabilities:					
Financial instruments and other inventory positions sold, but not yet purchased:					
Corporate securities:					
Equity securities	\$112,642	\$4,070	\$—	\$—	\$116,712
Fixed income securities	—	31,187	—	—	31,187
U.S. government agency securities	—	37,245	—	—	37,245
U.S. government securities	65,205	—	—	—	65,205
Derivative contracts	—	147,944	368	(144,076)	4,236
Total financial instruments and other inventory positions sold, but not yet purchased	\$177,847	\$220,446	\$368	\$(144,076)	\$254,585

(1) Represents cash collateral and the impact of netting on a counterparty basis. The Company had no securities posted as collateral to its counterparties.

(2) Noncontrolling interests of \$47.2 million are attributable to third party ownership in consolidated merchant banking and senior living funds.

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The following table summarizes the valuation of the Company's financial instruments by pricing observability levels defined in ASC 820 as of December 31, 2017:

(Dollars in thousands)	Level I	Level II	Level III	Counterparty and Cash Collateral Netting (1)	Total
Assets:					
Financial instruments and other inventory positions owned:					
Corporate securities:					
Equity securities	\$1,863	\$50,033	\$—	\$—	\$51,896
Convertible securities	—	74,456	—	—	74,456
Fixed income securities	—	30,145	—	—	30,145
Municipal securities:					
Taxable securities	—	67,699	—	—	67,699
Tax-exempt securities	—	743,541	700	—	744,241
Short-term securities	—	61,537	714	—	62,251
Mortgage-backed securities	—	—	481	—	481
U.S. government agency securities	—	317,318	—	—	317,318
U.S. government securities	9,317	—	—	—	9,317
Derivative contracts	6	239,224	126	(213,783)	25,573
Total financial instruments and other inventory positions owned	11,186	1,583,953	2,021	(213,783)	1,383,377
Cash equivalents	3,782	—	—	—	3,782
Investments at fair value	39,504	—	126,060	(2)—	165,564
Total assets	\$54,472	\$1,583,953	\$128,081	\$(213,783)	\$1,552,723
Liabilities:					
Financial instruments and other inventory positions sold, but not yet purchased:					
Corporate securities:					
Equity securities	\$91,934	\$9,583	\$—	\$—	\$101,517
Fixed income securities	—	30,292	—	—	30,292
U.S. government agency securities	—	49,077	—	—	49,077
U.S. government securities	213,312	—	—	—	213,312
Derivative contracts	—	225,916	4,433	(225,320)	5,029
Total financial instruments and other inventory positions sold, but not yet purchased	\$305,246	\$314,868	\$4,433	\$(225,320)	\$399,227

(1) Represents cash collateral and the impact of netting on a counterparty basis. The Company had no securities posted as collateral to its counterparties.

(2) Noncontrolling interests of \$44.4 million are attributable to third party ownership in consolidated merchant banking and senior living funds.

The Company's Level III assets were \$105.6 million and \$128.1 million, or 10.7 percent and 8.2 percent of financial instruments measured at fair value at September 30, 2018 and December 31, 2017, respectively. There were no significant transfers between levels for the nine months ended September 30, 2018.

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The following tables summarize the changes in fair value associated with Level III financial instruments held at the beginning or end of the periods presented:

	Balance at June 30, 2018	Purchases	Sales	Transfers in	Transfers out	Realized gains/ (losses)	Unrealized gains/ (losses)	Balance at September 30, 2018	Unrealized gains/ (losses) for assets/ liabilities held at September 30, 2018 (1)	
(Dollars in thousands)										
Assets:										
Financial instruments and other inventory positions owned:										
Municipal securities:										
Short-term securities	\$45	\$—	\$—	\$	—\$—	\$—	\$—	\$45	\$—	
Mortgage-backed securities	18	—	—	—	—	—	(2) 16	(2)
Derivative contracts	930	—	(90) —	—	90	343	1,273	441	
Total financial instruments and other inventory positions owned	993	—	(90) —	—	90	341	1,334	439	
Investments at fair value	108,121	10,000	(14,199) —	(357) 4,949	(4,229) 104,285	(4,229)
Total assets	\$109,114	\$10,000	\$(14,289)	\$	—\$(357)	\$5,039	\$(3,888)	\$105,619	\$(3,790)	
Liabilities:										
Financial instruments and other inventory positions sold, but not yet purchased:										
Derivative contracts	\$1,005	\$(210) \$40	\$	—\$—	\$169	\$(636) \$368	\$(464)
Total financial instruments and other inventory positions sold, but not yet purchased	\$1,005	\$(210) \$40	\$	—\$—	\$169	\$(636) \$368	\$(464)

Realized and unrealized gains/(losses) related to financial instruments, with the exception of customer matched-book derivatives, are reported in institutional brokerage on the consolidated statements of operations.

(1) Realized and unrealized gains/(losses) related to customer matched-book derivatives are reported in investment banking. Realized and unrealized gains/(losses) related to investments are reported in investment banking revenues or investment income/(loss) on the consolidated statements of operations.

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	Balance at June 30, 2017	Purchases	Sales	Transfers in	Transfers out	Realized gains/ (losses)	Unrealized gains/ (losses)	Balance at September 30, 2017	Unrealized gains/ (losses) for assets/ liabilities held at September 30, 2017 (1)
(Dollars in thousands)									
Assets:									
Financial instruments and other inventory positions owned:									
Municipal securities:									
Tax-exempt securities	\$1,117	\$—	\$(267)	\$ —	\$ —	\$ —	\$(100)	\$ 750	\$(100)
Short-term securities	721	—	—	—	—	—	(16)	705	(16)
Mortgage-backed securities	4,251	—	—	—	—	—	70	4,321	70
Derivative contracts	383	105	—	—	—	(105)	303	686	686
Total financial instruments and other inventory positions owned	6,472	105	(267)	—	—	(105)	257	6,462	640
Investments at fair value	113,885	18,250	—	—	—	—	(1,975)	130,160	(1,975)
Total assets	\$120,357	\$18,355	\$(267)	\$ —	\$ —	\$(105)	\$(1,718)	\$136,622	\$(1,335)
Liabilities:									
Financial instruments and other inventory positions sold, but not yet purchased:									
Derivative contracts	\$5,573	\$—	\$3,461	\$ —	\$ —	\$(3,461)	\$(1,323)	\$4,250	\$1,430
Total financial instruments and other inventory positions sold, but not yet purchased	\$5,573	\$—	\$3,461	\$ —	\$ —	\$(3,461)	\$(1,323)	\$4,250	\$1,430

Realized and unrealized gains/(losses) related to financial instruments, with the exception of customer matched-book derivatives, are reported in institutional brokerage on the consolidated statements of operations.

(1) Realized and unrealized gains/(losses) related to customer matched-book derivatives are reported in investment banking. Realized and unrealized gains/(losses) related to investments are reported in investment banking revenues or investment income/(loss) on the consolidated statements of operations.

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	Balance at		Transfers		Realized	Unrealized	Balance at	Unrealized	
(Dollars in thousands)	December 31,	Purchases	Sales	in	out	gains/	gains/	Balance at	
	2017					(losses)	(losses)	September 30,	
						(1)	(1)	September 30,	
								2018 (1)	
Assets:									
Financial instruments and other inventory positions owned:									
Municipal securities:									
Tax-exempt securities	\$ 700	\$—	\$—	\$	—\$(700)	\$—	\$—	\$—	\$—
Short-term securities	714	—	(725)	—	—	51	5	45	—
Mortgage-backed securities	481	—	(5)	—	—	—	(460)	16	(93)
Derivative contracts	126	4	(2,965)	—	—	2,961	1,147	1,273	1,273
Total financial instruments and other inventory positions owned	2,021	4	(3,695)	—	(700)	3,012	692	1,334	1,180
Investments at fair value	126,060	11,708	(29,139)	—	(502)	14,015	(17,857)	104,285	(8,307)
Total assets	\$ 128,081	\$ 11,712	\$(32,834)	\$	—\$(1,202)	\$ 17,027	\$(17,165)	\$ 105,619	\$(7,127)
Liabilities:									
Financial instruments and other inventory positions sold, but not yet purchased:									
Derivative contracts	\$ 4,433	\$(1,600)	\$ 3,266	\$	—\$—	\$(1,666)	\$(4,065)	\$ 368	\$ 368
Total financial instruments and other inventory positions sold, but not yet purchased	\$ 4,433	\$(1,600)	\$ 3,266	\$	—\$—	\$(1,666)	\$(4,065)	\$ 368	\$ 368

Realized and unrealized gains/(losses) related to financial instruments, with the exception of customer matched-book derivatives, are reported in institutional brokerage on the consolidated statements of operations. (1)Realized and unrealized gains/(losses) related to customer matched-book derivatives are reported in investment banking. Realized and unrealized gains/(losses) related to investments are reported in investment banking revenues or investment income/(loss) on the consolidated statements of operations.

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	Balance at		Transfers		Realized	Unrealized	Balance at	Unrealized	
(Dollars in thousands)	December 31,	Purchases	Sales	in	out	gains/	gains/	for assets/	
	2016			out		(losses)	(losses)	liabilities	
				in		(1)	(1)	held at	
								September 30,	
								September 30,	
								2017 (1)	
Assets:									
Financial instruments and other inventory positions owned:									
Municipal securities:									
Taxable securities	\$ 2,686	\$—	\$(2,703)	\$ —	\$—	\$ 716	\$(699)	\$—	\$—
Tax-exempt securities	1,077	—	(267)	—	—	—	(60)	750	(60)
Short-term securities	744	—	(25)	—	—	2	(16)	705	(16)
Mortgage-backed securities	5,365	997	(1,854)	—	—	296	(483)	4,321	(90)
Derivative contracts	13,952	350	(11,978)	—	—	11,628	(13,266)	686	686
Total financial instruments and other inventory positions owned	23,824	1,347	(16,827)	—	—	12,642	(14,524)	6,462	520
Investments at fair value	123,319	25,444	(25,211)	—	(601)	9,399	(2,190)	130,160	7,704
Total assets	\$ 147,143	\$ 26,791	\$(42,038)	\$ —	\$(601)	\$ 22,041	\$(16,714)	\$ 136,622	\$ 8,224
Liabilities:									
Financial instruments and other inventory positions sold, but not yet purchased:									
Derivative contracts	\$ 1,487	\$(719)	\$ 11,219	\$ —	\$—	\$(10,500)	\$ 2,763	\$ 4,250	\$ 4,125
Total financial instruments and other inventory positions sold, but not yet purchased	\$ 1,487	\$(719)	\$ 11,219	\$ —	\$—	\$(10,500)	\$ 2,763	\$ 4,250	\$ 4,125

Realized and unrealized gains/(losses) related to financial instruments, with the exception of customer matched-book derivatives, are reported in institutional brokerage on the consolidated statements of operations. (1) Realized and unrealized gains/(losses) related to customer matched-book derivatives are reported in investment banking. Realized and unrealized gains/(losses) related to investments are reported in investment banking revenues or investment income/(loss) on the consolidated statements of operations.

The carrying values of the Company's cash, receivables and payables either from or to brokers, dealers and clearing organizations and short-term financings approximate fair value due to their liquid or short-term nature.

Non-Recurring Fair Value Measurement

During the third quarter of 2017, the Company recorded a non-cash goodwill impairment charge of \$114.4 million representing the full value of goodwill attributable to the asset management reporting unit. The fair value measurement used in the analysis was calculated using the income approach (discounted cash flow method) and market approach (earnings multiples of public company comparables). The discounted cash flow model was calculated using unobservable inputs, such as revenue and EBITDA forecasts, which are classified as Level III within the fair value hierarchy.

Note 5 Variable Interest Entities ("VIEs")

The Company has investments in and/or acts as the managing partner of various partnerships, limited liability companies, and registered mutual funds. These entities were established for the purpose of investing in securities of public or private companies, or municipal debt obligations, or providing financing to senior living facilities, and were initially financed through the capital commitments or seed investments of the members.

VIEs are entities in which equity investors lack the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities. The determination as to whether an entity is a VIE is based on the structure and nature of each entity. The Company also considers other characteristics such as the power through voting rights or similar rights to direct the activities of an entity that most significantly impact the entity's economic performance and how the entity is financed.

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The Company is required to consolidate all VIEs for which it is considered to be the primary beneficiary. The determination as to whether the Company is considered to be the primary beneficiary is based on whether the Company has both the power to direct the activities of the VIE that most significantly impact the entity's economic performance and the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE.

Consolidated VIEs

The Company's consolidated VIEs at September 30, 2018 included certain alternative asset management funds in which the Company has an investment and, as the managing partner, is deemed to have both the power to direct the most significant activities of the funds and the right to receive benefits (or the obligation to absorb losses) that could potentially be significant to these funds.

The following table presents information about the carrying value of the assets and liabilities of the VIEs which are consolidated by the Company and included on the consolidated statements of financial condition at September 30, 2018. The assets can only be used to settle the liabilities of the respective VIE, and the creditors of the VIEs do not have recourse to the general credit of the Company. One of these VIEs has \$25.0 million of bank line financing available with an interest rate based on prime plus an applicable margin. The assets and liabilities are presented prior to consolidation, and thus a portion of these assets and liabilities are eliminated in consolidation.

(Dollars in thousands)	Alternative Asset Management Funds
Assets:	
Investments	\$ 100,905
Other assets	6,761
Total assets	\$ 107,666
Liabilities:	
Other liabilities and accrued expenses	\$ 10,740
Total liabilities	\$ 10,740

The Company has investments in a grantor trust which was established as part of a nonqualified deferred compensation plan. The Company is the primary beneficiary of the grantor trust. Accordingly, the assets and liabilities of the grantor trust are consolidated by the Company on the consolidated statements of financial condition. See Note 13 for additional information on the nonqualified deferred compensation plan.

Nonconsolidated VIEs

The Company determined it is not the primary beneficiary of certain VIEs and accordingly does not consolidate them. These VIEs had net assets approximating \$0.5 billion and \$0.6 billion at September 30, 2018 and December 31, 2017, respectively. The Company's exposure to loss from these VIEs is \$6.9 million, which is the carrying value of its capital contributions recorded in investments on the consolidated statements of financial condition at September 30, 2018. The Company had no liabilities related to these VIEs at September 30, 2018 and December 31, 2017, respectively. Furthermore, the Company has not provided financial or other support to these VIEs that it was not

previously contractually required to provide as of September 30, 2018.

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Note 6 Receivables from and Payables to Brokers, Dealers and Clearing Organizations

	September 30, December 31,	
(Dollars in thousands)	2018	2017
Receivable from clearing organizations	\$ 153,527	\$ 109,270
Deposits with clearing organizations	2,551	11,019
Receivable from brokers and dealers	15,058	12,041
Receivable arising from unsettled securities transactions	—	9,218
Other	2,929	3,846
Total receivables from brokers, dealers and clearing organizations	\$ 174,065	\$ 145,394

	September 30, December 31,	
(Dollars in thousands)	2018	2017
Payable to brokers and dealers	\$ 6,371	\$ 18,584
Payable arising from unsettled securities transactions	—	808
Total payables to brokers, dealers and clearing organizations	\$ 6,371	\$ 19,392

As discussed in Note 1, Piper Jaffray transitioned from a self clearing securities broker dealer to a fully disclosed clearing model in 2017. Under the Company's fully disclosed clearing agreement, the majority of its securities inventories and all of its customer activities are held by or cleared through Pershing. The Company has also established an arrangement to obtain financing from Pershing related to the majority of its trading activities. Financing under this arrangement is secured primarily by securities, and collateral limitations could reduce the amount of funding available under this arrangement. The funding is at the discretion of Pershing and could be denied. The Company's clearing arrangement activities are recorded net from trading activity. The Company's fully disclosed clearing agreement includes a covenant requiring Piper Jaffray to maintain excess net capital of \$120 million.

Note 7 Investments

The Company's investments include investments in private companies and partnerships, registered mutual funds and private company debt.

	September 30, December 31,	
(Dollars in thousands)	2018	2017
Investments at fair value	\$ 143,786	\$ 165,564
Investments at cost	1,614	2,416
Investments accounted for under the equity method	6,980	8,232
Total investments	152,380	176,212
Less investments attributable to noncontrolling interests (1)	(47,204)	(44,397)
	\$ 105,176	\$ 131,815

(1) Noncontrolling interests are attributable to third party ownership in consolidated merchant banking and senior living funds.

At September 30, 2018, investments carried on a cost basis had an estimated fair market value of \$1.6 million. Because valuation estimates were based upon management's judgment, investments carried at cost would be categorized as Level III assets in the fair value hierarchy, if they were carried at fair value.

Investments accounted for under the equity method include general and limited partnership interests. The carrying value of these investments is based on the investment vehicle's net asset value. The net assets of investment partnerships consist of investments in both marketable and non-marketable securities. The underlying investments held by such partnerships are valued based on the estimated fair value determined by management in the Company's capacity as general partner or investor and, in the case of investments in unaffiliated investment partnerships, are based on financial statements prepared by the unaffiliated general partners.

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Note 8 Other Assets

	September 30, December 31,	
(Dollars in thousands)	2018	2017
Fee receivables	\$ 26,170	\$ 20,884
Income tax receivables	7,311	—
Accrued interest receivables	8,485	6,981
Forgivable loans, net	8,377	7,452
Prepaid expenses	8,016	6,769
Other	10,340	12,748
Total other assets	\$ 68,699	\$ 54,834

Note 9 Short-Term Financing

	Outstanding Balance		Weighted Average Interest Rate		
(Dollars in thousands)	September 30, 2018	December 31, 2017	September 30, 2018	December 31, 2017	
Commercial paper (secured)	\$ 49,957	\$ 49,974	3.12%	2.32%	%
Prime broker arrangement	—	239,963	N/A	2.23%	%
Total short-term financing	\$ 49,957	\$ 289,937			

The Company issues secured commercial paper to fund a portion of its securities inventory. The commercial paper notes ("CP Notes") can be issued with maturities of 27 days to 270 days from the date of issuance. The CP Notes are currently issued under two separate programs, CP Series A and CP Series II A, and are secured by different inventory classes. As of September 30, 2018, the weighted average maturity of outstanding CP Notes was 10 days. The CP Notes are interest bearing or sold at a discount to par with an interest rate based on LIBOR plus an applicable margin. CP Series II A includes a covenant that requires the Company's U.S. broker dealer subsidiary to maintain excess net capital of \$100 million.

The Company had established an arrangement to obtain financing with a prime broker related to its municipal bond fund. Financing under this arrangement was primarily secured by municipal securities and collateral limitations could reduce the amount of funding available. Prime broker financing activities were recorded net of receivables from trading activity. The funding was at the discretion of the prime broker subject to a notice period. In the third quarter of 2018, the Company completed the liquidation of its municipal bond fund, and closed this prime broker arrangement.

The Company has both committed and uncommitted short-term bank line financing available on a secured basis. The Company uses these credit facilities in the ordinary course of business to fund a portion of its daily operations and the amount borrowed under these credit facilities varies daily based on the Company's funding needs.

The Company's committed short-term bank line financing at September 30, 2018 consisted of a one-year \$200 million committed revolving credit facility with U.S. Bank, N.A., which was renewed in December 2017. Advances under this facility are secured by certain marketable securities. The facility includes a covenant that requires the Company's U.S. broker dealer subsidiary to maintain minimum net capital of \$120 million, and the unpaid principal amount of all advances under this facility will be due on December 14, 2018. The Company pays a nonrefundable commitment fee on the unused portion of the facility on a quarterly basis. At September 30, 2018, the Company had no advances

against this line of credit.

The Company's uncommitted secured line at September 30, 2018 totaled \$85 million and is dependent on having appropriate collateral, as determined by the bank agreement, to secure an advance under the line. The availability of the Company's uncommitted line is subject to approval by the bank each time an advance is requested and may be denied. At September 30, 2018, the Company had no advances against this line of credit.

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Note 10 Contingencies, Commitments and Guarantees

The Company has been named as a defendant in various legal actions, including complaints and litigation and arbitration claims, arising from its business activities. Such actions include claims related to securities brokerage and investment banking activities, and certain class actions that primarily allege violations of securities laws and seek unspecified damages, which could be substantial. Also, the Company is involved from time to time in investigations and proceedings by governmental agencies and self-regulatory organizations ("SROs") which could result in adverse judgments, settlement, penalties, fines or other relief.

The Company has established reserves for potential losses that are probable and reasonably estimable that may result from pending and potential legal actions, investigations and regulatory proceedings. Reasonably possible losses in excess of amounts accrued at September 30, 2018 are not material. In many cases, however, it is inherently difficult to determine whether any loss is probable or even possible or to estimate the amount or range of any potential loss, particularly where proceedings may be in relatively early stages or where plaintiffs are seeking substantial or indeterminate damages. Matters frequently need to be more developed before a loss or range of loss can reasonably be estimated.

Given uncertainties regarding the timing, scope, volume and outcome of pending and potential legal actions, investigations and regulatory proceedings and other factors, the amounts of reserves and ranges of reasonably possible losses are difficult to determine and of necessity subject to future revision. Subject to the foregoing, management of the Company believes, based on currently available information, after consultation with outside legal counsel and taking into account its established reserves, that pending legal actions, investigations and regulatory proceedings will be resolved with no material adverse effect on the consolidated statements of financial condition, results of operations or cash flows of the Company. However, if during any period a potential adverse contingency should become probable or resolved for an amount in excess of the established reserves, the results of operations and cash flows in that period and the financial condition as of the end of that period could be materially adversely affected. In addition, there can be no assurance that material losses will not be incurred from claims that have not yet been brought to the Company's attention or are not yet determined to be reasonably possible.

Operating Lease Commitments

The Company leases office space throughout the United States and in a limited number of foreign countries where the Company's international operations reside. Aggregate minimum lease commitments under operating leases as of September 30, 2018 are as follows:

(Dollars in thousands)

Remainder of 2018	\$3,557
2019	13,601
2020	13,686
2021	9,329
2022	7,985
Thereafter	22,900
Total	\$71,058

Investment Commitments

As of September 30, 2018, the Company had commitments to invest approximately \$80.6 million in limited partnerships or limited liability companies that make direct or indirect equity or debt investments in companies.

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Note 11 Restructuring

The Company incurred the following pre-tax restructuring costs principally related to headcount reductions in both the Capital Markets and Asset Management segments.

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
(Dollars in thousands)		
Severance, benefits and outplacement costs	\$	—\$ 3,455
Contract termination costs	—	185
Vacated leased office space	—	130
Total pre-tax restructuring costs	\$	—\$ 3,770

Note 12 Shareholders' Equity

Share Repurchases

Effective September 30, 2017, the Company's board of directors authorized the repurchase of up to \$150.0 million in common shares through September 30, 2019. During the nine months ended September 30, 2018, the Company repurchased 124,606 shares at an average price of \$72.26 per share for an aggregate purchase price of \$9.0 million related to this authorization. The Company has \$141.0 million remaining under this authorization.

Effective August 14, 2015, the Company's board of directors authorized the repurchase of up to \$150.0 million in common shares through September 30, 2017. During the nine months ended September 30, 2017, the Company repurchased 36,936 shares at an average price of \$67.62 per share for an aggregate purchase price of \$2.5 million related to this authorization.

The Company also purchases shares of common stock from restricted stock award recipients upon the award vesting as recipients sell shares to meet their employment tax obligations. The Company purchased 264,254 shares and 308,801 shares, or \$22.7 million and \$22.6 million of the Company's common stock for this purpose during the nine months ended September 30, 2018 and 2017, respectively.

Issuance of Shares

The Company issues common shares out of treasury stock as a result of employee restricted share vesting and exercise transactions as discussed in Note 13. During the nine months ended September 30, 2018 and 2017, the Company issued 840,043 shares and 850,925 shares, respectively, related to these obligations.

Dividends

Beginning in 2017, the Company initiated the payment of a quarterly cash dividend to holders of its common stock, which includes unvested restricted shares. In addition, the Company's board of directors approved a dividend policy with the intention of returning a metric based on net income from the previous fiscal year. This includes an annual special cash dividend, payable in the first quarter of each year, beginning in 2018.

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During the nine months ended September 30, 2018, the Company declared and paid quarterly cash dividends on its common stock, aggregating \$1.125 per share, and an annual special cash dividend on its common stock of \$1.62 per share, totaling \$41.6 million.

On October 26, 2018, the board of directors declared a cash dividend of \$0.375 per share to be paid on December 14, 2018, to shareholders of record as of the close of business on November 28, 2018.

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Noncontrolling Interests

The consolidated financial statements include the accounts of Piper Jaffray Companies, its wholly owned subsidiaries and other entities in which the Company has a controlling financial interest. Noncontrolling interests represent equity interests in consolidated entities that are not attributable, either directly or indirectly, to Piper Jaffray Companies. Noncontrolling interests include the minority equity holders' proportionate share of the equity in merchant banking funds of \$42.0 million and a senior living fund aggregating \$5.2 million as of September 30, 2018. As of December 31, 2017, noncontrolling interests included the minority equity holders' proportionate share of the equity in merchant banking funds of \$42.7 million and a senior living fund aggregating \$5.2 million.

Ownership interests in entities held by parties other than the Company's common shareholders are presented as noncontrolling interests within shareholders' equity, separate from the Company's own equity. Revenues, expenses and net income or loss are reported on the consolidated statements of operations on a consolidated basis, which includes amounts attributable to both the Company's common shareholders and noncontrolling interests. Net income or loss is then allocated between the Company and noncontrolling interests based upon their relative ownership interests. Net income applicable to noncontrolling interests is deducted from consolidated net income to determine net income applicable to the Company. There was no other comprehensive income or loss attributed to noncontrolling interests for the nine months ended September 30, 2018 and 2017, respectively.

The following table presents the changes in shareholders' equity for the nine months ended September 30, 2018:

	Common Shares	Common Shareholders' Equity	Noncontrolling Interests	Total Shareholders' Equity
(Amounts in thousands, except share amounts)				
Balance at December 31, 2017	12,911,149	\$ 693,332	\$ 47,903	\$ 741,235
Net income/(loss)	—	38,852	(1,271)	37,581
Dividends	—	(41,631)	—	(41,631)
Amortization/issuance of restricted stock	—	44,541	—	44,541
Issuance of treasury shares for restricted stock vestings	840,043	—	—	—
Repurchase of common stock through share repurchase program	(124,606)	(9,004)	—	(9,004)
Repurchase of common stock for employee tax withholding	(264,254)	(22,660)	—	(22,660)
Shares reserved/issued for director compensation	4,371	348	—	348
Other comprehensive income	—	30	—	30
Cumulative effect upon adoption of new accounting standard, net of tax (1)	—	(3,597)	—	(3,597)
Fund capital contributions, net	—	—	572	572
Balance at September 30, 2018	13,366,703	\$ 700,211	\$ 47,204	\$ 747,415

(1) Cumulative effect adjustment upon adoption of ASU 2014-09, as amended. See Note 2 for further discussion.

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Note 13 Compensation Plans

Stock-Based Compensation Plans

The Company maintains two stock-based compensation plans, the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (the "Incentive Plan") and the 2016 Employment Inducement Award Plan (the "Inducement Plan"). The Company's equity awards are recognized on the consolidated statements of operations at grant date fair value over the service period of the award, less forfeitures.

The following table provides a summary of the Company's outstanding equity awards (in shares or units) as of September 30, 2018:

Incentive Plan	
Restricted Stock	
Annual grants	657,185
Sign-on grants	70,627
	727,812
Inducement Plan	
Restricted Stock	254,058
Total restricted stock related to compensation	981,870
Simmons Deal Consideration (1)	772,764
Total restricted stock outstanding	1,754,634
Incentive Plan	
Restricted Stock Units	
Leadership grants	194,251
Incentive Plan	
Stock Options	81,667

(1) The Company issued restricted stock with service conditions as part of deal consideration for the acquisition of Simmons & Company International ("Simmons") on February 26, 2016.

Incentive Plan

The Incentive Plan permits the grant of equity awards, including restricted stock, restricted stock units and non-qualified stock options, to the Company's employees and directors for up to 8.2 million shares of common stock (0.8 million shares remained available for future issuance under the Incentive Plan as of September 30, 2018). The Company believes that such awards help align the interests of employees and directors with those of shareholders and serve as an employee retention tool. The Incentive Plan provides for accelerated vesting of awards if there is a severance event, a change in control of the Company (as defined in the Incentive Plan), in the event of a participant's death, and at the discretion of the compensation committee of the Company's board of directors.

Restricted Stock Awards

Restricted stock grants are valued at the market price of the Company's common stock on the date of grant and are amortized over the requisite service period. The Company grants shares of restricted stock to employees as part of year-end compensation ("Annual Grants") and upon initial hiring or as a retention award ("Sign-on Grants").

The Company's Annual Grants are made each year in February. Annual Grants vest ratably over three years in equal installments. The Annual Grants provide for continued vesting after termination of employment, so long as the employee does not violate certain post-termination restrictions set forth in the award agreement or any agreements entered into upon termination. The Company determined the service inception date precedes the grant date for the Annual Grants, and that the post-termination restrictions do

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not meet the criteria for an in-substance service condition, as defined by FASB Accounting Standards Codification Topic 718, "Compensation — Stock Compensation." Accordingly, restricted stock granted as part of the Annual Grants is expensed in the one-year period in which those awards are deemed to be earned, which is generally the calendar year preceding the February grant date. For example, the Company recognized compensation expense during fiscal 2017 for its February 2018 Annual Grant. If an equity award related to the Annual Grants is forfeited as a result of violating the post-termination restrictions, the lower of the fair value of the award at grant date or the fair value of the award at the date of forfeiture is recorded within the consolidated statements of operations as a reversal of compensation expense.

Sign-on Grants are used as a recruiting tool for new employees and are issued to current employees as a retention tool. These awards have both cliff and ratable vesting terms, and the employees must fulfill service requirements in exchange for rights to the awards. Compensation expense is amortized on a straight-line basis from the grant date over the requisite service period, generally one to five years. Employees forfeit unvested shares upon termination of employment and a reversal of compensation expense is recorded.

Annually, the Company grants stock to its non-employee directors. The stock-based compensation paid to non-employee directors is fully expensed on the grant date and included within outside services expense on the consolidated statements of operations.

Restricted Stock Units

The Company grants restricted stock units to its leadership team ("Leadership Grants").

2018 and 2017 Leadership Grants

Restricted stock units granted in 2018 and 2017 will vest and convert to shares of common stock at the end of each 36-month performance period only if the Company satisfies predetermined performance and/or market conditions over the performance period. Under the terms of these awards, the number of units that will actually vest and convert to shares will be based on the extent to which the Company achieves specified targets during each performance period. The maximum payout leverage under these grants is 150 percent.

Up to 75 percent of the award can be earned based on the Company achieving certain average adjusted return on equity targets, as defined in the terms of the award agreements. The fair value of this portion of the award was based on the closing price of the Company's common stock on the grant date. If the Company determines that it is probable that the performance condition will be achieved, compensation expense is amortized on a straight-line basis over the 36-month performance period. The probability that the performance condition will be achieved is reevaluated each reporting period with changes in estimated outcomes accounted for using a cumulative effect adjustment to compensation expense. Compensation expense will be recognized only if the performance condition is met. Employees forfeit unvested restricted stock units upon termination of employment with a corresponding reversal of compensation expense. As of September 30, 2018, the Company has determined that the performance condition is probable of achieving 50 percent of the 2018 award and 75 percent of the 2017 award.

Up to 75 percent of the award can be earned based on the Company's total shareholder return relative to members of a predetermined peer group. The market condition must be met for the awards to vest and compensation cost will be recognized regardless if the market condition is satisfied. Compensation expense is amortized on a straight-line basis over the 36-month requisite service period. Employees forfeit unvested restricted stock units upon termination of

employment with a corresponding reversal of compensation expense. For this portion of the awards, the fair value on the grant date was determined using a Monte Carlo simulation with the following assumptions:

Grant Year	Risk-free Interest Rate	Expected Stock Price Volatility
2018	2.40%	34.8%
2017	1.62%	35.9%

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Because the market condition portion of the awards vesting depend on the Company's total shareholder return relative to a peer group, the valuation modeled the performance of the peer group as well as the correlation between the Company and the peer group. The expected stock price volatility assumptions were determined using historical volatility, as correlation coefficients can only be developed through historical volatility. The risk-free interest rates were determined based on three-year U.S. Treasury bond yields.

In the fourth quarter of 2017, the compensation committee of the Company's board of directors included defined retirement provisions in its Leadership Grants, beginning with the February 2018 grant. Certain grantees meeting defined age and service requirements will be fully vested in the awards as long as performance and post-termination obligations are met throughout the performance period. These retirement-eligible grants are expensed in the period in which those awards are deemed to be earned, which is the calendar year preceding the February grant date. For example, the Company recognized compensation expense for retirement-eligible grantees in fiscal 2017 for its February 2018 Leadership Grant.

Leadership Grants Prior to 2017

Restricted stock units granted prior to 2017 contain market condition criteria and will vest and convert to shares of common stock at the end of each 36-month performance period only if the Company's stock performance satisfies predetermined market conditions over the performance period. Under the terms of the grants, the number of units that will vest and convert to shares will be based on the Company's stock performance achieving specified targets during each performance period. Compensation expense is recognized over each 36-month performance period.

Up to 50 percent of these awards can be earned based on the Company's total shareholder return relative to members of a predetermined peer group and up to 50 percent of the awards can be earned based on the Company's total shareholder return. The fair value of the awards on the grant date was determined using a Monte Carlo simulation with the following assumptions pursuant to the methodology above:

Grant Year	Risk-free Interest Rate	Expected Stock Price Volatility
2016	0.98%	34.9%
2015	0.90%	29.8%

Stock Options

On February 15, 2018, the Company granted options to certain executive officers. These options are expensed on a straight-line basis over the required service period of five years, based on the estimated fair value of the award on the date of grant. The exercise price per share is equal to the closing price on the date of grant plus ten percent. These options are subject to graded vesting, beginning on the third anniversary of the grant date, so long as the employee remains continuously employed by the Company. The maximum term of these stock options is ten years.

The fair value of this stock option award was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

Risk-free interest rate	2.82%
Dividend yield	3.22%
Expected stock price volatility	37.20%
Expected life of options (in years)	7.0
Fair value of options granted (per share)	\$24.49

The risk-free interest rate assumption was based on the U.S. Treasury bond yield with a maturity equal to the expected life of the options. The dividend yield assumption was based on the assumed dividend payout over the expected life of the options. The expected stock price volatility assumption was determined using historical volatility, as correlation coefficients can only be developed through historical volatility.

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Inducement Plan

The Company established the Inducement Plan in conjunction with the acquisition of Simmons. The Company granted \$11.6 million (286,776 shares) in restricted stock under the Inducement Plan on May 16, 2016. These shares cliff vest on May 16, 2019. Inducement Plan awards are amortized as compensation expense on a straight-line basis over the vesting period. Employees forfeit unvested Inducement Plan shares upon termination of employment and a reversal of compensation expense is recorded.

Stock-Based Compensation Activity

The following table summarizes the Company's stock-based compensation expense:

(amounts in millions)	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Stock-based compensation expense	\$ 12.7	\$ 13.5	\$ 31.1	\$ 25.8
Forfeitures	0.2	0.7	0.7	3.0
Tax benefit related to stock-based compensation expense	2.3	4.2	5.2	7.1

The following table summarizes the changes in the Company's unvested restricted stock:

	Unvested Restricted Stock (in Shares)	Weighted Average Grant Date Fair Value
December 31, 2017	2,225,617	\$ 46.40
Granted	291,597	89.31
Vested	(745,578)	49.03
Canceled	(17,002)	51.18
September 30, 2018	1,754,634	\$ 52.36

The following table summarizes the changes in the Company's unvested restricted stock units:

	Unvested Restricted Stock Units	Weighted Average Grant Date Fair Value
December 31, 2017	244,772	\$ 27.89
Granted	53,796	92.93
Vested	(86,511)	21.83
Canceled	(17,806)	23.91
September 30, 2018	194,251	\$ 48.97

As of September 30, 2018, there was \$9.1 million of total unrecognized compensation cost related to restricted stock and restricted stock units expected to be recognized over a weighted average period of 1.0 year.

The following table summarizes the changes in the Company's outstanding stock options:

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	Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value
December 31, 2017	—	\$ —	0.0	\$ —
Granted	81,667	99.00		
Exercised	—	—		
Canceled	—	—		
September 30, 2018	81,667	\$ 99.00	9.4	\$ —

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As of September 30, 2018, there was \$1.8 million of unrecognized compensation cost related to stock options expected to be recognized over a weighted average period of 4.4 years. There were no options exercised during the nine months ended September 30, 2018.

Acquisition-related Compensation Arrangements

The Company entered into acquisition-related compensation arrangements with certain employees for retention purposes. Additional cash compensation may be available to certain investment banking employees subject to exceeding an investment banking revenue threshold during the three year Simmons post-acquisition period to the extent they are employed by the Company at the time of payment. Amounts estimated to be payable related to this performance award plan will be recorded as compensation expense on the consolidated statements of operations over the requisite performance period of three years. As of September 30, 2018, the Company had accrued \$38.0 million related to this performance award plan. The Company recorded compensation expense of \$0.6 million and \$7.4 million for the three months ended September 30, 2018 and 2017, respectively, and \$7.2 million and \$10.1 million for the nine months ended September 30, 2018 and 2017, respectively, related to this performance award plan.

Deferred Compensation Plans

The Company maintains various deferred compensation arrangements for employees.

The nonqualified deferred compensation plan is an unfunded plan which allows certain highly compensated employees, at their election, to defer a percentage of their base salary, commissions and/or cash bonuses. The deferrals vest immediately and are non-forfeitable. The amounts deferred under this plan are held in a grantor trust. The Company invests, as a principal, in investments to economically hedge its obligation under the nonqualified deferred compensation plan. Investments in the grantor trust, consisting of mutual funds, totaled \$33.0 million and \$31.5 million as of September 30, 2018 and December 31, 2017, respectively, and are included in investments on the consolidated statements of financial condition. The compensation deferred by the employees is expensed in the period earned. The deferred compensation liability was \$33.1 million and \$31.6 million as of September 30, 2018 and December 31, 2017, respectively. Changes in the fair value of the investments made by the Company are reported in investment income and changes in the corresponding deferred compensation liability are reflected as compensation and benefits expense on the consolidated statements of operations. On August 9, 2017, the Company's board of directors approved the discontinuance of future deferral elections by participants for performance periods beginning after December 31, 2017.

The Piper Jaffray Companies Mutual Fund Restricted Share Investment Plan is a fully funded deferred compensation plan which allows eligible employees to elect to receive a portion of the incentive compensation they would otherwise receive in the form of restricted stock, instead in restricted mutual fund shares ("MFRS Awards") of investment funds. MFRS Awards are awarded to qualifying employees in February of each year, and represent a portion of their compensation for performance in the preceding year similar to the Company's Annual Grants. MFRS Awards vest ratably over three years in equal installments and provide for continued vesting after termination of employment so long as the employee does not violate certain post-termination restrictions set forth in the award agreement or any agreement entered into upon termination. Forfeitures are recorded as a reduction of compensation and benefits expense within the consolidated statements of operations. MFRS Awards are owned by employee recipients (subject to aforementioned vesting restrictions) and as such are not included on the consolidated statements of financial condition.

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

Note 14 Earnings Per Share ("EPS")

The Company calculates earnings per share using the two-class method. Basic earnings per common share is computed by dividing net income applicable to Piper Jaffray Companies' common shareholders by the weighted average number of common shares outstanding for the period. Net income applicable to Piper Jaffray Companies' common shareholders represents net income applicable to Piper Jaffray Companies reduced by the allocation of earnings to participating securities. No allocation of undistributed earnings is made for periods in which a loss is incurred, or for periods in which cash dividends exceed net income resulting in an undistributed loss. Distributed earnings (e.g., dividends) are allocated to participating securities. All of the Company's unvested restricted shares are deemed to be participating securities as they are eligible to share in the profits (e.g., receive dividends) of the Company. The Company's restricted stock units are not participating securities as they are not eligible to receive dividends, or the dividends are forfeitable until vested. Diluted earnings per common share is calculated by adjusting the weighted average outstanding shares to assume conversion of all potentially dilutive stock options and restricted stock units.

The computation of earnings per share is as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
(Amounts in thousands, except per share data)				
Net income/(loss) applicable to Piper Jaffray Companies	\$22,023	\$(49,713)	\$38,852	\$(15,865)
Earnings allocated to participating securities (1)	(2,646)	(702)	(5,202)	(2,241)
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders (2)	\$19,377	\$(50,415)	\$33,650	\$(18,106)
Shares for basic and diluted calculations:				
Average shares used in basic computation	13,343	12,898	13,248	12,774
Restricted stock units	165	77	196	171
Average shares used in diluted computation	13,508	12,975	(3)13,444	(3)12,945
Earnings/(loss) per common share:				
Basic	\$1.45	\$(3.91)	\$2.54	\$(1.42)
Diluted	\$1.43	\$(3.91)	(3)\$2.50	(3)\$(1.42)

Represents the allocation of distributed and undistributed earnings to participating securities. No allocation of undistributed earnings is made for periods in which a loss is incurred, or for periods in which cash dividends exceed net income resulting in an undistributed loss. Distributed earnings (e.g., dividends) are allocated to (1) participating securities. Participating securities include all of the Company's unvested restricted shares. The weighted average participating shares outstanding were 1,842,036 and 2,246,663 for the three months ended September 30, 2018 and 2017, respectively, and 1,944,946 and 2,389,755 for the nine months ended September 30, 2018 and 2017, respectively.

Net income applicable to Piper Jaffray Companies' common shareholders for diluted and basic EPS may differ (2) under the two-class method as a result of adding the effect of the assumed exercise of stock options and restricted stock units to dilutive shares outstanding, which alters the ratio used to allocate earnings to Piper Jaffray

Companies' common shareholders and participating securities for purposes of calculating diluted and basic EPS.

(3) Earnings per diluted common share is calculated using the basic weighted average number of common shares outstanding for periods in which a loss is incurred, or for periods in which cash dividends exceed net income

resulting in an undistributed loss. Common shares of 1,754,634 and 2,235,060 were excluded from diluted EPS at September 30, 2018 and 2017, respectively, as the Company had undistributed losses for these periods.

The anti-dilutive effects from stock options and restricted stock units were immaterial for the nine months ended September 30, 2018 and 2017, respectively.

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

Note 15 Segment Reporting

Basis for Presentation

The Company structures its segments primarily based upon the nature of the financial products and services provided to customers and the Company's management organization. The Company evaluates performance and allocates resources based on segment pre-tax operating income or loss and segment pre-tax operating margin. Revenues and expenses directly associated with each respective segment are included in determining their operating results. Other revenues and expenses that are not directly attributable to a particular segment are allocated based upon the Company's allocation methodologies, including each segment's respective net revenues, use of shared resources, headcount or other relevant measures. Segment assets are based on those directly associated with each segment, and include an allocation of certain assets based on the most relevant measures applicable, including headcount and other factors. The substantial majority of the Company's net revenues and long-lived assets are located in the U.S.

Reportable segment financial results are as follows:

(Dollars in thousands)	Three Months Ended		Nine Months Ended		
	September 30, 2018	2017	September 30, 2018	2017	
Capital Markets					
Investment banking					
Advisory services	\$ 113,540	\$ 146,816	\$ 266,083	\$ 332,205	
Financing					
Equities	32,188	22,117	99,868	70,229	
Debt	20,936	21,687	45,473	60,066	
Total investment banking	166,664	190,620	411,424	462,500	
Institutional sales and trading					
Equities	17,804	18,410	54,951	59,085	
Fixed income	18,162	20,676	52,932	63,137	
Total institutional sales and trading	35,966	39,086	107,883	122,222	
Management and performance fees	1,806	678	4,824	4,172	
Investment income/(loss)	3,166	(660)	7,607	15,155	
Long-term financing expenses	(1,732)	(1,736)	(5,351)	(6,003)	
Net revenues	205,870	227,988	526,387	598,046	
Operating expenses (1)	176,783	196,409	482,024	524,702	
Segment pre-tax operating income	\$ 29,087	\$ 31,579	\$ 44,363	\$ 73,344	
Segment pre-tax operating margin	14.1	% 13.9	% 8.4	% 12.3	%

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

(Dollars in thousands)	Three Months Ended		Nine Months Ended	
	September 30, 2018	2017	September 30, 2018	2017
Asset Management				
Management and performance fees				
Management fees	\$11,571	\$12,140	\$33,874	\$39,839
Performance fees	—	—	8	—
Total management and performance fees	11,571	12,140	33,882	39,839
Investment income/(loss)	87	439	(198)	956
Net revenues	11,658	12,579	33,684	40,795
Operating expenses (1)	11,110	126,394	35,115	153,699
Segment pre-tax operating income/(loss)	\$548	\$(113,815)	\$(1,431)	\$(112,904)
Segment pre-tax operating margin	4.7	% (904.8)%	(4.2)%	(276.8)%
Total				
Net revenues	\$217,528	\$240,567	\$560,071	\$638,841
Operating expenses	187,893	322,803	517,139	678,401
Pre-tax operating income/(loss)	\$29,635	\$(82,236)	\$42,932	\$(39,560)
Pre-tax operating margin	13.6	% (34.2)%	7.7	% (6.2)%

(1) Operating expenses include a \$114.4 million goodwill impairment charge for the Asset Management segment for the three and nine months ended September 30, 2017, as well as intangible asset amortization as set forth in the table below:

(Dollars in thousands)	Three Months		Nine Months	
	Ended September 30, 2018	2017	Ended September 30, 2018	2017
Capital Markets	\$1,214	\$2,544	\$3,643	\$7,633
Asset Management	1,401	1,278	4,202	3,833
Total intangible asset amortization	\$2,615	\$3,822	\$7,845	\$11,466

Reportable segment assets are as follows:

(Dollars in thousands)	September 30, 2018	December 31, 2017
Capital Markets	\$ 1,411,590	\$ 1,933,050
Asset Management	81,846	91,633
Total assets	\$ 1,493,436	\$ 2,024,683

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Piper Jaffray Companies

Notes to the Consolidated Financial Statements

(Unaudited)

Note 16 Net Capital Requirements and Other Regulatory Matters

Piper Jaffray is registered as a securities broker dealer with the SEC and is a member of various SROs and securities exchanges. The Financial Industry Regulatory Authority, Inc. ("FINRA") serves as Piper Jaffray's primary SRO. Piper Jaffray is subject to the uniform net capital rule of the SEC and the net capital rule of FINRA. Piper Jaffray has elected to use the alternative method permitted by the SEC rule which requires that it maintain minimum net capital of \$1.0 million. Advances to affiliates, repayment of subordinated debt, dividend payments and other equity withdrawals by Piper Jaffray are subject to certain approvals, notifications and other provisions of SEC and FINRA rules.

At September 30, 2018, net capital calculated under the SEC rule was \$199.1 million, and exceeded the minimum net capital required under the SEC rule by \$198.1 million.

The Company's committed short-term credit facility and its senior notes include covenants requiring Piper Jaffray to maintain minimum net capital of \$120 million. CP Notes issued under CP Series II A include a covenant that requires Piper Jaffray to maintain excess net capital of \$100 million. The Company's fully disclosed clearing agreement with Pershing also includes a covenant requiring Piper Jaffray to maintain excess net capital of \$120 million.

Piper Jaffray Ltd., a broker dealer subsidiary registered in the United Kingdom, is subject to the capital requirements of the Prudential Regulation Authority and the Financial Conduct Authority. As of September 30, 2018, Piper Jaffray Ltd. was in compliance with the capital requirements of the Prudential Regulation Authority and the Financial Conduct Authority.

Piper Jaffray Hong Kong Limited is licensed by the Hong Kong Securities and Futures Commission, which is subject to the liquid capital requirements of the Securities and Futures (Financial Resources) Rule promulgated under the Securities and Futures Ordinance. At September 30, 2018, Piper Jaffray Hong Kong Limited was in compliance with the liquid capital requirements of the Hong Kong Securities and Futures Commission.

Note 17 Income Taxes

The Company recorded income tax expense of \$7.4 million and \$5.4 million for the three and nine months ended September 30, 2018, respectively. Income tax expense was reduced by a tax benefit of \$0.4 million and \$6.8 million for the three and nine months ended September 30, 2018, respectively, related to stock-based compensation awards vesting at values greater than the grant price.

The Company recorded an income tax benefit of \$31.4 million and \$26.9 million for the three and nine months ended September 30, 2017, respectively, as a result of pre-tax losses related to the \$114.4 million non-cash goodwill impairment charge for the asset management reporting unit. The tax benefit related to stock-based compensation awards vesting at values greater than the grant price was \$0.3 million and \$9.1 million for the three and nine months ended September 30, 2017, respectively.

SEC Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act" ("SAB 118") permitted companies to report a provisional amount in the 2017 financial statements if the accounting for income tax effects of the Tax Cuts and Jobs Act was incomplete as of December 31, 2017. This provisional amount would be subject to adjustment during a defined measurement period. Pursuant to SAB 118, the Company recorded an additional \$1.0 million of income tax expense for the nine months ended September 30, 2018.

Note 18 Subsequent Event

The Company has entered into fixed rate senior notes with certain entities advised by Pacific Investment Management Company ("PIMCO"). The outstanding balance of the fixed rate Class C Notes was \$125.0 million at September 30, 2018 and December 31, 2017. The fixed rate Class C Notes were repaid by the Company upon maturity on October 9, 2018.

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ITEM MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF
2. OPERATIONS.

The following information should be read in conjunction with the accompanying unaudited consolidated financial statements and related notes and exhibits included elsewhere in this report. Certain statements in this report may be considered forward-looking. Statements that are not historical or current facts, including statements about beliefs and expectations, are forward-looking statements. These forward-looking statements include, among other things, statements other than historical information or statements of current condition and may relate to our future plans and objectives and results, and also may include our belief regarding the effect of various legal proceedings, as set forth under "Legal Proceedings" in Part I, Item 3 of our Annual Report on Form 10-K for the year ended December 31, 2017 and in our subsequent reports filed with the SEC. Forward-looking statements involve inherent risks and uncertainties, and important factors could cause actual results to differ materially from those anticipated, including those factors discussed below under "External Factors Impacting Our Business" as well as the factors identified under "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017, as updated in our subsequent reports filed with the SEC and under "Risk Factors" in Part II, Item 1A of this Quarterly Report on Form 10-Q. These reports are available at our Web site at www.piperjaffray.com and at the SEC Web site at www.sec.gov. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update them in light of new information or future events.

Explanation of Non-GAAP Financial Measures

We have included financial measures that are not prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). These non-GAAP financial measures include adjustments to exclude (1) revenues and expenses related to noncontrolling interests, (2) amortization of intangible assets related to acquisitions, (3) compensation and non-compensation expenses from acquisition-related agreements, (4) the impact from remeasuring deferred tax assets resulting from changes to the U.S. federal tax code, (5) goodwill impairment charges and (6) the impact of the annual special cash dividend paid in the first quarter of 2018 resulting in an undistributed loss on earnings per diluted common share. These adjustments affect the following financial measures: net revenues, compensation expenses, non-compensation expenses, income tax expense/(benefit), net income/(loss) applicable to Piper Jaffray Companies, earnings/(loss) per diluted common share, segment net revenues, segment operating expenses, segment pre-tax operating income/(loss) and segment pre-tax operating margin. Management believes that presenting these results and measures on an adjusted basis in conjunction with the corresponding U.S. GAAP measures provides the most meaningful basis for comparison of our operating results across periods, and enhances the overall understanding of our current financial performance by excluding certain items that may not be indicative of our core operating results. The non-GAAP financial measures should be considered in addition to, not as a substitute for, measures of financial performance prepared in accordance with U.S. GAAP.

Executive Overview

Our business principally consists of providing investment banking, institutional brokerage, asset management and related financial services to corporations, private equity groups, public entities, non-profit entities and institutional investors in the United States and Europe. We operate through two reportable business segments: Capital Markets and Asset Management. Refer to our Annual Report on Form 10-K for the year ended December 31, 2017 for a full description of our business, including our strategic growth initiatives.

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Financial Highlights

(Amounts in thousands, except per share data)	Three Months Ended			Nine Months Ended		
	Sept. 30, 2018	Sept. 30, 2017	Percent Inc/(Dec)	Sept. 30, 2018	Sept. 30, 2017	Percent Inc/(Dec)
U.S. GAAP						
Net revenues	\$217,528	\$240,567	(9.6)%	\$560,071	\$638,841	(12.3)%
Compensation and benefits	139,151	169,469	(17.9)	369,895	438,161	(15.6)
Non-compensation expenses	48,742	153,334	(68.2)	147,244	240,240	(38.7)
Net income/(loss) applicable to Piper Jaffray Companies	22,023	(49,713)	N/M	38,852	(15,865)	N/M
Earnings/(loss) per diluted common share	\$1.43	\$(3.91)	N/M	\$2.50	\$(1.42)	N/M
Non-GAAP⁽¹⁾						
Adjusted net revenues	\$215,652	\$241,551	(10.7)%	\$557,714	\$633,961	(12.0)%
Adjusted compensation and benefits	133,237	155,160	(14.1)	346,440	407,860	(15.1)
Adjusted non-compensation expenses	44,327	34,862	27.1	135,259	112,320	20.4
Adjusted net income applicable to Piper Jaffray Companies	28,566	32,521	(12.2)	63,727	81,276	(21.6)
Adjusted earnings per diluted common share	\$1.86	\$2.13	(12.7)	\$4.15	\$5.31	(21.8)
N/M – Not meaningful						

For the three months ended September 30, 2018

Net revenues were down 9.6 percent from the year-ago period as increased equity financing revenues were more than offset by decreased revenues in our other businesses. Our advisory services revenues in the third quarter of 2017 were elevated by several large fees.

Compensation and benefits expenses decreased 17.9 percent compared with the prior-year period due to lower compensation expenses resulting from decreased revenues, as well as lower acquisition-related compensation costs. Non-compensation expenses of \$48.7 million in the third quarter of 2018 included \$7.7 million of deal-related expenses. This reflects new accounting guidance effective in 2018 which requires investment banking client reimbursed deal expenses to be presented on a gross basis on the consolidated statements of operations, rather than the previous presentation of netting deal expenses within revenues. See further discussion on the accounting change related to deal expenses within the "Results of Operations" section below. Non-compensation expenses in the year-ago period included a \$114.4 million non-cash goodwill impairment charge associated with our asset management segment.

For the nine months ended September 30, 2018

Net revenues were down 12.3 percent from the year-ago period as increased equity financing revenues were more than offset by decreased revenues in our other businesses, as well as lower investment income.

Compensation and benefits expenses decreased 15.6 percent compared with the prior-year period primarily due to lower compensation expenses resulting from decreased revenues. We also recorded lower acquisition-related compensation costs.

Non-compensation expenses decreased 38.7 percent compared to the year-ago period, which included a \$114.4 million non-cash goodwill impairment charge. Partially offsetting this decrease were \$18.9 million of client reimbursed deal-related expenses in the first nine months of 2018 stemming from a change in accounting presentation, as discussed above, as well as \$3.8 million of restructuring costs resulting from actions to reduce costs in our brokerage and asset management businesses given the challenging market conditions.

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For the nine months ended September 30, 2018 and 2017, we recorded a tax benefit of \$6.8 million and \$9.1 million, respectively, related to stock-based compensation awards vesting at values greater than the grant price. The tax benefit increased earnings per diluted common share by \$0.51 and \$0.71 in the first nine months of 2018 and 2017, respectively.

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(1) Reconciliation of U.S. GAAP to adjusted non-GAAP financial information

(Amounts in thousands, except per share data)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net revenues:				
Net revenues – U.S. GAAP basis	\$217,528	\$240,567	\$560,071	\$638,841
Adjustments:				
Revenue related to noncontrolling interests	(1,876)	984	(2,357)	(4,880)
Adjusted net revenues	\$215,652	\$241,551	\$557,714	\$633,961
Compensation and benefits:				
Compensation and benefits – U.S. GAAP basis	\$139,151	\$169,469	\$369,895	\$438,161
Adjustments:				
Compensation from acquisition-related agreements	(5,914)	(14,309)	(23,455)	(30,301)
Adjusted compensation and benefits	\$133,237	\$155,160	\$346,440	\$407,860
Non-compensation expenses:				
Non-compensation expenses – U.S. GAAP basis	\$48,742	\$153,334	\$147,244	\$240,240
Adjustments:				
Non-compensation expenses related to noncontrolling interests	(1,629)	(116)	(3,628)	(1,663)
Goodwill impairment	—	(114,363)	—	(114,363)
Amortization of intangible assets related to acquisitions	(2,615)	(3,822)	(7,845)	(11,466)
Non-compensation expenses from acquisition-related agreements	(171)	(171)	(512)	(428)
Adjusted non-compensation expenses	\$44,327	\$34,862	\$135,259	\$112,320
Net income/(loss) applicable to Piper Jaffray Companies:				
Net income/(loss) applicable to Piper Jaffray Companies – U.S. GAAP basis	\$22,023	\$(49,713)	\$38,852	\$(15,865)
Adjustments:				
Compensation from acquisition-related agreements	4,447	9,444	17,637	19,498
Goodwill impairment	—	70,219	—	70,219
Amortization of intangible assets related to acquisitions	1,967	2,347	5,901	7,042
Non-compensation expenses from acquisition-related agreements	129	224	385	382
Impact of the Tax Cuts and Jobs Act legislation	—	—	952	—
Adjusted net income applicable to Piper Jaffray Companies	\$28,566	\$32,521	\$63,727	\$81,276
Earnings/(loss) per diluted common share:				
Earnings/(loss) per diluted common share – U.S. GAAP basis	\$1.43	\$(3.91)	\$2.50	\$(1.42)
Adjustment for undistributed loss allocated to participating shares (2)	—	0.64	0.03	0.39
	1.43	(3.27)	2.53	(1.03)
Adjustments:				
Compensation from acquisition-related agreements	0.29	0.62	1.14	1.27
Goodwill impairment	—	4.61	—	4.58
Amortization of intangible assets related to acquisitions	0.13	0.15	0.38	0.46
Non-compensation expenses from acquisition-related agreements	0.01	0.02	0.03	0.03
Impact of the Tax Cuts and Jobs Act legislation	—	—	0.06	—
Adjusted earnings per diluted common share	\$1.86	\$2.13	\$4.15	\$5.31

(2)

Piper Jaffray Companies calculates earnings per common share using the two-class method, which requires the allocation of consolidated adjusted net income between common shareholders and participating security holders, which in the case of Piper Jaffray Companies, represents unvested stock with dividend rights. No allocation of undistributed earnings is made for periods in which a loss is incurred, or for periods in which the special cash dividend exceeds adjusted net income resulting in an undistributed loss.

External Factors Impacting Our Business

Performance in the financial services industry in which we operate is highly correlated to the overall strength of economic conditions and financial market activity. Overall market conditions are a product of many factors, which are beyond our control, often unpredictable and at times inherently volatile. These factors may affect the financial decisions made by investors, including their level of participation in the financial markets. In turn, these decisions may affect our business results. With respect to financial market activity, our profitability is sensitive to a variety of factors, including the demand for investment banking services as reflected by the number and size of advisory transactions and equity and debt financings, the relative level of volatility of the equity and fixed income markets, changes in interest rates and credit spreads (especially rapid and extreme changes), overall market liquidity, the level and shape of various yield curves, the volume and value of trading in securities (although becoming less so for equity securities due to the unbundling of research services from trade execution), overall equity valuations, and the demand for active asset management services.

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Factors that differentiate our business within the financial services industry also may affect our financial results. For example, our capital markets business focuses on specific industry sectors while serving principally middle-market clientele. If the business environment for our focus sectors is impacted adversely, our business and results of operations could reflect these impacts. In addition, our business, with its specific areas of focus and investment, may not track overall market trends. Given the variability of the capital markets and securities businesses, our earnings may fluctuate significantly from period to period, and results for any individual period should not be considered indicative of future results.

Outlook for the remainder of 2018

We expect the U.S. economy to continue to grow at a moderate pace for the remainder of 2018. Tax cuts and increases in fiscal spending should continue to be supportive to U.S. economic growth. Risks to this outlook include geopolitical risks or international economic instability, including uncertainties surrounding trade policy. These risks and uncertainties may pose consequences for the global economy and inject periods of heightened volatility into the U.S. equity and debt markets.

U.S. monetary policy will continue to be a critical factor impacting the economy and financial markets. The U.S. Federal Reserve increased short-term interest rates three times in the first nine months of 2018 on the basis of a more optimistic view of economic growth and higher inflation expectations. Long-term interest rates, however, have not moved in step with increases in short-term interest rates resulting in a flattening of the yield curve. We anticipate that the U.S. Federal Reserve will continue to pursue a gradual and steady path to rate normalization, although this path could be slightly steeper if the pace of inflation accelerates.

We expect conditions in the equity markets to remain constructive for our advisory and equity financing businesses, absent a major market disruption or periods of sustained market volatility. We have experienced a period of heightened volatility early in the fourth quarter of 2018. If we experience sustained bouts of higher volatility or a material market correction, our advisory and equity capital raising businesses may suffer. We believe our advisory services business will continue to perform well for the remainder of 2018 based on our pipeline of deals. Advisory services revenues for any given quarter are impacted by the timing and size of the deals closing, which can result in fluctuations in revenues period over period. We believe that equity underwriting activity may slow in the fourth quarter of 2018 as recent market volatility and the November mid-term elections inject additional uncertainty into the market.

We expect that secular challenges to our equity brokerage business will persist for the remainder of 2018. The manner in which market participants pay for trade execution and research services is in transition at a time when the overall fee pool is shrinking. Increasingly, market participants are executing trades through low-touch execution providers and paying separately for research services. This dynamic has negatively impacted our equity institutional brokerage revenues.

Interest rates remain relatively low by historical standards, but have sharply increased recently. We expect the yield curve to remain relatively flat and interest rates to continue moving upwards, albeit with periods of volatility for the remainder of 2018. These market conditions will continue to subdue customer flow activity and depress volumes and trading spreads for our fixed income institutional brokerage business. While higher interest rates across the yield curve would be favorable to this business over time, the expectation of higher rates encourages investors to remain on the short end of the curve until interest rates stabilize at higher levels. In our public finance business, higher interest rates as well as tax law changes have diminished refunding activity, and while new money issuance has increased in 2018, it has not increased sufficiently to offset the decline in refundings. We have continued to build momentum in our public finance business during the year from historically low levels in the first quarter of 2018, albeit down from

robust 2017 levels.

Asset management revenues will continue to be affected by valuations and investment performance, as well as broad market trends. However, market valuations may be negatively impacted by significant declines and volatility in the financial markets, as experienced early in the fourth quarter of 2018. We further expect that active asset managers, ourselves included, will remain under pressure to create alpha for their clients and to maintain or grow AUM.

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Results of Operations

Financial Summary for the three months ended September 30, 2018 and September 30, 2017

The following table provides a summary of the results of our operations on a U.S. GAAP basis and the results of our operations as a percentage of net revenues for the periods indicated.

	Three Months Ended			As a Percentage of	
	September 30,			Net Revenues for	
(Dollars in thousands)	2018	2017	2018	Three Months Ended	
			v2017	September 30,	September 30,
				2018	2017
Revenues:					
Investment banking	\$ 166,458	\$ 190,482	(12.6)%	76.5 %	79.2 %
Institutional brokerage	31,738	34,873	(9.0)	14.6	14.5
Asset management	13,377	12,818	4.4	6.1	5.3
Interest	6,592	7,164	(8.0)	3.0	3.0
Investment income/(loss)	3,068	(422)	N/M	1.4	(0.2)
Total revenues	221,233	244,915	(9.7)	101.7	101.8
Interest expense	3,705	4,348	(14.8)	1.7	1.8
Net revenues	217,528	240,567	(9.6)	100.0	100.0
Non-interest expenses:					
Compensation and benefits	139,151	169,469	(17.9)	64.0	70.4
Outside services	9,521	7,495	27.0	4.4	3.1
Occupancy and equipment	8,967	8,127	10.3	4.1	3.4
Communications	7,561	7,136	6.0	3.5	3.0
Marketing and business development	6,718	6,683	0.5	3.1	2.8
Deal-related expenses	7,671	—	N/M	3.5	—
Trade execution and clearance	2,049	2,125	(3.6)	0.9	0.9
Goodwill impairment	—	114,363	N/M	—	47.5
Intangible asset amortization	2,615	3,822	(31.6)	1.2	1.6
Back office conversion costs	—	1,293	N/M	—	0.5
Other operating expenses	3,640	2,290	59.0	1.7	1.0
Total non-interest expenses	187,893	322,803	(41.8)	86.4	134.2
Income/(loss) before income tax expense/(benefit)	29,635	(82,236)	N/M	13.6	(34.2)
Income tax expense/(benefit)	7,365	(31,423)	N/M	3.4	(13.1)
Net income/(loss)	22,270	(50,813)	N/M	10.2	(21.1)
Net income/(loss) applicable to noncontrolling interests	247	(1,100)	N/M	0.1	(0.5)

Net income/(loss) applicable to Piper Jaffray Companies \$22,023 \$(49,713) N/M 10.1 % (20.7)%
N/M – Not meaningful

For the three months ended September 30, 2018, we recorded net income applicable to Piper Jaffray Companies of \$22.0 million. Net revenues for the three months ended September 30, 2018 were \$217.5 million, a 9.6 percent decrease compared to \$240.6 million in the year-ago period. In the third quarter of 2018, investment banking revenues were \$166.5 million, down 12.6 percent compared with \$190.5 million in the prior-year period, as lower advisory services revenues were partially offset by higher equity financing revenues. For the three months ended September 30, 2018, institutional brokerage revenues decreased 9.0 percent to

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\$31.7 million, compared with \$34.9 million in the third quarter of 2017, due to lower fixed income and equity institutional brokerage revenues. In the third quarter of 2018, asset management fees of \$13.4 million were up 4.4 percent compared with \$12.8 million in the third quarter of 2017 as higher management fees from our merchant banking funds were partially offset by lower management fees from both our master limited partnership ("MLP") and equity product offerings. For the three months ended September 30, 2018, net interest income was \$2.9 million, up slightly from \$2.8 million in the prior-year period. We recorded investment income of \$3.1 million in the first quarter of 2018, compared with a loss of \$0.4 million in the prior-year period. Non-interest expenses were \$187.9 million for the three months ended September 30, 2018, down 41.8 percent compared to \$322.8 million in the prior-year period, primarily due to a \$114.4 million non-cash goodwill impairment charge recorded in the third quarter of 2017. Additionally, in the third quarter of 2018, lower compensation expenses from decreased revenues and lower acquisition-related compensation costs were partially offset by \$7.7 million of reimbursed deal-related expenses. New accounting guidance, effective in 2018, requires the gross presentation of client reimbursed deal expenses.

New Revenue Recognition Guidance

As discussed in Note 2 to our unaudited consolidated financial statements, we adopted new revenue recognition guidance effective as of January 1, 2018. The previous broker dealer industry treatment of netting deal expenses with investment banking revenues was superseded under the new guidance. As a result of adopting the new guidance, we now present investment banking revenues gross of related client reimbursed deal expenses and deal-related expenses as non-interest expenses on the consolidated statements of operations, rather than the previous presentation of netting deal expenses incurred for completed investment banking deals within revenues. This change did not impact net income, however the financial measures for the three months ended September 30, 2018 were impacted as follows:

- Higher net revenues,
- Decreased compensation ratio,
- Higher non-compensation expenses,
- Higher non-compensation ratio, and
- Lower pre-tax operating margin.

Deal-related expenses are deferred until completion of an investment banking transaction and beginning in 2018 are reported separately on the consolidated statements of operations. For the three months ended September 30, 2018, we reported higher investment banking revenues and higher non-compensation expenses of \$7.7 million, respectively, as a result of this change.

In addition, beginning in 2018, we defer the recognition of performance fees on our merchant banking, energy and senior living alternative asset management funds until such fees are no longer subject to reversal, which will cause a delay in the recognition of these fees as revenue. With the exception of the above, our previous methods of recognizing investment banking revenues were not significantly impacted by the new guidance.

Consolidated Non-Interest Expenses

Compensation and Benefits – Compensation and benefits expenses, which are the largest component of our expenses, include salaries, incentive compensation, benefits, stock-based compensation, employment taxes, income associated with the forfeiture of stock-based compensation and other employee-related costs. A portion of compensation expense is comprised of variable incentive arrangements, including discretionary incentive compensation, the amount of which fluctuates in proportion to the level of business activity, increasing with higher revenues and operating profits. Other compensation costs, primarily base salaries and benefits, are more fixed in nature. The timing of incentive compensation payments, which generally occur in February, has a greater impact on our cash position and liquidity

than is reflected on our consolidated statements of operations. We have granted restricted stock with service conditions as a component of our acquisition deal consideration, which is amortized to compensation expense over the service period.

For the three months ended September 30, 2018, compensation and benefits expenses decreased to \$139.2 million, compared with \$169.5 million in the corresponding period of 2017, due to lower net revenues and decreased acquisition-related compensation costs, which were driven by a decline in compensation expenses related to a Simmons & Company International ("Simmons") performance award plan implemented at the time of acquisition. Compensation and benefits expenses as a percentage of net revenues was 64.0 percent in the third quarter of 2018, compared with 70.4 percent in the third quarter of 2017. The decreased compensation ratio reflects lower acquisition-related compensation and the impact of presenting investment banking revenues gross of related client reimbursed deal expenses, as required by new accounting guidance. This change resulted in a 230 bps decrease to the compensation ratio in the current quarter.

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Outside Services – Outside services expenses include securities processing expenses, outsourced technology functions, outside legal fees, fund expenses associated with our consolidated alternative asset management funds and other professional fees. Outside services expenses increased 27.0 percent to \$9.5 million in the third quarter of 2018, compared with \$7.5 million in the corresponding period of 2017. Excluding the portion of expenses from non-controlled equity interests in our consolidated alternative asset management funds, outside services expenses increased 10.2 percent due to an increase in professional fees partially offset by a reduction in securities processing costs as there are services we no longer use following our migration to a fully disclosed clearing model in the third quarter of 2017.

Occupancy and Equipment – For the three months ended September 30, 2018, occupancy and equipment expenses increased 10.3 percent to \$9.0 million, compared with \$8.1 million for the three months ended September 30, 2017. The increase was primarily due to incremental occupancy costs related to transitioning to new office space in Houston, Texas.

Communications – Communication expenses include costs for telecommunication and data communication, primarily consisting of expenses for obtaining third party market data information. For the three months ended September 30, 2018, communication expenses increased to \$7.6 million, compared with \$7.1 million for the three months ended September 30, 2017. The increase was primarily due to higher market data services.

Marketing and Business Development – Marketing and business development expenses include travel and entertainment costs, advertising and third party marketing fees. For the three months ended September 30, 2018, marketing and business development expenses were \$6.7 million, flat compared with the corresponding period of 2017.

Deal-Related Expenses – Deal-related expenses include costs we incurred over the course of a completed investment banking deal, which primarily consist of legal fees, offering expenses, and travel and entertainment costs. For the three months ended September 30, 2018, deal-related expenses were \$7.7 million. Effective January 1, 2018, new revenue recognition guidance required us to present deal expenses on a gross basis under non-interest expenses on the consolidated statements of operations, rather than netting deal expenses incurred for completed investment banking deals within revenues. The amount of deal-related expenses for the year will principally be dependent on the level of deal activity and may vary from quarter to quarter as the recognition of deal-related costs typically coincides with the closing of a transaction. Based upon prior years' experience, we would expect approximately \$5.0 million to \$8.0 million of quarterly deal-related expenses.

Trade Execution and Clearance – For the three months ended September 30, 2018, trade execution and clearance expenses were \$2.0 million, essentially flat compared with the corresponding period of 2017.

Goodwill Impairment – During the third quarter of 2017, we performed an interim goodwill impairment test, which resulted in a non-cash goodwill impairment charge of \$114.4 million related to the asset management reporting unit. The impairment charge resulted from declining profitability in 2017.

Intangible Asset Amortization – Intangible asset amortization includes the amortization of definite-lived intangible assets consisting of customer relationships and the Simmons trade name. For the three months ended September 30, 2018, intangible asset amortization was \$2.6 million, compared with \$3.8 million in the corresponding period of 2017.

Back Office Conversion Costs – In the third quarter of 2017, we migrated to a fully disclosed clearing model and are no longer self clearing. Back office conversion costs included costs incurred to transition to a fully disclosed clearing model, such as contract termination fees, vendor migration fees, professional fees, and severance benefits for impacted personnel. For the three months ended September 30, 2017, we incurred back office conversion costs of \$1.3 million.

Other Operating Expenses – Other operating expenses include insurance costs, license and registration fees, expenses related to our charitable giving program and litigation-related expenses, which consist of the amounts we reserve and/or pay out related to legal and regulatory matters. Other operating expenses increased to \$3.6 million in the third quarter of 2018, compared with \$2.3 million in the third quarter of 2017. The increase was primarily due to higher expense related to our charitable giving program.

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Income Taxes – The Tax Cuts and Jobs Act reduced the corporate federal tax rate from 35 percent to 21 percent effective January 1, 2018.

For the three months ended September 30, 2018, our provision for income taxes was \$7.4 million, which included a \$0.4 million tax benefit related to stock-based compensation awards vesting at values greater than the grant price. Excluding the impact of this benefit, our effective tax rate was 26.2 percent.

For the three months ended September 30, 2017, our benefit from income taxes was \$31.4 million as a result of pre-tax losses related to the \$114.4 million non-cash goodwill impairment charge. In the third quarter of 2017, we recorded a \$0.3 million tax benefit related to stock-based compensation awards vesting at values greater than the grant price. Excluding the impact of this benefit, our effective tax rate was 37.8 percent.

Segment Performance

We measure financial performance by business segment. Our two reportable segments are Capital Markets and Asset Management. We determined these segments based upon the nature of the financial products and services provided to customers and our management organization. Segment pre-tax operating income and segment pre-tax operating margin are used to evaluate and measure segment performance by our chief operating decision maker in deciding how to allocate resources and in assessing performance in relation to our competitors. Revenues and expenses directly associated with each respective segment are included in determining segment operating results. Revenues and expenses that are not directly attributable to a particular segment are allocated based upon our allocation methodologies, generally based on each segment's respective net revenues, use of shared resources, headcount or other relevant measures.

Throughout this section, we have presented segment results on both a U.S. GAAP and non-GAAP basis. Management believes that presenting adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin in conjunction with the U.S. GAAP measures provides a more meaningful basis for comparison of its operating results and underlying trends between periods, and enhances the overall understanding of our current financial performance by excluding certain items that may not be indicative of our core operating results. The non-GAAP segment results should be considered in addition to, not as a substitute for, the segment results prepared in accordance with U.S. GAAP.

Adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin exclude (1) revenues and expenses related to noncontrolling interests, (2) amortization of intangible assets related to acquisitions, (3) compensation and non-compensation expenses from acquisition-related agreements and (4) goodwill impairment charges. For U.S. GAAP purposes, these items are included in each of their respective line items on the consolidated statements of operations.

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Capital Markets

The following table sets forth the Capital Markets adjusted segment financial results and adjustments necessary to reconcile to our consolidated U.S. GAAP pre-tax operating income and pre-tax operating margin for the periods presented:

(Dollars in thousands)	Three Months Ended September 30,				2017				
	2018	Adjustments (1)			2017	Adjustments (1)			
	Total	Noncontrolling	Other	U.S.	Total	Noncontrolling	Other	U.S.	
	Adjusted	Interests	Adjustments	GAAP	Adjusted	Interests	Adjustments	GAAP	
Investment banking									
Advisory services	\$ 113,540	\$ —	\$ —	\$ 113,540	\$ 146,816	\$ —	\$ —	\$ 146,816	
Financing									
Equities	32,188	—	—	32,188	22,117	—	—	22,117	
Debt	20,936	—	—	20,936	21,687	—	—	21,687	
Total investment banking	166,664	—	—	166,664	190,620	—	—	190,620	
Institutional sales and trading									
Equities	17,804	—	—	17,804	18,410	—	—	18,410	
Fixed income	18,162	—	—	18,162	20,676	—	—	20,676	
Total institutional sales and trading	35,966	—	—	35,966	39,086	—	—	39,086	
Management and performance fees	1,806	—	—	1,806	678	—	—	678	
Investment income/(loss)	1,290	1,876	—	3,166	324	(984)	—	(660)	
Long-term financing expenses	(1,732)	—	—	(1,732)	(1,736)	—	—	(1,736)	
Net revenues	203,994	1,876	—	205,870	228,972	(984)	—	227,988	
Operating expenses	167,855	1,629	7,299	176,783	179,269	116	17,024	196,409	
Segment pre-tax operating income	\$ 36,139	\$ 247	\$ (7,299)	\$ 29,087	\$ 49,703	\$ (1,100)	\$ (17,024)	\$ 31,579	
Segment pre-tax operating margin	17.7	%		14.1	%	21.7	%	13.9	%

The following is a summary of the adjustments needed to reconcile our consolidated U.S. GAAP segment pre-tax (1) operating income and segment pre-tax operating margin to the adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin:

Noncontrolling interests – The impacts of consolidating noncontrolling interests in our alternative asset management funds are not included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin.

Other adjustments – The following table sets forth the items not included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin for the periods presented:

Three Months
Ended

September 30,

2018 2017

(Dollars in thousands)

Compensation from acquisition-related agreements	\$5,914	\$14,309
Amortization of intangible assets related to acquisitions	1,214	2,544
Non-compensation expenses from acquisition-related agreements	171	171
	\$7,299	\$17,024

Capital Markets net revenues on a U.S. GAAP basis were \$205.9 million for the three months ended September 30, 2018, compared with \$228.0 million in the prior-year period. For the three months ended September 30, 2018, adjusted net revenues were \$204.0 million, compared with \$229.0 million in the third quarter of 2017. The variance explanations for net revenues and adjusted net revenues are consistent on both a U.S. GAAP and non-GAAP basis.

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Investment banking revenues comprise all of the revenues generated through advisory services activities, which includes mergers and acquisitions, equity private placements, debt advisory, and municipal financial advisory transactions, as well as equity and debt financing activities. To assess the profitability of investment banking, we aggregate investment banking fees with the net interest income or expense associated with these activities.

In the third quarter of 2018, investment banking revenues decreased 12.6 percent to \$166.7 million, compared with \$190.6 million in the corresponding period of the prior year. For the three months ended September 30, 2018, advisory services revenues were \$113.5 million, down 22.7 percent compared to \$146.8 million in the third quarter of 2017. We completed 45 transactions with an aggregate enterprise value of \$8.5 billion in the third quarter of 2018, compared with 43 transactions with an aggregate enterprise value of \$11.3 billion in the third quarter of 2017.

Although the number of completed transactions was consistent year-over-year, our results in the prior-year period were elevated by several large fees. From quarter to quarter, our advisory services revenues are impacted by the timing and the number and size of deals closing. For the three months ended September 30, 2018, equity financing revenues were \$32.2 million, up 45.5 percent compared with \$22.1 million in the third quarter of 2017, reflecting more completed and larger transactions and higher revenue per transaction. During the third quarter of 2018, we completed 19 equity financings, raising \$3.2 billion for our clients, compared with 16 equity financings, raising \$1.9 billion for our clients in the comparable year-ago period. Debt financing revenues for the three months ended September 30, 2018 were \$20.9 million, down 3.5 percent compared with \$21.7 million in the year-ago period. Municipal issuance volumes are down on a year-over-year basis as a decrease in refunding activity resulting from higher interest rates and tax law changes has only been partially offset by an increase in new money issuance volume. The decline in refundings has had the most impact on our state and local government sector; however, revenues from our specialty sector practices have partially offset this decline. During the third quarter of 2018, we completed 116 negotiated municipal issues with a total par value of \$4.1 billion, compared with 139 negotiated municipal issues with a total par value of \$3.4 billion during the prior-year period.

Institutional sales and trading revenues comprise all of the revenues generated through trading activities, which consist of facilitating customer trades, executing competitive municipal underwritings and our strategic trading activities in municipal bonds and U.S. government agency securities. To assess the profitability of institutional brokerage activities, we aggregate institutional brokerage revenues with the net interest income or expense associated with financing, economically hedging and holding long or short inventory positions. Our results may vary from quarter to quarter as a result of changes in trading margins, trading gains and losses, net interest spreads, trading volumes and the timing of transactions based on market opportunities.

For the three months ended September 30, 2018, institutional brokerage revenues were \$36.0 million, a decrease of 8.0 percent compared with \$39.1 million in the prior-year period, due to lower equity and fixed income institutional brokerage revenues. Equity institutional brokerage revenues were \$17.8 million in the third quarter of 2018, down 3.3 percent compared with \$18.4 million in the corresponding period of 2017. The manner in which market participants pay for trade execution and research services is in transition at a time when the overall fee pool is shrinking. This dynamic has negatively impacted our equity institutional brokerage revenues. For the three months ended September 30, 2018, fixed income institutional brokerage revenues were \$18.2 million, down 12.2 percent compared with \$20.7 million in the prior-year period due to fewer trading opportunities. Market conditions remain challenging as low relative, but rising, interest rates and a flattening yield curve continue to depress volumes and trading spreads.

Management and performance fees include the fees generated from our merchant banking, energy and senior living funds with outside investors. For the three months ended September 30, 2018, management and performance fees were \$1.8 million, compared with \$0.7 million in the prior-year period. The increase was due to higher assets under management in our merchant banking funds.

Investment income/(loss) includes realized and unrealized gains and losses on investments, including amounts attributable to noncontrolling interests, in our merchant banking, energy and senior living funds. For the three months ended September 30, 2018, investment income was \$3.2 million, compared with an investment loss of \$0.7 million in the corresponding period of 2017. We recorded higher gains in our merchant banking funds in the current period.

Long-term financing expenses primarily represent interest paid on our senior notes. For the three months ended September 30, 2018 and 2017, long-term financing expenses were \$1.7 million, respectively. We repaid our \$125 million fixed rate senior notes upon maturity on October 9, 2018.

Capital Markets segment pre-tax operating margin for the three months ended September 30, 2018 was 14.1 percent, compared with 13.9 percent for the corresponding period of 2017. Despite lower revenues compared to the year-ago period, segment pre-tax operating margin increased due to lower acquisition-related compensation. Adjusted segment pre-tax operating margin for the

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three months ended September 30, 2018 was 17.7 percent, compared with 21.7 percent for the corresponding period of 2017. Adjusted segment pre-tax operating margin decreased compared to the year-ago period due to lower revenues.

Asset Management

The following table sets forth the Asset Management segment financial results and adjustments necessary to reconcile to our consolidated U.S. GAAP pre-tax operating income and pre-tax operating margin for the periods presented:

	Three Months Ended September 30,				2017				
	2018		2017		2017		2017		
	Total	Adjustments	Controlling U.S.	Total	Adjustments	Controlling U.S.	Total	Adjustments	Controlling U.S.
(Dollars in thousands)	Adjusted	(1)	GAAP	Adjusted	(1)	GAAP	Adjusted	(1)	GAAP
Management fees									
MLP	\$6,681	\$—	\$6,681	\$6,844	\$—	\$6,844			
Equity	4,890	—	4,890	5,296	—	5,296			
Total management fees	11,571	—	11,571	12,140	—	12,140			
Performance fees									
MLP	—	—	—	—	—	—			
Equity	—	—	—	—	—	—			
Total performance fees	—	—	—	—	—	—			
Total management and performance fees	11,571	—	11,571	12,140	—	12,140			
Investment income	87	—	87	439	—	439			
Total net revenues	11,658	—	11,658	12,579	—	12,579			
Operating expenses	9,709	— 1,401	11,110	10,753	— 115,641	126,394			
Segment pre-tax operating income/(loss)	\$1,949	\$—(1,401)	\$548	\$1,826	\$—(115,641)	\$(113,815)			
Segment pre-tax operating margin	16.7 %		4.7 %	14.5 %		(904.8 %)			

(1) Other Adjustments – The following table sets forth the items not included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin for the periods presented:

	Three Months Ended September 30,	
	2018	2017
(Dollars in thousands)		
Goodwill impairment	\$—	\$114,363
Amortization of intangible assets related to acquisitions	1,401	1,278
	\$1,401	\$115,641

Management and performance fee revenues comprise the revenues generated from management and investment advisory services performed for separately managed accounts, registered funds and partnerships. Client asset inflows

and outflows and investment performance have a direct effect on management and performance fee revenues. Management fees are generally based on the level of assets under management ("AUM") measured monthly or quarterly, and an increase or reduction in AUM, due to market price fluctuations or net client asset flows, will result in a corresponding increase or decrease in management fees. Fees vary with the type of assets managed and the vehicle in which they are managed. Performance fees are earned when the investment return on AUM exceeds certain benchmark targets or other performance targets over a specified measurement period. These performance fees are typically annual performance hurdles and recognized in the fourth quarter of the applicable year, or upon withdrawal of client assets. The level of performance fees earned can vary significantly from period to period and these fees may not necessarily be correlated to changes in total AUM. At September 30, 2018, approximately five percent of our AUM was eligible to earn performance fees.

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For the three months ended September 30, 2018, management fees were \$11.6 million, a decrease of 4.7 percent, compared with \$12.1 million in the prior-year period, due to lower management fees from both our MLP and equity product offerings. Management fees from our MLP strategies decreased slightly in the third quarter of 2018 to \$6.7 million, compared with \$6.8 million in the third quarter of 2017. In the third quarter of 2018, management fees related to our equity strategies were \$4.9 million, down 7.7 percent compared to \$5.3 million in the corresponding period of 2017, due to lower average effective revenue yield. The average effective revenue yield (total annualized management fees as a percentage of our average month-end AUM) for our equity strategies declined to 56 basis points for the third quarter of 2018, compared with 61 basis points for the prior-year period, driven by the mix of our equity products.

Investment income includes gains and losses from our investments in registered funds and private funds or partnerships that we manage. For the three months ended September 30, 2018, investment income was \$0.1 million, compared with \$0.4 million for the prior-year period.

Segment pre-tax operating margin for the three months ended September 30, 2018 was 4.7 percent. The negative segment pre-tax operating margin for the three months ended September 30, 2017 was due to the \$114.4 million non-cash goodwill impairment charge. Adjusted segment pre-tax operating margin improved from 14.5 percent in the third quarter of 2017 to 16.7 percent in the third quarter of 2018 due to initiatives to reduce operating expenses as market conditions remain challenging.

The following table summarizes the changes in our AUM for the periods presented:

	Three Months		Twelve
	Ended		Months Ended
(Dollars in millions)	September 30,	September 30,	September 30,
	2018	2017	2018
MLP			
Beginning of period	\$4,016	\$4,304	\$ 4,043
Net outflows	(211)	(210)	(138)
Net market appreciation/(depreciation)	184	(51)	84
End of period	\$3,989	\$4,043	\$ 3,989
Equity			
Beginning of period	\$3,467	\$4,276	\$ 3,585
Net outflows	(325)	(862)	(591)
Net market appreciation	177	171	325
End of period	\$3,319	\$3,585	\$ 3,319
Total			
Beginning of period	\$7,483	\$8,580	\$ 7,628
Net outflows	(536)	(1,072)	(729)
Net market appreciation	361	120	409
End of period	\$7,308	\$7,628	\$ 7,308

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Financial Summary for the nine months ended September 30, 2018 and September 30, 2017

The following table provides a summary of the results of our operations on a U.S. GAAP basis and the results of our operations as a percentage of net revenues for the periods indicated.

(Dollars in thousands)	Nine Months Ended			As a Percentage of Net Revenues for the	
	September 30, 2018	September 30, 2017	2018 v2017	Nine Months Ended September 30, 2018	Nine Months Ended September 30, 2017
Revenues:					
Investment banking	\$411,203	\$461,260	(10.9)%	73.4 %	72.2 %
Institutional brokerage	92,415	111,083	(16.8)	16.5	17.4
Asset management	38,706	44,011	(12.1)	6.9	6.9
Interest	25,183	22,649	11.2	4.5	3.5
Investment income	6,706	15,406	(56.5)	1.2	2.4
Total revenues	574,213	654,409	(12.3)	102.5	102.4
Interest expense	14,142	15,568	(9.2)	2.5	2.4
Net revenues	560,071	638,841	(12.3)	100.0	100.0
Non-interest expenses:					
Compensation and benefits	369,895	438,161	(15.6)	66.0	68.6
Outside services	29,024	27,612	5.1	5.2	4.3
Occupancy and equipment	26,476	24,846	6.6	4.7	3.9
Communications	24,112	22,025	9.5	4.3	3.4
Marketing and business development	21,702	22,512	(3.6)	3.9	3.5
Deal-related expenses	18,888	—	N/M	3.4	—
Trade execution and clearance	6,240	5,864	6.4	1.1	0.9
Restructuring costs	3,770	—	N/M	0.7	—
Goodwill impairment	—	114,363	N/M	—	17.9
Intangible asset amortization	7,845	11,466	(31.6)	1.4	1.8
Back office conversion costs	—	3,027	N/M	—	0.5
Other operating expenses	9,187	8,525	7.8	1.6	1.3
Total non-interest expenses	517,139	678,401	(23.8)	92.3	106.2
Income/(loss) before income tax expense/(benefit)	42,932	(39,560)	N/M	7.7	(6.2)
Income tax expense/(benefit)	5,351	(26,912)	N/M	1.0	(4.2)
Net income/(loss)	37,581	(12,648)	N/M	6.7	(2.0)
Net income applicable to noncontrolling interests	(1,271)	3,217	N/M	(0.2)	0.5

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Net income/(loss) applicable to Piper Jaffray Companies \$38,852 \$(15,865) N/M 6.9 % (2.5)%
N/M – Not meaningful

Except as discussed below, the description of non-interest expenses and net revenues as well as the underlying reasons for variances to prior year are substantially the same as the comparative quarterly discussion.

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For the nine months ended September 30, 2018, we recorded net income applicable to Piper Jaffray Companies of \$38.9 million. Net revenues for the nine months ended September 30, 2018 decreased 12.3 percent to \$560.1 million, compared with \$638.8 million in the year-ago period. In the first nine months of 2018, investment banking revenues were \$411.2 million, down 10.9 percent compared with \$461.3 million in the prior-year period as higher equity financing revenues were more than offset by lower advisory services and debt financing revenues. For the nine months ended September 30, 2018, institutional brokerage revenues decreased 16.8 percent to \$92.4 million, compared with \$111.1 million in the first nine months of 2017, due to lower fixed income and equity institutional brokerage revenues. In the first nine months of 2018, asset management fees were \$38.7 million, down 12.1 percent compared with \$44.0 million in the first nine months of 2017, due to lower management fees from our MLP and equity product offerings. In the first nine months of 2018, net interest income increased to \$11.0 million, compared with \$7.1 million in the prior-year period. The increase was due to higher interest income earned during the first quarter of 2018 on municipal securities as a result of higher average inventory balances. The increase was also attributable to lower costs of financing given our level of capital, as well as lower long-term financing expenses. We repaid \$50 million of Class A senior notes upon maturity on May 31, 2017. For the nine months ended September 30, 2018, investment income was \$6.7 million, compared with \$15.4 million in the prior-year period. Non-interest expenses were \$517.1 million for the nine months ended September 30, 2018, down 23.8 percent compared with \$678.4 million in the year-ago period, primarily due to the inclusion of a \$114.4 million non-cash goodwill impairment charge in the third quarter of 2017. Also, for the nine months ended September 30, 2018, lower compensation expenses from decreased revenues and lower acquisition-related costs were partially offset by higher restructuring costs and deal-related expenses. As previously discussed, beginning in 2018, new accounting guidance requires the gross presentation of client reimbursed deal expenses.

Consolidated Non-Interest Expenses

Trade Execution and Clearance – For the nine months ended September 30, 2018, trade execution and clearance expenses increased to \$6.2 million, compared with \$5.9 million for the corresponding period of 2017, due to higher trading execution expenses. As a result of migrating to a fully disclosed clearing model, securities processing expenses that were previously recorded under Outside Services, are now reflected as trade execution charges.

Restructuring Costs – For the nine months ended September 30, 2018, we incurred restructuring costs of \$3.8 million related to our brokerage and asset management businesses. Restructuring costs include \$3.5 million of severance benefits, \$0.1 million for vacated leased office space, and \$0.2 million for contract termination fees. We do not anticipate incurring additional restructuring costs in 2018.

Income Taxes – The Tax Cuts and Jobs Act reduced the corporate federal tax rate from 35 percent to 21 percent effective January 1, 2018. SEC Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act" ("SAB 118") permitted companies to report a provisional amount in the 2017 financial statements if the accounting for income tax effects of the Tax Cuts and Jobs Act was incomplete as of December 31, 2017. This provisional amount would be subject to adjustment in subsequent periods during a defined measurement period.

For the nine months ended September 30, 2018, our provision for income taxes was \$5.4 million. In the first nine months of 2018, we recorded a \$6.8 million tax benefit related to stock-based compensation awards vesting at values greater than the grant price. Additionally, pursuant to SAB 118, we recorded an additional \$1.0 million of income tax expense for the nine months ended September 30, 2018 related to revaluing our deferred tax assets at the lower federal tax rate. Excluding the impact of these items, our effective tax rate was 26.2 percent for the nine months ended September 30, 2018.

For the nine months ended September 30, 2017, our benefit from income taxes was \$26.9 million as a result of pre-tax losses related to the \$114.4 million non-cash goodwill impairment charge. In the first nine months of 2017, we

recorded a \$9.1 million tax benefit related to stock-based compensation awards vesting at values greater than the grant price. Excluding the impact of this benefit, our effective tax rate was 45.1 percent for the nine months ended September 30, 2017.

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Segment Performance

Capital Markets

The following table sets forth the Capital Markets adjusted segment financial results and adjustments necessary to reconcile to our consolidated U.S. GAAP pre-tax operating income and pre-tax operating margin for the periods presented:

	Nine Months Ended September 30, 2018				2017				
	Total Adjusted	Adjustments ⁽¹⁾ Noncontrolling Interests	Other Adjustments	U.S. GAAP	Total Adjusted	Adjustments ⁽¹⁾ Noncontrolling Interests	Other Adjustments	U.S. GAAP	
(Dollars in thousands)									
Investment banking									
Advisory services	\$266,083	\$—	\$—	\$266,083	\$332,205	\$—	\$—	\$332,205	
Financing									
Equities	99,868	—	—	99,868	70,229	—	—	70,229	
Debt	45,473	—	—	45,473	60,066	—	—	60,066	
Total investment banking	411,424	—	—	411,424	462,500	—	—	462,500	
Institutional sales and trading									
Equities	54,951	—	—	54,951	59,085	—	—	59,085	
Fixed income	52,932	—	—	52,932	63,137	—	—	63,137	
Total institutional sales and trading	107,883	—	—	107,883	122,222	—	—	122,222	
Management and performance fees	4,824	—	—	4,824	4,172	—	—	4,172	
Investment income	5,250	2,357	—	7,607	10,275	4,880	—	15,155	
Long-term financing expenses	(5,351)	—	—	(5,351)	(6,003)	—	—	(6,003)	
Net revenues	524,030	2,357	—	526,387	593,166	4,880	—	598,046	
Operating expenses	450,786	3,628	27,610	482,024	484,677	1,663	38,362	524,702	
Segment pre-tax operating income	\$73,244	\$(1,271)	\$(27,610)	\$44,363	\$108,489	\$3,217	\$(38,362)	\$73,344	
Segment pre-tax operating margin	14.0	%		8.4	%	18.3	%	12.3	%

The following is a summary of the adjustments needed to reconcile our consolidated U.S. GAAP segment pre-tax (1) operating income and segment pre-tax operating margin to the adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin:

Noncontrolling interests – The impacts of consolidating noncontrolling interests in our alternative asset management funds are not included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin.

Other adjustments – The following table sets forth the items not included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin for the periods presented:

(Dollars in thousands)	Nine Months Ended September 30,	
	2018	2017
Compensation from acquisition-related agreements	\$23,455	\$30,301
Amortization of intangible assets related to acquisitions	3,643	7,633
Non-compensation expenses from acquisition-related agreements	512	428
	\$27,610	\$38,362

Capital Markets net revenues on a U.S. GAAP basis were \$526.4 million for the nine months ended September 30, 2018, compared with \$598.0 million in the prior-year period. In the first nine months of 2018, Capital Markets adjusted net revenues were \$524.0 million, compared with \$593.2 million in the first nine months of 2017. The variance explanations for net revenues and adjusted net revenues are consistent on both a U.S. GAAP and non-GAAP basis.

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In the first nine months of 2018, investment banking revenues decreased 11.0 percent to \$411.4 million, compared with \$462.5 million in the corresponding period of the prior year. For the nine months ended September 30, 2018, advisory services revenues decreased 19.9 percent to \$266.1 million, compared with \$332.2 million in the first nine months of 2017. The decrease was driven by lower revenue per transaction as our number of completed deals was consistent year-over-year. Additionally, our revenues in 2017 were elevated by several large fees. We completed 118 transactions with an aggregate enterprise value of \$18.6 billion in the first nine months of 2018, compared with 118 transactions with an aggregate enterprise value of \$27.8 billion in the first nine months of 2017. For the nine months ended September 30, 2018, equity financing revenues were \$99.9 million, an increase of 42.2 percent compared with \$70.2 million in the prior-year period, due to more completed transactions and higher revenue per transaction. The majority of our equity financing revenues are in the sub-\$2 billion fee pool market. On a year-to-date basis, our revenues in this market were up approximately 20 percent, while the sub-\$2 billion fee pool was up approximately 11 percent, reflecting market share gains. During the first nine months of 2018, we completed 70 equity financings, raising \$13.3 billion for our clients, compared with 60 equity financings, raising \$12.0 billion for our clients in the year-ago period. Debt financing revenues for the nine months ended September 30, 2018 were \$45.5 million, down 24.3 percent compared with \$60.1 million in the year-ago period, due to lower public finance revenues as municipal market issuance volume has declined meaningfully compared to the prior-year period. The first quarter of 2018 experienced a significant decline in public finance issuance volume due to record issuance volume in the fourth quarter of 2017 as issuers accelerated financings before the implementation of federal tax law changes in 2018. Municipal issuance volume began to rebound in the second and third quarters of 2018, but it is still down on a year-over-year basis as the increase in new money issuance volume has not offset the decrease in refunding activity. During the first nine months of 2018, we completed 297 negotiated municipal issues with a total par value of \$8.1 billion, compared with 421 negotiated municipal issues with a total par value of \$10.5 billion during the prior-year period.

For the nine months ended September 30, 2018, institutional brokerage revenues decreased 11.7 percent to \$107.9 million, compared with \$122.2 million in the prior-year period, due to lower equity and fixed income institutional brokerage revenues. Equity institutional brokerage revenues decreased 7.0 percent to \$55.0 million in the first nine months of 2018, compared with \$59.1 million in the corresponding period of 2017, due to changes in how equity market participants pay for equity research and trade execution services at a time when the overall fee pool is shrinking. Global market participants are shifting trade execution to low-touch providers and paying for research services separately, a result of the MiFID II regulation that became effective in the European Union in 2018. For the nine months ended September 30, 2018, fixed income institutional brokerage revenues were \$52.9 million, down 16.2 percent compared with \$63.1 million in the prior-year period, due to lower trading gains and a decline in customer flow activity. Industry returns for municipal bonds in the first quarter of 2018 were the worst in nearly a decade, resulting in a decline in the value of municipal securities. Also, customer demand was muted due to the impact of federal tax reform on the municipal asset class. Unfavorable market conditions, exacerbated by low relative, but rising, interest rates and a flattening yield curve, continued into the second and third quarters of 2018 and resulted in limited trading opportunities.

For the nine months ended September 30, 2018, management and performance fees were \$4.8 million, up compared with \$4.2 million in the prior-year period, due to higher assets under management in our merchant banking funds. The increase was partially offset by lower performance fees. Upon adopting new revenue recognition guidance effective as of January 1, 2018, we now defer the recognition of performance fees on our merchant banking, energy and senior living funds until such fees are no longer subject to reversal, which will cause a delay in the recognition of these fees as revenue.

For the nine months ended September 30, 2018, long-term financing expenses decreased to \$5.4 million, compared with \$6.0 million in the prior-year period. We repaid \$50 million of Class A senior notes upon maturity on May 31,

2017. We expect further reductions in our long-term financing expenses as we repaid our \$125 million Class C senior notes upon maturity on October 9, 2018.

Capital Markets segment pre-tax operating margin for the nine months ended September 30, 2018 was 8.4 percent, compared with 12.3 percent for the corresponding period of 2017. Adjusted segment pre-tax operating margin for the nine months ended September 30, 2018 was 14.0 percent, compared with 18.3 percent for the corresponding period of 2017. The decreased pre-tax operating margin for both U.S. GAAP and adjusted results was attributable to lower revenues, as well as incremental restructuring costs.

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Asset Management

The following table sets forth the Asset Management segment financial results and adjustments necessary to reconcile to our consolidated U.S. GAAP pre-tax operating income and pre-tax operating margin for the periods presented:

	Nine Months Ended September 30, 2018			2017		
	Total Adjusted	Adjustments ⁽¹⁾ Noncontrolling U.S. Interests	GAAP	Total Adjusted	Adjustments ⁽¹⁾ Noncontrolling U.S. Interests	GAAP
(Dollars in thousands)						
Management fees						
MLP	\$ 19,328	\$ —	\$ 19,328	\$ 21,361	\$ —	\$ 21,361
Equity	14,546	—	14,546	18,478	—	18,478
Total management fees	33,874	—	33,874	39,839	—	39,839
Performance fees						
MLP	—	—	—	—	—	—
Equity	8	—	8	—	—	—
Total performance fees	8	—	8	—	—	—
Total management and performance fees	33,882	—	33,882	39,839	—	39,839
Investment income/(loss)	(198)	—	(198)	956	—	956
Total net revenues	33,684	—	33,684	40,795	—	40,795
Operating expenses	30,913	— 4,202	35,115	35,503	— 118,196	153,699
Segment pre-tax operating income/(loss)	\$ 2,771	\$ —(4,202)	\$(1,431)	\$ 5,292	\$ —(118,196)	\$(112,904)
Segment pre-tax operating margin	8.2 %		(4.2)%	13.0 %		(276.8)%

(1) Other Adjustments – The following table sets forth the items not included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin for the periods presented:

	Nine Months Ended September 30,	
	2018	2017
(Dollars in thousands)		
Goodwill impairment	\$ —	\$ 114,363
Amortization of intangible assets related to acquisitions	4,202	3,833
	\$ 4,202	\$ 118,196

For the nine months ended September 30, 2018, management fees were \$33.9 million, a decrease of 15.0 percent compared with \$39.8 million in the prior-year period due to lower management fees from both our MLP and equity product offerings. Management fees from our MLP strategies decreased 9.5 percent in the first nine months of 2018 to \$19.3 million, compared with \$21.4 million in the first nine months of 2017, due to lower average AUM. In the first nine months of 2018, management fees related to our equity strategies were \$14.5 million, down 21.3 percent compared to \$18.5 million in the corresponding period of 2017, due to lower average AUM and a lower average

effective revenue yield. The average effective revenue yield for our equity strategies was 56 basis points for the nine months ended September 30, 2018, down from 63 basis points for the nine months ended September 30, 2017.

Segment pre-tax operating margin for the nine months ended September 30, 2018 was a negative 4.2 percent due to declining profitability in the business. The negative segment pre-tax operating margin for the nine months ended September 30, 2017 was driven by the \$114.4 million non-cash goodwill impairment charge. Adjusted segment operating margin declined from 13.0 percent in the first nine months of 2017 to 8.2 percent in the first nine months of 2018.

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The following table summarizes the changes in our AUM for the periods presented:

(Dollars in millions)	Nine Months		Twelve
	Ended	Ended	Months Ended
	September 30,	September 30,	September 30,
	2018	2017	2018
MLP			
Beginning of period	\$3,790	\$4,616	\$ 4,043
Net inflows/(outflows)	46	(240)	(138)
Net market appreciation/(depreciation)	153	(333)	84
End of period	\$3,989	\$4,043	\$ 3,989
Equity			
Beginning of period	\$3,556	\$4,115	\$ 3,585
Net outflows	(420)	(832)	(591)
Net market appreciation	183	302	325
End of period	\$3,319	\$3,585	\$ 3,319
Total			
Beginning of period	\$7,346	\$8,731	\$ 7,628
Net outflows	(374)	(1,072)	(729)
Net market appreciation/(depreciation)	336	(31)	409
End of period	\$7,308	\$7,628	\$ 7,308

Recent Accounting Pronouncements

Recent accounting pronouncements are set forth in Note 2 to our unaudited consolidated financial statements, and are incorporated herein by reference.

Critical Accounting Policies

Our accounting and reporting policies comply with U.S. GAAP and conform to practices within the securities industry. The preparation of financial statements in compliance with U.S. GAAP and industry practices requires us to make estimates and assumptions that could materially affect amounts reported in our consolidated financial statements. Critical accounting policies are those policies that we believe to be the most important to the portrayal of our financial condition and results of operations and that require us to make estimates that are difficult, subjective or complex. Most accounting policies are not considered by us to be critical accounting policies. Several factors are considered in determining whether or not a policy is critical, including whether the estimates are significant to the consolidated financial statements taken as a whole, the nature of the estimates, the ability to readily validate the estimates with other information (e.g., third party or independent sources), the sensitivity of the estimates to changes in economic conditions and whether alternative accounting methods may be used under U.S. GAAP.

We believe that of our significant accounting policies, the following are our critical accounting policies:

- Valuation of Financial Instruments
- Goodwill and Intangible Assets
- Compensation Plans
- Income Taxes

See the "Critical Accounting Policies" section and Note 2, "Summary of Significant Accounting Policies" to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2017 for further information on our critical accounting policies. See also Note 2, "Accounting Policies and Pronouncements" in the notes to our unaudited consolidated financial statements included in this Quarterly Report on Form 10-Q for changes to our significant accounting policies, as well as the impact from the adoption of new accounting standards.

We anticipate completing our 2018 annual goodwill and intangible asset impairment testing in the fourth quarter of 2018.

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Liquidity, Funding and Capital Resources

Liquidity is of critical importance to us given the nature of our business. Insufficient liquidity resulting from adverse circumstances contributes to, and may be the cause of, financial institution failure. Accordingly, we regularly monitor our liquidity position and maintain a liquidity strategy designed to enable our business to continue to operate even under adverse circumstances, although there can be no assurance that our strategy will be successful under all circumstances.

The majority of our tangible assets consist of assets readily convertible into cash. Financial instruments and other inventory positions owned are stated at fair value and are generally readily marketable in most market conditions. Receivables and payables with brokers, dealers and clearing organizations usually settle within a few days. As part of our liquidity strategy, we emphasize diversification of funding sources to the extent possible while considering tenor and cost. Our assets are financed by our cash flows from operations, equity capital, and our funding arrangements. The fluctuations in cash flows from financing activities are directly related to daily operating activities from our various businesses. One of our most important risk management disciplines is our ability to manage the size and composition of our balance sheet. While our asset base changes due to client activity, market fluctuations and business opportunities, the size and composition of our balance sheet reflect our overall risk tolerance, our ability to access stable funding sources and the amount of equity capital we hold.

Certain market conditions can impact the liquidity of our inventory positions, requiring us to hold larger inventory positions for longer than expected or requiring us to take other actions that may adversely impact our results.

A significant component of our employees' compensation is paid in annual discretionary incentive compensation. The timing of these incentive compensation payments, which generally are made in February, has a significant impact on our cash position and liquidity.

Beginning in 2017, we initiated the payment of a quarterly cash dividend to holders of our common stock, which includes unvested restricted shares. Our board of directors also approved a dividend policy intended to return between 30 percent and 50 percent of our adjusted net income from the previous fiscal year to shareholders. This includes an annual special cash dividend, payable in the first quarter of each year. Our board of directors determines the declaration and payment of dividends on an annual and quarterly basis, and is free to change our dividend policy at any time.

Our board of directors declared the following dividends:

Declaration Date	Dividend		
	Per Share	Record Date	Payment Date
February 2, 2017	\$0.3125	February 20, 2017	March 13, 2017
April 27, 2017	\$0.3125	May 26, 2017	June 15, 2017
July 27, 2017	\$0.3125	August 28, 2017	September 15, 2017
October 26, 2017	\$0.3125	November 29, 2017	December 15, 2017
February 1, 2018 (1)	\$1.6200	February 26, 2018	March 15, 2018
February 1, 2018	\$0.3750	February 26, 2018	March 15, 2018
April 27, 2018	\$0.3750	May 25, 2018	June 15, 2018
July 27, 2018	\$0.3750	August 24, 2018	September 14, 2018
October 26, 2018	\$0.3750	November 28, 2018	December 14, 2018

(1) Represents the annual special cash dividend based on fiscal year 2017 results.

Effective September 30, 2017, our board of directors authorized the repurchase of up to \$150.0 million in common shares through September 30, 2019. During the nine months ended September 30, 2018, we repurchased 124,606 shares of our common stock at an average price of \$72.26 per share for an aggregate purchase price of \$9.0 million related to this authorization. We have \$141.0 million remaining under this authorization.

We also purchase shares of common stock from restricted stock award recipients upon the award vesting as recipients sell shares to meet their employment tax obligations. During the first nine months of 2018, we purchased 264,254 shares or \$22.7 million of our common stock for this purpose.

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Leverage

The following table presents total assets, adjusted assets, total shareholders' equity and tangible shareholders' equity with the resulting leverage ratios as of:

	September 30, December 31,	
(Dollars in thousands)	2018	2017
Total assets	\$ 1,493,436	\$ 2,024,683
Deduct: Goodwill and intangible assets	(96,844)	(104,689)
Deduct: Assets from noncontrolling interests	(55,502)	(54,917)
Adjusted assets	\$ 1,341,090	\$ 1,865,077
Total shareholders' equity	\$ 747,415	\$ 741,235
Deduct: Goodwill and intangible assets	(96,844)	(104,689)
Deduct: Noncontrolling interests	(47,204)	(47,903)
Tangible common shareholders' equity	\$ 603,367	\$ 588,643
Leverage ratio (1)	2.0	2.7
Adjusted leverage ratio (2)	2.2	3.2

(1)Leverage ratio equals total assets divided by total shareholders' equity.

(2)Adjusted leverage ratio equals adjusted assets divided by tangible common shareholders' equity.

Adjusted assets and tangible common shareholders' equity are non-GAAP financial measures. Goodwill and intangible assets are subtracted from total assets and total shareholders' equity in determining adjusted assets and tangible common shareholders' equity, respectively, as we believe that goodwill and intangible assets do not constitute operating assets which can be deployed in a liquid manner. Amounts attributed to noncontrolling interests are subtracted from total assets and total shareholders' equity in determining adjusted assets and tangible common shareholders' equity, respectively, as they represent assets and equity interests in consolidated entities that are not attributable, either directly or indirectly, to Piper Jaffray Companies. We view the resulting measure of adjusted leverage, also a non-GAAP financial measure, as a more relevant measure of financial risk when comparing financial services companies. Our adjusted leverage ratio decreased from December 31, 2017 due to lower inventory balances.

Funding and Capital Resources

The primary goal of our funding activities is to ensure adequate funding over a wide range of market conditions. Given the mix of our business activities, funding requirements are fulfilled through a diversified range of short-term and long-term financing. We attempt to ensure that the tenor of our borrowing liabilities equals or exceeds the expected holding period of the assets being financed. Our ability to support increases in total assets is largely a function of our ability to obtain funding from external sources. Access to these external sources, as well as the cost of that financing, is dependent upon various factors, including market conditions, the general availability of credit and credit ratings. We currently do not have a credit rating, which could adversely affect our liquidity and competitive position by increasing our financing costs and limiting access to sources of liquidity that require a credit rating as a condition to providing the funds.

In 2017, we migrated to a fully disclosed clearing model and are no longer self clearing. Pershing LLC ("Pershing") is our clearing broker dealer. The conversion provided us with a new funding source through Pershing and, as a result, changed our mix of funding sources.

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Our day-to-day funding and liquidity is obtained primarily through the use of our clearing arrangement with Pershing, commercial paper issuance, prime broker agreements, and bank lines of credit, and is typically collateralized by our securities inventory. These funding sources are critical to our ability to finance and hold inventory, which is a necessary part of our institutional brokerage business. The majority of our inventory is liquid and is therefore funded by short-term facilities. Certain of these short-term facilities (i.e., committed line and commercial paper) have been established to mitigate changes in the liquidity of our inventory based on changing market conditions. In the case of our committed line, it is available to us regardless of changes in market liquidity conditions through the end of its term, although there may be limitations on the type of securities available to pledge. Our commercial paper program helps mitigate changes in market liquidity conditions given it is not an overnight facility, but provides funding with a term of 27 to 270 days. Our funding sources are also dependent on the types of inventory that our counterparties are willing to accept as collateral and the number of counterparties available. Funding is generally obtained at rates based upon the federal funds rate or the London Interbank Offer Rate.

Pershing Clearing Arrangement – We have established an arrangement to obtain financing from Pershing related to the majority of our trading activities. Under our fully disclosed clearing agreement, the majority of our securities inventories and all of our customer activities are held by or cleared through Pershing. Financing under this arrangement is secured primarily by securities, and collateral limitations could reduce the amount of funding available under this arrangement. Our clearing arrangement activities are recorded net from trading activity and reported within receivables from or payables to brokers, dealers and clearing organizations. The funding is at the discretion of Pershing (i.e., uncommitted) and could be denied without a notice period. Our fully disclosed clearing agreement includes a covenant requiring Piper Jaffray & Co. to maintain excess net capital of \$120 million. At September 30, 2018, we had no financing outstanding under this arrangement.

Commercial Paper Program – Our U.S. broker dealer subsidiary, Piper Jaffray & Co., issues secured commercial paper to fund a portion of its securities inventory. This commercial paper is currently issued under two separate programs, CP Series A and CP Series II A, and is secured by different inventory classes, which is reflected in the interest rate paid on the respective program. The programs can issue commercial paper with maturities of 27 to 270 days. CP Series II A includes a covenant that requires Piper Jaffray & Co. to maintain excess net capital of \$100 million. The following table provides information about our commercial paper programs at September 30, 2018:

(Dollars in millions)	CP Series A	CP Series II A
Maximum amount that may be issued	\$300.0	\$200.0
Amount outstanding	—	50.0
Weighted average maturity, in days	—	10
Weighted average maturity at issuance, in days	—	34

Prime Broker Arrangements – We have established an arrangement to obtain overnight financing by a single prime broker related to certain strategic trading activities in municipal securities. We completed the liquidation of the municipal securities inventories associated with these strategic trading activities in the third quarter of 2018, and have closed this prime broker arrangement as we no longer have a need for the funding source. Financing under this arrangement was secured primarily by municipal securities, and collateral limitations could have reduced the amount of funding available. The funding was at the discretion of the prime broker and could have been denied subject to a notice period. Our prime broker financing activities were recorded net of receivables from trading activity.

Additionally, we have established a second overnight financing arrangement with another broker dealer related to our convertible securities inventories. Financing under this arrangement is secured primarily by convertible securities, and

collateral limitations could reduce the amount of funding available. The funding is at the discretion of the prime broker and could be denied subject to a notice period. This arrangement is reported within receivables from or payables to brokers, dealers and clearing organizations, net of trading activity. At September 30, 2018, we had \$96.9 million of financing outstanding under this prime broker arrangement.

Committed Lines – Our committed line is a one-year \$200 million revolving secured credit facility. We use our committed credit facility in the ordinary course of business to fund a portion of our daily operations, and the amount borrowed under the facility varies daily based on our funding needs. Advances under this facility are secured by certain marketable securities. The facility includes a covenant that requires Piper Jaffray & Co. to maintain minimum net capital of \$120 million, and the unpaid principal amount of all advances under the facility will be due on December 14, 2018. This credit facility has been in place since 2008 and we anticipate being able to renew the facility for another one-year term in the fourth quarter of 2018. At September 30, 2018, we had no advances against this line of credit.

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Uncommitted Line – We use this uncommitted line in the ordinary course of business to fund a portion of our daily operations, and the amount borrowed under our uncommitted line varies daily based on our funding needs. Our \$85 million uncommitted secured line is dependent on having appropriate collateral, as determined by the bank agreement, to secure an advance under the line. Collateral limitations could reduce the amount of funding available under this secured line. Our uncommitted line is discretionary and is not a commitment by the bank to provide an advance under the line. More specifically, the line is subject to approval by the bank each time an advance is requested and advances may be denied, which may be particularly true during times of market stress or market perceptions of our exposures. We manage our relationship with the bank that provides this uncommitted facility in order to have appropriate levels of funding for our business. At September 30, 2018, we had no advances against this line of credit.

The following tables present the average balances outstanding for our various funding sources by quarter for 2018 and 2017, respectively.

(Dollars in millions)	Average Balance for the Three Months Ended			
	Sept. 30, 2018	June 30, 2018	Mar. 31, 2018	
Funding source:				
Pershing clearing arrangement	\$0.4	\$90.0	\$47.1	
Commercial paper	50.0	50.0	50.0	
Prime broker arrangements	112.4	218.8	336.5	
Short-term bank loans	—	—	—	
Total	\$162.8	\$358.8	\$433.6	
(Dollars in millions)	Average Balance for the Three Months Ended			
	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	Mar. 31, 2017
Funding source:				
Pershing clearing arrangement	\$20.6	\$26.3	\$—	\$—
Commercial paper	49.5	30.3	117.1	137.7
Prime broker arrangements	221.1	175.2	192.6	204.9
Short-term bank loans	—	6.0	67.1	2.5
Total	\$291.2	\$237.8	\$376.8	\$345.1

The average funding in the third quarter of 2018 decreased to \$162.8 million, compared with \$358.8 million during the second quarter of 2018, driven by the liquidation of our remaining municipal securities inventories associated with certain strategic trading activities, which were previously financed through one of our prime broker arrangements. Average funding declined compared to the corresponding period of 2017 due to lower inventory balances and the accumulation of cash from operations.

The following table presents the maximum daily funding amount by quarter for 2018 and 2017, respectively.

(Dollars in millions)	2018	2017
First Quarter	\$613.1	\$543.4
Second Quarter	\$505.0	\$538.3
Third Quarter	\$263.5	\$418.7
Fourth Quarter		\$569.9

Senior Notes

We have entered into variable and fixed rate senior notes with certain entities advised by Pacific Investment Management Company ("PIMCO"). At September 30, 2018, we carried an outstanding senior notes balance of \$125.0 million.

On October 8, 2015, we entered into a second amended and restated note purchase agreement ("Second Amended and Restated Note Purchase Agreement") under which we issued \$125 million of fixed rate Class C Notes. The Class C Notes bear interest at an annual fixed rate of 5.06 percent, are payable semi-annually and matured on October 9, 2018. The unpaid principal amount was due in full on the maturity date. The \$50 million of variable rate Class A Notes issued in 2014 were repaid in full on the May 31, 2017 maturity date.

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The Second Amended and Restated Note Purchase Agreement includes customary events of default and covenants that, among other things, require us to maintain a minimum consolidated tangible net worth and minimum regulatory net capital, limit our leverage ratio and require maintenance of a minimum ratio of operating cash flow to fixed charges. At September 30, 2018, we were in compliance with all covenants.

The \$125 million of fixed rate Class C Notes issued in 2015 were repaid in full on the October 9, 2018 maturity date. Given our level of capital and strong cash generation from earnings, we decided not to renew our long-term borrowings.

Contractual Obligations

Our contractual obligations have not materially changed from those reported in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2017, except for our operating lease obligations. On April 3, 2018, we entered into a new lease agreement for our Houston, Texas office location.

	Remainder of 2018	2019	2021	2023 and thereafter	Total
(Dollars in millions)					
Operating lease obligations	\$ 3.6	\$27.3	\$17.3	\$ 22.9	\$71.1

New Leases Guidance

As discussed in Note 2 to our unaudited consolidated financial statements, we will adopt new accounting guidance related to leases effective as of January 1, 2019. The guidance requires lessees to recognize all leases, including operating leases, with a term greater than 12 months on the statements of financial position. As of September 30, 2018, we had approximately 65 operating leases for office space with aggregate minimum lease commitments of \$71.1 million. Upon adoption of the new guidance, lease commitments will be reflected on our statement of financial condition as a right-of-use asset and a lease commitment liability. The new guidance is not expected to materially impact Piper Jaffray & Co.'s net capital position.

Capital Requirements

As a registered broker dealer and member firm of the Financial Industry Regulatory Authority, Inc. ("FINRA"), Piper Jaffray & Co., our U.S. broker dealer subsidiary, is subject to the uniform net capital rule of the SEC and the net capital rule of FINRA. We have elected to use the alternative method permitted by the uniform net capital rule which requires that we maintain minimum net capital of \$1.0 million. Advances to affiliates, repayment of subordinated liabilities, dividend payments and other equity withdrawals are subject to certain approvals, notifications and other provisions of the uniform net capital rules. We expect that these provisions will not impact our ability to meet current and future obligations. At September 30, 2018, our net capital under the SEC's uniform net capital rule was \$199.1 million, and exceeded the minimum net capital required under the SEC rule by \$198.1 million.

Although we operate with a level of net capital substantially greater than the minimum thresholds established by FINRA and the SEC, a substantial reduction of our capital would curtail many of our Capital Markets revenue producing activities.

Our committed short-term credit facility and our senior notes with PIMCO include covenants requiring Piper Jaffray & Co. to maintain minimum net capital of \$120 million. Secured commercial paper issued under CP Series II A includes a covenant that requires Piper Jaffray & Co. to maintain excess net capital of \$100 million. Our fully

disclosed clearing agreement with Pershing also includes a covenant requiring Piper Jaffray & Co. to maintain excess net capital of \$120 million.

At September 30, 2018, Piper Jaffray Ltd., our broker dealer subsidiary registered in the United Kingdom, was subject to, and was in compliance with, the capital requirements of the Prudential Regulation Authority and the Financial Conduct Authority pursuant to the Financial Services Act of 2012.

Piper Jaffray Hong Kong Limited is licensed by the Hong Kong Securities and Futures Commission, which is subject to the liquid capital requirements of the Securities and Futures (Financial Resources) Rule promulgated under the Securities and Futures Ordinance. At September 30, 2018, Piper Jaffray Hong Kong Limited was in compliance with the liquid capital requirements of the Hong Kong Securities and Trade Commission.

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Off-Balance Sheet Arrangements

In the ordinary course of business we enter into various types of off-balance sheet arrangements. The following table summarizes the notional contract value of our off-balance sheet arrangements for the periods presented:

(Dollars in thousands)	Expiration Per Period at December 31,					Total Contractual Amount	
	2019	2020	2021 - 2022	2023 - 2024	Later	September 30, 2018	December 31, 2017
Customer matched-book derivative contracts (1) (2)	\$31,050	\$23,450	\$50,450	\$160,050	\$2,337,498	\$2,602,498	\$2,819,006
Trading securities derivative contracts (2)	229,300	—	—	—	9,375	243,175	399,450
Equity option derivative contracts (2)	—	—	—	—	—	—	9,635
Investment commitments (3)	—	—	—	—	—	80,629	72,467

(1) Consists of interest rate swaps. We have minimal market risk related to these matched-book derivative contracts; however, we do have counterparty risk with one major financial institution, which is mitigated by collateral deposits. In addition, we have a limited number of counterparties (contractual amount of \$178.6 million at September 30, 2018) who are not required to post collateral. The uncollateralized amounts, representing the fair value of the derivative contracts, expose us to the credit risk of these counterparties. At September 30, 2018, we had \$13.5 million of credit exposure with these counterparties, including \$10.8 million of credit exposure with one counterparty.

(2) We believe the fair value of these derivative contracts is a more relevant measure of the obligations because we believe the notional or contract amount overstates the expected payout. At September 30, 2018 and December 31, 2017, the net fair value of these derivative contracts approximated \$9.2 million and \$20.5 million, respectively.

(3) The investment commitments have no specified call dates. The timing of capital calls is based on market conditions and investment opportunities.

Derivatives

Derivatives' notional or contract amounts are not reflected as assets or liabilities on our consolidated statements of financial condition. Rather, the fair value of the derivative transactions are reported on the consolidated statements of financial condition as assets or liabilities in financial instruments and other inventory positions owned and financial instruments and other inventory positions sold, but not yet purchased, as applicable. For a discussion of our activities related to derivative products, see Note 3, "Financial Instruments and Other Inventory Positions Owned and Financial Instruments and Other Inventory Positions Sold, but Not Yet Purchased," in the notes to our unaudited consolidated financial statements.

Investment Commitments

We have investments, including those made as part of our merchant banking activities, in various limited partnerships or limited liability companies that provide financing or make investments in companies. We commit capital and/or act as the managing partner of these entities. We have committed capital of \$80.6 million to certain entities and these commitments generally have no specified call dates.

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Risk Management

Risk is an inherent part of our business. The principal risks we face in operating our business include: strategic risk, market risk, liquidity risk, credit risk, operational risk, human capital risk, and legal and regulatory risks. The extent to which we properly identify and effectively manage each of these risks is critical to our financial condition and profitability. We have a formal risk management process to identify, assess and monitor each risk and mitigating controls in accordance with defined policies and procedures. The risk management functions are independent of our business lines. Our management takes an active role in the risk management process, and the results are reported to senior management and the Board of Directors.

The audit committee of the Board of Directors oversees management's processes for identifying and evaluating our major risks, and the policies, procedures and practices employed by management to govern its risk assessment and risk management processes. The nominating and governance committee of the Board of Directors oversees the Board of Directors' committee structures and functions as they relate to the various committees' responsibilities with respect to oversight of our major risk exposures. With respect to these major risk exposures, the audit committee is responsible for overseeing management's monitoring and control of our major risk exposures relating to market risk, credit risk, liquidity risk, legal and regulatory risk, operational risk (including cybersecurity), and human capital risk relating to misconduct, fraud, and legal and compliance matters. Our compensation committee is responsible for overseeing management's monitoring and control of our major risk exposures relating to compensation, organizational structure, and succession. Our Board of Directors is responsible for overseeing management's monitoring and control of our major risk exposures related to our corporate strategy. Our Chief Executive Officer and Chief Financial Officer meet with the audit committee on a quarterly basis to discuss our market, liquidity, and legal and regulatory risks, and provide updates to the Board of Directors, audit committee, and compensation committee concerning the other major risk exposures on a regular basis.

We use internal committees to assist in governing risk and ensure that our business activities are properly assessed, monitored and managed. Our financial risk committees manage our market, liquidity and credit risks, and oversee risk management practices related to these risks, including defining acceptable risk tolerances and approving risk management policies. Membership is comprised of senior leadership, including but not limited to, our Chief Executive Officer, President, Chief Financial Officer, General Counsel, Treasurer, Head of Market and Credit Risk, Head of Public Finance and Head of Fixed Income Services and Firm Investments and Trading. Other committees that help evaluate and monitor risk include underwriting, leadership team and operating committees. These committees help manage risk by ensuring that business activities are properly managed and within a defined scope of activity. Our valuation committee, comprised of members of senior management and risk management, provide oversight and overall responsibility for the internal control processes and procedures related to fair value measurements. Additionally, our operational risk committees address and monitor risk related to information systems and security, legal, regulatory and compliance matters, and third parties such as vendors and service providers.

With respect to market risk and credit risk, the cornerstone of our risk management process is daily communication among traders, trading department management and senior management concerning our inventory positions, including those associated with our strategic trading activities, and overall risk profile. Our risk management functions supplement this communication process by providing their independent perspectives on our market and credit risk profile on a daily basis. The broader objectives of our risk management functions are to understand the risk profile of each trading area, to consolidate risk monitoring company-wide, to assist in implementing effective hedging strategies, to articulate large trading or position risks to senior management, and to ensure accurate fair values of our financial instruments.

Risk management techniques, processes and strategies may not be fully effective in mitigating our risk exposure in all market environments or against all types of risk, and any risk management failures could expose us to material unanticipated losses.

Strategic Risk

Strategic risk represents the risk associated with executive management failing to develop and execute on the appropriate strategic vision which demonstrates a commitment to our culture, leverages our core competencies, appropriately responds to external factors in the marketplace, and is in the best interests of our clients, employees and shareholders.

Our leadership team is responsible for managing our strategic risks. The Board of Directors oversees the leadership team in setting and executing our strategic plan.

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Market Risk

Market risk represents the risk of losses, or financial volatility that may result from the change in value of a financial instrument due to fluctuations in its market price. Our exposure to market risk is directly related to our role as a financial intermediary for our clients, to our market-making activities and our strategic trading activities. Market risks are inherent to both cash and derivative financial instruments. The scope of our market risk management policies and procedures includes all market-sensitive financial instruments.

Our different types of market risk include:

Interest Rate Risk — Interest rate risk represents the potential volatility from changes in market interest rates. We are exposed to interest rate risk arising from changes in the level and volatility of interest rates, changes in the slope of the yield curve, changes in credit spreads, and the rate of prepayments on our interest-earning assets (e.g., inventories) and our funding sources (e.g., short-term financing) which finance these assets. Interest rate risk is managed by selling short U.S. government securities, agency securities, corporate debt securities and derivative contracts. See Note 3 of our accompanying unaudited consolidated financial statements for additional information on our derivative contracts. Our interest rate hedging strategies may not work in all market environments and as a result may not be effective in mitigating interest rate risk. Also, we establish limits on the notional level of our fixed income securities inventory and manage net positions within those limits.

Equity Price Risk — Equity price risk represents the potential loss in value due to adverse changes in the level or volatility of equity prices. We are exposed to equity price risk through our trading activities in the U.S. market. We attempt to reduce the risk of loss inherent in our market-making and in our inventory of equity securities by establishing limits on the notional level of our inventory and by managing net position levels within those limits.

Foreign Exchange Risk — Foreign exchange risk represents the potential volatility to earnings or capital arising from movement in foreign exchange rates. A modest portion of our business is conducted in currencies other than the U.S. dollar, and changes in foreign exchange rates relative to the U.S. dollar can therefore affect the value of non-U.S. dollar net assets, revenues and expenses. A change in the foreign currency rates could create either a foreign currency transaction gain/loss (recorded in our consolidated statements of operations) or a foreign currency translation adjustment (recorded to accumulated other comprehensive income/ (loss) within the shareholders' equity section of our consolidated statements of financial condition and other comprehensive income/ (loss) within the consolidated statements of comprehensive income).

Value-at-Risk ("VaR")

We use the statistical technique known as VaR to measure, monitor and review the market risk exposures in our trading portfolios. VaR is the potential loss in value of our trading positions, excluding noncontrolling interests, due to adverse market movements over a defined time horizon with a specified confidence level. We perform a daily VaR analysis on substantially all of our trading positions, including fixed income, equities, convertible bonds, mortgage-backed securities and all associated economic hedges. These positions encompass both customer-related and strategic trading activities. A VaR model provides a common metric for assessing market risk across business lines and products. Changes in VaR between reporting periods are generally due to changes in levels of risk exposure, volatilities and/or correlations among asset classes and individual securities.

We use a Monte Carlo simulation methodology for VaR calculations. We believe this methodology provides VaR results that properly reflect the risk profile of all our instruments, including those that contain optionality, and also accurately models correlation movements among all of our asset classes. In addition, it provides improved tail results

as there are no assumptions of distribution, and can provide additional insight for scenario shock analysis.

Model-based VaR derived from simulation has inherent limitations including: reliance on historical data to predict future market risk; VaR calculated using a one-day time horizon does not fully capture the market risk of positions that cannot be liquidated or offset with hedges within one day; and published VaR results reflect past trading positions while future risk depends on future positions.

The modeling of the market risk characteristics of our trading positions involves a number of assumptions and approximations. While we believe that these assumptions and approximations are reasonable, different assumptions and approximations could produce materially different VaR estimates. When comparing our VaR numbers to those of other firms, it is important to remember that different methodologies, assumptions and approximations could produce significantly different results.

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The following table quantifies the model-based VaR simulated for each component of market risk for the periods presented, which are computed using the past 250 days of historical data. When calculating VaR we use a 95 percent confidence level and a one-day time horizon. This means that, over time, there is a one in 20 chance that daily trading net revenues will fall below the expected daily trading net revenues by an amount at least as large as the reported VaR. Shortfalls on a single day can exceed reported VaR by significant amounts. Shortfalls can also accumulate over a longer time horizon, such as a number of consecutive trading days. Therefore, there can be no assurance that actual losses occurring on any given day arising from changes in market conditions will not exceed the VaR amounts shown below or that such losses will not occur more than once in a 20-day trading period.

	September 30, December 31,	
(Dollars in thousands)	2018	2017
Interest Rate Risk	\$ 399	\$ 965
Equity Price Risk	53	62
Diversification Effect (1) (44)	(40)	(40)
Total Value-at-Risk	\$ 408	\$ 987

(1) Equals the difference between total VaR and the sum of the VaRs for the two risk categories. This effect arises because the two market risk categories are not perfectly correlated.

The aggregate VaR as of September 30, 2018 was lower than the reported VaR on December 31, 2017. The decrease in VaR was due to lower inventory levels and our mix of inventory compared to the end of 2017.

We view average VaR over a period of time as more representative of trends in the business than VaR at any single point in time. The table below illustrates the daily high, low and average VaR calculated for each component of market risk during the nine months ended September 30, 2018 and the year ended December 31, 2017, respectively.

(Dollars in thousands)	High	Low	Average
For the Nine Months Ended September 30, 2018			
Interest Rate Risk	\$1,084	\$329	\$ 703
Equity Price Risk	91	21	56
Diversification Effect (1)			(40)
Total Value-at-Risk	\$1,101	\$336	\$ 719
(Dollars in thousands)	High	Low	Average
For the Year Ended December 31, 2017			
Interest Rate Risk	\$1,235	\$480	\$ 785
Equity Price Risk	178	28	81
Diversification Effect (1)			(57)
Total Value-at-Risk	\$1,244	\$506	\$ 809

(1) Equals the difference between total VaR and the sum of the VaRs for the two risk categories. This effect arises because the two market risk categories are not perfectly correlated. Because high and low VaR numbers for these risk categories may have occurred on different days, high and low numbers for diversification benefit would not be meaningful.

Trading losses exceeded our one-day VaR on one occasion during the first nine months of 2018.

In addition to VaR, we also employ additional measures to monitor and manage market risk exposure including net market position, duration exposure, option sensitivities, and inventory turnover. All metrics are aggregated by asset concentration and are used for monitoring limits and exception approvals. In times of market volatility, we also perform ad hoc stress tests and scenario analysis as market conditions dictate. Unlike our VaR, which measures potential losses within a given confidence level, stress scenarios do not have an associated implied probability. Rather, stress testing is used to estimate the potential loss from market moves outside our VaR confidence levels.

Liquidity Risk

Liquidity risk is the risk that we are unable to timely access necessary funding sources in order to operate our business, as well as the risk that we are unable to timely divest securities that we hold in connection with our market-making, sales and trading, and strategic trading activities. We are exposed to liquidity risk in our day-to-day funding activities, by holding potentially illiquid inventory positions and in our role as a remarketing agent for variable rate demand notes.

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See the section entitled "Liquidity, Funding and Capital Resources" for information regarding our liquidity and how we manage liquidity risk.

Our inventory positions, including those associated with strategic trading activities, subject us to potential financial losses from the reduction in value of illiquid positions. Market risk can be exacerbated in times of trading illiquidity when market participants refrain from transacting in normal quantities and/or at normal bid-offer spreads. Depending on the specific security, the structure of the financial product, and/or overall market conditions, we may be forced to hold a security for substantially longer than we had planned or forced to liquidate into a challenging market if funding becomes unavailable.

Credit Risk

Credit risk refers to the potential for loss due to the default or deterioration in credit quality of a counterparty, customer, borrower or issuer of securities we hold in our trading inventory. The nature and amount of credit risk depends on the type of transaction, the structure and duration of that transaction and the parties involved. Credit risk also results from an obligor's failure to meet the terms of any contract with us or otherwise fail to perform as agreed. This may be reflected through issues such as settlement obligations or payment collections.

Our different types of credit risk include:

Credit Spread Risk — Credit spread risk arises from the possibility that changes in credit spreads will affect the value of financial instruments. Credit spreads represent the credit risk premiums required by market participants for a given credit quality (e.g., the additional yield that a debt instrument issued by a AA-rated entity must produce over a risk-free alternative). Changes in credit spreads result from potential changes in an issuer's credit rating or the market's perception of the issuer's credit worthiness. We are exposed to credit spread risk with the debt instruments held in our trading inventory, including those held for strategic trading activities. We enter into transactions to hedge our exposure to credit spread risk through the use of derivatives and certain other financial instruments. These hedging strategies may not work in all market environments and as a result may not be effective in mitigating credit spread risk.

Deterioration/Default Risk — Deterioration/default risk represents the risk due to an issuer, counterparty or borrower failing to fulfill its obligations. We are exposed to deterioration/default risk in our role as a trading counterparty to dealers and customers, as a holder of securities, and as a member of exchanges. The risk of default depends on the creditworthiness of the counterparty and/or issuer of the security. We mitigate this risk by establishing and monitoring individual and aggregate position limits for each counterparty relative to potential levels of activity, holding and marking to market collateral on certain transactions. Our risk management functions also evaluate the potential risk associated with institutional counterparties with whom we hold derivatives, TBAs and other documented institutional counterparty agreements that may give rise to credit exposure.

Collections Risk — Collections risk arises from ineffective management and monitoring of collecting outstanding debts and obligations, including those related to our customer trading activities and margin lending. Our client activities involve the execution, settlement and financing of various transactions. Client activities are transacted on a delivery versus payment, cash or margin basis. Our credit exposure to institutional client business is mitigated by the use of industry-standard delivery versus payment through depositories and clearing banks. Credit exposure associated with our customer margin accounts in the U.S. is monitored daily. Our risk management functions have credit risk policies establishing appropriate credit limits and collateralization thresholds for our customers utilizing margin lending.

Concentration Risk— Concentration risk is the risk due to concentrated exposure to a particular product; individual issuer, borrower or counterparty; financial instrument; or geographic area. We are subject to concentration risk if we

hold large individual securities positions, execute large transactions with individual counterparties or groups of related counterparties, or make substantial underwriting commitments. Concentration risk can occur by industry, geographic area or type of client. Securities purchased under agreements to resell consist primarily of securities issued by the U.S. government or its agencies. The counterparties to these agreements typically are primary dealers of U.S. government securities and major financial institutions. Inventory and investment positions taken and commitments made, including underwritings, may result in exposure to individual issuers and businesses. Potential concentration risk is carefully monitored through review of counterparties and borrowers and is managed through the use of policies and limits established by senior management.

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We have concentrated counterparty credit exposure with five non-publicly rated entities totaling \$13.5 million at September 30, 2018. This counterparty credit exposure is part of our matched-book derivative program related to our public finance business, consisting primarily of interest rate swaps. One derivative counterparty represents 79.8 percent, or \$10.8 million, of this exposure. Credit exposure associated with our derivative counterparties is driven by uncollateralized market movements in the fair value of the interest rate swap contracts and is monitored regularly by our financial risk committee. We attempt to minimize the credit (or repayment) risk in derivative instruments by entering into transactions with high-quality counterparties that are reviewed periodically by senior management.

Operational Risk

Operational risk is the risk of loss, or damage to our reputation, resulting from inadequate or failed processes, people and systems or from external events. We rely on the ability of our employees and our systems, both internal and at computer centers operated by third parties, to process a large number of transactions. Our systems may fail to operate properly or become disabled as a result of events that are wholly or partially beyond our control. In the event of a breakdown or improper operation of our systems or improper action by our employees or third party vendors, we could suffer financial loss, a disruption of our businesses, regulatory sanctions and damage to our reputation. We also face the risk of operational failure or termination of our relationship with any of the exchanges, fully disclosed clearing firms, or other financial intermediaries we use to facilitate our securities transactions. Any such failure or termination could adversely affect our ability to effect transactions and manage our exposure to risk.

Our operations rely on secure processing, storage and transmission of confidential and other information in our internal and outsourced computer systems and networks. Our computer systems, software and networks may be vulnerable to unauthorized access, computer viruses or other malicious code, internal misconduct or inadvertent errors and other events that could have an information security impact. The occurrence of one or more of these events, which we have experienced, could jeopardize our or our clients' or counterparties' confidential and other information processed and stored in, and transmitted through, our computer systems and networks, or otherwise cause interruptions or malfunctions in our, our clients', our counterparties' or third parties' operations. We take protective measures and endeavor to modify them as circumstances warrant.

In order to mitigate and control operational risk, we have developed and continue to enhance policies and procedures that are designed to identify and manage operational risk at appropriate levels throughout the organization. We also have business continuity plans in place that we believe will cover critical processes on a company-wide basis, and redundancies are built into our systems as we have deemed appropriate. These control mechanisms attempt to ensure that operational policies and procedures are being followed and that our various businesses are operating within established corporate policies and limits.

In 2017, we migrated to a fully disclosed clearing model for all of our clearing operations. In a fully disclosed clearing model, we act as an introducing broker for client transactions and rely on Pershing, our clearing broker dealer, to facilitate clearance and settlement of our clients' securities transactions. The clearing services provided by Pershing are critical to our business operations, and similar to other services performed by third party vendors, any failure by Pershing with respect to the services we rely upon Pershing to provide could cause financial loss, significantly disrupt our business, damage our reputation, and adversely affect our ability to serve our clients and manage our exposure to risk.

Human Capital Risk

Our business is a human capital business and our success is dependent upon the skills, expertise and performance of our employees. Human capital risks represent the risks posed if we fail to attract and retain qualified individuals who

are motivated to serve the best interests of our clients, thereby serving the best interests of our company. Attracting and retaining employees depends, among other things, on our company's culture, management, work environment, geographic locations and compensation. There are risks associated with the proper recruitment, development and rewards of our employees to ensure quality performance and retention.

Legal and Regulatory Risk

Legal and regulatory risk includes the risk of non-compliance with applicable legal and regulatory requirements and loss to our reputation we may suffer as a result of failure to comply with laws, regulations, rules, related self-regulatory organization standards and codes of conduct applicable to our business activities. We are generally subject to extensive regulation in the various jurisdictions in which we conduct our business. We have established procedures that are designed to ensure compliance with applicable statutory and regulatory requirements, such as public company reporting obligations, regulatory net capital requirements, sales and trading practices, potential conflicts of interest, anti-money laundering, privacy and recordkeeping. We have also established procedures

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that are designed to require that our policies relating to ethics and business conduct are followed. The legal and regulatory focus on the financial services industry presents a continuing business challenge for us.

Our business also subjects us to the complex income tax laws of the jurisdictions in which we have business operations, and these tax laws may be subject to different interpretations by the taxpayer and the relevant governmental taxing authorities. We must make judgments and interpretations about the application of these inherently complex tax laws when determining the provision for income taxes.

Effects of Inflation

Because our assets are liquid and generally short-term in nature, they are not significantly affected by inflation. However, the rate of inflation affects our expenses, such as employee compensation, office space leasing costs and communications charges, which may not be readily recoverable in the price of services we offer to our clients. To the extent inflation results in rising interest rates and has adverse effects upon the securities markets, it may adversely affect our financial position and results of operations.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

The information under the caption "Risk Management" in Part I, Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations," in this Quarterly Report on Form 10-Q is incorporated herein by reference.

ITEM 4. CONTROLS AND PROCEDURES.

As of the end of the period covered by this report, we conducted an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934 is (a) recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and (b) accumulated and communicated to our management, including our principal executive officer and principal financial officer to allow timely decisions regarding disclosure.

During the third quarter of our fiscal year ending December 31, 2018, there was no change in our system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

The discussion of our business and operations should be read together with the legal proceedings contained in Part I, Item 3 "Legal Proceedings" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

ITEM 1A. RISK FACTORS.

The discussion of our business and operations should be read together with the risk factors contained in Part I, Item 1A "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017. These risk factors describe various risks and uncertainties to which we are or may become subject. These risks and uncertainties have the potential to affect our business, financial condition, results of operations, cash flows, strategies or prospects in a material and adverse manner.

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ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

The table below sets forth the information with respect to purchases made by or on behalf of Piper Jaffray Companies or any "affiliated purchaser" (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934), of our common stock during the quarter ended September 30, 2018.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Publicly Announced Plans or Programs	Approximate Dollar Value of Shares Yet to be Purchased Under the Plans or Programs (1)
Month #1 (July 1, 2018 to July 31, 2018)	11,889	\$ 75.80	—	\$ 146 million
Month #2 (August 1, 2018 to August 31, 2018)	3,210	\$ 77.35	—	\$ 146 million
Month #3 (September 1, 2018 to September 30, 2018)	74,841	⁽²⁾ \$ 74.84	67,892	\$ 141 million
Total	89,940	\$ 75.06	67,892	\$ 141 million

(1) Effective September 30, 2017, our board of directors authorized the repurchase of up to \$150.0 million of common stock through September 30, 2019.

(2) Consists of 67,892 shares of common stock repurchased on the open market pursuant to a 10b5-1 plan established with an independent agent at an average price of \$74.62 per share, and 6,949 shares of common stock withheld from recipients of restricted stock to pay taxes upon the vesting of the restricted stock at an average price of \$77.00 per share.

ITEM 6. EXHIBITS.

Exhibit Index

Exhibit Number	Description	Method of Filing
31.1	<u>Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.</u>	Filed herewith
31.2	<u>Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.</u>	Filed herewith
32.1	<u>Section 1350 Certifications.</u>	Filed herewith
101	Interactive data files pursuant to Rule 405 Registration S-T: (i) the Consolidated Statements of Financial Condition as of September 30, 2018 and December 31, 2017, (ii) the Consolidated Statements of Operations for the three and nine months ended September 30, 2018 and 2017, (iii) the Consolidated Statements of Comprehensive Income for the three and nine months ended September 30, 2018 and 2017, (iv) the Consolidated Statements of Cash Flows for the nine months ended September 30, 2018 and 2017 and (v) the notes to the Consolidated Financial Statements.	Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

PIPER JAFFRAY
COMPANIES

Date: November 5, 2018 By /s/ Chad R.
Abraham
Chief
Its Executive
Officer

Date: November 5, 2018 By /s/ Timothy L.
Carter
Chief Financial
Its Officer