

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the Fiscal Year Ended December 31, 2017
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)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Name of Each Exchange On Which Registered</u>
Common Stock, par value \$0.01 per share	The New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.
Yes No

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
(Do not check if a smaller reporting company)		Emerging growth company	<input type="checkbox"/>

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

The aggregate market value of the 14,263,651 shares of the Registrant's Common Stock, par value \$0.01 per share, held by non-affiliates based upon the last sale price, as reported on the New York Stock Exchange, of the Common Stock on June 30, 2017 was approximately \$855 million.

As of February 20, 2018, the registrant had 15,199,699 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates by reference information (to the extent specific sections are referred to herein) from the Registrant's Proxy Statement for its 2018 Annual Meeting of Shareholders to be held on May 17, 2018.

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PART I

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K for the year ended December 31, 2017 (this "Form 10-K") contains forward-looking statements. 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 conditions 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 this Form 10-K and in our subsequent reports filed with the Securities and Exchange Commission ("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 "Risk Factors" in Part I, Item 1A of this Form 10-K, as well as those factors discussed under "External Factors Impacting Our Business" included in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of this Form 10-K and in our subsequent reports filed with the SEC. Our SEC reports are available at our Web site at www.piperjaffray.com and at the SEC's 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.

ITEM 1. *BUSINESS.*

Overview

Piper Jaffray Companies ("Piper Jaffray") is an investment bank and asset management firm, serving the needs of corporations, private equity groups, public entities, non-profit entities and institutional investors in the U.S. and internationally. Founded in 1895, Piper Jaffray provides a broad set of products and services, including equity and debt capital markets products; public finance services; financial advisory services; equity research and institutional brokerage; fixed income institutional brokerage; and asset management services. Our headquarters are located in Minneapolis, Minnesota and we have offices across the United States and international locations in London, Aberdeen, Hong Kong and Zurich. We market our investment banking and institutional securities business under Piper Jaffray, and Simmons & Company International – Energy Specialists of Piper Jaffray. Our traditional asset management business is marketed under Advisory Research, Inc.

Prior to 1998, Piper Jaffray was an independent public company. U.S. Bancorp acquired the Piper Jaffray business in 1998 and operated it through various subsidiaries and divisions. At the end of 2003, U.S. Bancorp facilitated a tax-free distribution of our common stock to all U.S. Bancorp shareholders, causing Piper Jaffray to become an independent public company again.

Our Businesses

We operate through two reportable business segments, Capital Markets and Asset Management. We believe that the mix of activities across our business segments helps to provide diversification in our business model.

Capital Markets

The Capital Markets segment provides investment banking and institutional sales, trading and research services for various equity and fixed income products. This segment also includes the results from our alternative asset management funds and our principal investments.

- *Investment Banking* – For our corporate clients, we provide advisory services, primarily relating to mergers and acquisitions, equity private placements, and debt and restructuring advisory. We also help raise capital through equity and debt financings. We operate in the following focus sectors: healthcare; energy; consumer; diversified industrials and services; business services; technology; financial services; and agriculture, clean technologies and renewables, primarily focusing on middle-market clients. For our government and non-profit clients, we underwrite debt issuances, provide municipal financial advisory and loan placement services, and offer various over-the-counter derivative products. Our public finance investment banking capabilities focus on state and local governments, cultural and social service non-profit entities, and the education, healthcare, hospitality, senior living and transportation sectors.

- *Equity and Fixed Income Institutional Brokerage* – We offer both equity and fixed income advisory and trade execution services for institutional investors and government and non-profit entities. Integral to our capital markets efforts, we have equity sales and trading relationships with institutional investors in North America and Europe that invest in our core sectors. Our research analysts provide investment ideas and support to our trading clients on approximately 675 companies. Our fixed income sales and trading professionals have expertise in municipal, corporate, mortgage, agency, treasury and structured product securities and cover a range of institutional investors. We engage in trading activities for both customer facilitation and strategic trading purposes. Our strategic trading activities (i.e. proprietary trading) are dedicated solely to investing firm capital, and focus principally on proprietary investments in municipal bonds and U.S. government agency securities.
- *Principal Investments* – We engage in merchant banking activities, which involve equity or debt investments in late stage private companies. Additionally, we have investments in private equity funds and other firm investments.
- *Alternative Asset Management Funds* – We have 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.

Asset Management

The Asset Management segment includes our traditional asset management business and our investments in registered funds and private funds or partnerships that we manage. Our traditional asset management business offers specialized investment management solutions for institutions, private clients and investment advisors. We manage MLP and energy infrastructure strategies, as well as domestic and global equity strategies. We offer customized solutions to our clients in both diversified and more concentrated versions of our products, generally through separately managed accounts, and open-end and closed-end funds.

- *Master Limited Partnerships ("MLPs") and Energy Infrastructure* – We manage MLPs, energy infrastructure, and related operating entity assets focused on the energy sector. These strategies focus on growth, yet seek to limit exposure to riskier securities by placing greater importance on characteristics which support stable distributions and are representative of higher quality MLPs, including less volatile businesses, strategic assets, cleaner balance sheets and proven management teams. In addition to our MLP-focused funds, we manage other private funds focused on energy sector securities.
- *Equity* – Our equity product offerings include both value and growth-driven strategies in the domestic and global equity markets. These strategies have investment philosophies built on a foundation of core principles, which have been tested in various market conditions and remained consistent over time. Our investment strategies seek to create portfolios that deliver long-term, positive returns while minimizing risk.

As of December 31, 2017, total assets under management ("AUM") were \$7.3 billion, of which approximately 52 percent was invested in MLPs and energy infrastructure securities and 48 percent in equities. As of the same date, approximately 79 percent of our AUM was invested in domestic investment strategies and 21 percent was invested in global investment strategies. Approximately 59 percent of our AUM as of December 31, 2017 was managed on behalf of institutional clients, including pension funds, corporations, foundations and endowments, and through mutual fund sponsors and registered advisors. Approximately 21 percent of our AUM was managed through sub-advisory relationships on closed-end funds, and approximately 20 percent of our AUM was managed on behalf of individual client relationships, which are principally high net worth individuals.

Financial Information about Geographic Areas

As of December 31, 2017, the substantial majority of our net revenues and long-lived assets were located in the U.S.

Competition

Our business is subject to intense competition driven by large Wall Street and international firms operating independently or as part of a large commercial banking institution. We also compete with regional broker dealers, boutique and niche-specialty firms, asset management firms and alternative trading systems that effect securities transactions through various electronic venues. Competition is based on a variety of factors, including price, quality of advice and service, reputation, product selection, transaction execution, financial resources and investment performance. Many of our large competitors have greater financial resources than we have and may have more flexibility to offer a broader set of products and services than we can.

In addition, there is significant competition within the securities industry for obtaining and retaining the services of qualified employees. Our business is a human capital business and the performance of our business is dependent upon the skills, expertise and performance of our employees. Therefore, our ability to compete effectively is dependent upon attracting and retaining 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.

Employees

As of February 20, 2018, we had approximately 1,301 employees, of whom approximately 792 were registered with the Financial Industry Regulatory Authority, Inc. ("FINRA").

Regulation

As a participant in the financial services industry, our business is regulated by U.S. federal and state regulatory agencies, self-regulatory organizations ("SROs") and securities exchanges, and by foreign governmental agencies, financial regulatory bodies and securities exchanges. We are subject to complex and extensive regulation of most aspects of our business, including the manner in which securities transactions are effected, net capital requirements, recordkeeping and reporting procedures, relationships and conflicts with customers, the handling of cash and margin accounts, conduct, experience and training requirements for certain employees, and the manner in which we prevent and detect money-laundering and bribery activities. The regulatory framework of the financial services industry is designed primarily to safeguard the integrity of the capital markets and to protect customers, not creditors or shareholders.

The laws, rules and regulations comprising this regulatory framework can (and do) change frequently, as can the interpretation and enforcement of existing laws, rules and regulations. Conditions in the global financial markets and economy, including the 2008 financial crisis, caused legislators and regulators to increase the examination, enforcement and rule-making activity directed toward the financial services industry. The intensity of the regulatory environment may correlate with the level and nature of our legal proceedings for a given period, and increased intensity could have an adverse effect on our business, financial condition, and results of operations.

Our U.S. broker dealer subsidiary (Piper Jaffray & Co.) is registered as a securities broker dealer with the SEC and is a member of various SROs and securities exchanges. In July of 2007, the National Association of Securities Dealers and the member regulation, enforcement and arbitration functions of the New York Stock Exchange ("NYSE") consolidated to form FINRA, which now serves as the primary SRO of Piper Jaffray & Co., although the NYSE continues to have oversight over NYSE-related market activities. FINRA regulates many aspects of our U.S. broker dealer business, including registration, education and conduct of our broker dealer employees, examinations, rulemaking, enforcement of these rules and the federal securities laws, trade reporting and the administration of dispute resolution between investors and registered firms. We have agreed to abide by the rules of FINRA (as well as those of the NYSE and other SROs), and FINRA has the power to expel, fine and otherwise discipline Piper Jaffray & Co. and its officers, directors and employees. Among the rules that apply to Piper Jaffray & Co. are the uniform net capital rule of the SEC (Rule 15c3-1) and the net capital rule of FINRA. Both rules set a minimum level of net capital a broker dealer must maintain and also require that a portion of the broker dealer's assets be relatively liquid. Under the FINRA rule, FINRA may prohibit a member firm from expanding its business or paying cash dividends if resulting net capital falls below FINRA requirements. In addition, Piper Jaffray & Co. is subject to certain notification requirements related to withdrawals of excess net capital. As a result

of these rules, our ability to make withdrawals of capital from Piper Jaffray & Co. may be limited. In addition, Piper Jaffray & Co. is licensed as a broker dealer in each of the 50 states, requiring us to comply with applicable laws, rules and regulations of each state. Any state may revoke a license to conduct a securities business and fine or otherwise discipline broker dealers and their officers, directors and employees.

We also operate two entities that are authorized, licensed and regulated by the U.K. Financial Conduct Authority and registered under the laws of England and Wales, as well as an entity that is authorized, licensed and regulated by the Hong Kong Securities and Futures Commission and registered under the laws of Hong Kong. The U.K. Financial Conduct Authority and the Hong Kong Securities and Futures Commission regulate these entities (in their respective jurisdictions) in areas of capital adequacy, customer protection and business conduct, among others. We also have a subsidiary organized in Guernsey and regulated by the Guernsey Financial Services Commission.

Entities in the jurisdictions identified above are also subject to anti-money laundering regulations. Piper Jaffray & Co., our U.S. broker dealer subsidiary, is subject to the USA PATRIOT Act of 2001, which contains anti-money laundering and financial transparency laws and mandates the implementation of various regulations requiring us to implement standards for verifying client identification at the time the client relationship is initiated, monitoring client transactions and reporting suspicious activity. Our entities in Hong Kong, the United Kingdom and Guernsey are subject to similar anti-money laundering laws and regulations. We are also subject to the U.S. Foreign Corrupt Practices Act as well as other anti-bribery laws in the jurisdictions in which we operate. These laws generally prohibit companies and their intermediaries from engaging in bribery or making other improper payments to foreign officials for the purpose of obtaining or retaining business or gaining an unfair business advantage.

We maintain subsidiaries that are registered as investment advisors with the SEC and subject to regulation and oversight by the SEC. Advisory Research, Inc. ("ARI"), Piper Jaffray Investment Management LLC ("PJIM"), and PJC Capital Partners LLC are asset management subsidiaries and registered investment advisors. As registered investment advisors, these entities are subject to requirements that relate to, among other things, fiduciary duties to clients, maintaining an effective compliance program, solicitation agreements, conflicts of interest, recordkeeping and reporting requirements, disclosure requirements, limitations on agency cross and principal transactions between advisor and advisory clients, as well as general anti-fraud prohibitions. Piper Jaffray & Co. is also a registered investment advisor and subject to these requirements. Also, certain investment funds that we manage are registered investment companies under the Investment Company Act, as amended. Those funds and entities that serve as the funds' investment advisors are subject to the Investment Company Act and the rules and regulations of the SEC, which regulate the relationship between a registered investment company and its investment advisor and prohibit or severely restrict principal transactions or joint transactions, among other requirements. ARI is also authorized by the Irish Financial Services Regulatory Authority as an investment advisor in Ireland and cleared by the Luxembourg Commission de Surveillance du Secteur Financier as a manager to Luxembourg funds. ARI is the investment advisor for Advisory Research Global Funds PLC, an open-ended investment company with variable capital authorized and regulated by the Central Bank of Ireland pursuant to the European Communities Regulations (Undertakings for Collective Investments in Transferable Securities or "UCITS"). Advisory Research Global Funds PLC has closed and is in the process of liquidation. PJIM is registered with the Commodity Futures Trading Commission ("CFTC") and the National Futures Association ("NFA") as a commodities pool operator. The registrations with the CFTC and NFA allow PJIM to enter into derivative instruments (e.g., interest rate swaps and credit default swap index contracts) to hedge risks associated with certain security positions of funds managed by PJIM. Parallel General Partners Limited is the general partner of several private equity limited partnerships; it and the limited partnerships are registered and regulated by the Guernsey Financial Services Commission ("GFSC").

Certain of our businesses also are subject to compliance with laws and regulations of U.S. federal and state governments, non-U.S. governments, their respective agencies and/or various self-regulatory organizations or exchanges governing the privacy of client information. Any failure with respect to our practices, procedures and controls in any of these areas could subject us to regulatory consequences, including fines, and potentially other significant liabilities.

Executive Officers

Information regarding our executive officers and their ages as of February 20, 2018, are as follows:

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Chad R. Abraham	49	Chief Executive Officer
Debbra L. Schoneman	49	President
Timothy L. Carter	50	Chief Financial Officer
R. Scott LaRue	57	Global Head of Investment Banking and Capital Markets
John W. Geelan	42	General Counsel and Secretary

Chad R. Abraham is our chief executive officer, a position he has held since January 2018. He previously served as co-head of global investment banking and capital markets from October 2010 to December 2017. Prior to that, he served as head of equity capital markets since November 2005. Mr. Abraham joined Piper Jaffray in 1991.

Debbra L. Schoneman is our president, a position she has held since January 2018. She previously served as chief financial officer from May 2008 to December 2017, and global head of equities from June 2017 to December 2017. Prior to that, she served as treasurer from August 2006 until May 2008; and as finance director of our corporate and institutional services business from July 2002 until July 2004 when the role was expanded to include our public finance services division. Ms. Schoneman joined Piper Jaffray in 1990.

Timothy L. Carter is our chief financial officer, a position he has held since January 2018. He previously served as senior vice president of finance from May 2017 to December 2017. Prior to that, he served as treasurer from May 2008 to May 2017, chief accounting officer from 2006 to May 2008, and controller from 1999 to 2006. Mr. Carter joined Piper Jaffray in 1995.

R. Scott LaRue is our global head of investment banking and capital markets, a position he has held since January 2018. Prior to that, he served as our global co-head of investment banking and capital markets with Mr. Abraham from October 2010 to December 2017, global co-head of consumer investment banking from February 2010 to September 2010, and co-head of consumer investment banking from August 2004 to January 2010. Mr. LaRue joined Piper Jaffray in 2003.

John W. Geelan is our general counsel and secretary. He served as assistant general counsel and assistant secretary from November 2007 until becoming general counsel in January 2013. Mr. Geelan joined Piper Jaffray in 2005.

Additional Information

Our principal executive offices are located at 800 Nicollet Mall, Suite 1000, Minneapolis, Minnesota 55402, and our general telephone number is (612) 303-6000. We maintain an Internet Web site at <http://www.piperjaffray.com>. The information contained on and connected to our Web site is not incorporated into this report. We make available free of charge on or through our Web site our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and all other reports we file with the SEC, as soon as reasonably practicable after we electronically file these reports with, or furnish them to, the SEC. "Piper Jaffray," the "Company," "registrant," "we," "us" and "our" refer to Piper Jaffray Companies and our subsidiaries. The Piper Jaffray logo and the other trademarks, tradenames and service marks of Piper Jaffray mentioned in this report or elsewhere, including, but not limited to, PIPER JAFFRAY[®], REALIZE THE POWER OF PARTNERSHIP[®], ADVISORY RESEARCH[®], SIMMONS & COMPANY INTERNATIONAL[®] ENERGY SPECIALISTS OF PIPER JAFFRAY[®], TAKING STOCK WITH TEENS[®], HEALTHY ACTIVE AND SUSTAINABLE LIVING[®], and GUIDES FOR THE JOURNEY[®] are the property of Piper Jaffray.

ITEM 1A. RISK FACTORS.

In the normal course of our business activities, we are exposed to a variety of risks. The principal risks we face in operating our business include: strategic risks, market risks, liquidity risks, credit risks, human capital risks, operational risks, and legal and regulatory risks. A full description of each of these principal areas of risk, as well as the primary risk management processes that we use to mitigate our risk exposure in each, is discussed below under the caption "Risk Management" included in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of this Form 10-K.

The following discussion sets forth the risk factors that we have identified in each area of principal risk as being the most significant to our business, future financial condition, and results of operations. Although we discuss these risk factors primarily in the context of their potential effects on our business, financial condition or results of operations, you should understand that these effects can have further negative implications such as: reducing the price of our common stock; reducing our capital, which can have regulatory and other consequences; affecting the confidence that our clients and other counterparties have in us, with a resulting negative effect on our ability to conduct and grow our business; and reducing the attractiveness of our securities to potential purchasers, which may adversely affect our ability to raise capital and secure other funding or the prices at which we are able to do so. Further, additional risks beyond those discussed below and elsewhere in this Form 10-K or in other of our reports filed with, or furnished to, the SEC could adversely affect us. We cannot assure you that the risk factors herein or elsewhere in our other reports address all potential risks that we may face.

These risk factors also serve to describe factors which may cause our results to differ materially from those described in forward-looking statements included in this Form 10-K or in other documents or statements that make reference to this Form 10-K. Forward-looking statements and other factors that may affect future results are discussed below under "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of this Form 10-K.

Strategic and Market Risk

Our business success depends in large part upon the strategic decisions made by our executive management, the alignment of business plans developed to act upon those decisions, and the quality of implementation of these business plans. Strategic risk represents the risk associated with our 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 company. In setting out and executing upon a strategic vision for our business, we are faced with a number of inherent risks, including risks relating to external events and market and economic conditions, competition, and business performance that could all negatively affect our ability to execute on our strategic decisions and, therefore, our future financial condition or results of operations. The risks related to external events and overall market and/or economic conditions are referred to as market, or systemic, risk. The following are those risk factors that we have identified as being most significant to our strategic vision, and the market risks that may impact execution of our strategy.

Developments in market and economic conditions have in the past adversely affected, and may in the future adversely affect, our business and profitability and cause volatility in our results of operations.

Economic and market conditions have had, and will continue to have, a direct and material impact on our results of operations and financial condition because performance in the financial services industry is heavily influenced by the overall strength of economic conditions and financial market activity. For example:

- Our equities investment banking revenue in the form of advisory (i.e., M&A), underwriting, and placement fees, is directly related to macroeconomic conditions and corresponding financial market activity. When the outlook for macroeconomic conditions is uncertain or negative, financial market activity generally tends to decrease, which can reduce our equities investment banking revenues. As an example, a significant portion of our investment banking revenues in recent years have been derived from advisory engagements in our focus sectors, and activity in this area is highly correlated to the macroeconomic environment and market conditions. Reduced expectations of U.S. economic growth or a decline in the global macroeconomic outlook could cause financial market activity to decrease and negatively affect our advisory revenues. In addition, U.S. financial markets remain vulnerable to the potential risks posed by exogenous shocks, which could include, among other things, political and financial uncertainty in the United States and the European Union, renewed concern about China's economy, complications involving global trade, and terrorism and armed conflicts around the world. More generally, because our business is closely correlated to the macroeconomic outlook, worsening conditions or an exogenous shock would likely have an immediate and significant negative impact on our equities investment banking business and our overall results of operations.
- Interest rates can have a significant impact on macroeconomic activity and economic growth, and they also meaningfully affect multiple components of our business, including the fixed income inventory on our balance sheet. Rising interest rates, volatility in interest rates, changes in the slope of the yield curve, and changes in credit spreads all impact our business. During 2017, the U.S. Federal Reserve increased short-term rates three times in response to stronger economic growth, but long-term rates did not correspondingly rise, causing the yield curve to flatten, which muted our fixed income institutional results for the year. Looking ahead, if the U.S. Federal Reserve continues to raise rates, or longer-term rates rise across the yield curve, we could see increased fixed income activity, but the rising interest rates could be perceived as moderating macroeconomic growth, which might cause equity market volatility and a corresponding decrease in transaction volumes for our advisory and equity capital markets businesses. With respect to our inventory, a large percentage of our positions on our balance sheet -

both that are held for facilitating client activity as well as our own proprietary trading - consists of fixed income securities, and increases in interest rates (especially if rapid) may decrease the value of these inventories, sometimes significantly. To reduce interest rate risk and volatility, we use interest rate hedging strategies, but we generally do not hedge all of our interest rate risk, and volatility may reduce the correlation (i.e., effectiveness) between certain hedging vehicles and the securities inventory we are attempting to hedge. Lastly, increased interest rates may also negatively impact the volume of debt refinancing issuances underwritten by our public finance investment banking business, as well as our assets under management focused on master limited partnerships ("MLPs"), which may underperform compared to other asset classes in a rising interest rate environment.

It is difficult to predict the market conditions for 2018, which are dependent in large part upon the pace of global and U.S. economic growth and geopolitical events globally. The first part of 2018 has seen significantly higher levels of volatility in global markets, which may continue during the year. Our smaller scale compared to many of our competitors and the cyclical nature of the economy and this industry leads to volatility in our financial results, including our operating margins, compensation ratios, business mix, and revenue and expense levels. Our financial performance may be limited by the fixed nature of certain expenses, the impact from unanticipated losses or expenses during the year, our business mix, and the inability to scale back costs in a timeframe to match decreases in revenue-related changes in market and economic conditions. As a result, our financial results may vary significantly from quarter-to-quarter and year-to-year.

Developments in specific business sectors and markets in which we conduct our business, have in the past adversely affected, and may in the future adversely affect, our business and profitability.

Our results for a particular period may be disproportionately impacted by declines in specific sectors of the U.S. or global economy, or for certain products within the financial services industry, due to our business mix and focus areas. For example:

- Our equities investment banking business focuses on specific sectors, including healthcare, energy, consumer, diversified industrials and services, business services, technology, financial services, and agriculture, clean technologies and renewables. Volatility, uncertainty, or slowdowns in these sectors may adversely affect our business, sometimes disproportionately, and may cause volatility in the net revenues we receive from our corporate advisory and capital markets activities. In recent years, the healthcare sector has been a significant contributor to our overall results, and negative developments in this sector would materially and disproportionately impact us, even if general economic conditions were strong. In addition, we may not participate, or may participate to a lesser degree than other firms, in sectors that experience significant activity, such as real estate, and our operating results may not correlate with the results of other firms that participate in these sectors.
- Our public finance investment banking business depends heavily upon conditions in the municipal market. It focuses on investment banking activity in sectors that include state and local government, education, senior living, healthcare, transportation, and hospitality sectors, with an emphasis on transactions with a par value of \$500 million or less. Challenging market conditions for these sectors that are disproportionately worse than those impacting the broader economy or municipal markets generally may adversely impact our business. Further, the enactment, or the threat of enactment, of any legislation that alters the financing alternatives available to local or state governments or tax-exempt organizations through the elimination or reduction of tax-exempt bonds could have a negative impact on our results of operations in these businesses. For example, the Tax Cuts and Jobs Act (the "Tax Reform Act") eliminated tax-exempt advance refunding bonds, which are bonds issued by a local or state government to refinance outstanding bonds before the original bonds mature or are callable in order to take advantage of lower borrowing costs. To the extent that this removal of tax-exempt advance refunding bonds reduces the total amount of issuances or other financing activities for which we compete, our results of operations could be adversely affected. In addition, the Tax Reform Act reduced the federal corporate income tax rate from 35 percent to 21 percent. To the extent that this change in the corporate tax rate reduces the demand from institutional investors, including banks and insurance companies, for tax-exempt municipal bonds, there could be increased volatility in the municipal bond market and our fixed income institutional brokerage business could be adversely affected.
- Our fixed income institutional business derives its revenue from sales and trading activity in the municipal market and from products within the taxable market, hybrid preferreds, and government agency products. Our operating results for our fixed income institutional business may not correlate with the results of other firms or the fixed income market generally because a significant portion of our business focuses on the municipal market and we do not participate in significant segments of the fixed income markets such as credit default swaps, corporate high-yield bonds, currencies or commodities.

Financing and advisory services engagements are transactional in nature and do not generally provide for subsequent engagements.

Even though we work to represent our clients at every stage of their lifecycle, we are typically retained on a short-term, engagement-by-engagement basis in connection with specific capital markets or mergers and acquisitions transactions. As a consequence, the timing of when fees are earned varies, and, therefore, our financial results from capital markets and corporate advisory activities may experience volatility quarter to quarter based on equity market conditions as well as the macroeconomic business cycle more broadly. In particular, our revenues related to acquisition and disposition transactions tend to be more unpredictable from quarter to quarter due to the one-time nature of the transaction and the size of the fee. As a result, high levels of revenue in one quarter will not necessarily be predictive of continued high levels of revenue in any subsequent period. If we are unable to generate a substantial number of new engagements and generate fees from the successful completion of those transactions, our business and results of operations could be adversely affected.

The volume of anticipated investment banking transactions may differ from actual results.

The completion of anticipated investment banking transactions in our pipeline is uncertain and partially beyond our control, and our investment banking revenue is typically earned only upon the successful completion of a transaction. In most cases, we receive little or no payment for investment banking engagements that do not result in the successful completion of a transaction. For example, a client's acquisition transaction may be delayed or terminated because of a failure to agree upon final terms with the counterparty, failure to obtain necessary regulatory consents or board or stockholder approvals, failure to secure necessary financing, adverse market conditions or unexpected financial or other issues in the client's or counterparty's business. If parties fail to complete a transaction on which we are advising or an offering in which we are participating, we earn little or no revenue from the transaction and may have incurred significant expenses (for example, travel and legal expenses) associated with the transaction. Accordingly, our business is highly dependent on market conditions as well as the decisions and actions of our clients and interested third parties, and the number of engagements we have at any given time (and any characterization or description of our deal pipelines) is subject to change and may not necessarily result in future revenues.

We may make strategic acquisitions, engage in joint ventures or divest existing businesses, which could cause us to incur unforeseen expenses and have disruptive effects on our business and may not yield the benefits we expect.

We may grow in part through corporate development activities that could include acquisitions, joint ventures and minority investment stakes. Most recently, we expanded our equities investment banking business into the energy and financial institutions sectors through our completed acquisitions of Simmons & Company International and River Branch Holdings LLC, respectively. Our acquisition of Simmons & Company International resulted in the energy sector becoming one of our more significant sectors of coverage for our equity investment banking business. There are a number of risks associated with corporate development activities. Costs or difficulties relating to a transaction, including integration of products, employees, technology systems, accounting systems and management controls, may be difficult to predict accurately and be greater than expected causing our estimates to differ from actual results. Importantly, we may be unable to retain key personnel after the transaction, personnel who are critical to the success of the ongoing business. We may incur unforeseen liabilities of an acquired company that could impose significant and unanticipated legal costs on us. Also, our share price could decline after we announce or complete a transaction if investors view the transaction as too costly or unlikely to improve our competitive position.

Longer-term, these activities may require increased costs in the form of management personnel, financial and management systems and controls and facilities, which, in the absence of continued revenue growth, could cause our operating margins to decline. In addition, when we acquire a business, a substantial portion of the purchase price is often allocated to goodwill and other identifiable intangible assets. Our goodwill and intangible assets are tested at least annually for impairment. If, in connection with that test, we determine that a reporting unit's fair value is less than its carrying value, we would be required to recognize an impairment to the goodwill associated with that reporting unit. For example, we recorded a \$114.4 million non-cash goodwill impairment charge in the third quarter of 2017 relating to Advisory Research, Inc. ("ARI"), a Chicago-based asset management firm that we acquired in 2010. The charge in our Asset Management segment negatively impacted our net income and results of operations and resulted in a net loss in accordance with U.S. generally accepted accounting principles for our full-year results in 2017. More generally, any difficulties that we experience could disrupt our ongoing business, increase our expenses and adversely affect our operating results and financial condition. We also may be unable to achieve anticipated benefits and synergies from the transaction as fully as expected or within the expected time frame. Divestitures or elimination of existing businesses or products could have similar effects. For example, we closed our Hong Kong capital markets business in 2012, and realized a pre-tax loss on the investment in our Hong Kong subsidiaries.

We may not be able to compete successfully with other companies in the financial services industry who often have significantly greater resources than we do.

The financial services industry remains highly competitive, and our revenues and profitability will suffer if we are unable to compete effectively. We compete generally on the basis of such factors as quality of advice and service, reputation, price, product selection, transaction execution and financial resources. Pricing and other competitive pressures in investment banking, including trends toward multiple book runners, co-managers, and multiple financial advisors handling transactions, have and could continue to adversely affect our revenues. The trend toward multiple book runners has also been accompanied by an increasing disparity in the relative economics between or among book runners, with the senior book runner(s) receiving a large percentage of the economics.

We remain at a competitive disadvantage given our relatively small size compared to some of our competitors. Large financial services firms have a larger capital base, greater access to capital, and greater technology resources, affording them greater capacity for risk and potential for innovation, an extended geographic reach and flexibility to offer a broader set of products. For example, some of these firms are able to use their larger capital base to offer additional products or services to their investment banking clients, which can be a competitive advantage. With respect to our fixed income institutional and public finance investment banking businesses, it is more difficult for us to diversify and differentiate our product set, and our fixed income business mix currently is concentrated in the municipal market and to a lesser extent corporate credits, potentially with less opportunity for growth than other firms which have grown their fixed income businesses by investing in, developing and offering non-traditional products (e.g., credit default swaps, interest rate products and currencies and commodities).

Our inability to identify and address actual, potential, or perceived conflicts of interest may negatively impact our reputation and have a material adverse effect on our business.

We regularly address actual, potential or perceived conflicts of interest in our business, including situations where our services to a particular client or our own investments or other interests conflict, or are perceived to conflict, with the interests of another client. Appropriately identifying and dealing with conflicts of interest is complex and difficult, and we face the risk that our current policies, controls and procedures do not timely identify or appropriately manage such conflicts of interest. It is possible that actual, potential or perceived conflicts could give rise to client dissatisfaction, litigation or regulatory enforcement actions. Our reputation could be damaged if we fail, or appear to fail, to deal appropriately with potential or actual conflicts of interest. Client dissatisfaction, litigation, or regulatory enforcement actions arising from a failure to adequately deal with conflicts of interest, and the reputational harm suffered as a consequence, could have a material adverse effect on our business.

Damage to our reputation could damage our business.

Maintaining our reputation is critical to attracting and maintaining clients, customers, investors, and employees. If we fail to deal with, or appear to fail to deal with, issues that may give rise to reputational risk, such failure or appearance of failure could have a material adverse effect on our business and stock price. These issues include, but are not limited to, appropriately dealing with potential conflicts of interest, legal and regulatory requirements, ethical issues, money laundering, cybersecurity, and the proper identification of the strategic, market, credit, liquidity, human capital, and operational risks inherent in our business and products.

Asset management revenue may vary based on investment performance and market and economic factors.

The success of our asset management business is largely dependent on the level of assets under management, as revenues are primarily derived from management fees paid on the assets under management. Our ability to maintain or increase assets under management is subject to a number of factors, including investors' perception of our past performance, market or economic conditions, competition from other fund managers and our ability to negotiate terms with major investors. Investment performance is one of the most important factors in retaining existing clients and competing for new asset management business. Even when market conditions are generally favorable, our investment performance may be adversely affected by our investment style and the particular investments that we make. For example, certain of our investment strategies have experienced investment performance beneath comparable benchmarks for an extended period of time, which we believe contributed to net asset outflows from these investment strategies in 2017. To the extent our investment performance is perceived to be poor in either relative or absolute terms, our asset management revenues will likely be reduced, existing clients may withdraw funds in favor of better performing products or a different investment style or focus, our ability to attract new funds could be impaired, and our key employees in the business may depart, whether to join a competitor or otherwise.

A significant portion of our asset management revenues are derived from management and performance fees we earn on assets invested by institutions and individuals focused on MLPs and other investments related to the energy infrastructure sector. Return

on investment in the energy infrastructure sector is dependent to a meaningful degree on the prices of energy commodities such as natural gas, natural gas liquids, crude oil, refined petroleum products or coal. Persistently depressed prices for any of these products, such as those experienced in 2015 and the first quarter of 2016, will likely lead to a deterioration of market conditions for companies in the energy infrastructure sector and poorer returns in this sector, and, consequently, a reduction in the management and performance fees we receive.

We also earn asset management revenues from actively managed equity strategies, and this type of investment product has experienced asset outflows in recent years in favor of passively managed equity strategies, which offer lower management fees than actively managed strategies. Furthermore, even though we added assets under management in some new, actively managed strategies in 2017, these strategies tended to be lower margin product offerings and the revenue gained from these strategies did not fully offset the decrease in revenues we suffered from a decline in assets under management within our higher margin product offerings. To the extent that the trend in investors moving assets to passive strategies continues and passively managed strategies continue to gain market share at the expense of actively managed strategies, it is possible that we may continue to experience asset outflows, find it increasingly difficult to attract new assets under management, or be unable to maintain our current fee structures given price competition, any of which could negatively impact our results of operations. The decline in our asset management profitability in 2017 led us to record a \$114.4 million non-cash goodwill impairment charge relating to our Asset Management segment, representing the full value of the remaining goodwill associated with our Asset Management segment.

Liquidity and Credit Risk

Two of our principal categories of risk as a broker dealer and asset management firm are liquidity and credit risk, each of which can have a material impact on our results of operations and viability as a business. During the credit crisis, effective management of liquidity and credit were fundamental to the financial health of the Company. With respect to liquidity risk, it impacts our ability to timely access necessary funding sources in order to operate our business and our ability to timely divest securities that we hold in connection with our market-making, sales and trading, and proprietary trading activities. Credit risk, as distinguished from liquidity risk, is the potential for loss due to the default or deterioration in credit quality of a counterparty, customer, client, 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. The following are the liquidity and credit risk factors that we have identified as posing the most significant risks to us.

An inability to access capital readily or on terms favorable to us could impair our ability to fund operations and could jeopardize our financial condition and results of operations.

Liquidity, or ready access to funds, is essential to our business. Several large financial institutions failed or merged with others during the credit crisis following significant declines in asset values in securities held by these institutions, with Lehman Brothers being the most prominent example. To fund our business, we rely on commercial paper, bank financing, and other funding sources, including financing provided by Pershing LLC ("Pershing") under our fully disclosed clearing agreement. Our bank financing includes an uncommitted credit line, which could become unavailable to us on relatively short notice. The financing provided by Pershing is at Pershing's discretion and could be denied. In an effort to mitigate our funding risks, we renewed a \$200 million committed credit facility in December 2017 for an additional twelve months. We also have \$125 million of unsecured notes maturing in October 2018. In order to further diversify our short-term funding needs, we also continue to maintain two commercial paper programs in the amounts of \$300 million and \$200 million, respectively.

Our access to funding sources, particularly uncommitted funding sources, is dependent on factors we cannot control, such as economic downturns, the disruption of financial markets, the failure or consolidation of other financial institutions, negative news about the financial industry generally or us specifically. We could experience disruptions with our credit facilities in the future, including the loss of liquidity sources and/or increased borrowing costs, if lenders or investors develop a negative perception of our short- or long-term financial prospects, which could result from decreased business activity. Our liquidity also could be impacted by the activities resulting in concentration of risk, including proprietary activities from long-term investments and/or investments in specific markets or products without liquidity. Our access to funds also may be impaired if regulatory authorities take significant action against us, or if we discover that one of our employees has engaged in serious unauthorized or illegal activity.

In the future, we may need to incur debt or issue equity in order to fund our working capital requirements, as well as to execute our growth initiatives that may include acquisitions and other investments. Similarly, our access to funding sources may be contingent upon terms and conditions that may limit or restrict our business activities and growth initiatives. For example, the unsecured notes discussed above include covenants that, among other things, limit our leverage ratio and require maintenance of certain levels of tangible net worth, regulatory net capital, and operating cash flow to fixed charges. In addition, we currently do

not have a credit rating, which could adversely affect our liquidity and competitive position by increasing our borrowing costs and limiting access to sources of liquidity that require a credit rating as a condition to providing funds.

If we are unable to obtain necessary funding, or if the funding we obtain is on terms and conditions unfavorable to us, it could negatively affect our business activities and operations, and our ability to pursue certain growth initiatives and make certain capital decisions, including the decision whether to pay future dividends to our shareholders, as well as our future financial condition or results of operations.

Concentration of risk increases the potential for significant losses.

Concentration of risk increases the potential for significant losses in our sales and trading, proprietary trading, alternative asset management, merchant banking, credit underwriting and syndication platform, and underwriting businesses. We have committed capital to these businesses, and we may take substantial positions in particular types of securities and/or issuers. For example, in the fourth quarter of 2017, we increased our fixed income inventory balances, particularly municipal securities, as a result of a trading opportunity in the municipal market identified at the end of the year. This concentration of risk may cause us to suffer losses even when economic and market conditions are generally favorable for our competitors. Further, disruptions in the credit markets can make it difficult to hedge exposures effectively and economically.

Our businesses, profitability and liquidity may be adversely affected by deterioration in the credit quality of, or defaults by, third parties who owe us money, securities or other assets.

The nature of our businesses exposes us to credit risk, or the risk that third parties who owe us money, securities or other assets will not perform their obligations. These parties may default on their obligations to us due to bankruptcy, lack of liquidity, operational failure or other reasons. Deterioration in the credit quality of securities or obligations we hold could result in losses and adversely affect our ability to rehypothecate or otherwise use those securities or obligations for liquidity purposes. A significant downgrade in the credit ratings of our counterparties could also have a negative impact on our results. Default rates, downgrades and disputes with counterparties as to the valuation of collateral tend to increase in times of market stress and illiquidity. Although we review credit exposures to specific clients and counterparties and to specific industries that we believe may present credit concerns, default risk may arise from events or circumstances that are difficult to detect or foresee. Also, concerns about, or a default by, one institution generally leads to losses, significant liquidity problems, or defaults by other institutions, which in turn could adversely affect our business.

Particular activities or products within our business expose us to increased credit risk, including inventory positions, interest rate swap contracts with customer credit exposure, counterparty risk with one major financial institution related to customer interest rate swap contracts without customer credit exposure, investment banking and advisory fee receivables, liquidity providers on variable rate demand notes we remarket, and similar activities. With respect to interest rate swap contracts with customer credit exposure, we have retained the credit exposure with five public finance counterparties totaling \$19.1 million at December 31, 2017 as part of our matched-book interest rate swap program. In the event of a termination of the contract, the counterparty would owe us the applicable amount of the credit exposure. If our counterparty is unable to make its payment to us, we would still be obligated to pay our hedging counterparty, resulting in credit losses. Non-performance by our counterparties, clients and others, including with respect to our inventory positions and interest rate swap contracts with customer credit exposures, could result in losses, potentially material, and thus have a significant adverse effect on our business and results of operations.

In addition, reliance on revenues from hedge funds and hedge fund advisors, which are less regulated than many investment company and investment advisor clients, may expose us to greater risk of financial loss from unsettled trades than is the case with other types of institutional investors. Concentration of risk may result in losses to us even when economic and market conditions are generally favorable for others in our industry.

An inability to readily divest trading positions may result in financial losses to our business.

Timely divestiture of our trading positions, including equity, fixed income and other securities positions, can be impaired by decreased trading volume, increased price volatility, rapid changes in interest rates, concentrated trading positions, limitations on the ability to divest positions in highly specialized or structured transactions and changes in industry and government regulations. This is true both for customer transactions that we facilitate as well as proprietary trading positions that we maintain. While we hold a security, we are vulnerable to valuation fluctuations and may experience financial losses to the extent the value of the security decreases and we are unable to timely divest or hedge our trading position in that security. The value may decline as a result of many factors, including issuer-specific, market or geopolitical events. In addition, in times of market uncertainty, the inability to divest inventory positions may have an impact on our liquidity as funding sources generally become more restrictive,

which could limit our ability to pledge the underlying security as collateral. Our liquidity may also be impacted if we choose to facilitate liquidity for specific products and voluntarily increase our inventory positions in order to do so, exposing ourselves to greater market risk and potential financial losses from the reduction in value of illiquid positions.

Our underwriting, proprietary trading, and principal investments expose us to risk of loss.

We engage in a variety of activities in which we commit or invest our own capital, including underwriting, lending, proprietary trading, and principal investing. In our role as underwriter for equity and fixed income securities, we commit to purchase securities from the issuer or one or more holders of the issuer's securities, and then sell those securities to other investors or into the public markets, as applicable. Our underwriting activities, including bought deal transactions and equity block trading activities, expose us to the risk of loss if the price of the security falls below the price we purchased the security before we are able to sell all of the securities that we purchased. For example, as an underwriter, or, with respect to equity securities, a block positioner, we may commit to purchasing securities from an issuer or one or more holders of the issuer's securities without having found purchasers for some or all of the securities. In those instances, we may find that we are unable to sell the securities at a price equal to or above the price at which we purchased the securities, or with respect to certain securities, at a price sufficient to cover our hedges.

We also engage in proprietary trading activities (which we also refer to as "strategic trading" in this Form 10-K) related to municipal bonds. In certain years, proprietary trading has been a meaningful contributor to our overall financial results. In addition to proprietary trading, we engage in principal investing, having established alternative asset management funds for merchant banking (focused on investments in the equity and debt instruments of private companies) and senior living construction projects. We have invested firm capital in these funds alongside capital raised from outside investors, and our investments comprise a majority of our Level III assets. Level III assets have little or no pricing observability, and may be less liquid than other securities that we hold in our securities inventory. Additionally, we make principal investments in funds managed by ARI, our asset management subsidiary, which are generally invested in publicly traded equities. Lastly, in 2018, we will begin using some firm capital to make investments in joint venture entities that will underwrite and syndicate client debt. These entities will hold a portion of the client debt after syndication, and our invested capital will be exposed to a risk of loss to the extent that the debt is ultimately not repaid.

Our results from these activities may vary significantly from quarter to quarter. We may incur significant losses from our underwriting, proprietary trading, and principal investments due to equity or fixed income market fluctuations and volatility from quarter to quarter, or from a deterioration in specific business subsectors or the economy more generally. In addition, we may engage in hedging transactions that, if not successful, could result in losses; and the hedges we purchase to counterbalance market rate changes in certain inventory positions are not perfectly matched to the positions being hedged, which could result in losses. With respect to principal investing, there often is not an established liquid trading market for these investments or our investments may be otherwise subject to restrictions on sale or hedging, and our ability to withdraw our capital from these investments may be limited, increasing our risk of losses. Also, our merchant banking activity involves investments in late stage private companies, and we may be unable to realize our investment objectives by sale or other disposition at attractive prices.

Use of derivative instruments as part of our financial risk management techniques may not effectively hedge the risks associated with activities in certain of our businesses.

We use 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 and to facilitate customer transactions. With respect to risk management, we enter into derivative contracts to hedge interest rate and market value risks associated with our security positions, including fixed income inventory positions we hold both for facilitating client activity as well as for our own proprietary trading operations. The instruments use interest rates based upon the Municipal Market Data ("MMD"), LIBOR or SIFMA index. We also enter into credit default swap index contracts to hedge risks associated with our taxable fixed income securities, and option contracts to hedge market value risk associated with convertible securities. Generally, we do not hedge all of our interest rate risk. In addition, these hedging strategies may not work in all market environments and as a result may not be effective in mitigating interest rate and market value risk, especially when market volatility reduces the correlation between a hedging vehicle and the securities inventory being hedged.

There are risks inherent in our use of these products, including counterparty exposure and basis risk. Counterparty exposure refers to the risk that the amount of collateral in our possession on any given day may not be sufficient to fully cover the current value of the swaps if a counterparty were to suddenly default. Basis risk refers to risks associated with swaps where changes in the value of the swaps may not exactly mirror changes in the value of the cash flows they are hedging. We may incur losses from our exposure to derivative interest rate products and the increased use of these products in the future.

The use of estimates and valuations in measuring fair value involve significant estimation and judgment by management.

We make various estimates that affect reported amounts and disclosures. Broadly, those estimates are used in measuring fair value of certain financial instruments, investments in private companies, accounting for goodwill and intangible assets, establishing provisions for potential losses that may arise from litigation, and regulatory proceedings and tax examinations. Estimates are based on available information and judgment. Therefore, actual results could differ from our estimates and that difference could have a material effect on our consolidated financial statements. With respect to accounting for goodwill, we complete our annual goodwill and intangible asset impairment testing in the fourth quarter of each year or earlier if impairment indicators are present. Impairment charges resulting from this valuation analysis could materially adversely affect our results of operations. In 2016, we recorded an \$82.9 million non-cash impairment charge to reduce the carrying value of the goodwill associated with our Asset Management segment following significant net client outflows of AUM in 2016, primarily from our value equity strategies, due to investment performance below benchmarks and an extended cycle of investors favoring passive investment vehicles over active management. Throughout 2017, our Asset Management segment experienced a further decline in profitability as revenues decreased in product offerings with higher management fees, which was not fully offset with earnings from new product offerings. As a result, we identified impairment indicators in the third quarter of 2017 related to our Asset Management segment, and performed an interim goodwill impairment test as of July 31, 2017, which resulted in a non-cash goodwill impairment charge of \$114.4 million.

Financial instruments and other inventory positions owned, and financial instruments and other inventory positions sold but not yet purchased, are recorded at fair value, and unrealized gains and losses related to these financial instruments are reflected on our consolidated statements of operations. The fair value of a financial instrument is the amount at which the instrument could be exchanged in a transaction between market participants at the measurement date. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or inputs are not available, valuation models are applied. These valuation techniques involve management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity. Difficult market environments, such as those experienced in 2008, may cause financial instruments to become substantially more illiquid and difficult to value, increasing the use of valuation models. Our future results of operations and financial condition may be adversely affected by the valuation adjustments that we apply to these financial instruments.

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 EBITDA) and changes in market outlook, among other factors. These valuation techniques require significant management estimation and judgment.

Human Capital Risk

Our business is a human capital business, and, therefore, our future financial condition and results of operations are significantly dependent upon our employees and their actions. 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, as well as the risks posed if our culture fails to encourage such behavior. Human capital risk is also present where we fail to detect and prevent employees from acting contrary to our policies and procedures, including when these failures might lead to reputational damage for our firm. The following are those human capital risk factors that we have identified as posing the most significant risks to us.

Our ability to attract, develop and retain highly skilled and productive employees, develop the next generation of our business leadership, and instill and maintain a culture of ethics is critical to the success of our business.

Historically, the market for qualified employees within the financial services industry has been marked by intense competition, and the performance of our business may suffer to the extent we are unable to attract and retain employees effectively, particularly given the relatively small size of our company and our employee base compared to some of our competitors and the geographic locations in which we operate. The primary sources of revenue in each of our business lines are commissions and fees earned on advisory and underwriting transactions and customer accounts managed by our employees, who have historically been recruited by other firms and in certain cases are able to take their client relationships with them when they change firms. Some specialized areas of our business are operated by a relatively small number of employees, the loss of any of whom could jeopardize the continuation of that business following the employee's departure, which could adversely affect our results of operations.

Further, recruiting and retention success often depends on the ability to deliver competitive compensation, and we may be at a disadvantage to some competitors given our size and financial resources. Our inability or unwillingness to meet compensation needs or demands may result in the loss of some of our professionals or the inability to recruit additional professionals at

compensation levels that are within our target range for compensation and benefits expense. Our ability to retain and recruit also may be hindered if we limit our aggregate annual compensation and benefits expense as a percentage of annual net revenues.

A vibrant and ethical corporate culture is critical to ensuring that our employees put our clients' interests first and are able to identify and manage potential conflicts of interest, while also creating an environment in which each of our employees feel empowered to develop and pursue their full potential. Our expectations for our corporate culture and ethics are instilled and maintained by the "tone at the top" set by our management and board of directors. Lapses in our corporate culture could lead to reputational damage or employee loss, either of which could adversely affect our results of operations.

Our business success depends in large part on the strategic decisions made by our leadership team, and the business plans developed and implemented by our senior business leaders. Our ability to identify, develop, and retain future senior business leaders, and our ability to develop and implement successful succession plans for our CEO and leadership team, is critical to our future success and results of operations.

Our inability to effectively integrate and retain personnel in connection with our acquisitions may adversely affect our financial condition and results of operations.

We invest time and resources in carefully assessing opportunities for acquisitions, and we have made acquisitions in the past several years to broaden the scope and depth of our human capital in various businesses. Despite diligence and integration planning, acquisitions still present certain risks, including the difficulties in integrating and bringing together different work cultures and employees, and retaining those employees for the period of time necessary to realize the anticipated benefits of the acquisition. Difficulties in integrating our acquisitions, including attracting and retaining talent to realize the expected benefits of these acquisitions, may adversely affect our financial condition and results of operations.

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. Such loss or reputational damage could negatively impact our future financial condition and results of operations. The following are those operational risk factors that we have identified as posing the most significant risks to us.

Our information and technology systems, including outsourced systems, are critical components of our operations, and failure of those systems or other aspects of our operations infrastructure may disrupt our business, cause financial loss and constrain our growth.

We typically transact thousands of securities trades on a daily basis across multiple markets. Our data and transaction processing, financial, accounting and other technology and operating systems are essential to this task. A system malfunction (due to hardware failure, capacity overload, security incident, data corruption, etc.) or mistake made relating to the processing of transactions could result in financial loss, liability to clients, regulatory intervention, reputational damage and constraints on our ability to grow.

In 2017, we made the strategic decision to move to a fully disclosed model for all of our previously self clearing broker dealer operations. In a fully disclosed model, we act as an introducing broker for most customer transactions and rely on a clearing broker dealer to handle clearance and settlement of our customers' securities transactions. We completed this conversion in August 2017. Upon converting to a fully disclosed clearing model, the clearing services provided by the clearing broker dealer, Pershing, will be critical to our business operations, and similar to other important outsourced operations, any failure by the clearing agent with respect to the services we will rely on it to provide could significantly disrupt and negatively impact our operations and financial results. We also contract with third parties for market data services, which constantly broadcast news, quotes, analytics and other relevant information to our employees, as well as other critical data processing activities. In the event that any of these service providers fails to adequately perform such services or the relationship between that service provider and us is terminated, we may experience a significant disruption in our operations, including our ability to timely and accurately process transactions or maintain complete and accurate records of those transactions.

Adapting or developing our technology systems to meet new regulatory requirements, client needs, geographic expansion and industry demands also is critical for our business. Introduction of new technologies present new challenges on a regular basis. We have an ongoing need to upgrade and improve our various technology systems, including our data and transaction processing, financial, accounting, risk management, compliance, and trading systems. This need could present operational issues or require significant capital spending. It also may require us to make additional investments in technology systems and may require us to reevaluate the current value and/or expected useful lives of our technology systems, which could negatively impact our results of operations.

A disruption in the infrastructure that supports our business due to fire, natural disaster, health emergency (for example, a disease pandemic), power or communication failure, act of terrorism or war may affect our ability to service and interact with our clients. If we are not able to implement contingency plans effectively, any such disruption could harm our results of operations.

Protection of our sensitive and confidential information is critical to our operations, and failure of those systems may disrupt our business, damage our reputation, and cause financial losses.

Our clients routinely provide us with sensitive and confidential information. Secure processing, storage and transmission of confidential and other information in our internal and outsourced computer systems and networks is critically important to our business. We take protective measures and endeavor to modify them as circumstances warrant. However, our computer systems, software and networks, and those of our clients, vendors, service providers, counterparties and other third parties, may be vulnerable to unauthorized access, cyberattacks, security breaches, computer viruses or other malicious code, inadvertent, erroneous or intercepted transmission of information (including by e-mail), human error, and other events that could have an information security impact. We work with our employees, clients, vendors, service providers, counterparties and other third parties to develop and implement measures designed to protect against such an event, but we may not be able to fully protect against such an event, and do not have, and may be unable to put in place, secure capabilities with all of these third parties and we may not be able to ensure that these third parties have appropriate controls in place to protect the confidentiality of the information. If one or more of such events occur, this potentially 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 those of third parties, or otherwise cause interruptions or malfunctions in our, our clients', our counterparties' or third parties' operations. We may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures, and we may be subject to reputational harm as well as litigation, regulatory penalties, and financial losses that are either not insured against or not fully covered through any insurance maintained by us.

A failure to protect our computer systems, networks and information, and our clients' information, against cyber attacks, data breaches, and similar threats could impair our ability to conduct our businesses, result in the disclosure, theft or destruction of confidential information, damage our reputation and cause significant financial and legal exposure.

Our operations rely on the secure processing, storage and transmission of confidential and other information in our computer systems and networks. There have been several highly publicized cases involving financial services companies, consumer-based companies and other companies, as well as governmental and political organizations, reporting breaches in the security of their websites, networks or other systems. We have not been immune from such events. Some of the publicized breaches have involved sophisticated and targeted attacks intended to obtain unauthorized access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage, including through the introduction of computer viruses or malware, cyberattacks and other means. There have also been several highly publicized cases where hackers have requested "ransom" payments in exchange for not disclosing customer information.

A successful penetration or circumvention of the security of our systems could cause serious negative consequences for us, including significant disruption of our operations and those of our clients, customers and counterparties; misappropriation of our confidential information or that of our clients, customers, counterparties or employees; or damage to our computers or systems and those of our clients, customers and counterparties; and could result in violations of applicable privacy and other laws, financial loss to us or to our customers, loss of confidence in our security measures, customer dissatisfaction, significant litigation exposure and reputational harm, all of which could have a material adverse effect on us.

We must continuously monitor and develop our systems to protect our technology infrastructure and data from misappropriation or corruption. Despite our efforts to ensure the integrity of our systems and information, we have not been and may not be able to anticipate, detect or implement effective preventive measures against all cyber threats, especially because the techniques used are increasingly sophisticated, change frequently, and are often not recognized until months after the attack. Cyber attacks can originate from a variety of sources, including third parties who are affiliated with foreign governments or employees acting negligently or in a manner adverse to our interests. Third parties may seek to gain access to our systems either directly or using equipment or security passwords belonging to employees, customers, third party service providers or other users of our systems. In addition, due to our interconnectivity with third party vendors, central agents, exchanges, clearing houses and other financial institutions, we could be adversely impacted if any of them is subject to a successful cyber attack or other information security event.

Although we take protective measures and endeavor to modify them as circumstances warrant, our computer systems, software and networks have been and may be vulnerable to unauthorized access, misuse, computer viruses or other malicious code and other events that could have a security impact. We may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities, exposures, or information security events. Due to the complexity

and interconnectedness of our systems, the process of enhancing our protective measures can itself create a risk of systems disruptions and security issues.

The increased use of cloud technologies can heighten these and other operational risks. Certain aspects of the security of such technologies are unpredictable or beyond our control, and this lack of transparency may inhibit our ability to discover a failure by cloud service providers to adequately safeguard their systems and prevent cyber attacks that could disrupt our operations and result in misappropriation, corruption or loss of confidential and other information. In addition, there is a risk that encryption and other protective measures, despite their sophistication, may be defeated, particularly to the extent that new computing technologies vastly increase the speed and computing power available.

Risk management processes may not fully mitigate exposure to the various risks that we face.

We refine our risk management techniques, strategies and assessment methods on an ongoing basis. However, risk management techniques and strategies, both ours and those available to the market generally, may not be fully effective in identifying and mitigating our risk exposure in all economic market environments or against all types of risk. For example, we may fail to identify or anticipate particular risks that our systems are capable of identifying, or the systems that we use, and that are used within the industry generally, may not be capable of identifying certain risk, or every economic and financial outcome, or the specifics and timing of such outcomes. In addition, our risk management techniques and strategies seek to balance our ability to profit from our market-making and investing positions with our exposure to potential losses. Some of our strategies for managing risk are based upon our use of observed historical market behavior. We apply statistical and other tools to these observations to quantify our risk exposure. Any failures in our risk management techniques and strategies to accurately quantify our risk exposure could limit our ability to manage risks. In addition, any risk management failures could cause our losses to be significantly greater than the historical measures indicate. Further, our quantified modeling does not take all risks into account. Our more qualitative approach to managing those risks could prove insufficient, exposing us to material unanticipated losses.

The financial services industry and the markets in which we operate are subject to systemic risk that could adversely affect our business and results.

Participants in the financial services industry and markets increasingly are closely interrelated as a result of credit, trading, clearing, technology and other relationships between them. A significant adverse development with one participant (such as a bankruptcy or default) may spread to others and lead to significant concentrated or market-wide problems (such as defaults, liquidity problems or losses) for other participants, including us. This systemic risk was evident during 2008 following the demise of Bear Stearns and Lehman Brothers, and the resulting events (sometimes described as "contagion") had a negative impact on the remaining industry participants, including us. Further, the control and risk management infrastructure of the markets in which we operate often is outpaced by financial innovation and growth in new types of securities, transactions and markets. Systemic risk is inherently difficult to assess and quantify, and its form and magnitude can remain unknown for significant periods of time.

Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could materially affect our business.

We have documented and tested our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act, which requires annual management assessments of the effectiveness of our internal controls over financial reporting and a report by our independent auditors regarding our internal control over financial reporting. We are in compliance with Section 404 of the Sarbanes-Oxley Act as of December 31, 2017. However, if we fail to maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act. Failure to maintain an effective internal control environment could materially adversely affect our business.

Legal and Regulatory Risk

Legal and regulatory risk includes the risk of non-compliance with applicable legal and regulatory requirements and the 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. It also includes the risk that legislation could reduce or eliminate certain business activities that we are currently engaged in, which could negatively impact our future financial condition or results of operation. The following are those legal and regulatory risk factors that we have identified as posing the most significant risks to us.

Our exposure to legal liability is significant, and could lead to substantial damages.

We face significant legal risks in our businesses. These risks include potential liability under securities laws and regulations in connection with our capital markets, asset management and other businesses. The volume and amount of damages claimed in litigation, arbitrations, regulatory enforcement actions and other adversarial proceedings against financial services firms remains intense. Our experience has been that adversarial proceedings against financial services firms typically increase during and following a market downturn. We also are subject to claims from disputes with our employees and our former employees under various circumstances. Risks associated with legal liability often are difficult to assess or quantify and their existence and magnitude can remain unknown for significant periods of time, making the amount of legal reserves related to these legal liabilities difficult to determine and subject to future revision. Legal or regulatory matters involving our directors, officers or employees in their individual capacities also may create exposure for us because we may be obligated or may choose to indemnify the affected individuals against liabilities and expenses they incur in connection with such matters to the extent permitted under applicable law. In addition, like other financial services companies, we may face the possibility of employee fraud or misconduct. The precautions we take to prevent and detect this activity may not be effective in all cases and there can be no assurance that we will be able to deter or prevent fraud or misconduct. Exposures from and expenses incurred related to any of the foregoing actions or proceedings could have a negative impact on our results of operations and financial condition. In addition, future results of operations could be adversely affected if reserves relating to these legal liabilities are required to be increased or legal proceedings are resolved in excess of established reserves.

Our business is subject to extensive regulation in the jurisdictions in which we operate, and a significant regulatory action against our company may have a material adverse financial effect on, cause significant reputational harm to, or result in other collateral consequences for our company.

As a participant in the financial services industry, we are subject to complex and extensive regulation of many aspects of our business by U.S. federal and state regulatory agencies, self-regulatory organizations (including securities exchanges) and by foreign governmental agencies, regulatory bodies and securities exchanges. Specifically, our operating subsidiaries include broker dealer and related securities entities organized in the United States, the United Kingdom, and Hong Kong. Each of these entities is registered or licensed with the applicable local regulator and is subject to all of the applicable rules and regulations promulgated by those authorities. In addition, our asset management subsidiaries, ARI, PJIM, and PJC Capital Partners LLC, as well as Piper Jaffray & Co., are registered as investment advisors with the SEC and subject to the regulation and oversight by the SEC, and we have an additional asset management subsidiary subject to regulation in Guernsey.

Generally, the requirements imposed by our regulators are designed to ensure the integrity of the financial markets and to protect customers and other third parties who deal with us. These requirements are not designed to protect our shareholders. Consequently, broker dealer regulations often serve to limit our activities, through net capital, customer protection and market conduct requirements and restrictions on the businesses in which we may operate or invest. We also must comply with asset management regulations, including requirements related to fiduciary duties to clients, record-keeping and reporting and customer disclosures. Compliance with many of these regulations entails a number of risks, particularly in areas where applicable regulations may be newer or unclear. In addition, regulatory authorities in all jurisdictions in which we conduct business may intervene in our business and we and our employees could be fined or otherwise disciplined for violations or prohibited from engaging in some of our business activities.

Our business also subjects us to the complex income and payroll tax laws of the national and local 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 and other taxes. We are subject to contingent tax risk that could adversely affect our results of operations, to the extent that our interpretations of tax laws are disputed upon examination or audit, and are settled in amounts in excess of established reserves for such contingencies.

The effort to combat money laundering also has become a high priority in governmental policy with respect to financial institutions. The obligation of financial institutions, including ourselves, to identify their customers, watch for and report suspicious transactions, respond to requests for information by regulatory authorities and law enforcement agencies, and share information with other financial institutions, has required the implementation and maintenance of internal practices, procedures and controls which have increased, and may continue to increase, our costs. Any failure with respect to our programs in this area could subject us to serious regulatory consequences, including substantial fines, and potentially other liabilities. In addition, our international operations require compliance with anti-bribery laws, including the Foreign Corrupt Practices Act and the U.K. Bribery Act 2010. These laws generally prohibit companies and their intermediaries from engaging in bribery or making other improper payments to foreign officials for the purpose of obtaining or retaining business or gaining an unfair business advantage. While our employees and agents are required to comply with these laws, we cannot ensure that our internal control policies and procedures will always

protect us from intentional, reckless or negligent acts committed by our employees or agents, which acts could subject our company to fines or other regulatory consequences that could disrupt our operations and negatively impact our results of operations.

Legislative and regulatory proposals could significantly curtail the revenue from certain products that we currently provide or otherwise have a material adverse effect on our results of operations.

Proposed changes in laws or regulations relating to our business could decrease, perhaps significantly, the revenue that we receive from certain products or services that we provide, or otherwise have a material adverse effect on our results of operations. For example, the Tax Reform Act reduced the federal income tax rates paid by U.S. corporations, and limited certain other tax deductions that U.S. corporations can take. Although the reduction in overall corporate tax rates will generally be positive for our results of operations, it did cause us to incur a one-time, non-cash tax charge of \$54.2 million in the fourth quarter of 2017 reflecting a remeasurement of our existing deferred tax assets as the federal corporate tax rate declined from 35 percent to 21 percent. In addition, other provisions in the Tax Reform Act will limit the amount of compensation paid to our executive officers that we will be able to deduct for tax purposes in future periods. Lastly, the Tax Reform Act eliminated the tax-exemption for advance refunding bonds, which are bonds issued by local or state governments to refinance outstanding bonds before the original bonds are callable in order to take advantage of lower borrowing costs. To the extent that this elimination of tax-exemption, or any other component of legislation that may be enacted in the future (whether at the local, state, or federal level), reduces the total amount of issuances or other financing activities for which we compete, our results of operations could be adversely affected.

The business operations that we conduct outside of the United States subject us to unique risks.

To the extent that we conduct business outside the United States, for example in Asia and Europe, we are subject to risks, including, without limitation, the risk that we will be unable to provide effective operational support to these business activities, the risk of noncompliance with foreign laws and regulations, and the general economic and political conditions in countries where we conduct business, which may differ significantly from those in the United States. In January 2018, new regulations adopted in the European Union require the unbundling of equity trading and research fees, among other requirements. While we expect the impact of such regulations on our equity institutional business to be relatively modest, differing regulatory requirements in international jurisdictions may affect markets in the United States over time.

Regulatory capital requirements may limit our ability to expand or maintain our present levels of business or impair our ability to meet our financial obligations.

We are subject to the SEC's uniform net capital rule (Rule 15c3-1) and the net capital rule of FINRA, which may limit our ability to make withdrawals of capital from Piper Jaffray & Co., our U.S. broker dealer subsidiary. The uniform net capital rule sets the minimum level of net capital a broker dealer must maintain and also requires that a portion of its assets be relatively liquid. FINRA may prohibit a member firm from expanding its business or paying cash dividends if resulting net capital falls below its requirements. Underwriting commitments require a charge against net capital and, accordingly, our ability to make underwriting commitments may be limited by the requirement that we must at all times be in compliance with the applicable net capital regulations.

As Piper Jaffray Companies is a holding company, it depends on dividends, distributions and other payments from our subsidiaries to fund its obligations. The regulatory restrictions described above may impede access to funds our holding company needs to make payments on any such obligations.

Other Risks to Our Shareholders

We may change our dividend policy at any time and there can be no assurance that we will continue to declare cash dividends.

Beginning in fiscal year 2017, we began paying quarterly and annual cash dividends to our shareholders in order to return between 30 percent and 50 percent of our adjusted net income from each fiscal year to shareholders. Although we expect to pay dividends to our shareholders in accordance with our dividend policy, we have no obligation to pay any dividend, and our dividend policy may change at any time without notice. The declaration and payment of dividends is at the discretion of our board of directors in accordance with applicable law after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, limitations imposed by our indebtedness, legal requirements and other factors that our board of directors deems relevant. As a result, we may not pay dividends at any rate or at all.

Our stock price may fluctuate as a result of several factors, including but not limited to, changes in our revenues, operating results, tangible book value and return on equity.

We have experienced, and expect to experience in the future, fluctuations in the market price of our common stock due to factors that relate to the nature of our business, including but not limited to changes in our revenues, operating results, tangible book value, earnings per share, and return on equity. Our business, by its nature, does not produce steady and predictable earnings on a quarterly basis, which may cause fluctuations in our stock price that may be significant. Other factors that have affected, and may further affect, our stock price include changes in or news related to economic or market events or conditions, changes in market conditions in the financial services industry, including developments in regulation affecting our business, a predominantly passive or quantitative shareholder base among the company's top twenty shareholders, failure to meet the expectations of market analysts, changes in recommendations or outlooks by market analysts, and aggressive short selling similar to that experienced in the financial industry in 2008.

Provisions in our certificate of incorporation and bylaws and of Delaware law may prevent or delay an acquisition of our company, which could decrease the market value of our common stock.

Our certificate of incorporation and bylaws and Delaware law contain provisions that are intended to deter abusive takeover tactics by making them unacceptably expensive to the raider and to encourage prospective acquirors to negotiate with our board of directors rather than to attempt a hostile takeover. These provisions include limitations on our shareholders' ability to act by written consent and to call special meetings. Delaware law also imposes some restrictions on mergers and other business combinations between us and any holder of 15 percent or more of our outstanding common stock. We believe these provisions protect our shareholders from coercive or otherwise unfair takeover tactics by requiring potential acquirors to negotiate with our board of directors and by providing our board of directors with more time to assess any acquisition proposal, and are not intended to make our company immune from takeovers. However, these provisions apply even if the offer may be considered beneficial by some shareholders and could delay or prevent an acquisition that our board of directors determines is not in the best interests of our company and our shareholders.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

As of February 20, 2018, we conducted our operations through 52 principal offices in 29 states, and the District of Columbia, and in London, Aberdeen, Hong Kong and Zurich. All of our offices are leased. Our principal executive office is located at 800 Nicollet Mall, Suite 1000, Minneapolis, Minnesota 55402 and, as of February 20, 2018, comprises approximately 124,000 square feet of space under a lease which expires November 30, 2025, with an early termination option effective January 31, 2022.

ITEM 3. *LEGAL PROCEEDINGS.*

Due to the nature of our business, we are involved in a variety of legal proceedings. These proceedings include litigation, arbitration and regulatory proceedings, which may arise from, among other things, underwriting or other transactional activity, client account activity, employment matters, regulatory examinations of our businesses and investigations of securities industry practices by governmental agencies and self-regulatory organizations. The securities industry is highly regulated, and the regulatory scrutiny applied to securities firms is intense, resulting in a significant number of regulatory investigations and enforcement actions and uncertainty regarding the likely outcome of these matters.

Litigation-related expenses include amounts we reserve and/or pay out as legal and regulatory settlements, awards or judgments, and fines. Parties who initiate litigation and arbitration proceedings against us may seek substantial or indeterminate damages, and regulatory investigations can result in substantial fines being imposed on us. We reserve for contingencies related to legal proceedings at the time and to the extent we determine the amount to be probable and reasonably estimable. However, it is inherently difficult to predict accurately the timing and outcome of legal proceedings, including the amounts of any settlements, judgments or fines. We assess each proceeding based on its particular facts, our outside advisors' and our past experience with similar matters, and expectations regarding the current legal and regulatory environment and other external developments that might affect the outcome of a particular proceeding or type of proceeding. Subject to the foregoing, we believe, based on our current knowledge, after appropriate consultation with outside legal counsel and taking into account our established reserves, that pending legal actions, investigations and regulatory proceedings, will be resolved with no material adverse effect on our consolidated financial condition, results of operations or cash flows. However, there can be no assurance that our assessments will reflect the ultimate outcome of pending proceedings, and the outcome of any particular matter may be material to our operating results for any particular period, depending, in part, on the operating results for that period and the amount of established reserves. Reasonably possible losses in excess of amounts accrued at December 31, 2017 are not material. We generally have denied, or believe that we have meritorious defenses and will deny, liability in all significant cases currently pending against us, and we intend to vigorously defend such actions.

ITEM 4. *MINE SAFETY DISCLOSURES.*

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Our common stock is listed on the New York Stock Exchange under the symbol "PJC." The following table contains historical quarterly high and low sales price information and the amount of dividends declared per common share by our board of directors for the years ended December 31, 2017 and 2016. On February 20, 2018, the last reported sale price of our common stock was \$89.80.

	2017 Fiscal Year			2016 Fiscal Year		
	High	Low	Dividends	High	Low	Dividends
			Declared Per			Declared Per
			Common Share			Common Share
First Quarter	\$ 81.85	\$ 61.43	\$ 0.3125	\$ 50.66	\$ 31.66	\$ —
Second Quarter	64.10	56.55	0.3125	50.15	35.36	—
Third Quarter	65.85	52.75	0.3125	48.70	36.80	—
Fourth Quarter	87.45	59.20	0.3125	77.80	47.72	—

Shareholders

We had 13,320 shareholders of record and approximately 26,043 beneficial owners of our common stock as of February 20, 2018.

Dividends

Beginning in 2017, we initiated the payment of a quarterly cash dividend. In the fourth quarter of 2017, our board of directors approved a new dividend policy intended to return between 30 percent and 50 percent of our adjusted net income from the previous fiscal year to shareholders. This will include the addition of an annual special cash dividend, payable in the first quarter of each year. Our board of directors has declared a special cash dividend on the company's common stock of \$1.62 per share. This special dividend will be paid on March 15, 2018, to shareholders of record as of the close of business on February 26, 2018. Including this special cash dividend and the regular quarterly dividends totaling \$1.25 per share paid during 2017, we will have returned \$2.87 per share, or approximately 40 percent of our fiscal year 2017 adjusted net income to shareholders.

In addition, our board of directors has declared a quarterly cash dividend on the company's common stock of \$0.375 per share to be paid on March 15, 2018, to shareholders of record as of the close of business on February 26, 2018.

Our board of directors is free to change our dividend policy at any time. Restrictions on our U.S. broker dealer subsidiary's ability to pay dividends are described in Note 24 to the consolidated financial statements included in Part II, Item 8 of this Form 10-K.

Purchases of Equity Securities

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 December 31, 2017.

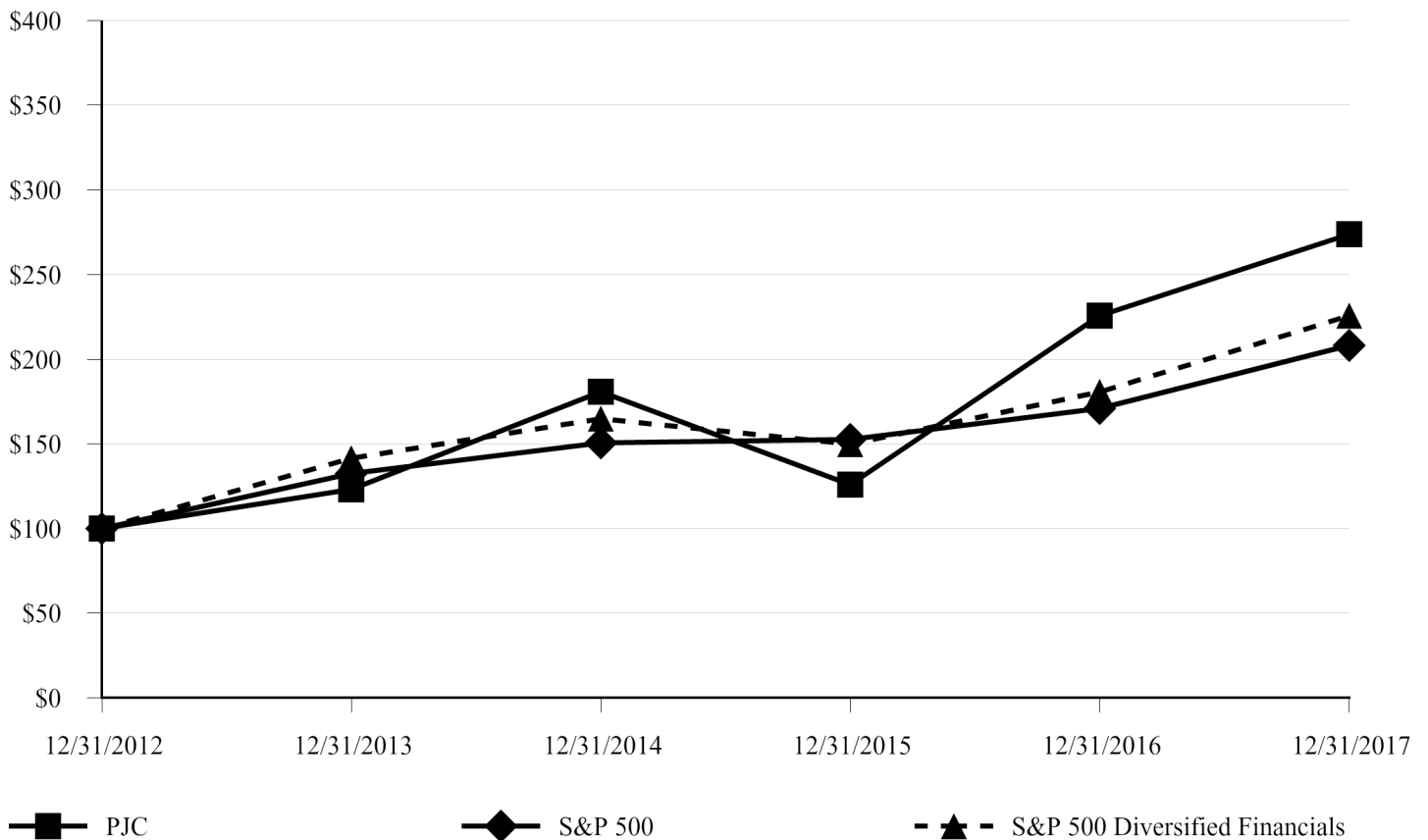
Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares Yet to be Purchased Under the Plans or Programs (1)
Month #1 (October 1, 2017 to October 31, 2017)	667	\$ 61.60	—	\$ 150 million
Month #2 (November 1, 2017 to November 30, 2017)	4,897	\$ 73.22	—	\$ 150 million
Month #3 (December 1, 2017 to December 31, 2017)	177	\$ 86.40	—	\$ 150 million
Total	5,741	\$ 72.28	—	\$ 150 million

(1) Effective September 30, 2017, our board of directors authorized the repurchase of up to \$150 million of common stock through September 30, 2019.

Stock Performance Graph

The following graph compares the performance of an investment in our common stock from December 31, 2012 through December 31, 2017, with the S&P 500 Index and the S&P 500 Diversified Financials Index. The graph assumes \$100 was invested on December 31, 2012, in each of our common stock, the S&P 500 Index and the S&P 500 Diversified Financials Index and that all dividends were reinvested on the date of payment without payment of any commissions. The performance shown in the graph represents past performance and should not be considered an indication of future performance.

**FIVE YEAR TOTAL RETURN FOR PIPER JAFFRAY COMPANIES COMMON STOCK,
THE S&P 500 INDEX AND THE S&P DIVERSIFIED FINANCIALS INDEX**



<u>Company/Index</u>	<u>12/31/2012</u>	<u>12/31/2013</u>	<u>12/31/2014</u>	<u>12/31/2015</u>	<u>12/31/2016</u>	<u>12/31/2017</u>
Piper Jaffray Companies	100	123.09	180.80	125.74	225.65	273.68
S&P 500 Index	100	132.39	150.51	152.59	170.84	208.14
S&P 500 Diversified Financials	100	141.39	164.81	149.81	180.60	225.55

ITEM 6. SELECTED FINANCIAL DATA.

The following table presents our selected consolidated financial data in accordance with U.S. generally accepted accounting principles for the periods and dates indicated. The information set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes thereto.

	For the year ended December 31,				
	2017	2016	2015	2014	2013
<i>(Dollars and shares in thousands, except per share data)</i>					
Revenues:					
Investment banking	\$ 633,837	\$ 490,340	\$ 414,118	\$ 369,811	\$ 248,563
Institutional brokerage	154,563	161,186	154,889	156,809	146,648
Asset management	56,835	60,672	75,017	85,062	83,045
Interest	31,954	33,074	41,557	48,716	50,409
Investment income	18,002	24,602	10,736	12,813	21,566
Total revenues	895,191	769,874	696,317	673,211	550,231
Interest expense	20,268	22,525	23,399	25,073	25,036
Net revenues	874,923	747,349	672,918	648,138	525,195
Non-interest expenses:					
Compensation and benefits	617,635	510,612	421,733	394,510	322,464
Restructuring and integration costs	—	10,206	10,652	—	4,689
Goodwill impairment	114,363	82,900	—	—	—
Other	172,248	174,505	154,110	143,317	122,429
Total non-interest expenses	904,246	778,223	586,495	537,827	449,582
Income/(loss) from continuing operations before income tax expense/(benefit)	(29,323)	(30,874)	86,423	110,311	75,613
Income tax expense/(benefit)	30,229	(17,128)	27,941	35,986	20,390
Net income/(loss) from continuing operations	(59,552)	(13,746)	58,482	74,325	55,223
Discontinued operations:					
Loss from discontinued operations, net of tax	—	—	—	—	(4,739)
Net income/(loss)	(59,552)	(13,746)	58,482	74,325	50,484
Net income applicable to noncontrolling interests	2,387	8,206	6,407	11,153	5,394
Net income/(loss) applicable to Piper Jaffray Companies	<u>\$ (61,939)</u>	<u>\$ (21,952)</u>	<u>\$ 52,075</u>	<u>\$ 63,172</u>	<u>\$ 45,090</u>
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders	<u>\$ (64,875) ⁽¹⁾</u>	<u>\$ (21,952) ⁽¹⁾</u>	<u>\$ 48,060</u>	<u>\$ 58,141</u>	<u>\$ 40,596</u>

Continued on next page

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	For the year ended December 31,				
<i>(Dollars and shares in thousands, except per share data)</i>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Amounts applicable to Piper Jaffray Companies					
Net income/(loss) from continuing operations	\$ (61,939)	\$ (21,952)	\$ 52,075	\$ 63,172	\$ 49,829
Net loss from discontinued operations	—	—	—	—	(4,739)
Net income/(loss) applicable to Piper Jaffray Companies	\$ (61,939)	\$ (21,952)	\$ 52,075	\$ 63,172	\$ 45,090
Earnings/(loss) per basic common share					
Income/(loss) from continuing operations	\$ (5.07)	\$ (1.73)	\$ 3.34	\$ 3.88	\$ 2.98
Loss from discontinued operations	—	—	—	—	(0.28)
Earnings/(loss) per basic common share	\$ (5.07)	\$ (1.73)	\$ 3.34	\$ 3.88	\$ 2.70
Earnings/(loss) per diluted common share					
Income/(loss) from continuing operations	\$ (5.07)	\$ (1.73)	\$ 3.34	\$ 3.87	\$ 2.98
Loss from discontinued operations	—	—	—	—	(0.28)
Earnings/(loss) per diluted common share	\$ (5.07) ⁽²⁾	\$ (1.73) ⁽²⁾	\$ 3.34	\$ 3.87	\$ 2.70
Dividends declared per common share	\$ 1.25	\$ —	\$ —	\$ —	\$ —
Weighted average number of common shares					
Basic	12,807	12,674	14,368	14,971	15,046
Diluted	12,978 ⁽²⁾	12,779 ⁽²⁾	14,389	15,025	15,061
Other data					
Total assets	\$2,024,683	\$2,125,503	\$2,138,518	\$2,623,917	\$2,318,157
Long-term debt	\$ 125,000	\$ 175,000	\$ 175,000	\$ 125,000	\$ 125,000
Total common shareholders' equity	\$ 693,332	\$ 759,250	\$ 783,659	\$ 819,912	\$ 734,676
Total shareholders' equity	\$ 741,235	\$ 816,266	\$ 832,820	\$ 969,460	\$ 882,072
Total employees ⁽³⁾	1,266	1,297	1,152	1,026	1,026

(1) No allocation of undistributed income was made due to loss position. See Note 22 to our consolidated financial statements in this Form 10-K.

(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.

(3) Number of employees reflect continuing operations.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following information should be read in conjunction with the accompanying audited consolidated financial statements and related notes and exhibits included elsewhere in this Form 10-K. Certain statements in this Form 10-K 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 this Form 10-K 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 this Form 10-K, as updated in our subsequent reports filed with the SEC. 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) restructuring and acquisition integration costs, (5) goodwill impairment charges and (6) the impact from remeasuring deferred tax assets resulting from changes to the U.S. federal tax code. 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, return on average common shareholders' equity, 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 its 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

Strategic Growth Initiatives – Beginning in 2011, following the financial crisis, we implemented a strategic framework focused on achieving strong results across various markets conditions, sustainable growth and predictability in earnings, as well as expanding operating margin. Our plan focused on increasing the contributions from our higher margin activities (i.e., advisory services and public finance), diversifying the business, managing operating costs diligently, and investing for growth. Through strong execution on these strategic initiatives we have produced a substantial increase in net revenues and remixed the business to higher quality earnings. These favorable attributes have generated greater earnings and enabled us to return capital to our shareholders through the payment of dividends, which we initiated in the first quarter of 2017 and subsequently increased going into 2018. Our investments in the business are discussed below.

Overview of Operations – Our operations are principally engaged in 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 – The Capital Markets segment provides investment banking services and institutional sales, trading and research services. Investment banking services include management of and participation in underwritings, financial advisory services 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, we generate revenue through strategic trading and investing activities, which focus on investments in municipal bonds and U.S. government agency securities. In order to invest firm capital and to manage capital from outside investors, we have created alternative asset management funds in merchant banking that involve equity or debt investments in late stage private companies; senior living, which provides financing to U.S. senior living facilities; and energy, whose principal activity is to invest in oil and gas services companies headquartered in Europe. We receive management and performance fees for managing these funds.

We have executed on our strategic growth initiatives through investments in the business, primarily by expanding into new industry sectors within equity investment banking and equity institutional brokerage, and the expansion of our fixed income middle market sales platform. The following is a summary of these activities.

- As part of our strategy to expand our equity investment banking business into the energy sector and grow our advisory business, on February 26, 2016, we completed the acquisition of Simmons & Company International ("Simmons"), an employee-owned investment bank and broker dealer focused on the energy industry. For more information on our acquisition of Simmons, see Note 4 of our consolidated financial statements.
- In 2015, we built upon our expansion into the financial institutions sector by acquiring the assets of River Branch Holdings LLC ("River Branch"), an equity investment banking boutique focused on the financial institutions sector. Also in 2015, we completed the acquisition of BMO Capital Markets GKST Inc. ("BMO GKST"), a municipal bond sales, trading and origination business of BMO Financial Corp.
- Over the past several years, we have added and strengthened sub-sectors across our industry groups. In equity investment banking, we added healthy living in our consumer sector and strengthened our healthcare sector with biotech and healthcare information technology practices. In addition, we broadened our specialty practices in public finance with additions in senior living and charter schools.

We have investment commitments related to affiliated entities which will make direct or indirect debt investments in companies. In 2018, we anticipate that we will begin to underwrite and syndicate loans through these entities.

Asset Management – The Asset Management segment, which provides traditional asset management services, manages investments in master limited partnerships ("MLPs") and energy infrastructure securities focused on the energy sector, and manages assets in domestic and global equity markets. Revenues are generated in the form of management and performance fees. Revenues are also generated through investments in the partnerships and funds that we manage.

An explicit element of our strategy in asset management has been to diversify our product offerings through the addition of high quality investment teams. In addition to our core MLP and value equity products, we have added teams specializing in domestic growth equity, global equity, and quantitative strategies, allowing us to leverage the infrastructure of our existing platform.

In 2017, our Asset Management segment experienced declining profitability due to decreases in revenues from reduced AUM and higher operating expenses from the addition of new investment teams. In the third quarter of 2017, we identified goodwill impairment indicators necessitating a full impairment testing of goodwill. The interim impairment testing related to our Asset Management segment goodwill resulted in a pre-tax non-cash impairment charge of \$114.4 million. For more information on our goodwill impairment testing, please refer to the "Critical Accounting Policies" section.

In 2016, an extended cycle of investors favoring passive investment vehicles over active management, combined with certain products having investment performance below their benchmarks, reduced management fees for the asset management business and caused a corresponding decline in profitability. Lower average AUM for our MLP strategies, driven by a decline in MLP valuations, also resulted in decreased management fees and profitability. In the fourth quarter of 2016, we conducted our annual goodwill impairment testing, including the goodwill associated with our Asset Management segment, which resulted in a pre-tax non-cash impairment charge of \$82.9 million.

Financial Highlights

	Twelve Months Ended		Percent Inc/(Dec)
	Dec. 31, 2017	Dec. 31, 2016	2017 vs. 2016
<i>(Amounts in thousands, except per share data)</i>			
U.S. GAAP			
Net revenues	\$ 874,923	\$ 747,349	17.1%
Compensation and benefits expenses	617,635	510,612	21.0
Non-compensation expenses	286,611	267,611	7.1
Net loss applicable to Piper Jaffray Companies	(61,939)	(21,952)	N/M
Loss per diluted common share	\$ (5.07)	\$ (1.73)	N/M
Non-GAAP ⁽¹⁾			
Adjusted net revenues	\$ 869,604	\$ 736,279	18.1%
Adjusted compensation and benefits expenses	562,636	474,371	18.6
Adjusted non-compensation expenses	153,316	150,427	1.9
Adjusted net income applicable to Piper Jaffray Companies	108,902	72,642	49.9
Adjusted earnings per diluted common share	\$ 7.12	\$ 4.69	51.8

N/M — Not meaningful

For the year ended December 31, 2017

- Net revenues increased 17.1 percent compared to 2016. Significantly higher advisory services revenues, as well as higher equity financing revenues, were partially offset by lower debt financing, institutional brokerage and asset management revenues.
- Compensation and benefits expenses were up 21.0 percent compared to the year-ago period due primarily to increased compensation expenses arising from increased revenues, as well as higher acquisition-related compensation costs related to a performance award plan implemented in conjunction with our acquisition of Simmons. In 2017, we recorded \$27.0 million of compensation expense related to this plan, compared to \$4.3 million in 2016. The higher compensation costs were due to outperformance of the Simmons business in 2017.
- Non-compensation expenses increased 7.1 percent compared to 2016. In 2017, we incurred a \$114.4 million goodwill impairment charge, compared to a \$82.9 million goodwill impairment charge in 2016. Also, incremental back office conversion costs in the current year were more than offset by lower restructuring costs. In 2016, non-compensation expenses included \$10.2 million of restructuring and integration costs primarily related to the acquisition of Simmons.
- The enactment of the Tax Cuts and Jobs Act, which reduced the federal corporate tax rate to 21 percent, required a remeasurement of our deferred tax assets resulting in a \$54.2 million non-cash write-off in the fourth quarter of 2017.
- For the year ended December 31, 2017, we recorded a tax benefit of \$9.2 million related to restricted stock vesting at values greater than the grant price. The tax benefit increased earnings per diluted common share by \$0.72 in 2017.
- In 2017, our return on average common shareholders' equity was a negative 8.1 percent, compared with a negative 2.8 percent for 2016. On an adjusted basis, we generated a return on average common shareholders' equity of 14.2 percent⁽²⁾ in 2017, compared with 9.2 percent⁽²⁾ for 2016.

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

(Amounts in thousands, except per share data)	Year Ended December 31,	
	2017	2016
Net revenues:		
Net revenues – U.S. GAAP basis	\$ 874,923	\$ 747,349
Adjustments:		
Revenue related to noncontrolling interests	(5,319)	(11,070)
Adjusted net revenues	<u>\$ 869,604</u>	<u>\$ 736,279</u>
Compensation and benefits:		
Compensation and benefits – U.S. GAAP basis	\$ 617,635	\$ 510,612
Adjustments:		
Compensation from acquisition-related agreements	(54,999)	(36,241)
Adjusted compensation and benefits	<u>\$ 562,636</u>	<u>\$ 474,371</u>
Non-compensation expenses:		
Non-compensation expenses – U.S. GAAP basis	\$ 286,611	\$ 267,611
Adjustments:		
Non-compensation expenses related to noncontrolling interests	(2,932)	(2,864)
Restructuring and integration costs	—	(10,206)
Goodwill impairment	(114,363)	(82,900)
Amortization of intangible assets related to acquisitions	(15,400)	(21,214)
Non-compensation expenses from acquisition-related agreements	(600)	—
Adjusted non-compensation expenses	<u>\$ 153,316</u>	<u>\$ 150,427</u>
Net income/(loss) applicable to Piper Jaffray Companies:		
Loss applicable to Piper Jaffray Companies – U.S. GAAP basis	\$ (61,939)	\$ (21,952)
Adjustments:		
Compensation from acquisition-related agreements	35,755	23,700
Restructuring and integration costs	—	7,014
Goodwill impairment	70,791	50,901
Amortization of intangible assets related to acquisitions	9,534	12,979
Non-compensation expenses from acquisition-related agreements	607	—
Impact of the Tax Cuts and Jobs Act legislation	54,154	—
Adjusted net income applicable to Piper Jaffray Companies	<u>\$ 108,902</u>	<u>\$ 72,642</u>
Earnings/(loss) per diluted common share:		
Loss per diluted common share – U.S. GAAP basis	\$ (5.07)	\$ (1.73)
Adjustment for loss allocated to participating shares (3)	1.04	0.30
	(4.03)	(1.43)
Adjustments:		
Compensation from acquisition-related agreements	2.33	1.53
Restructuring and integration costs	—	0.45
Goodwill impairment	4.62	3.29
Amortization of intangible assets related to acquisitions	0.62	0.84
Non-compensation expenses from acquisition-related agreements	0.04	—
Impact of the Tax Cuts and Jobs Act legislation	3.54	—
Adjusted earnings per diluted common share	<u>\$ 7.12</u>	<u>\$ 4.69</u>

- (2) Adjusted return on average common shareholders' equity, a non-GAAP measure, is computed by dividing adjusted net income applicable to Piper Jaffray Companies for the last 12 months by average monthly common shareholders' equity. For a detailed explanation of the components of adjusted net income, see "Reconciliation of U.S. GAAP to adjusted non-GAAP financial information" in footnote (1).
- (3) 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.

Market Data

The following table provides a summary of relevant market data over the past three years.

Year Ended	2017	2016	2015	2017 v2016	2016 v2015
S&P 500 <i>(a)</i>	2,674	2,239	2,044	19.4 %	9.5 %
NASDAQ <i>(a)</i>	6,950	5,383	5,007	29.1 %	7.5 %
Average CBOE Volatility Index (VIX)	11	16	17	(31.3)%	(5.9)%
NYSE Average Daily Number of Shares Traded (millions of shares)	1,077	1,256	1,187	(14.3)%	5.8 %
NASDAQ Average Daily Number of Shares Traded (millions of shares)	1,899	1,896	1,886	0.2 %	0.5 %
Mergers and Acquisitions - Middle Market (number of transactions in U.S.) <i>(b)</i>	2,727	2,620	2,724	4.1 %	(3.8)%
Public Equity Offerings (number of transactions in U.S.) <i>(c) (e)</i>	961	735	909	30.7 %	(19.1)%
Initial Public Offerings (number of transactions in U.S.) <i>(c)</i>	182	106	171	71.7 %	(38.0)%
Municipal Negotiated Issuances (number of transactions in U.S.) <i>(d)</i>	7,959	8,915	8,858	(10.7)%	0.6 %
Municipal Negotiated Issuances (value of transactions in billions in U.S.) <i>(d)</i>	\$ 348.8	\$ 353.0	\$ 317.8	(1.2)%	11.1 %
10-Year Treasuries Average Rate	2.33%	1.84%	2.14%	26.6 %	(14.0)%
3-Month Treasuries Average Rate	0.95%	0.32%	0.05%	196.9 %	540.0 %
Average 10-Year Municipal-Treasury Ratio <i>(f)</i>	0.89	0.93	0.98	(4.3)%	(5.1)%

(a) Data provided is at period end.

(b) Source: Thomson Reuters (transactions with reported deal value between \$100 million and \$1 billion and transactions with an undisclosed deal value that had a financial advisor).

(c) Source: Dealogic (offerings with reported market value greater than \$20 million).

(d) Source: Thomson Reuters.

(e) Number of transactions includes convertible offerings.

(f) Calculated based on the 10-year Municipal Market Data (MMD) index rate divided by the 10-year treasury rate.

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 equity and debt financings and merger and acquisition transactions, 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, overall equity valuations, and the demand for active asset management services.

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 2018

We expect the U.S. economy to continue to grow at a moderate pace in 2018. The recently passed tax reform legislation, increased fiscal spending, actions to reduce the regulatory burden on businesses, and broad growth across most major global economies should be supportive to economic growth in the U.S. Conversely, geopolitical risks or economic instability internationally may pose consequences for the global economy and inject periods of heightened volatility into the U.S. equity and debt markets.

We believe that U.S. monetary policy could possibly have a material impact on the economy in 2018. The U.S. Federal Reserve increased short-term interest rates three times in 2017 on the expectation of stronger economic growth despite muted signs of inflation. 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, particularly if there is acceleration in the pace of inflation. Higher interest rates could trigger a sell-off in equities which would likely adversely impact our equity capital raising and advisory businesses. Further, if long-term interest rates prove resistant to a tightening in monetary policy, we could experience an extended period of a flat, or even an inverse, yield curve, which could adversely impact our fixed income sales and trading business. In addition, exogenous conditions may trigger episodes of volatility with respect to interest rates. A volatile interest rate environment could manifest itself in changes to the yield curve or relative spreads which may have a mixed impact on certain of our businesses.

The Tax Cuts and Jobs Act (the "Tax Reform Act"), which was enacted on December 22, 2017, will have a significant impact on the federal tax code, including a significant corporate federal rate reduction and tax treatment which would facilitate the repatriation of earnings from overseas profits. The lower corporate tax rate will result in additional earnings, which we will use to invest in our business and to return capital to our shareholders through dividends. We will also continue to look for opportunistic investments that are in line with our strategy. Although the full impact of the Tax Reform Act on our businesses is not yet known, we would anticipate that certain sectors of our businesses may be affected more than others. We expect that our public finance operations will be adversely impacted as the repeal of tax-exempt advance refunding bonds through the Tax Reform Act will result in a decline in municipal issuance volume in the market. The impact on our equity investment banking businesses is expected to be favorable, albeit at a moderate level. The Tax Reform Act is not expected to have a significant impact on our institutional brokerage or asset management businesses. We will continue to monitor and evaluate the impact of this legislation on our businesses.

We expect conditions in the equity markets to remain conducive to our advisory and equity capital raising activities in 2018. While lower volatility benefits our capital raising business, it has the inverse effect on our equity sales and trading business. We have experienced heightened volatility in early 2018. If we experience sustained bouts of higher volatility or a material market correction, our equity brokerage business may benefit while our advisory and equity capital raising businesses may suffer. We believe our advisory services business will continue to perform well in 2018 on the strength of our market position, long-term investments, diversity in our practice and readily available capital. As noted above, economic instability arising from a significant geopolitical event, for example, or an adverse market reaction to monetary tightening would likely be detrimental to both our equity capital raising and advisory businesses. 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 expect that secular challenges to our equity brokerage business, including the shift from active to passive managers, will persist in 2018. These challenges may be exacerbated by the implementation of MiFID II, a European regulation which may be adopted by some of our U.S. clients. This regulation, which governs how buy-side clients (asset managers) pay for services performed by brokerage businesses, may lead to revenue declines for U.S. brokerage businesses, and we would not be immune from this impact.

We would expect the low interest rate environment and flat yield curve to persist in 2018. This would continue to subdue customer flow activity for our fixed income institutional brokerage business. While higher interest rates across the yield curve would be favorable to this business, the move to higher rates could adversely impact our public finance business in the short-term as the level of refunding activity eases while greater economic growth has not yet spurred a ramp in new money issuance volumes. Irrespective of the interest rate levels, we believe that municipal debt underwriting activity will be down meaningfully in 2018 compared to 2017 as some issuances were accelerated to the end of 2017 due to pending changes from the tax reform legislation, and also due to a lower level of refunding activity.

As economic growth continues we would expect rising market valuations, which would have a positive impact on our asset management business. However, market valuations may be negatively impacted by significant declines and volatility in the financial markets, as experienced in early 2018. We would expect that active asset managers, ourselves included, will remain under pressure to create alpha for their clients and to maintain or grow AUM.

Results of Operations

Financial Summary

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.

	Year Ended December 31,					As a Percentage of Net Revenues for the Year Ended December 31,		
				2017	2016			
	2017	2016	2015	v2016	v2015	2017	2016	2015
<i>(Dollars in thousands)</i>								
Revenues:								
Investment banking	\$ 633,837	\$ 490,340	\$ 414,118	29.3%	18.4%	72.4 %	65.6 %	61.5%
Institutional brokerage	154,563	161,186	154,889	(4.1)	4.1	17.7	21.6	23.0
Asset management	56,835	60,672	75,017	(6.3)	(19.1)	6.5	8.1	11.1
Interest	31,954	33,074	41,557	(3.4)	(20.4)	3.7	4.4	6.2
Investment income	18,002	24,602	10,736	(26.8)	129.2	2.1	3.3	1.6
Total revenues	895,191	769,874	696,317	16.3	10.6	102.3	103.0	103.5
Interest expense	20,268	22,525	23,399	(10.0)	(3.7)	2.3	3.0	3.5
Net revenues	874,923	747,349	672,918	17.1	11.1	100.0	100.0	100.0
Non-interest expenses:								
Compensation and benefits	617,635	510,612	421,733	21.0	21.1	70.6	68.3	62.7
Outside services	38,012	39,289	36,218	(3.3)	8.5	4.3	5.3	5.4
Occupancy and equipment	33,462	34,813	28,301	(3.9)	23.0	3.8	4.7	4.2
Communications	29,891	29,626	23,762	0.9	24.7	3.4	4.0	3.5
Marketing and business development	31,293	30,404	29,990	2.9	1.4	3.6	4.1	4.5
Trade execution and clearance	8,166	7,651	7,794	6.7	(1.8)	0.9	1.0	1.2
Restructuring and integration costs	—	10,206	10,652	(100.0)	(4.2)	—	1.4	1.6
Goodwill impairment	114,363	82,900	—	38.0	N/M	13.1	11.1	—
Intangible asset amortization	15,400	21,214	7,662	(27.4)	176.9	1.8	2.8	1.1
Back office conversion costs	3,927	561	—	600.0	N/M	0.4	0.1	—
Other operating expenses	12,097	10,947	20,383	10.5	(46.3)	1.4	1.5	3.0
Total non-interest expenses	904,246	778,223	586,495	16.2	32.7	103.4	104.1	87.2
Income/(loss) before income tax expense/(benefit)	(29,323)	(30,874)	86,423	N/M	N/M	(3.4)	(4.1)	12.8
Income tax expense/(benefit)	30,229	(17,128)	27,941	N/M	N/M	3.5	(2.3)	4.2
Net income/(loss)	(59,552)	(13,746)	58,482	N/M	N/M	(6.8)	(1.8)	8.7
Net income applicable to noncontrolling interests	2,387	8,206	6,407	(70.9)	28.1	0.3	1.1	1.0
Net income/(loss) applicable to Piper Jaffray Companies	\$ (61,939)	\$ (21,952)	\$ 52,075	N/M	N/M	(7.1)%	(2.9)%	7.7%

N/M — Not meaningful

For the year ended December 31, 2017, we recorded a net loss applicable to Piper Jaffray Companies of \$61.9 million, driven by a \$70.8 million, net of tax, goodwill impairment charge and a \$54.2 million tax charge for the remeasurement of our deferred tax assets as a result of the lower enacted federal corporate tax rate. Net revenues for the year ended December 31, 2017 were \$874.9 million, a 17.1 percent increase compared to \$747.3 million in the year-ago period. In 2017, investment banking revenues increased 29.3 percent to \$633.8 million, compared with \$490.3 million in 2016, driven by strong advisory services revenues. The advisory services business has been a strategic focus for us, and these results reflect significant market share gains. Also, equity financing revenues increased as the market environment for equity capital raising improved significantly after challenging market conditions in the prior year. These increases were partially offset by lower debt financing revenues, which declined compared to a strong year-ago period. For the year ended December 31, 2017, institutional brokerage revenues were \$154.6 million, down 4.1 percent compared with \$161.2 million in 2016, due to lower equity and fixed income institutional brokerage revenues. Asset management fees were \$56.8 million in 2017, down 6.3 percent compared with \$60.7 million in 2016, as lower management fees from our equity product offerings were partially offset by higher management fees from MLP product offerings. For the year ended December 31, 2017, net interest income increased to \$11.7 million, compared with \$10.5 million in 2016. In 2017, investment income was \$18.0 million, compared with \$24.6 million in 2016, due to lower gains on our investment and the noncontrolling interests in the merchant banking fund that we manage. Non-interest expenses were \$904.2 million for the year ended December 31, 2017, an increase of 16.2 percent compared to \$778.2 million in the prior year. The increase was driven by higher compensation expenses from increased revenues, as well as higher acquisition-related compensation costs. Also, we incurred a \$114.4 million goodwill impairment charge in 2017, compared to a \$82.9 million goodwill impairment charge in the prior year. Incremental back office conversion costs in the current year were more than offset by lower restructuring costs.

For the year ended December 31, 2016, we recorded a net loss applicable to Piper Jaffray Companies of \$22.0 million, driven by a \$50.9 million, net of tax, goodwill impairment charge. Net revenues for the year ended December 31, 2016 were \$747.3 million, a 11.1 percent increase compared to \$672.9 million in 2015. In 2016, investment banking revenues increased 18.4 percent to \$490.3 million, compared with \$414.1 million in 2015, driven by strong advisory services and debt financing revenues which reflected our investments and focus to grow these businesses. These increases were partially offset by lower equity financing revenues, as our equity capital raising business experienced challenging market conditions for most of 2016. For the year ended December 31, 2016, institutional brokerage revenues were \$161.2 million, up 4.1 percent compared with \$154.9 million in 2015, due to higher equity institutional brokerage revenues. Asset management fees were \$60.7 million in 2016, compared with \$75.0 million in 2015, due to lower management fees from our equity and MLP product offerings. For the year ended December 31, 2016, net interest income decreased to \$10.5 million, compared with \$18.2 million in 2015. The decrease primarily resulted from the liquidation of our municipal bond fund with outside investors in the second half of 2015, and additional interest expense on our senior notes. In addition, we had lower interest income earned on mortgage-backed securities as a result of lower inventory balances. In 2016, investment income was \$24.6 million, compared with \$10.7 million in 2015. We recorded losses on our investments of firm capital in our MLP strategies in 2015. Non-interest expenses were \$778.2 million for the year ended December 31, 2016, an increase of 32.7 percent compared to \$586.5 million in 2015. The increase was due to an \$82.9 million goodwill impairment charge, as well as higher compensation expense driven by increased revenues and higher expenses resulting from our acquisitions and business expansion. Partially offsetting this increase was lower legal reserves associated with a \$9.8 million legal settlement in 2015.

New Revenue Recognition Guidance

As discussed in Note 3 to our consolidated financial statements, we will adopt new revenue recognition guidance effective as of January 1, 2018. The current broker dealer industry treatment of netting deal expenses with investment banking revenues will change under the new guidance. As a result of adopting the new guidance, we will generally present deal expenses on a gross basis under non-interest expenses on the consolidated statements of operations, rather than the current presentation of netting deal expenses incurred for completed investment banking deals within revenues. This change will not impact earnings, however, we will report higher investment banking revenues and higher non-compensation expenses. Based upon prior years' experience, we would expect \$20 million to \$25 million of annual deal-related costs to be reported as non-compensation expenses upon adoption of the new guidance. The amount of deal-related costs in 2018 will principally be dependent on the level of deal activity and may vary from quarter to quarter as the collection of deal-related costs typically coincides with the closing of a transaction. In addition, we expect to 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. We anticipate that our current methods of recognizing investment banking revenues will not be 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 year ended December 31, 2017, compensation and benefits expenses increased 21.0 percent to \$617.6 million from \$510.6 million in 2016. Compensation expenses increased due to higher revenues as well as higher acquisition-related compensation costs, which were driven by incremental compensation expenses related to a Simmons performance award plan implemented at the time of acquisition. Our compensation costs related to this performance plan increased to \$27.0 million in 2017, compared to \$4.3 million in 2016, as the Simmons business outperformed our projections in 2017 due to a recovery in the energy markets and strong execution of investment banking transactions. As a result, we have refined our future projections related to this business and the performance award plan. Compensation and benefits expenses as a percentage of net revenues was 70.6 percent in 2017, compared with 68.3 percent in 2016. The higher compensation expense ratio was attributable to increased acquisition-related compensation, and the impact of defined retirement provisions for performance share units to be granted in February 2018, which resulted in recognition of additional compensation expense. Absent a significant change in our business or market conditions impacting the energy sector, the impact of acquisition-related costs will continue to elevate this rate in 2018.

For the year ended December 31, 2016, compensation and benefits expenses increased 21.1 percent to \$510.6 million from \$421.7 million in 2015, due to higher revenues as well as higher acquisition-related compensation costs primarily resulting from the Simmons acquisition completed in February 2016. Compensation and benefits expenses as a percentage of net revenues was 68.3 percent in 2016, compared with 62.7 percent in 2015. The higher compensation expense ratio was attributable to increased acquisition-related compensation.

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 decreased 3.3 percent to \$38.0 million in 2017, compared with \$39.3 million in the corresponding period of 2016. Excluding the portion of expenses from non-controlled equity interests in our consolidated alternative asset management funds, outside services expenses were essentially flat.

Outside services expenses increased 8.5 percent to \$39.3 million in 2016, compared with \$36.2 million in 2015. Excluding the portion of expenses from non-controlled equity interests in our consolidated alternative asset management funds, outside services expenses increased 9.2 percent due primarily to higher professional fees, as well as incremental expenses related to our acquisitions.

Occupancy and Equipment – For the year ended December 31, 2017, occupancy and equipment expenses decreased 3.9 percent to \$33.5 million, compared with \$34.8 million in 2016.

For the year ended December 31, 2016, occupancy and equipment expenses increased 23.0 percent to \$34.8 million, compared with \$28.3 million in 2015. The increase was primarily the result of incremental occupancy expenses from our acquisitions of Simmons, River Branch and BMO GKST.

Communications – Communication expenses include costs for telecommunication and data communication, primarily consisting of expenses for obtaining third party market data information. For the year ended December 31, 2017, communication expenses were \$29.9 million, up slightly compared with 2016.

For the year ended December 31, 2016, communication expenses increased 24.7 percent to \$29.6 million, compared with \$23.8 million for the year ended December 31, 2015. The increase resulted from higher market data service expenses due to the additional headcount associated with our acquisition of Simmons, and also reflected a full year of incremental expenses associated with our acquisitions of River Branch and BMO GKST.

Marketing and Business Development – Marketing and business development expenses include travel and entertainment costs, advertising and third party marketing fees. In 2017, marketing and business development expenses were \$31.3 million, compared with \$30.4 million for the year ended December 31, 2016.

In 2016, marketing and business development expenses were \$30.4 million, compared with \$30.0 million for the year ended December 31, 2015, as increased travel expenses were offset by a decline in third party marketing fees.

Trade Execution and Clearance – For the year ended December 31, 2017, trade execution and clearance expenses increased to \$8.2 million, compared with \$7.7 million for the year ended December 31, 2016.

For the year ended December 31, 2016, trade execution and clearance expenses were \$7.7 million, down slightly compared with 2015.

Restructuring and Integration Costs – For the year ended December 31, 2016, we recorded restructuring and acquisition integration costs of \$10.2 million, primarily related to our acquisition of Simmons. The expenses consisted of \$6.6 million of severance, benefits and outplacement costs, \$1.3 million of vacated redundant leased office space, \$1.3 million of transaction costs, and \$1.0 million of contract termination costs.

For the year ended December 31, 2015, we recorded restructuring and integration costs of \$10.7 million, primarily related to the acquisitions of River Branch and BMO GKST. The expenses consisted of \$8.8 million of severance, benefits and outplacement costs, \$1.4 million of transaction costs, and \$0.5 million of contract termination costs.

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 our asset management reporting unit.

During the fourth quarter of 2016, we completed our annual goodwill impairment testing, which resulted in a non-cash goodwill impairment charge of \$82.9 million related to our asset management reporting unit.

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 year ended December 31, 2017, intangible asset amortization was \$15.4 million, compared with \$21.2 million in the corresponding period of 2016.

For the year ended December 31, 2016, intangible asset amortization was \$21.2 million, compared with \$7.7 million in the corresponding period of 2015. The increase reflects incremental intangible asset amortization related to the acquisition of Simmons, and a full year of intangible asset amortization related to the 2015 acquisitions of River Branch and BMO GKST.

Back Office Conversion Costs – In 2017, we migrated to a fully disclosed clearing model and are no longer self clearing. Back office conversion costs include 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 year ended December 31, 2017, we incurred back office conversion costs of \$3.9 million, compared with \$0.6 million in the year ended December 31, 2016.

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 \$12.1 million in 2017, compared with \$10.9 million in 2016. The increase was primarily due to higher expense related to our charitable giving program driven by our increased profitability on a non-GAAP basis.

Other operating expenses decreased to \$10.9 million in 2016, compared with \$20.4 million in 2015. Legal reserves were higher in 2015 due to a \$9.8 million charge resulting from settlement of a legal matter.

Income Taxes – For the year ended December 31, 2017, our provision for income taxes was \$30.2 million, which includes a non-cash tax charge of \$54.2 million for the remeasurement of our deferred tax assets arising from the passing of the Tax Reform Act and the lower enacted federal corporate tax rate of 21 percent. As a result of the lower enacted federal tax rate, we anticipate our effective tax rate, excluding noncontrolling interests and the impact from stock-based compensation award vestings, to be approximately 25 percent to 27 percent, beginning in 2018. Excluding this charge, our provision from income taxes in 2017 was a benefit of \$23.9 million as a result of pre-tax losses related to the \$114.4 million non-cash goodwill impairment charge. In addition, for the year ended December 31, 2017, we recorded a \$9.2 million tax benefit related to stock-based compensation awards vesting

at values greater than the grant price. As discussed in Note 3, "Recent Accounting Pronouncements and Other Guidance" in the notes to our consolidated financial statements included in this Form 10-K, effective as of January 1, 2017, new accounting guidance requires us to recognize the income tax effects of stock-based compensation awards in the income statement when the awards vest, rather than as additional paid-in capital. The amount recognized in the income statement in future periods may vary depending upon, among other things, the number of restricted shares vesting and their change in value since the grant date. We would expect that the impact of this guidance will be more meaningful in the first half of each year as the majority of our restricted stock vestings related to our employees' incentive compensation occurs in February.

For the year ended December 31, 2016, our benefit for income taxes was \$17.1 million, equating to an effective tax rate, excluding noncontrolling interests, of 43.8 percent. The higher effective tax rate was due to the benefit from tax-exempt municipal interest income during a period with pre-tax losses.

For the year ended December 31, 2015, our provision for income taxes was \$27.9 million, equating to an effective rate, excluding noncontrolling interests, of 34.9 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/(loss) 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, (4) restructuring and acquisition integration costs and (5) 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.

Adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin present the segments' results of operations excluding the impact resulting from the consolidation of noncontrolling interests in alternative asset management funds and private equity investment vehicles. Consolidation of these funds results in the inclusion of the proportionate share of the income or loss attributable to the equity interests in consolidated funds that are not attributable, either directly or indirectly, to us (i.e. noncontrolling interests). This proportionate share is reflected in net income applicable to noncontrolling interests in the accompanying consolidated statements of operations, and has no effect on the overall financial performance of the segments, as ultimately, this income or loss is not income or loss for the segments themselves. Included in adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin is the actual proportionate share of the income or loss attributable to us as an investor in such funds.

Adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin also exclude amortization of intangible assets and compensation and non-compensation expenses from acquisition-related agreements. These amounts are excluded on a non-GAAP basis as they represent expenses specifically related to acquisitions that will eventually be fully amortized and therefore not part of our on-going operations. The restructuring and integration costs excluded from adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin represent charges that resulted from severance benefits, vacating redundant leased office space and contract termination costs. Restructuring and integration costs are excluded from our non-GAAP financial measures as they generally relate to an acquisition or a specific event and excluding these amounts provides a better understanding of our core non-compensation expenses. Management believes that presenting adjusted segment pre-tax operating income and

adjusted segment pre-tax operating margin excluding the acquisition-related amounts and restructuring and integration costs provides clarity on the financial results generated by the core operating components of our business. The non-cash goodwill impairment charges recognized in 2017 and 2016 relate to the asset management reporting unit.

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:

	Year Ended December 31,							
	2017				2016			
	Total Adjusted	Adjustments (1)		U.S. GAAP	Total Adjusted	Adjustments (1)		U.S. GAAP
Noncontrolling Interests		Other Adjustments	Noncontrolling Interests			Other Adjustments		
<i>(Dollars in thousands)</i>								
Investment banking								
Financing								
Equities	\$ 98,996	\$ —	\$ —	\$ 98,996	\$ 71,161	\$ —	\$ —	\$ 71,161
Debt	93,434	—	—	93,434	115,013	—	—	115,013
Advisory services	443,303	—	—	443,303	304,654	—	—	304,654
<i>Total investment banking</i>	635,733	—	—	635,733	490,828	—	—	490,828
Institutional sales and trading								
Equities	81,717	—	—	81,717	87,992	—	—	87,992
Fixed income	89,455	—	—	89,455	90,495	971	—	91,466
<i>Total institutional sales and trading</i>	171,172	—	—	171,172	178,487	971	—	179,458
<i>Total management and performance fees</i>	5,566	—	—	5,566	6,363	—	—	6,363
<i>Investment income</i>	12,321	5,319	—	17,640	14,692	10,099	—	24,791
<i>Long-term financing expenses</i>	(7,676)	—	—	(7,676)	(9,136)	—	—	(9,136)
Net revenues	817,116	5,319	—	822,435	681,234	11,070	—	692,304
Operating expenses	669,630	2,932	65,777	738,339	580,974	2,864	62,025	645,863
Segment pre-tax operating income	\$ 147,486	\$ 2,387	\$ (65,777)	\$ 84,096	\$ 100,260	\$ 8,206	\$ (62,025)	\$ 46,441
Segment pre-tax operating margin	18.0%			10.2%	14.7%			6.7%

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

	Year Ended December 31,	
	2017	2016
<i>(Dollars in thousands)</i>		
Compensation from acquisition-related agreements	\$ 54,999	\$ 36,241
Restructuring and integration costs	—	10,197
Amortization of intangible assets related to acquisitions	10,178	15,587
Non-compensation expenses from acquisition-related agreements	600	—
	\$ 65,777	\$ 62,025

Capital Markets net revenues on a U.S. GAAP basis increased 18.8 percent to \$822.4 million for the year ended December 31, 2017, compared with \$692.3 million in the prior-year period. For the year ended December 31, 2017, Capital Markets adjusted net revenues were \$817.1 million compared with \$681.2 million for the year ended December 31, 2016. The variance explanations for net revenues and adjusted net revenues are consistent on both a U.S. GAAP and non-GAAP basis.

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

In 2017, investment banking revenues increased 29.5 percent to \$635.7 million compared with \$490.8 million in the corresponding period of the prior year as strong advisory services and equity financing revenues were partially offset by lower debt financing revenues. For the year ended December 31, 2017, advisory services revenues increased 45.5 percent to \$443.3 million, compared with \$304.7 million in 2016. The increase reflects our long-term efforts to invest in and grow the advisory services business and the breadth of our platform. Revenue growth in advisory services also reflects market share gains, supplemented by constructive markets. We completed 163 transactions with an aggregate enterprise value of \$34.3 billion in 2017, compared with 150 transactions with an aggregate enterprise value of \$22.3 billion in 2016. For the year ended December 31, 2017, equity financing revenues were \$99.0 million, up 39.1 percent compared with \$71.2 million in the prior-year period, due to more completed transactions and higher revenue per transaction in an improved market environment. Market conditions, driven by increased valuations and low volatility, were conducive for equity capital raising in 2017. During 2017, we completed 84 equity financings, raising \$17.1 billion for our clients, compared with 68 equity financings, raising \$13.7 billion for our clients in the year-ago period. Debt financing revenues for the year ended December 31, 2017 were \$93.4 million, a decrease of 18.8 percent compared with \$115.0 million in the year-ago period. Despite an increase in municipal issuance volume at the end of 2017 as issuers accelerated financings before the implementation of federal tax law changes in 2018, public finance revenues declined compared to a very strong 2016. Refunding activity decreased compared to the prior-year period, and was only partially offset by an increase in new money issuance volumes in 2017. During 2017, we completed 622 negotiated municipal issues with a total par value of \$15.3 billion, compared with 718 negotiated municipal issues with a total par value of \$16.7 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 year ended December 31, 2017, institutional brokerage revenues decreased 4.6 percent to \$171.2 million, compared with \$179.5 million in the prior-year period, due to lower equity and fixed income institutional brokerage revenues. Equity institutional brokerage revenues were \$81.7 million in 2017, down 7.1 percent compared with \$88.0 million in 2016, as historically low levels of volatility reduced client trading volumes during the year. For the year ended December 31, 2017, fixed income institutional brokerage revenues were \$89.5 million, down 2.2 percent compared with \$91.5 million in the prior-year period. Customer flow activity remained light for most of 2017 due to the low interest rates and flat yield curve.

Management and performance fees include the fees generated from our merchant banking, energy and senior living funds with outside investors. For the year ended December 31, 2017, management and performance fees were \$5.6 million, compared with \$6.4 million in the prior-year period, due primarily to lower performance fees from our merchant banking fund. Upon adopting new revenue recognition guidance effective as of January 1, 2018, we expect to 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.

Investment income includes realized and unrealized gains and losses on investments, including amounts attributable to noncontrolling interests, in our merchant banking, energy and senior living funds, and other firm investments. For the year ended December 31, 2017, investment income was \$17.6 million, compared to \$24.8 million in 2016. In 2017, we recorded lower gains in our merchant banking and senior living funds, which were partially offset by higher gains on our other firm investments. Excluding the impact of noncontrolling interests, adjusted investment income was \$12.3 million in 2017.

Long-term financing expenses primarily represent interest recorded on our senior notes. For the year ended December 31, 2017, long-term financing expenses decreased to \$7.7 million, compared to \$9.1 million in the prior-year period. We repaid the \$50 million of Class A senior notes upon maturity on May 31, 2017.

Capital Markets segment pre-tax operating margin for the year ended December 31, 2017 increased to 10.2 percent, compared with 6.7 percent for 2016. The increased pre-tax operating margin was due to a lower non-compensation ratio driven by higher revenues and lower levels of restructuring costs, which was partially offset by higher acquisition-related costs. In the year-ago period, we recorded \$10.2 million of restructuring and integration costs primarily related to the acquisition of Simmons. Adjusted segment pre-tax operating margin of 18.0 percent in 2017 was an increase from the 14.7 percent operating margin recorded in 2016 due to operating leverage as a result of higher revenues. Adjusted net revenues increased 19.9 percent in 2017 and adjusted operating expenses increased 15.3 percent compared to 2016, reflecting operating leverage in the business.

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:

	Year Ended December 31,							
	2016				2015			
	Total Adjusted	Adjustments (1)		U.S. GAAP	Total Adjusted	Adjustments (1)		U.S. GAAP
Noncontrolling Interests		Other Adjustments	Noncontrolling Interests			Other Adjustments		
<i>(Dollars in thousands)</i>								
Investment banking								
Financing								
Equities	\$ 71,161	\$ —	\$ —	\$ 71,161	\$ 114,468	\$ —	\$ —	\$ 114,468
Debt	115,013	—	—	115,013	91,195	—	—	91,195
Advisory services	304,654	—	—	304,654	209,163	—	—	209,163
Total investment banking	490,828	—	—	490,828	414,826	—	—	414,826
Institutional sales and trading								
Equities	87,992	—	—	87,992	78,584	—	—	78,584
Fixed income	90,495	971	—	91,466	93,489	816	—	94,305
Total institutional sales and trading	178,487	971	—	179,458	172,073	816	—	172,889
Total management and performance fees	6,363	—	—	6,363	4,642	—	—	4,642
Investment income	14,692	10,099	—	24,791	15,474	8,994	—	24,468
Long-term financing expenses	(9,136)	—	—	(9,136)	(7,494)	—	—	(7,494)
Net revenues	681,234	11,070	—	692,304	599,521	9,810	—	609,331
Operating expenses	580,974	2,864	62,025	645,863	511,241	3,403	16,293	530,937
Segment pre-tax operating income	\$ 100,260	\$ 8,206	\$ (62,025)	\$ 46,441	\$ 88,280	\$ 6,407	\$ (16,293)	\$ 78,394
Segment pre-tax operating margin	14.7%			6.7%	14.7%			12.9%

(1) The following is a summary of the adjustments needed to reconcile our consolidated U.S. GAAP segment pre-tax 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 and private equity investment vehicles 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:

<i>(Dollars in thousands)</i>	<i>Year Ended December 31,</i>	
	<i>2016</i>	<i>2015</i>
<i>Compensation from acquisition-related agreements</i>	<i>\$ 36,241</i>	<i>\$ 4,019</i>
<i>Restructuring and integration costs</i>	<i>10,197</i>	<i>10,652</i>
<i>Amortization of intangible assets related to acquisitions</i>	<i>15,587</i>	<i>1,622</i>
	<u><i>\$ 62,025</i></u>	<u><i>\$ 16,293</i></u>

Capital Markets net revenues on a U.S. GAAP basis increased 13.6 percent to \$692.3 million for the year ended December 31, 2016, compared with \$609.3 million for the year ended December 31, 2015. For the year ended December 31, 2016, Capital Markets adjusted net revenues were \$681.2 million compared with \$599.5 million in the prior year. The variance explanations for net revenues and adjusted net revenues are consistent on both a U.S. GAAP and non-GAAP basis.

In 2016, investment banking revenues increased 18.3 percent to \$490.8 million compared with \$414.8 million in the prior year, as strong advisory services and debt financing revenues were partially offset by lower equity financing revenues. For the year ended December 31, 2016, advisory services revenues increased to \$304.7 million, compared with \$209.2 million in 2015. The increase reflects our long-term effort to grow our advisory services business, including expansion into the energy and financial institutions sectors. Our revenues increased more than 45 percent compared to the prior year while market-wide mergers and acquisitions activity declined, which reflects meaningful market share gains. Our debt advisory group also contributed to the strong results. We completed 150 transactions with an aggregate enterprise value of \$22.3 billion during 2016, compared with 82 transactions with an aggregate enterprise value of \$23.0 billion in 2015. Debt financing revenues for the year ended December 31, 2016 were \$115.0 million, up 26.1 percent compared with \$91.2 million in the prior year, due to higher public finance revenues. Our public finance business benefited from increased new money issuance volumes and refunding activity, as well as market share gains attributable to our geographic and sector expansion. In 2016, our par value from negotiated debt issuances increased 17.2 percent, compared to 10.5 percent for the industry. During 2016, we completed 718 negotiated municipal issues with a total par value of \$16.7 billion, compared with 707 negotiated municipal issues with a total par value of \$14.3 billion during 2015. For the year ended December 31, 2016, equity financing revenues were \$71.2 million, down 37.8 percent compared with \$114.5 million in 2015, due to fewer completed transactions and lower revenue per transaction. The equity capital raising business experienced challenging market conditions for most of 2016. The total available fee pool in the sub-\$2 billion market decreased 33 percent in 2016. Contributions from our expansion into the energy and financial institutions sectors partially offset the impact of the significant decrease in capital raising. During 2016, we completed 68 equity financings, raising \$13.7 billion for our clients, compared with 95 equity financings, raising \$17.4 billion for our clients in 2015.

For the year ended December 31, 2016, institutional brokerage revenues increased 3.8 percent to \$179.5 million, compared with \$172.9 million in 2015, as higher equity institutional brokerage revenues were partially offset by lower fixed income institutional brokerage revenues. Equity institutional brokerage revenues were \$88.0 million in 2016, up 12.0 percent compared with \$78.6 million in 2015. The increase reflects our expansion into the energy and financial institutions sectors and expanded research capabilities. For the year ended December 31, 2016, fixed income institutional brokerage revenues were \$91.5 million, down 3.0 percent compared with \$94.3 million in the prior year. The addition of BMO GKST in the fourth quarter of 2015 resulted in gains to our customer flow business in 2016, which were offset by lower trading gains from fewer trading opportunities. Challenging market conditions at various times during 2016 negatively impacted our trading opportunities, which reduced our revenues. Credit spreads were volatile in the first quarter of 2016, and the municipal market, in which we have a meaningful presence, was volatile in the fourth quarter of 2016.

For the year ended December 31, 2016, management and performance fees were \$6.4 million, up 37.1 percent compared with \$4.6 million in 2015, due to incremental management fees generated from two energy funds, which we acquired with the Simmons acquisition, as well as higher performance fees from our merchant banking fund. These increases were offset by lower management fees from a municipal bond fund with outside investors, which we closed in the third quarter of 2015.

For the year ended December 31, 2016, investment income was \$24.8 million, compared to \$24.5 million in 2015. In 2016, higher gains on the senior living fund that we manage, as well as higher gains on our firm investments, were offset by lower gains in our merchant banking fund. Excluding the impact of noncontrolling interests, adjusted investment income was \$14.7 million in 2016.

In 2016, long-term financing expenses increased to \$9.1 million, compared to \$7.5 million in the prior year, as we increased the amount of outstanding principal on our senior notes in the fourth quarter of 2015 from \$125 million to \$175 million.

Capital Markets segment pre-tax operating margin for 2016 decreased to 6.7 percent, compared with 12.9 percent for 2015, due to higher acquisition-related costs. Adjusted segment pre-tax operating margin of 14.7 percent for 2016 was consistent with 2015. In 2016, a decrease in our non-compensation ratio was offset by a higher compensation ratio due to our mix of business.

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/(loss) and pre-tax operating margin for the periods presented:

	Year Ended December 31,							
	2017				2016			
	Total Adjusted	Adjustments (1)		U.S. GAAP	Total Adjusted	Adjustments (1)		U.S. GAAP
Noncontrolling Interests		Other Adjustments	Noncontrolling Interests			Other Adjustments		
<i>(Dollars in thousands)</i>								
Management fees								
Equity	\$ 23,639	\$ —	\$ —	\$ 23,639	\$ 28,164	\$ —	\$ —	\$ 28,164
MLP	27,630	—	—	27,630	25,561	—	—	25,561
<i>Total management fees</i>	51,269	—	—	51,269	53,725	—	—	53,725
Performance fees								
Equity	—	—	—	—	584	—	—	584
MLP	—	—	—	—	—	—	—	—
<i>Total performance fees</i>	—	—	—	—	584	—	—	584
<i>Total management and performance fees</i>	51,269	—	—	51,269	54,309	—	—	54,309
<i>Investment income</i>	1,219	—	—	1,219	736	—	—	736
<i>Total net revenues</i>	52,488	—	—	52,488	55,045	—	—	55,045
<i>Operating expenses</i>	46,322	—	119,585	165,907	43,824	—	88,536	132,360
<i>Segment pre-tax operating income/(loss)</i>	<u>\$ 6,166</u>	<u>\$ —</u>	<u>\$ (119,585)</u>	<u>\$ (113,419)</u>	<u>\$ 11,221</u>	<u>\$ —</u>	<u>\$ (88,536)</u>	<u>\$ (77,315)</u>
<i>Segment pre-tax operating margin</i>	11.7%			(216.1)%	20.4%			(140.5)%
<i>Adjusted segment pre-tax operating margin excluding investment income (2)</i>	9.6%				19.3%			

(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:

	Year Ended December 31,	
	2017	2016
<i>(Dollars in thousands)</i>		
<i>Restructuring and integration costs</i>	\$ —	\$ 9
<i>Goodwill impairment</i>	114,363	82,900
<i>Amortization of intangible assets related to acquisitions</i>	5,222	5,627
	<u>\$ 119,585</u>	<u>\$ 88,536</u>

(2) *Management believes that presenting adjusted segment pre-tax operating margin excluding investment income, a non-GAAP measure, provides the most meaningful basis for comparison of Asset Management operating results across periods.*

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. 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. The majority of performance fees, if earned, are generally recorded in the fourth quarter of the applicable year or upon withdrawal of client assets. At December 31, 2017, approximately five percent of our AUM was eligible to earn performance fees.

For the year ended December 31, 2017, management fees were \$51.3 million, a decrease of 4.6 percent, compared with \$53.7 million in the prior-year period, as lower management fees from our equity product offerings were partially offset by higher management fees from our MLP product offerings. In 2017, management fees related to our equity strategies were \$23.6 million, down 16.1 percent compared to \$28.2 million in 2016. The decrease was driven by a lower average effective revenue yield which resulted from changes in our product mix, as well as lower average AUM due to net client outflows. The average effective yield (total management fees as a percentage of our average month-end AUM) for our equity strategies was 62 basis points for the year ended December 31, 2017, compared with 71 basis points for the prior-year period. Management fees from our MLP strategies increased 8.1 percent in 2017 to \$27.6 million compared with \$25.6 million in 2016, due to a higher average effective revenue yield and a slightly higher average AUM. The average effective yield for our MLP strategies was 65 basis points for the year ended December 31, 2017, compared with 62 basis points for the year ended December 31, 2016.

The performance fees of \$0.6 million recorded in 2016 resulted from certain funds exceeding their performance targets over a specified measurement period.

Investment income includes gains and losses from our investments in registered funds and private funds or partnerships that we manage. In 2017, we recorded investment income of \$1.2 million, compared with \$0.7 million for the year ended December 31, 2016.

The negative pre-tax operating margin in 2017 and 2016 was driven by non-cash goodwill impairment charges of \$114.4 million and \$82.9 million, respectively. Excluding investment income on firm capital invested in our strategies, adjusted operating margin declined from 19.3 percent in 2016 to 9.6 percent in 2017. The decrease was due to negative operating leverage in the business.

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/(loss) and pre-tax operating margin for the periods presented:

	Year Ended December 31,							
	2016				2015			
	Total Adjusted	Adjustments (1)		U.S. GAAP	Total Adjusted	Adjustments (1)		U.S. GAAP
Noncontrolling Interests		Other Adjustments	Noncontrolling Interests			Other Adjustments		
<i>(Dollars in thousands)</i>								
Management fees								
Equity	\$ 28,164	\$ —	\$ —	\$ 28,164	\$ 38,249	\$ —	\$ —	\$ 38,249
MLP	25,561	—	—	25,561	31,918	—	—	31,918
<i>Total management fees</i>	<i>53,725</i>	<i>—</i>	<i>—</i>	<i>53,725</i>	<i>70,167</i>	<i>—</i>	<i>—</i>	<i>70,167</i>
Performance fees								
Equity	584	—	—	584	208	—	—	208
MLP	—	—	—	—	—	—	—	—
<i>Total performance fees</i>	<i>584</i>	<i>—</i>	<i>—</i>	<i>584</i>	<i>208</i>	<i>—</i>	<i>—</i>	<i>208</i>
<i>Total management and performance fees</i>	<i>54,309</i>	<i>—</i>	<i>—</i>	<i>54,309</i>	<i>70,375</i>	<i>—</i>	<i>—</i>	<i>70,375</i>
<i>Investment income/(loss)</i>	<i>736</i>	<i>—</i>	<i>—</i>	<i>736</i>	<i>(6,788)</i>	<i>—</i>	<i>—</i>	<i>(6,788)</i>
Total net revenues	55,045	—	—	55,045	63,587	—	—	63,587
Operating expenses	43,824	—	88,536	132,360	49,304	—	6,254	55,558
Segment pre-tax operating income/(loss)	\$ 11,221	\$ —	\$ (88,536)	\$ (77,315)	\$ 14,283	\$ —	\$ (6,254)	\$ 8,029
Segment pre-tax operating margin	20.4%			(140.5)%	22.5%			12.6%
Adjusted segment pre-tax operating margin excluding investment income/(loss) (2)	19.3%				29.9%			

(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:

	Year Ended December 31,	
	2016	2015
<i>(Dollars in thousands)</i>		
Compensation from acquisition-related agreements	\$ —	\$ 214
Restructuring and integration costs	9	—
Goodwill impairment	82,900	—
Amortization of intangible assets related to acquisitions	5,627	6,040
	<u>\$ 88,536</u>	<u>\$ 6,254</u>

(2) Management believes that presenting adjusted segment pre-tax operating margin excluding investment income/(loss), a non-GAAP measure, provides the most meaningful basis for comparison of Asset Management operating results across periods.

For the year ended December 31, 2016, management fees were \$53.7 million, a decrease of 23.4 percent, compared with \$70.2 million in 2015, due to decreased management fees from both our equity and MLP product offerings. In 2016, management fees related to our equity strategies were \$28.2 million, down 26.4 percent compared to 2015, driven by lower AUM from net client outflows in our value equity products amid tough market trends for active asset managers and underperformance in certain of our strategies. Management fees from our MLP strategies decreased 19.9 percent in 2016 to \$25.6 million, compared with \$31.9 million in 2015. The decline in management fees resulted from lower average AUM, driven by a decline in MLP valuations.

For the year ended December 31, 2016, performance fees were \$0.6 million, compared to \$0.2 million in 2015. The performance fees recorded in 2016 and 2015 resulted from certain funds exceeding their performance targets over a specified measurement period.

In 2016, we recorded investment income of \$0.7 million, compared with a loss of \$6.8 million in 2015. The investment loss in 2015 was driven by losses in MLP investments.

The negative pre-tax operating margin in 2016 was driven by the \$82.9 million non-cash goodwill impairment charge. Excluding investment income/(loss) on firm capital invested in our strategies, adjusted segment pre-tax operating margin declined from 29.9 percent in 2015 to 19.3 percent in 2016, due to lower management fees.

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

<i>(Dollars in millions)</i>	Twelve Months Ended		
	December 31,		
	2017	2016	2015
Equity			
Beginning of period	\$ 4,115	\$ 4,954	\$ 5,758
Net outflows	(1,003)	(1,331)	(572)
Net market appreciation/(depreciation)	444	492	(232)
End of period	\$ 3,556	\$ 4,115	\$ 4,954
MLP			
Beginning of period	\$ 4,616	\$ 3,924	\$ 5,711
Net inflows/(outflows)	(424)	(286)	434
Net market appreciation/(depreciation)	(402)	978	(2,221)
End of period	\$ 3,790	\$ 4,616	\$ 3,924
Total			
Beginning of period	\$ 8,731	\$ 8,878	\$ 11,469
Net outflows	(1,427)	(1,617)	(138)
Net market appreciation/(depreciation)	42	1,470	(2,453)
End of period	\$ 7,346	\$ 8,731	\$ 8,878

Total AUM was \$7.3 billion at December 31, 2017. Equity AUM was \$3.6 billion at December 31, 2017, compared to \$4.1 billion at December 31, 2016, as net client outflows of \$1.0 billion were partially offset by net market appreciation of \$0.4 billion. The asset management industry continues to be impacted by the ongoing trend of investors favoring passive investment vehicles over active management. In addition, performance in our small-cap and small/mid-cap value strategies has lagged their respective benchmarks on a three and five year basis, which contributed to client outflows during the year. Also, in mid-2017, we exited our Japan value product, which reduced AUM by approximately \$0.8 billion. The reduction from client outflows in our value equity strategies was partially offset by client inflows into our new global equity strategy during the year. MLP AUM decreased to \$3.8 billion at December 31, 2017 due to net market depreciation of \$0.4 billion and net client outflows of \$0.4 billion. The MLP market was challenged during most of the year with valuations declining since the second quarter of 2017. This market dynamic contributed to client outflows in the second half of the year.

At December 31, 2016, total AUM was \$8.7 billion. Equity AUM was \$4.1 billion at December 31, 2016, compared to \$5.0 billion at December 31, 2015 as net client outflows of \$1.3 billion were partially offset by net market appreciation of \$0.5 billion. The asset management industry has experienced an ongoing trend of investors favoring passive investment vehicles over active management. Our AUM outflows in 2016 reflected the impact of this trend, including a large investor in our all-cap product shifting to a passive investment. In addition, performance in our small/mid-cap and all-cap value strategies lagged their relative benchmarks which contributed to client outflows. These outflows were partially offset by client inflows related to the addition of an aggressive growth equity team in the fourth quarter of 2016. MLP AUM increased to \$4.6 billion at December 31, 2016 as net market appreciation of \$1.0 billion more than offset net client outflows of \$0.3 billion.

Recent Accounting Pronouncements

Recent accounting pronouncements are set forth in Note 3 to our consolidated financial statements included in Part II, Item 8 of this Form 10-K, and are incorporated herein by reference.

Critical Accounting Policies

Our accounting and reporting policies comply with GAAP and conform to practices within the securities industry. The preparation of financial statements in compliance with 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 GAAP.

For a full description of our significant accounting policies, see Note 2 to our consolidated financial statements included in Part II, Item 8 of this Form 10-K. We believe that of our significant accounting policies, the following are our critical accounting policies.

Valuation of Financial Instruments

Financial instruments and other inventory positions owned, financial instruments and other inventory positions sold, but not yet purchased, and certain of our investments recorded in investments on our consolidated statements of financial condition consist of financial instruments recorded at fair value, either as required by accounting guidance or through the fair value election. Unrealized gains and losses related to these financial instruments are reflected on our consolidated statements of operations.

The fair value of a financial instrument is the amount at which the instrument could be exchanged in an orderly transaction between market participants at the measurement date (the exit price). Based on the nature of our business and our role as a "dealer" in the securities industry or as a manager of alternative asset management funds, the fair values of our financial instruments are determined internally. See Note 2 and Note 6 to our consolidated financial statements for additional information on the valuation of our financial instruments and our fair value processes, including specific control processes to determine the reasonableness of the fair value of our financial instruments.

Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topic 820, "Fair Value Measurement," establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level I measurements) and the lowest priority to inputs with little or no pricing observability (Level III measurements). Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. See Note 6 to our consolidated financial statements for additional discussion of our assets and liabilities in the fair value hierarchy.

Goodwill and Intangible Assets

We record all assets and liabilities acquired in purchase acquisitions, including goodwill and other intangible assets, at fair value. Determining the fair value of assets and liabilities acquired requires certain management estimates. At December 31, 2017, we had goodwill of \$81.9 million, all of which relates to our capital markets segment. At December 31, 2017, we had intangible assets of \$22.8 million, of which \$9.1 million relates to our capital markets segment and \$13.7 million relates to our asset management segment.

We are required to perform impairment tests of our goodwill and indefinite-life intangible assets annually and on an interim basis when circumstances exist that could indicate possible impairment. We have elected to test for goodwill impairment in the fourth quarter of each calendar year. We have the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after making an assessment, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing the two-step impairment test is unnecessary. However, if we conclude otherwise, then we are required to perform the two-step impairment test, which requires management to make judgments in determining what assumptions to use in the calculation. As discussed in Note 3 to our consolidated financial statements included in this Form 10-K, we adopted new accounting guidance effective July 1, 2017 which eliminates the

second step from the goodwill impairment test. Accordingly, we evaluate impairment charges based on the excess of a reporting unit's carrying amount over its fair value. See Note 13 to our consolidated financial statements for additional information on our goodwill impairment testing.

The initial recognition of goodwill and other intangible assets and the subsequent quantitative impairment analysis involves significant judgment in determining the estimates of future cash flows, discount rates, economic forecast and other assumptions which are then used in acceptable valuation techniques, such as the market approach (earnings and/or transaction multiples) and/or the income approach (discounted cash flow method). Changes in these estimates and assumptions could have a significant impact on the fair value and any resulting impairment of goodwill. Our estimated cash flows, by their nature, are difficult to determine over an extended time period. Events and factors that may significantly affect the estimates include, among others, competitive forces and changes in revenue growth trends, cost structures, technology, and market conditions. To assess the reasonableness of cash flow estimates and validate assumptions used in our estimates, we review historical performance of the underlying assets or similar assets. In assessing the fair value of our reporting units, the volatile nature of the securities markets and our industry requires us to consider the business and market cycle and assess the stage of the cycle in estimating the timing and extent of future cash flows. In addition to discounted cash flows, we consider earnings multiples of comparable public companies and multiples of recent mergers and acquisitions transactions of similar businesses in our subsequent impairment analysis.

We identified impairment indicators in the third quarter of 2017 related to our asset management reporting unit and performed an interim goodwill impairment test as of July 31, 2017, which resulted in a non-cash goodwill impairment charge of \$114.4 million. The impairment charge, which represented the full value of goodwill attributable to the asset management reporting unit, resulted from declining profitability in 2017 driven by lower revenues from reduced AUM and higher operating expenses from the addition of new investment teams. The fair value of the asset management reporting unit was calculated using the income approach (discounted cash flow method based on revenue and EBITDA forecasts) and market approach (earnings multiples of comparable public companies), which are valuation techniques we believe market participants would use for the reporting unit.

We elected to perform a qualitative assessment to test the goodwill in our capital markets reporting unit for impairment. The following relevant events and circumstances were evaluated in concluding that it was not more likely than not that this goodwill was impaired: macroeconomic conditions, industry and market considerations, and the overall financial performance of the capital markets reporting unit. Our annual goodwill impairment testing, performed as of October 31, 2017, resulted in no impairment associated with the capital markets reporting unit.

We also evaluated intangible assets (indefinite and definite-lived) and concluded there was no impairment in 2017.

Compensation Plans

Stock-Based Compensation Plans

As part of our compensation to employees and directors, we use stock-based compensation, consisting of restricted stock and restricted stock units. We account for equity awards in accordance with FASB Accounting Standards Codification Topic 718, "Compensation—Stock Compensation," ("ASC 718"), which requires all share-based payments to employees to be recognized on the consolidated statements of operations at grant date fair value. Compensation expense related to share-based awards which require future service are amortized over the service period of the award. Forfeitures of awards with service conditions are accounted for when they occur. Share-based awards that do not require future service are recognized in the year in which the awards are deemed to be earned.

See Note 21 to our consolidated financial statements for additional information about our stock-based compensation plans.

Income Taxes

We file a consolidated U.S. federal income tax return, which includes all of our qualifying subsidiaries. We also are subject to income tax in various states and municipalities and those foreign jurisdictions in which we operate. Amounts provided for income taxes are based on income reported for financial statement purposes and do not necessarily represent amounts currently payable. Deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and for tax loss carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Deferred income taxes are provided for temporary differences in reporting certain items, principally restricted compensation (i.e., restricted stock, restricted stock units, restricted mutual fund shares (MFRS awards), and deferred compensation). The realization of deferred tax assets is assessed and a valuation allowance is recognized to the extent that it is more likely than not that any portion of the deferred tax asset will not be realized. We believe that our future taxable profits will be sufficient to recognize our deferred tax assets. However, if our projections of future taxable profits do not materialize, we may conclude that a valuation allowance is necessary, which would impact our results of operations in that period. In the fourth quarter of 2017, we reversed the full amount of Simmons & Company International Limited's deferred tax asset valuation allowance based on projected future earnings. This resulted in a \$0.8 million tax benefit to our results of operations.

The Tax Reform Act will have a significant impact on the federal tax code, including a corporate federal rate reduction from 35 percent to 21 percent effective in 2018. In addition, certain corporate tax deductions will be repealed or amended. For example, corporate tax deductions for certain public company executive compensation in excess of \$1 million will no longer be allowed. Our 2017 results include a non-cash \$54.2 million tax charge for the remeasurement of our deferred tax assets arising from the enactment of the Tax Reform Act and the lower federal tax rate of 21 percent. As a result of the lower enacted federal tax rate, we anticipate our effective tax rate, excluding noncontrolling interest, and the income tax effects of stock-based compensation at the time of vesting, to be approximately 25 percent to 27 percent.

We record deferred tax benefits for future tax deductions expected upon the vesting of stock-based compensation. As discussed in Note 3 to our consolidated financial statements, beginning January 1, 2017, new accounting guidance requires us to recognize the income tax effects of stock-based compensation awards in the income statement when the awards vest, rather than as additional paid-in capital. If deductions reported on our tax return for stock-based compensation (i.e., the value of the stock-based compensation at the time of vesting) exceed the cumulative cost of those instruments recognized for financial reporting (i.e., the grant date fair value of the compensation computed in accordance with ASC 718), we record the excess tax benefit as income tax benefit. Conversely, if deductions reported on our tax return for stock-based compensation are less than the cumulative cost of those instruments recognized for financial reporting, the deficiency is recorded as income tax expense. For the year ended December 31, 2017, we recorded a \$9.2 million tax benefit for stock awards vesting during the period. In the first quarter of 2018, approximately 530,000 shares vested at share prices greater than the grant date fair value, resulting in \$5.0 million of excess tax benefits recorded as income tax benefit in the first quarter of 2018.

We establish reserves for uncertain income tax positions in accordance with FASB Accounting Standards Codification Topic 740, "Income Taxes," when it is not more likely than not that a certain position or component of a position will be ultimately upheld by the relevant taxing authorities. Significant judgment is required in evaluating uncertain tax positions. Our tax provision and related accruals include the impact of estimates for uncertain tax positions and changes to the reserves that are considered appropriate. To the extent the probable tax outcome of these matters changes, such change in estimate will impact the income tax provision in the period of change and, in turn, our results of operations.

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 determines the declaration and payment of dividends on a 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

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

In the fourth quarter of 2017, our board of directors approved a new dividend policy intended to return between 30 percent and 50 percent of our adjusted net income from the previous fiscal year to shareholders. This will include the addition of an annual special cash dividend, payable in the first quarter of each year. Our board of directors has declared a special cash dividend on the company's common stock of \$1.62 per share. This special dividend will be paid on March 15, 2018, to shareholders of record as of the close of business on February 26, 2018. Including this special cash dividend and the regular quarterly dividends totaling \$1.25 per share paid during 2017, we will have returned \$2.87 per share, or approximately 40 percent of our fiscal year 2017 adjusted net income to shareholders.

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

On August 10, 2017, our board of directors authorized the repurchase of up to \$150.0 million in common shares through September 30, 2019. The authorization became effective on September 30, 2017. No repurchases have been made in conjunction with this authorization through December 31, 2017.

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 2017, we purchased 314,542 shares or \$23.0 million of our common stock for this purpose.

Cash Flows

Cash and cash equivalents at December 31, 2017 were \$33.8 million, a decrease of \$7.6 million from December 31, 2016. Operating activities provided \$232.1 million of cash, as non-cash charges and decreases in operating assets were partially offset by an increase in operating liabilities. Our \$59.6 million net loss in 2017 included non-cash charges of \$114.4 million related to goodwill impairment, \$54.2 million for the remeasurement of our deferred tax assets arising from the enactment of the Tax Reform Act and the lower federal corporate tax rate of 21 percent, and \$15.4 million of intangible asset amortization. In 2017, we migrated to a fully disclosed clearing model and are no longer self clearing. This conversion resulted in a decrease in net operating assets related to the clearing and carrying of customer accounts as Pershing now facilitates our clearing and holds our customer accounts. This decrease was partially offset by an increase in inventory balances, particularly municipal securities, driven by a trading opportunity in the municipal market identified at the end of the year. The increase in operating liabilities was primarily driven by an increase in accrued compensation of \$109.1 million, the result of higher compensation costs in 2017 resulting from increased revenues. In 2017, investing activities used \$8.1 million of cash for the purchase of fixed assets. Cash of \$233.1 million was used in financing activities as we reduced amounts due under our short-term financing by \$128.9 million, primarily by decreasing our commercial paper funding as our clearing relationship with Pershing provided another source of financing. In addition, we repaid our \$50.0 million Class A variable rate senior notes in full on the May 31, 2017 maturity date.

Cash and cash equivalents decreased \$148.6 million to \$41.4 million at December 31, 2016 from December 31, 2015. Operating activities provided \$48.8 million of cash, as non-cash charges were partially offset by an increase in operating assets. Our \$13.7 million net loss in 2016 included non-cash charges of \$82.9 million related to goodwill impairment and \$21.2 million of intangible asset amortization. The increase in intangible asset amortization was due to incremental expense related to our acquisitions of Simmons, River Branch and BMO GKST. The increase in operating assets primarily related to a receivable for unsettled trades, reverse repurchase agreements, which are principally used to make delivery on securities sold short, and additional investments in our senior living fund. Investing activities in 2016 used \$83.7 million of which \$72.7 million related to the acquisition of Simmons, and \$11.0 million for the purchase of fixed assets. In 2016, financing activities used \$111.6 million of cash as we repurchased \$70.9 million of common stock. In addition, we used excess cash of \$27.4 million to reduce amounts due under our short-term financing, primarily related to commercial paper, and also decreased our obligations related to repurchase agreements.

Cash and cash equivalents increased \$174.0 million to \$189.9 million at December 31, 2015 from December 31, 2014. Operating activities provided \$379.5 million of cash primarily due to cash generated from earnings as well as a reduction in operating assets, particularly related to the liquidation of our municipal bond fund with outside investors, convertible securities inventory, and reverse repurchase agreements, which are principally used to make delivery on securities sold short. Investing activities in 2015 used \$16.2 million of cash primarily related to the acquisitions of River Branch and BMO GKST, and the purchase of fixed assets. In 2015, financing activities used \$189.0 million of cash as we repurchased \$132.9 million of common stock, and experienced a \$106.8 million decrease in noncontrolling interests resulting from the liquidation of our municipal bond fund with outside investors. In October 2015, we entered into a Second Amended and Restated Note Purchase Agreement under which we issued unsecured fixed rate senior notes that provided \$125.0 million in financing, \$75.0 million of which was used to repay our Class B variable rate senior notes that were due in November 2015.

Leverage

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

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Total assets	\$ 2,024,683	\$ 2,125,503
Deduct: Goodwill and intangible assets	(104,689)	(233,452)
Deduct: Assets from noncontrolling interests	(54,917)	(109,179)
Adjusted assets	\$ 1,865,077	\$ 1,782,872
Total shareholders' equity	\$ 741,235	\$ 816,266
Deduct: Goodwill and intangible assets	(104,689)	(233,452)
Deduct: Noncontrolling interests	(47,903)	(57,016)
Tangible common shareholders' equity	\$ 588,643	\$ 525,798
Leverage ratio (1)	2.7	2.6
Adjusted leverage ratio (2)	3.2	3.4

(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.

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 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.

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 brokers, dealers and clearing organizations. The funding is at the discretion of Pershing and could be denied. Our fully disclosed clearing agreement includes a covenant requiring Piper Jaffray & Co. to maintain excess net capital of \$120 million. At December 31, 2017, we had \$160.2 million of 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 revised covenant that requires Piper Jaffray & Co. to maintain excess net capital of \$100 million. During the third quarter of 2017, we retired the CP Series III A program, and increased the maximum amount that may be issued under CP Series II A from \$150 million to \$200 million. The following table provides information about our commercial paper programs at December 31, 2017:

<i>(Dollars in millions)</i>	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	—	8
Weighted average maturity at issuance, in days	—	41

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. Additionally, we have established a second overnight financing arrangement with another broker dealer related to our convertible securities inventories. Financing under these arrangements is secured primarily by securities, and collateral limitations could reduce the amount of funding available under these arrangements. Our prime broker financing activities are recorded net of receivables from trading activity. The funding is at the discretion of the prime brokers and could be denied subject to a notice period. At December 31, 2017, we had \$240.0 million of financing outstanding under these prime broker arrangements.

Committed Lines – Our committed line is a one-year \$200 million revolving secured credit facility. We use this 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 renewed the facility for another one-year term in the fourth quarter of 2017. At December 31, 2017, we had no advances against this line of credit.

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 December 31, 2017, 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 2017 and 2016, respectively.

	Average Balance for the Three Months Ended			
	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	Mar. 31, 2017
<i>(Dollars in millions)</i>				
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

	Average Balance for the Three Months Ended			
	Dec. 31, 2016	Sept. 30, 2016	June 30, 2016	Mar. 31, 2016
<i>(Dollars in millions)</i>				
Funding source:				
Repurchase agreements	\$ 3.5	\$ 14.8	\$ 28.9	\$ 30.5
Commercial paper	165.8	235.8	279.7	279.2
Prime broker arrangements	306.0	212.7	184.4	174.4
Short-term bank loans	5.3	—	6.4	0.8
Total	\$ 480.6	\$ 463.3	\$ 499.4	\$ 484.9

The average funding in the fourth quarter of 2017 increased to \$291.2 million, compared with \$237.8 million during the third quarter of 2017, due to an increase in inventory balances, the result of a trading opportunity in the municipal market, as well as an increase in commercial paper funding as we resumed issuing commercial paper. Average funding decreased from \$480.6 million in the corresponding period of 2016 as we used cash from operations to reduce funding, primarily related to our commercial paper programs and prime broker arrangements.

The following table presents the maximum daily funding amount by quarter for 2017 and 2016, respectively.

	2017		2016	
	\$	\$	\$	\$
<i>(Dollars in millions)</i>				
First Quarter	543.4	576.4	543.4	576.4
Second Quarter	538.3	669.7	538.3	669.7
Third Quarter	418.7	525.6	418.7	525.6
Fourth Quarter	569.9	574.8	569.9	574.8

Senior Notes

We have entered into variable and fixed rate senior notes with certain entities advised by Pacific Investment Management Company ("PIMCO"). The following table presents the outstanding balance by note class:

	Outstanding Balance	
	December 31, 2017	December 31, 2016
<i>(Dollars in thousands)</i>		
Class A Notes	\$ —	\$ 50,000
Class C Notes	125,000	125,000
Total senior notes	\$ 125,000	\$ 175,000

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 mature on October 9, 2018. The unpaid principal amount is due in full on the maturity date and may not be prepaid. The \$50 million of variable rate Class A Notes issued in 2014 were repaid in full on the May 31, 2017 maturity date.

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 December 31, 2017, we were in compliance with all covenants.

Contractual Obligations

In the normal course of business, we enter into various contractual obligations that may require future cash payments. The following table summarizes the contractual amounts at December 31, 2017, in total and by remaining maturity. Excluded from the table are a number of obligations recorded on the consolidated statements of financial condition that generally are short-term in nature, including secured financing transactions, trading liabilities, short-term borrowings and other payables and accrued liabilities. The amounts presented in the table below may not necessarily reflect our actual future cash funding requirements, because the actual timing of the future payments made may vary from the stated contractual obligation.

<i>(Dollars in millions)</i>	2018	2019 - 2020	2021 - 2022	2023 and thereafter	Total
Operating lease obligations	\$ 14.5	\$ 25.1	\$ 14.4	\$ 14.9	\$ 68.9
Purchase commitments	22.3	19.7	10.4	13.5	65.9
Investment commitments (1)	—	—	—	—	72.5
Senior notes	125.0	—	—	—	125.0

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

Purchase commitments include agreements to purchase goods or services that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum or variable price provisions, and the approximate timing of the transaction. Purchase commitments with variable pricing provisions are included in the table based on the minimum contractual amounts. Certain purchase commitments contain termination or renewal provisions. The table reflects the minimum contractual amounts likely to be paid under these agreements assuming the contracts are not terminated.

New Leases Guidance

As discussed in Note 3 to our 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 December 31, 2017, we had approximately 65 operating leases for office space with aggregate minimum lease commitments of \$68.9 million. Upon adoption of the new guidance, this lease commitment will be reflected on our statement of financial condition as a right-of-use asset and a lease commitment liability. The impact of the new guidance on Piper Jaffray & Co.'s net capital is expected to be minimal.

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 December 31, 2017, our net capital under the SEC's uniform net capital rule was \$137.6 million, and exceeded the minimum net capital required under the SEC rule by \$136.6 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 December 31, 2017, 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 December 31, 2017, Piper Jaffray Hong Kong Limited was in compliance with the liquid capital requirements of the Hong Kong Securities and Trade Commission.

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	
	2018	2019	2020	2021 - 2022	2023 - 2024	Later	December 31, 2017	December 31, 2016
Customer matched-book derivative contracts (1) (2)	\$ —	\$ 32,850	\$ 23,850	\$ 51,620	\$ 166,700	\$ 2,543,986	\$ 2,819,006	\$ 3,330,207
Trading securities derivative contracts (2)	380,700	—	—	—	—	18,750	399,450	423,550
Credit default swap index contracts (2)	—	—	—	—	—	—	—	7,470
Futures and equity option derivative contracts (2)	9,635	—	—	—	—	—	9,635	—
Investment commitments (3)	—	—	—	—	—	—	72,467	22,776

- (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 \$180.1 million at December 31, 2017) 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 December 31, 2017, we had \$19.1 million of credit exposure with these counterparties, including \$14.9 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 December 31, 2017 and December 31, 2016, the net fair value of these derivative contracts approximated \$20.5 million and \$24.0 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 complete discussion of our activities related to derivative products, see Note 5, "Financial Instruments and Other Inventory Positions Owned and Financial Instruments and Other Inventory Positions Sold, but Not Yet Purchased," in the notes to our 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. For additional information on our activities related to these types of entities, see Note 7, "Variable Interest Entities," in the notes to our consolidated financial statements. We have committed capital of \$72.5 million to certain entities and these commitments generally have no specified call dates.

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.

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 5 of our accompanying 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.

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.

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Interest Rate Risk	\$ 965	\$ 696
Equity Price Risk	62	41
Diversification Effect (1)	(40)	(26)
Total Value-at-Risk	<u>\$ 987</u>	<u>\$ 711</u>

(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.

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 years ended December 31, 2017 and 2016, respectively.

<i>(Dollars in thousands)</i>	<u>High</u>	<u>Low</u>	<u>Average</u>
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

<i>(Dollars in thousands)</i>	<u>High</u>	<u>Low</u>	<u>Average</u>
For the Year Ended December 31, 2016			
Interest Rate Risk	\$ 990	\$ 251	\$ 533
Equity Price Risk	412	6	150
Diversification Effect (1)			(72)
Total Value-at-Risk	\$ 1,049	\$ 362	\$ 611

(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 two occasions during 2017.

The aggregate VaR as of December 31, 2017 was higher than the reported VaR on December 31, 2016. The increase in VaR was due to increased inventory levels in asset classes that are accretive to VaR, particularly municipal securities, as we capitalized on a trading opportunity in the municipal market toward the end of the measurement period.

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.

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.

We have concentrated counterparty credit exposure with five non-publicly rated entities totaling \$19.1 million at December 31, 2017. 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 78.1 percent, or \$14.9 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 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. Subsequent to transitioning to a fully disclosed clearing model, 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 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 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.*

The information under the caption "Risk Management" in Part II, Item 7 of this Form 10-K entitled, "Management's Discussion and Analysis of Financial Condition and Results of Operations," is incorporated herein by reference.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Our internal control system is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2017. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013 framework). Based on its assessment and those criteria, management has concluded that we maintained effective internal control over financial reporting as of December 31, 2017.

Ernst & Young LLP, the independent registered public accounting firm that audited the consolidated financial statements of Piper Jaffray Companies included in this Annual Report on Form 10-K, has issued an attestation report on internal control over financial reporting as of December 31, 2017. Their report, which expresses an unqualified opinion on the effectiveness of Piper Jaffray Companies' internal control over financial reporting as of December 31, 2017, is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Piper Jaffray Companies

Opinion on Internal Control over Financial Reporting

We have audited Piper Jaffray Companies' (the Company) internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial condition of the Company as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, of the Company and our report dated February 26, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Minneapolis, Minnesota
February 26, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Piper Jaffray Companies

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial condition of Piper Jaffray Companies (the Company) as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2017 and 2016, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 26, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2003.

Minneapolis, Minnesota
February 26, 2018

Piper Jaffray Companies

Consolidated Statements of Financial Condition

<i>(Amounts in thousands, except share data)</i>	December 31, 2017	December 31, 2016
Assets		
Cash and cash equivalents	\$ 33,793	\$ 41,359
Cash and cash equivalents segregated for regulatory purposes	—	29,015
Receivables:		
Customers	—	31,917
Brokers, dealers and clearing organizations	145,394	212,730
Securities purchased under agreements to resell	—	159,697
Financial instruments and other inventory positions owned	663,330	464,610
Financial instruments and other inventory positions owned and pledged as collateral	720,047	594,361
Total financial instruments and other inventory positions owned	<u>1,383,377</u>	<u>1,058,971</u>
Fixed assets (net of accumulated depreciation and amortization of \$55,944 and \$58,308, respectively)	25,179	25,343
Goodwill	81,855	196,218
Intangible assets (net of accumulated amortization of \$85,417 and \$70,017, respectively)	22,834	37,234
Investments	176,212	168,057
Net deferred income tax assets	101,205	97,833
Other assets	54,834	67,129
Total assets	<u>\$ 2,024,683</u>	<u>\$ 2,125,503</u>
Liabilities and Shareholders' Equity		
Short-term financing	\$ 289,937	\$ 418,832
Senior notes	125,000	175,000
Payables:		
Customers	—	29,352
Brokers, dealers and clearing organizations	19,392	40,842
Securities sold under agreements to repurchase	—	15,046
Financial instruments and other inventory positions sold, but not yet purchased	399,227	299,357
Accrued compensation	400,092	288,255
Other liabilities and accrued expenses	49,800	42,553
Total liabilities	<u>1,283,448</u>	<u>1,309,237</u>
Shareholders' equity:		
Common stock, \$0.01 par value:		
Shares authorized: 100,000,000 at December 31, 2017 and December 31, 2016;		
Shares issued: 19,512,914 at December 31, 2017 and 19,535,307 at December 31, 2016;		
Shares outstanding: 12,911,149 at December 31, 2017 and 12,391,970 at December 31, 2016	195	195
Additional paid-in capital	791,970	788,927
Retained earnings	176,270	257,188
Less common stock held in treasury, at cost: 6,601,765 at December 31, 2017 and 7,143,337 shares at December 31, 2016	(273,824)	(284,461)
Accumulated other comprehensive loss	(1,279)	(2,599)
Total common shareholders' equity	<u>693,332</u>	<u>759,250</u>
Noncontrolling interests	47,903	57,016
Total shareholders' equity	<u>741,235</u>	<u>816,266</u>
Total liabilities and shareholders' equity	<u>\$ 2,024,683</u>	<u>\$ 2,125,503</u>

See Notes to the Consolidated Financial Statements

Piper Jaffray Companies
Consolidated Statements of Operations

	Year Ended December 31,		
	2017	2016	2015
<i>(Amounts in thousands, except per share data)</i>			
Revenues:			
Investment banking	\$ 633,837	\$ 490,340	\$ 414,118
Institutional brokerage	154,563	161,186	154,889
Asset management	56,835	60,672	75,017
Interest	31,954	33,074	41,557
Investment income	18,002	24,602	10,736
Total revenues	895,191	769,874	696,317
Interest expense	20,268	22,525	23,399
Net revenues	874,923	747,349	672,918
Non-interest expenses:			
Compensation and benefits	617,635	510,612	421,733
Outside services	38,012	39,289	36,218
Occupancy and equipment	33,462	34,813	28,301
Communications	29,891	29,626	23,762
Marketing and business development	31,293	30,404	29,990
Trade execution and clearance	8,166	7,651	7,794
Restructuring and integration costs	—	10,206	10,652
Goodwill impairment	114,363	82,900	—
Intangible asset amortization	15,400	21,214	7,662
Back office conversion costs	3,927	561	—
Other operating expenses	12,097	10,947	20,383
Total non-interest expenses	904,246	778,223	586,495
Income/(loss) before income tax expense/(benefit)	(29,323)	(30,874)	86,423
Income tax expense/(benefit)	30,229	(17,128)	27,941
Net income/(loss)	(59,552)	(13,746)	58,482
Net income applicable to noncontrolling interests	2,387	8,206	6,407
Net income/(loss) applicable to Piper Jaffray Companies	\$ (61,939)	\$ (21,952)	\$ 52,075
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders	\$ (64,875) ⁽¹⁾	\$ (21,952) ⁽¹⁾	\$ 48,060
Earnings/(loss) per common share			
Basic	\$ (5.07)	\$ (1.73)	\$ 3.34
Diluted	\$ (5.07) ⁽²⁾	\$ (1.73) ⁽²⁾	\$ 3.34
Dividends declared per common share	\$ 1.25	\$ —	\$ —
Weighted average number of common shares outstanding			
Basic	12,807	12,674	14,368
Diluted	12,978 ⁽²⁾	12,779 ⁽²⁾	14,389

(1) No allocation of undistributed income was made due to loss position. See Note 22.

(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

Piper Jaffray Companies
Consolidated Statements of Comprehensive Income

<i>(Amounts in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Net income/(loss)	\$ (59,552)	\$ (13,746)	\$ 58,482
Other comprehensive income/(loss), net of tax:			
Foreign currency translation adjustment	<u>1,320</u>	<u>(2,410)</u>	<u>(566)</u>
Comprehensive income/(loss)	(58,232)	(16,156)	57,916
Comprehensive income applicable to noncontrolling interests	<u>2,387</u>	<u>8,206</u>	<u>6,407</u>
Comprehensive income/(loss) applicable to Piper Jaffray Companies	<u>\$ (60,619)</u>	<u>\$ (24,362)</u>	<u>\$ 51,509</u>

See Notes to the Consolidated Financial Statements

Piper Jaffray Companies

Consolidated Statements of Changes in Shareholders' Equity

<i>(Amounts in thousands, except share amounts)</i>	Common Shares Outstanding	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total Common Shareholders' Equity	Noncontrolling Interests	Total Shareholders' Equity
Balance at December 31, 2014	15,265,420	\$ 195	\$ 735,415	\$ 227,065	\$ (143,140)	\$ 377	\$ 819,912	\$ 149,548	\$ 969,460
Net income	—	—	—	52,075	—	—	52,075	6,407	58,482
Amortization/issuance of restricted stock	—	—	43,237	—	—	—	43,237	—	43,237
Repurchase of common stock through share repurchase program	(2,459,400)	—	—	—	(118,464)	—	(118,464)	—	(118,464)
Issuance of treasury shares for options exercised	50,671	—	96	—	1,760	—	1,856	—	1,856
Issuance of treasury shares for restricted stock vestings	734,080	—	(26,752)	—	26,752	—	—	—	—
Repurchase of common stock for employee tax withholding	(281,180)	—	—	—	(14,461)	—	(14,461)	—	(14,461)
Shares reserved/issued for director compensation	1,425	—	70	—	—	—	70	—	70
Other comprehensive loss	—	—	—	—	—	(566)	(566)	—	(566)
Fund capital distributions, net	—	—	—	—	—	—	—	(106,794)	(106,794)
Balance at December 31, 2015	13,311,016	\$ 195	\$ 752,066	\$ 279,140	\$ (247,553)	\$ (189)	\$ 783,659	\$ 49,161	\$ 832,820
Net income/(loss)	—	—	—	(21,952)	—	—	(21,952)	8,206	(13,746)
Amortization/issuance of restricted stock	—	—	65,311	—	—	—	65,311	—	65,311
Repurchase of common stock through share repurchase program	(1,536,226)	—	—	—	(59,739)	—	(59,739)	—	(59,739)
Issuance of treasury shares for options exercised	104,175	—	411	—	4,146	—	4,557	—	4,557
Issuance of treasury shares for restricted stock vestings	750,241	—	(29,805)	—	29,805	—	—	—	—
Repurchase of common stock for employee tax withholding	(261,685)	—	—	—	(11,120)	—	(11,120)	—	(11,120)
Shares reserved/issued for director compensation	24,449	—	944	—	—	—	944	—	944
Other comprehensive loss	—	—	—	—	—	(2,410)	(2,410)	—	(2,410)
Deconsolidation of investment partnerships	—	—	—	—	—	—	—	(9,415)	(9,415)
Fund capital contributions, net	—	—	—	—	—	—	—	9,064	9,064
Balance at December 31, 2016	12,391,970	\$ 195	\$ 788,927	\$ 257,188	\$ (284,461)	\$ (2,599)	\$ 759,250	\$ 57,016	\$ 816,266

Continued on next page

Piper Jaffray Companies

Consolidated Statements of Changes in Shareholders' Equity – Continued

<i>(Amounts in thousands, except share amounts)</i>	Common Shares Outstanding	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total Common Shareholders' Equity	Noncontrolling Interests	Total Shareholders' Equity
Net income/(loss)	—	\$ —	\$ —	\$ (61,939)	\$ —	\$ —	\$ (61,939)	\$ 2,387	\$ (59,552)
Dividends	—	—	—	(18,979)	—	—	(18,979)	—	(18,979)
Amortization/issuance of restricted stock	—	—	37,250	—	—	—	37,250	—	37,250
Repurchase of common stock through share repurchase program	(36,936)	—	—	—	(2,498)	—	(2,498)	—	(2,498)
Issuance of treasury shares for options exercised	26,149	—	662	—	1,041	—	1,703	—	1,703
Issuance of treasury shares for restricted stock vestings	841,178	—	(35,077)	—	35,077	—	—	—	—
Repurchase of common stock for employee tax withholding	(314,542)	—	—	—	(22,983)	—	(22,983)	—	(22,983)
Shares reserved/issued for director compensation	3,330	—	208	—	—	—	208	—	208
Other comprehensive income	—	—	—	—	—	1,320	1,320	—	1,320
Fund capital distributions, net	—	—	—	—	—	—	—	(11,500)	(11,500)
Balance at December 31, 2017	12,911,149	\$ 195	\$ 791,970	\$ 176,270	\$ (273,824)	\$ (1,279)	\$ 693,332	\$ 47,903	\$ 741,235

See Notes to the Consolidated Financial Statements

Piper Jaffray Companies
Consolidated Statements of Cash Flows

<i>(Dollars in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Operating Activities:			
Net income/(loss)	\$ (59,552)	\$ (13,746)	\$ 58,482
Adjustments to reconcile net income/(loss) to net cash provided by operating activities:			
Depreciation and amortization of fixed assets	7,252	6,410	5,058
Deferred income taxes	(3,372)	(31,023)	(20,959)
Stock-based compensation	39,831	55,977	48,754
Goodwill impairment	114,363	82,900	—
Amortization of intangible assets	15,400	21,214	7,662
Amortization of forgivable loans	6,740	8,785	6,377
Decrease/(increase) in operating assets:			
Cash and cash equivalents segregated for regulatory purposes	29,015	52,007	(56,011)
Receivables:			
Customers	31,917	9,272	(31,509)
Brokers, dealers and clearing organizations	67,336	(64,781)	13,060
Securities purchased under agreements to resell	159,697	(24,591)	171,182
Net financial instruments and other inventory positions owned	(224,536)	(7,835)	126,458
Investments	(8,155)	(10,881)	(38,558)
Other assets	6,467	(20,992)	3,602
Increase/(decrease) in operating liabilities:			
Payables:			
Customers	(29,352)	(8,012)	24,036
Brokers, dealers and clearing organizations	(21,450)	(7,289)	22,567
Securities sold under agreements to repurchase	(15,046)	(1,127)	18,050
Accrued compensation	109,108	30,396	2,178
Other liabilities and accrued expenses	6,456	(27,902)	19,095
Net cash provided by operating activities	232,119	48,782	379,524
Investing Activities:			
Business acquisitions, net of cash acquired	—	(72,709)	(11,739)
Repayment of note receivable	—	—	1,500
Purchases of fixed assets, net	(8,097)	(11,017)	(5,914)
Net cash used in investing activities	(8,097)	(83,726)	(16,153)

Continued on next page

Piper Jaffray Companies

Consolidated Statements of Cash Flows – Continued

<i>(Dollars in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Financing Activities:			
Increase/(decrease) in short-term financing	\$ (128,895)	\$ (27,358)	\$ 68,423
Issuance of senior notes	—	—	125,000
Repayment of senior notes	(50,000)	—	(75,000)
Decrease in securities sold under agreements to repurchase	—	(27,269)	(75,377)
Payment of cash dividend	(18,947)	—	—
Increase/(decrease) in noncontrolling interests	(11,500)	9,064	(106,794)
Repurchase of common stock	(25,481)	(70,859)	(132,925)
Excess tax benefit from stock-based compensation	—	304	5,858
Proceeds from stock option exercises	1,703	4,557	1,856
Net cash used in financing activities	(233,120)	(111,561)	(188,959)
Currency adjustment:			
Effect of exchange rate changes on cash	1,532	(2,046)	(369)
Net increase/(decrease) in cash and cash equivalents	(7,566)	(148,551)	174,043
Cash and cash equivalents at beginning of year	41,359	189,910	15,867
Cash and cash equivalents at end of year	\$ 33,793	\$ 41,359	\$ 189,910
Supplemental disclosure of cash flow information –			
Cash paid during the year for:			
Interest	\$ 19,917	\$ 23,171	\$ 24,668
Income taxes	\$ 31,895	\$ 27,298	\$ 31,950

See Notes to the Consolidated Financial Statements

Piper Jaffray Companies

Notes to the Consolidated Financial Statements

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; 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 management of and participation in underwritings, financial advisory services 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 or debt 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 equity securities and master limited partnerships 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") and 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.

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 2 Summary of Significant Accounting Policies

Principles of Consolidation

The Company consolidates entities in which it has a controlling financial interest. The Company determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a variable interest entity ("VIE") or a voting interest entity.

VIEs are entities in which (i) the total equity investment at risk is not sufficient to enable the entity to finance its activities independently or (ii) the at-risk equity holders do not have the normal characteristics of a controlling financial interest. A controlling financial interest in a VIE is present when an enterprise has one or more variable interests that have both (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. The enterprise with a controlling financial interest is the primary beneficiary and consolidates the VIE.

Voting interest entities lack one or more of the characteristics of a VIE. The usual condition for a controlling financial interest is ownership of a majority voting interest for a corporation or a majority of kick-out or participating rights for a limited partnership.

When the Company does not have a controlling financial interest in an entity but exerts significant influence over the entity's operating and financial policies (generally defined as owning a voting or economic interest of between 20 percent to 50 percent), the Company's investment is accounted for under the equity method of accounting. If the Company does not have a controlling financial interest in, or exert significant influence over, an entity, the Company accounts for its investment at fair value, if the fair value option was elected, or at cost.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly liquid investments with maturities of 90 days or less at the date of origination.

Piper Jaffray is a registered broker dealer 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. 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.

Customer Transactions

As discussed in Note 1, Piper Jaffray transitioned from a self clearing securities broker dealer to a fully disclosed clearing model in 2017. Pershing is Piper Jaffray's clearing broker dealer responsible for the clearance and settlement of firm and customer cash and security transactions.

Customer securities transactions are recorded on a settlement date basis, while the related revenues and expenses are recorded on a trade-date basis. Prior to transitioning to Pershing, customer receivables and payables included amounts related to both customer cash and margin transactions clearing through Piper Jaffray. Securities owned by customers, including those that collateralize margin or other similar transactions, are not reflected on the consolidated statements of financial condition.

Receivables from and Payables to Brokers, Dealers and Clearing Organizations

Effective August 7, 2017, Pershing is responsible for the clearance and settlement of firm and customer cash and security transactions.

Receivables from brokers, dealers and clearing organizations include receivables arising from unsettled securities transactions, deposits paid for securities borrowed, receivables from clearing organizations, deposits with clearing organizations and amounts receivable for securities not delivered to the purchaser by the settlement date ("securities failed to deliver"). Payables to brokers, dealers and clearing organizations include payables arising from unsettled securities transactions, payables to clearing organizations and amounts payable for securities not received from a seller by the settlement date ("securities failed to receive"). Unsettled securities transactions related to the Company's broker dealer operations are recorded at contract value on a net basis. Unsettled securities transactions related to the Company's consolidated municipal bond fund are recorded on a gross basis.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****Collateralized Securities Transactions**

Subsequent to transitioning to a fully disclosed clearing model on August 7, 2017, the Company no longer enters into securities purchased under agreements to resell, securities sold under agreements to repurchase, and securities borrowed and loaned transactions.

Prior to August 7, 2017, securities purchased under agreements to resell and securities sold under agreements to repurchase were carried at the contractual amounts at which the securities would be subsequently resold or repurchased, including accrued interest. It was the Company's policy to take possession or control of securities purchased under agreements to resell at the time these agreements were entered into. The counterparties to these agreements were typically primary dealers of U.S. government securities and major financial institutions. Collateral was valued daily, and additional collateral was obtained from or refunded to counterparties when appropriate.

Securities borrowed and loaned resulted from transactions with other broker dealers or financial institutions and were recorded at the amount of cash collateral advanced or received. As of December 31, 2016, these amounts are included in receivables from and payables to brokers, dealers and clearing organizations on the consolidated statements of financial condition. Securities borrowed transactions required the Company to deposit cash or other collateral with the lender. Securities loaned transactions required the borrower to deposit cash with the Company. The Company monitored the market value of securities borrowed and loaned on a daily basis, with additional collateral obtained or refunded as necessary. Interest was accrued on securities borrowed and loaned transactions and included in (i) other assets or other liabilities and accrued expenses on the consolidated statements of financial condition and (ii) the respective interest income or interest expense amounts on the consolidated statements of operations.

Fair Value of Financial Instruments

Financial instruments and other inventory positions owned and financial instruments and other inventory positions sold, but not yet purchased on the consolidated statements of financial condition consist of financial instruments (including securities with extended settlements and derivative contracts) recorded at fair value. Unrealized gains and losses related to these financial instruments are reflected on the consolidated statements of operations. Securities (both long and short), including securities with extended settlements, are recognized on a trade-date basis. Additionally, certain of the Company's investments on the consolidated statements of financial condition are recorded at fair value, either as required by accounting guidance or through the fair value election.

Fair Value Measurement – Definition and Hierarchy – Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topic 820, "Fair Value Measurement," ("ASC 820") defines fair value as the amount at which an instrument could be exchanged in an orderly transaction between market participants at the measurement date (the exit price). ASC 820 establishes a fair value hierarchy based on the inputs used to measure fair value. The fair value hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from independent sources. Unobservable inputs reflect management's assumptions that market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The hierarchy is broken down into three levels based on the observability of inputs as follows:

Level I – Quoted prices (unadjusted) are available in active markets for identical assets or liabilities as of the report date. A quoted price for an identical asset or liability in an active market provides the most reliable fair value measurement because it is directly observable to the market.

Level II – Pricing inputs are other than quoted prices in active markets, which are either directly or indirectly observable as of the report date. The nature of these financial instruments include instruments for which quoted prices are available but traded less frequently, instruments whose fair value have been derived using a model where inputs to the model are directly observable in the market, or can be derived principally from or corroborated by observable market data, and instruments that are fair valued using other financial instruments, the parameters of which can be directly observed.

Level III – Instruments that have little to no pricing observability as of the report date. These financial instruments are measured using management's best estimate of fair value, where the inputs into the determination of fair value require significant management judgment or estimation.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

Valuation 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. When available, the Company values financial instruments at observable market prices, observable market parameters, or broker or dealer prices (bid and ask prices). In the case of financial instruments transacted on recognized exchanges, the observable market prices represent quotations for completed transactions from the exchange on which the financial instrument is principally traded.

A substantial percentage of the fair value of the Company's financial instruments and other inventory positions owned and financial instruments and other inventory positions sold, but not yet purchased, are based on observable market prices, observable market parameters, or derived from broker or dealer prices. The availability of observable market prices and pricing parameters can vary from product to product. Where available, observable market prices and pricing or market parameters in a product may be used to derive a price without requiring significant judgment. In certain markets, observable market prices or market parameters are not available for all products, and fair value is determined using techniques appropriate for each particular product. These techniques involve some degree of judgment. Results from valuation models and other techniques in one period may not be indicative of future period fair value measurement.

For investments in illiquid or privately held securities that do not have readily determinable fair values, the determination of fair value requires the Company to estimate the value of the securities using the best information available. Among the factors considered by the Company in determining the fair value of such financial instruments are the cost, terms and liquidity of the investment, the financial condition and operating results of the issuer, the quoted market price of publicly traded securities with similar quality and yield, and other factors generally pertinent to the valuation of investments. In instances where a security is subject to transfer restrictions, the value of the security is based primarily on the quoted price of a similar security without restriction but may be reduced by an amount estimated to reflect such restrictions. In addition, even where the Company derives the value of a security based on information from an independent source, certain assumptions may be required to determine the security's fair value. For instance, the Company assumes that the size of positions in securities that the Company holds would not be large enough to affect the quoted price of the securities if the firm sells them, and that any such sale would happen in an orderly manner. The actual value realized upon disposition could be different from the currently estimated fair value.

Fixed Assets

Fixed assets include furniture and equipment, software and leasehold improvements. Furniture and equipment and software are depreciated using the straight-line method over estimated useful lives of three to ten years. Leasehold improvements are amortized over ten years or the life of the lease, whichever is shorter. The Company capitalizes certain costs incurred in connection with internal use software projects and amortizes the amount over the expected useful life of the asset, generally three to seven years.

Leases

The Company leases its corporate headquarters and other offices under various non-cancelable leases. The leases require payment of real estate taxes, insurance and common area maintenance, in addition to rent. The terms of the Company's lease agreements generally range up to twelve years. Some of the leases contain renewal options, escalation clauses, rent-free holidays and operating cost adjustments.

For leases that contain escalation clauses or rent-free holidays, the Company recognizes the related rent expense on a straight-line basis from the date the Company takes possession of the property to the end of the initial lease term. The Company records any difference between the straight-line rent amounts and amounts payable under the leases as part of other liabilities and accrued expenses.

Cash or lease incentives received upon entering into certain leases are recognized on a straight-line basis as a reduction of rent expense from the date the Company takes possession of the property or receives the cash to the end of the initial lease term. The Company records the unamortized portion of lease incentives as part of other liabilities and accrued expenses.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****Goodwill and Intangible Assets**

Goodwill represents the fair value of the consideration transferred in excess of the fair value of identifiable net assets at the acquisition date. The recoverability of goodwill is evaluated annually, at a minimum, or on an interim basis if circumstances indicate a possible inability to realize the carrying amount. See Note 13 for additional information on the Company's goodwill impairment testing.

Intangible assets with determinable lives consist of customer relationships, the Simmons & Company International trade name, and non-competition agreements that are amortized over their original estimated useful lives ranging from one to ten years. The pattern of amortization reflects the timing of the realization of the economic benefits of such intangible assets. Indefinite-life intangible assets consist of the ARI trade name. It is not amortized and is evaluated annually, at a minimum, or on an interim basis if events or circumstances indicate a possible inability to realize the carrying amount.

Investments

The Company's investments include equity investments in private companies and partnerships, investments in registered mutual funds, warrants of public and private companies and private company debt. Equity investments in private companies are accounted for at fair value, as required by accounting guidance or if the fair value option was elected, or at cost. Investments in partnerships are accounted for under the equity method, which is generally the net asset value, or at cost. Registered mutual funds are accounted for at fair value. Company-owned warrants with a cashless exercise option are valued at fair value. Private company debt investments are recorded at fair value, as required by accounting guidance, or at amortized cost, net of any unamortized premium or discount.

Other Assets

Other assets include receivables and prepaid expenses. Receivables include fee receivables, accrued interest, secured loan receivables, and loans made to employees, typically in connection with their recruitment. Employee loans are forgiven based on continued employment and are amortized to compensation and benefits expense using the straight-line method over the respective terms of the loans, which generally range from two to five years.

Revenue Recognition

Investment Banking – Investment banking revenues, which include underwriting and advisory fees, are recorded when services for the transactions are completed 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 net of related unreimbursed expenses for completed deals. Expenses related to investment banking deals not completed are recognized as non-interest expenses on the consolidated statements of operations.

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 recorded on a trade-date basis, (ii) trading gains and losses and (iii) fees received by the Company for equity research. 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 the primary obligor 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. These fees are recognized in the period in which services are provided. Fees are defined in client contracts as a percentage of portfolio assets under management and may include performance fees. 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 (monthly, quarterly or annually). Performance fees, if earned, are generally recognized at the end of the specified measurement period, typically the fourth quarter of the applicable year, or upon client liquidation. Performance fees are recognized as of each reporting date for certain consolidated entities.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

Interest Revenue and Expense – The Company nets interest expense within net revenues to mitigate the effects of fluctuations in interest rates on the Company's consolidated statements of operations. The Company recognizes contractual interest on financial instruments owned and financial instruments sold, but not yet purchased (excluding derivative instruments), on an accrual basis as a component of interest revenue and expense. The Company accounts for interest related to its short-term financing and its senior notes on an accrual basis with related interest recorded as interest expense. In addition, the Company recognizes interest revenue related to its securities borrowed and securities purchased under agreements to resell activities and interest expense related to its securities loaned and securities sold under agreements to repurchase activities on an accrual basis. Subsequent to transitioning to a fully disclosed clearing model, the Company no longer engages in securities purchased under agreements to resell, securities sold under agreements to repurchase, securities borrowed and securities loaned activities.

Investment Income – Investment income includes realized and unrealized gains and losses from the Company's merchant banking, energy, senior living and other firm investments.

Stock-based Compensation

FASB Accounting Standards Codification Topic 718, "Compensation – Stock Compensation," ("ASC 718") requires all stock-based compensation to be expensed on the consolidated statements of operations based on the grant date fair value of the award. Compensation expense related to stock-based awards that do not require future service are recognized in the year in which the awards were deemed to be earned. Stock-based awards that require future service are amortized over the relevant service period. Forfeitures of awards with service conditions are accounted for when they occur. See Note 21 for additional information on the Company's accounting for stock-based compensation.

Income Taxes

The Company files a consolidated U.S. federal income tax return, which includes all of its qualifying subsidiaries. The Company is also subject to income tax in various states and municipalities and those foreign jurisdictions in which we operate. Income taxes are provided for using the asset and liability method. Deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to temporary differences between amounts reported for income tax purposes and financial statement purposes, using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The realization of deferred tax assets is assessed and a valuation allowance is recognized to the extent that it is more likely than not that any portion of a deferred tax asset will not be realized. Tax reserves for uncertain tax positions are recorded in accordance with FASB Accounting Standards Codification Topic 740, "Income Taxes" ("ASC 740").

Earnings Per Share

Basic earnings per common share is computed by dividing net income/(loss) applicable to common shareholders by the weighted average number of common shares outstanding for the period. Net income/(loss) applicable to common shareholders represents net income/(loss) reduced by the allocation of earnings to participating securities. No allocation of undistributed earnings is made for periods in which a loss is incurred. Distributed earnings (e.g., dividends) are allocated to participating securities. 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.

Unvested stock-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and are included in the earnings allocation in the earnings per share calculation under the two-class method. The Company grants restricted stock and restricted stock units as part of its stock-based compensation program. Recipients of restricted stock are entitled to receive nonforfeitable dividends during the vesting period, and therefore meet the definition of a participating security. The Company's unvested restricted stock units are not participating securities as recipients are not eligible to receive dividends, or the dividends are forfeitable until vested. Forfeitable dividends are accrued and recorded as a payable until shares vest.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****Foreign Currency Translation**

The Company consolidates foreign subsidiaries which have designated their local currency as their functional currency. Assets and liabilities of these foreign subsidiaries are translated at period-end rates of exchange. The gains or losses resulting from translating foreign currency financial statements are included in other comprehensive income/(loss). Gains or losses resulting from foreign currency transactions are included in net income/(loss).

Contingencies

The Company is involved in various pending and potential legal proceedings related to its business, including litigation, arbitration and regulatory proceedings. The Company establishes reserves for potential losses to the extent that claims are probable of loss and the amount of the loss can be reasonably estimated. The determination of the outcome and reserve amounts requires significant judgment on the part of management.

Note 3 Recent Accounting Pronouncements and Other Guidance**Guidance for Accounting Impacts of the Tax Cuts and Jobs Act**

In December 2017, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act" ("SAB 118"). SAB 118 provides guidance on the application of ASC 740 as it pertains to the Tax Cuts and Jobs Act (the "Tax Reform Act"). Under SAB 118, if a company's accounting for certain income tax effects of the Tax Reform Act is incomplete but a reasonable estimate for those effects can be determined, then the reasonable estimate should be reported as a provisional amount in the company's financial statements. The provisional amount would be subject to adjustment during a measurement period until the accounting under ASC 740 is complete. The measurement period would be limited to one year from the enactment date of December 22, 2017. SAB 118 also requires disclosures about the material financial reporting impacts of the Tax Reform Act for which accounting under ASC 740 is incomplete. See Note 25 for additional information on the Company's income taxes and the related impacts of the Tax Reform Act on its consolidated financial statements for the year ended December 31, 2017.

Adoption of New Accounting Standards*Stock-Based Compensation*

In March 2016, the FASB issued Accounting Standard Update ("ASU") No. 2016-09, "Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" ("ASU 2016-09"). ASU 2016-09 made targeted amendments to the accounting for share-based payments to employees. It became effective for the Company as of January 1, 2017. There was no impact to the Company's retained earnings upon adoption of ASU 2016-09.

Under ASU 2016-09, the Company recognizes the income tax effects of stock awards in the income statement when the awards vest or are settled. For the year ended December 31, 2017, this accounting change resulted in the recording of a \$9.2 million tax benefit for stock awards vesting during the period. Prior to the adoption of this ASU, this amount would have been recorded directly to additional paid-in capital. In addition, the Company has elected to account for forfeitures of awards with service conditions as they occur. This will result in dividends originally charged against retained earnings for forfeited, unvested stock-based payment awards to be reclassified to compensation expense in the period in which the forfeiture occurs. Furthermore, tax impacts from the vesting of stock-based compensation are presented as an operating activity on the consolidated statements of cash flows on a prospective basis.

Goodwill Impairment

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" ("ASU 2017-04"). ASU 2017-04 eliminates the requirement to calculate the implied fair value of goodwill (i.e., perform a hypothetical purchase price allocation) to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value. The Company early adopted ASU 2017-04 effective July 1, 2017 on a prospective basis.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****Future Adoption of New Applicable Accounting Standards***Revenue Recognition*

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," ("ASU 2014-09"), which supersedes current 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 has identified its revenues and costs that are within the scope of the new guidance. The current broker dealer industry treatment of netting deal expenses with investment banking revenues will change under the new guidance. As a result of adopting ASU 2014-09, the Company will generally present deal expenses on a gross basis on the consolidated statements of operations, rather than the current presentation of netting deal expenses incurred for completed investment banking deals within revenues. This change will not impact earnings, however, the Company will report higher revenues and higher non-compensation expenses. Based on historical experience, the Company expects \$20.0 million to \$25.0 million of annual deal-related expenses. In addition, the Company expects to defer 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. The Company anticipates that its current methods of recognizing investment banking revenues will not be significantly impacted by the new guidance.

The Company will adopt this guidance effective as of January 1, 2018 under the modified retrospective method, in which the cumulative effect of applying the standard will be recognized at the date of initial application. As of December 31, 2017, the estimated cumulative effect that the Company will recognize is a decrease to retained earnings upon adoption of approximately \$3.0 million, net of tax.

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 is effective for annual and interim periods beginning after December 15, 2017. Except for the early application guidance outlined in ASU 2016-01, early adoption is not permitted. The adoption of ASU 2016-01 will not have a material impact on the Company's results of operations, financial position or disclosures.

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 annual and interim periods beginning after December 15, 2018. As of December 31, 2017, the Company had approximately 65 operating leases for office space with aggregate minimum lease commitments of \$68.9 million. Upon adoption, this lease commitment will be reflected on the statement of financial condition as a right-of-use asset and a lease commitment liability. The Company is evaluating other service contracts which may include embedded leases, however, the Company does not expect these to be material. 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 impact of the new guidance on Piper Jaffray's net capital is expected to be minimal.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued***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.

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 are effective for annual and interim periods beginning after December 31, 2017 and should be applied retrospectively. The Company expects that only a limited number of amendments will impact the presentation of its consolidated statements of cash flows.

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 is effective for annual and interim periods beginning after December 15, 2017 and will be applied retrospectively.

Note 4 Acquisition of Simmons & Company International

On February 26, 2016, the Company completed the acquisition of Simmons & Company International ("Simmons"), an employee-owned investment bank and broker dealer focused on the energy industry. The economic value of the acquisition was approximately \$140.0 million.

The Company acquired net assets with a fair value of \$119.3 million as described below. As part of the purchase price, the Company issued 1,149,340 restricted shares valued at \$48.2 million as equity consideration on the acquisition date. Employees must fulfill service requirements in exchange for the rights to the shares. Compensation expense will be amortized on a straight-line basis over the requisite service period of one or three years. As of December 31, 2017, the Company had \$10.7 million of remaining compensation expense related to these restricted shares. The fair value of the restricted stock was determined using the market price of the Company's common stock on the date of the acquisition.

The Company also entered into acquisition-related compensation arrangements with certain employees of \$20.6 million which consisted of cash (\$9.0 million) and restricted stock (\$11.6 million) for retention purposes. Compensation expense related to these arrangements is amortized on a straight-line basis over the requisite service period of three years. Additional cash compensation may be available to certain investment banking employees subject to exceeding an investment banking revenue threshold during the three year 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 December 31, 2017, the Company had accrued \$31.3 million related to this performance award plan, of which \$27.0 million and \$4.3 million was recorded as compensation expense in 2017 and 2016, respectively.

The acquisition was accounted for pursuant to FASB Accounting Standards Codification Topic 805, "Business Combinations." Accordingly, the purchase price was allocated to the acquired assets and liabilities assumed based on their estimated fair values as of the acquisition date. The excess of the purchase price over the net assets acquired was allocated between goodwill and intangible assets within the Capital Markets segment. The Company recorded \$60.7 million of goodwill on its consolidated statements of financial condition, of which \$59.4 million is expected to be deductible for income tax purposes. In management's opinion, the goodwill represents the reputation and operating expertise of Simmons.

Identifiable intangible assets purchased by the Company consisted of customer relationships and the Simmons trade name with acquisition-date fair values of \$17.5 million and \$9.1 million, respectively. Transaction costs of \$0.9 million were incurred for the year ended December 31, 2016, and are included in restructuring and integration costs on the consolidated statements of operations.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

The following table summarizes the estimated fair value of assets acquired and liabilities assumed at the date of the acquisition:

(Dollars in thousands)

Assets:	
Cash and cash equivalents	\$ 47,201
Fixed assets	1,868
Goodwill	60,737
Intangible assets	26,638
Investments	980
Other assets	5,071
Total assets acquired	142,495
Liabilities:	
Accrued compensation	15,387
Other liabilities and accrued expenses	7,814
Total liabilities assumed	23,201
Net assets acquired	<u>\$ 119,294</u>

Simmons' results of operations have been included in the Company's consolidated financial statements prospectively beginning on the date of acquisition. The acquisition has been fully integrated with the Company's existing operations. Accordingly, post-acquisition revenues and net income are not discernible.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 5 *Financial Instruments and Other Inventory Positions Owned and Financial Instruments and Other Inventory Positions Sold, but Not Yet Purchased*

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Financial instruments and other inventory positions owned:		
Corporate securities:		
Equity securities	\$ 51,896	\$ 6,363
Convertible securities	74,456	103,486
Fixed income securities	30,145	21,018
Municipal securities:		
Taxable securities	67,699	63,090
Tax-exempt securities	744,241	559,329
Short-term securities	62,251	35,175
Mortgage-backed securities	481	5,638
U.S. government agency securities	317,318	205,685
U.S. government securities	9,317	29,970
Derivative contracts	25,573	29,217
Total financial instruments and other inventory positions owned	1,383,377	1,058,971
Less noncontrolling interests (1)	—	(57,700)
	\$ 1,383,377	\$ 1,001,271
Financial instruments and other inventory positions sold, but not yet purchased:		
Corporate securities:		
Equity securities	\$ 101,517	\$ 89,453
Fixed income securities	30,292	17,324
U.S. government agency securities	49,077	6,723
U.S. government securities	213,312	180,650
Derivative contracts	5,029	5,207
Total financial instruments and other inventory positions sold, but not yet purchased	399,227	299,357
Less noncontrolling interests (2)	—	(631)
	\$ 399,227	\$ 298,726

(1) *Noncontrolling interests attributable to third party ownership in a consolidated municipal bond fund consist of \$1.3 million of taxable municipal securities, \$55.2 million of tax-exempt municipal securities, and \$1.2 million of derivative contracts as of December 31, 2016.*

(2) *Noncontrolling interests attributable to third party ownership in a consolidated municipal bond fund consist of U.S. government securities as of December 31, 2016.*

At December 31, 2017 and 2016, financial instruments and other inventory positions owned in the amount of \$720.0 million and \$594.4 million, respectively, had been pledged as collateral for short-term financings and repurchase agreements.

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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

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.

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 either 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:

<i>(Dollars in thousands)</i> Derivative Category	December 31, 2017			December 31, 2016		
	Derivative Assets (1)	Derivative Liabilities (2)	Notional Amount	Derivative Assets (1)	Derivative Liabilities (2)	Notional Amount
Interest rate						
Customer matched-book	\$ 239,224	\$ 225,890	\$ 2,819,006	\$ 288,955	\$ 272,819	\$ 3,330,207
Trading securities	126	4,459	399,450	13,952	1,707	423,550
Credit default swap index						
Trading securities	—	—	—	—	127	7,470
Futures and equity options						
Trading securities	6	—	9,635	—	—	—
	<u>\$ 239,356</u>	<u>\$ 230,349</u>	<u>\$ 3,228,091</u>	<u>\$ 302,907</u>	<u>\$ 274,653</u>	<u>\$ 3,761,227</u>

- (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:

<i>(Dollars in thousands)</i> Derivative Category	Operations Category	Year Ended December 31,		
		2017	2016	2015
Interest rate derivative contract	Investment banking	\$ (2,608)	\$ (4,151)	\$ (2,274)
Interest rate derivative contract	Institutional brokerage	(16,772)	19,613	534
Credit default swap index contract	Institutional brokerage	4,482	4,317	12,228
Futures and equity option derivative contracts	Institutional brokerage	(17)	255	(252)
		<u>\$ (14,915)</u>	<u>\$ 20,034</u>	<u>\$ 10,236</u>

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

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 December 31, 2017, the Company had \$19.1 million of uncollateralized credit exposure with these counterparties (notional contract amount of \$180.1 million), including \$14.9 million of uncollateralized credit exposure with one counterparty.

Note 6 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

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. Certain illiquid taxable 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.

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. 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 ranging from 202-303 basis points ("bps") on spreads over U.S. treasury securities, or models based upon prepayment expectations ranging from 0%-39% conditional prepayment rate ("CPR"). 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.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

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.

Investments

The Company's investments valued at fair value include equity investments in private companies and partnerships, investments in registered mutual funds, warrants of public and private companies and private company debt. Investments in registered mutual funds are valued based on quoted prices on active markets and classified as Level I. Company-owned warrants, which have a cashless exercise option, are valued based upon the Black-Scholes option-pricing model and certain unobservable inputs. The Company applies a liquidity discount to the value of its warrants in public and private companies. For warrants in private companies, valuation adjustments, based upon management's judgment, are made to account for differences between the measured security and the stock volatility factors of comparable companies. Company-owned warrants are reported as Level III assets. 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 \$14.1 million and \$19.7 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 December 31, 2017 and 2016, 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 \$1.6 million, \$1.8 million and \$1.3 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Piper Jaffray Companies
Notes to the Consolidated Financial Statements – Continued

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 December 31, 2017:

	Valuation Technique	Unobservable Input	Range	Weighted Average
Assets:				
Financial instruments and other inventory positions owned:				
Municipal securities:				
Tax-exempt securities	Discounted cash flow	Expected recovery rate (% of par) (2)	5 - 60%	19.4%
Short-term securities	Discounted cash flow	Expected recovery rate (% of par) (2)	66 - 94%	91.0%
Mortgage-backed securities:				
Collateralized by residential mortgages	Discounted cash flow	Credit default rates (3)	1 - 2%	1.5%
		Prepayment rates (4)	20.0%	20.0%
		Loss severity (3)	25 - 50%	26.9%
		Valuation yields (3)	5.0%	5.0%
Derivative contracts:				
Interest rate locks	Discounted cash flow	Premium over the MMD curve (1)	7 - 15 bps	11.1 bps
Investments at fair value:				
Equity securities in private companies	Market approach	Revenue multiple (2)	2 - 6 times	4.9 times
		EBITDA multiple (2)	11 - 15 times	12.8 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 (1)	1 - 16 bps	7.9 bps

Sensitivity of the fair value to changes in unobservable inputs:

- (1) Significant increase/(decrease) in the unobservable input in isolation would result in a significantly lower/(higher) fair value measurement.
- (2) Significant increase/(decrease) in the unobservable input in isolation would result in a significantly higher/(lower) fair value measurement.
- (3) Significant changes in any of these inputs in isolation could result in a significantly different fair value. Generally, a change in the assumption used for credit default rates is accompanied by a directionally similar change in the assumption used for the loss severity and a directionally inverse change in the assumption for valuation yields.
- (4) The potential impact of changes in prepayment rates on fair value is dependent on other security-specific factors, such as the par value and structure. Changes in the prepayment rates may result in directionally similar or directionally inverse changes in fair value depending on whether the security trades at a premium or discount to the par value.

Piper Jaffray Companies
Notes to the Consolidated Financial Statements – Continued

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:

<i>(Dollars in thousands)</i>	<u>Level I</u>	<u>Level II</u>	<u>Level III</u>	<u>Counterparty and Cash Collateral Netting (1)</u>	<u>Total</u>
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	<u>\$ 54,472</u>	<u>\$ 1,583,953</u>	<u>\$ 128,081</u>	<u>\$ (213,783)</u>	<u>\$ 1,552,723</u>
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	<u>\$ 305,246</u>	<u>\$ 314,868</u>	<u>\$ 4,433</u>	<u>\$ (225,320)</u>	<u>\$ 399,227</u>

(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.

Piper Jaffray Companies
Notes to the Consolidated Financial Statements – Continued

The following table summarizes the valuation of the Company's financial instruments by pricing observability levels defined in ASC 820 as of December 31, 2016:

<i>(Dollars in thousands)</i>	<u>Level I</u>	<u>Level II</u>	<u>Level III</u>	<u>Counterparty and Cash Collateral Netting (1)</u>	<u>Total</u>
Assets:					
Financial instruments and other inventory positions owned:					
Corporate securities:					
Equity securities	\$ 82	\$ 6,281	\$ —	\$ —	\$ 6,363
Convertible securities	—	103,486	—	—	103,486
Fixed income securities	—	21,018	—	—	21,018
Municipal securities:					
Taxable securities	—	60,404	2,686	—	63,090
Tax-exempt securities	—	558,252	1,077	—	559,329
Short-term securities	—	34,431	744	—	35,175
Mortgage-backed securities	—	273	5,365	—	5,638
U.S. government agency securities	—	205,685	—	—	205,685
U.S. government securities	29,970	—	—	—	29,970
Derivative contracts	—	288,955	13,952	(273,690)	29,217
Total financial instruments and other inventory positions owned	30,052	1,278,785	23,824	(273,690)	1,058,971
Cash equivalents	768	—	—	—	768
Investments at fair value	32,783	—	123,319 ⁽²⁾	—	156,102
Total assets	<u>\$ 63,603</u>	<u>\$ 1,278,785</u>	<u>\$ 147,143</u>	<u>\$ (273,690)</u>	<u>\$ 1,215,841</u>
Liabilities:					
Financial instruments and other inventory positions sold, but not yet purchased:					
Corporate securities:					
Equity securities	\$ 89,453	\$ —	\$ —	\$ —	\$ 89,453
Fixed income securities	—	17,324	—	—	17,324
U.S. government agency securities	—	6,723	—	—	6,723
U.S. government securities	180,650	—	—	—	180,650
Derivative contracts	—	273,166	1,487	(269,446)	5,207
Total financial instruments and other inventory positions sold, but not yet purchased	<u>\$ 270,103</u>	<u>\$ 297,213</u>	<u>\$ 1,487</u>	<u>\$ (269,446)</u>	<u>\$ 299,357</u>

(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 \$45.1 million are attributable to third party ownership in consolidated merchant banking and senior living funds.

The Company's Level III assets were \$128.1 million and \$147.1 million, or 8.2 percent and 12.1 percent of financial instruments measured at fair value at December 31, 2017 and 2016, respectively. The value of transfers between levels are recognized at the beginning of the reporting period. There were \$0.6 million of transfers of financial assets out of Level III for the year ended December 31, 2017. There were no other significant transfers between Level I, Level II or Level III for the year ended December 31, 2017.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

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:

(Dollars in thousands)	Balance at		Sales	Transfers in	Transfers out	Realized gains/ (losses) (1)	Unrealized gains/ (losses) (1)	Unrealized gains/ (losses) for assets/ liabilities held at	
	December 31, 2016	Purchases						December 31, 2017	December 31, 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)	—	—	—	(110)	700	(110)
Short-term securities	744	—	(25)	—	—	2	(7)	714	(7)
Mortgage-backed securities	5,365	996	(5,608)	—	—	203	(475)	481	(45)
Derivative contracts	13,952	109	(11,469)	—	—	11,360	(13,826)	126	126
Total financial instruments and other inventory positions owned	23,824	1,105	(20,072)	—	—	12,281	(15,117)	2,021	(36)
Investments at fair value	123,319	31,362	(37,004)	—	(601)	(2,585)	11,569	126,060	14,960
Total assets	\$ 147,143	\$ 32,467	\$ (57,076)	\$ —	\$ (601)	\$ 9,696	\$ (3,548)	\$ 128,081	\$ 14,924
Liabilities:									
Financial instruments and other inventory positions sold, but not yet purchased:									
Derivative contracts	\$ 1,487	\$ (17,083)	\$ 211	\$ —	\$ —	\$ 16,872	\$ 2,946	\$ 4,433	\$ 4,433
Total financial instruments and other inventory positions sold, but not yet purchased	\$ 1,487	\$ (17,083)	\$ 211	\$ —	\$ —	\$ 16,872	\$ 2,946	\$ 4,433	\$ 4,433

- (1) 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. 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 on the consolidated statements of operations.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

	Balance at		Transfers		Realized	Unrealized	Balance at	Unrealized gains/ (losses) for assets/ liabilities held at	
(Dollars in thousands)	December 31,	Purchases	Sales	in	out	gains/ (losses) (1)	gains/ (losses) (1)	December 31,	December 31,
	2015					(1)	(1)	2016	2016 (1)
Assets:									
Financial instruments and other inventory positions owned:									
Municipal securities:									
Taxable securities	\$ 5,816	\$ —	\$ (3,700)	\$ —	\$ —	\$ 554	\$ 16	\$ 2,686	\$ 16
Tax-exempt securities	1,177	—	—	—	—	—	(100)	1,077	(100)
Short-term securities	720	—	—	—	—	—	24	744	24
Mortgage-backed securities	121,124	26,519	(142,263)	—	—	3,495	(3,510)	5,365	69
Derivative contracts	—	—	—	—	—	—	13,952	13,952	13,952
Total financial instruments and other inventory positions owned	128,837	26,519	(145,963)	—	—	4,049	10,382	23,824	13,961
Investments at fair value	109,444	33,683	(28,343)	—	(9,088)	10,336	7,287	123,319	7,014
Total assets	\$ 238,281	\$ 60,202	\$ (174,306)	\$ —	\$ (9,088)	\$ 14,385	\$ 17,669	\$ 147,143	\$ 20,975
Liabilities:									
Financial instruments and other inventory positions sold, but not yet purchased:									
Derivative contracts	\$ 7,148	\$ (14,653)	\$ —	\$ —	\$ —	\$ 14,653	\$ (5,661)	\$ 1,487	\$ 1,487
Total financial instruments and other inventory positions sold, but not yet purchased	\$ 7,148	\$ (14,653)	\$ —	\$ —	\$ —	\$ 14,653	\$ (5,661)	\$ 1,487	\$ 1,487

(1) 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. 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 on the consolidated statements of operations.

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

Non-Recurring Fair Value Measurements

The Company recorded non-cash goodwill impairment charges of \$114.4 million and \$82.9 million for the years ended December 31, 2017 and 2016, respectively, representing the full value of goodwill attributable to the asset management reporting unit. The fair value measurements used in the analyses were calculated using the income approach (discounted cash flow method) and market approach (earnings multiples of public company comparables). The discounted cash flow models were calculated using unobservable inputs, such as revenue and EBITDA forecasts, which are classified as Level III within the fair value hierarchy. See Note 13 for further discussion.

Note 7 Variable Interest Entities

The Company has investments in and/or acts as the managing partner of various partnerships, limited liability companies, or 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.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

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.

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 December 31, 2017 include 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 December 31, 2017. 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.

<i>(Dollars in thousands)</i>	Alternative Asset Management Funds
Assets:	
Receivables from brokers, dealers and clearing organizations	\$ 9,218
Financial instruments and other inventory positions owned and pledged as collateral	404,952
Investments	107,618
Other assets	4,205
Total assets	<u>\$ 525,993</u>
Liabilities:	
Short-term financing	\$ 239,963
Payables to brokers, dealers and clearing organizations	808
Financial instruments and other inventory positions sold, but not yet purchased	47,806
Other liabilities and accrued expenses	87,775
Total liabilities	<u>\$ 376,352</u>

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 21 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 \$0.6 billion and \$0.8 billion at December 31, 2017 and 2016, respectively. The Company's exposure to loss from these VIEs is \$6.4 million, which is the carrying value of its capital contributions recorded in investments on the consolidated statements of financial condition at December 31, 2017. The Company had no liabilities related to these VIEs at December 31, 2017 and 2016. Furthermore, the Company has not provided financial or other support to these VIEs that it was not previously contractually required to provide as of December 31, 2017.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 8 *Receivables from and Payables to Brokers, Dealers and Clearing Organizations*

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Receivable arising from unsettled securities transactions	\$ 9,218	\$ 132,724
Deposits paid for securities borrowed	—	27,573
Receivable from clearing organizations	109,270	3,293
Deposits with clearing organizations	11,019	35,713
Receivable from brokers and dealers	12,041	10,988
Securities failed to deliver	—	975
Other	3,846	1,464
Total receivables from brokers, dealers and clearing organizations	<u>\$ 145,394</u>	<u>\$ 212,730</u>

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Payable arising from unsettled securities transactions	\$ 808	\$ 13,948
Payable to clearing organizations	—	15,893
Payable to brokers and dealers	18,584	7,958
Securities failed to receive	—	3,043
Total payables to brokers, dealers and clearing organizations	<u>\$ 19,392</u>	<u>\$ 40,842</u>

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.

Deposits paid for securities borrowed approximate the market value of the securities. Securities failed to deliver and receive represent the contract value of securities that have not been delivered or received by the Company on settlement date, prior to transitioning to a fully disclosed clearing model.

Note 9 *Receivables from and Payables to Customers*

Effective August 7, 2017, Pershing is Piper Jaffray's clearing broker dealer responsible for the clearance and settlement of customer cash and security transactions.

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Cash accounts	\$ —	\$ 29,610
Margin accounts	—	2,307
Total receivables from customers	<u>\$ —</u>	<u>\$ 31,917</u>

Securities owned by customers were previously held as collateral for margin loan receivables. This collateral is not reflected on the consolidated financial statements. Margin loan receivables earned interest at floating interest rates based on prime rates.

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Cash accounts	\$ —	\$ 14,416
Margin accounts	—	14,936
Total payables to customers	<u>\$ —</u>	<u>\$ 29,352</u>

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Payables to customers primarily comprise cash balances in customer accounts consisting of customer funds pending settlement of securities transactions and customer funds on deposit, prior to transitioning to a fully disclosed clearing model. Except for amounts arising from customer short sales, all amounts payable to customers were subject to withdrawal by customers upon their request.

Note 10 *Collateralized Securities Transactions*

As discussed in Note 1, Piper Jaffray transitioned from a self clearing securities broker dealer to a fully disclosed clearing model in the third quarter of 2017.

The Company's current short-term financing and prior customer securities activities involve the Company using securities as collateral. In the event that the counterparty did not meet its contractual obligation to return securities used as collateral (e.g., pursuant to the terms of a repurchase agreement), or customers did not deposit additional securities or cash for margin when required, the Company was exposed to the risk of reacquiring the securities or selling the securities at unfavorable market prices in order to satisfy its obligations. The Company controlled this risk by monitoring the market value of securities pledged or used as collateral on a daily basis and requiring adjustments in the event of excess market exposure. The Company uses unaffiliated third party custodians to administer the underlying collateral for certain of its short-term financings to mitigate risk.

In a reverse repurchase agreement the Company purchases financial instruments from a seller, typically in exchange for cash, and agrees to resell the same or substantially the same financial instruments to the seller at a stated price plus accrued interest in the future. In a repurchase agreement, the Company sells financial instruments to a buyer, typically for cash, and agrees to repurchase the same or substantially the same financial instruments from the buyer at a stated price plus accrued interest at a future date. Even though repurchase and reverse repurchase agreements involve the legal transfer of ownership of financial instruments, they are accounted for as financing arrangements because they require the financial instruments to be repurchased or resold at maturity of the agreement.

In a securities borrowed transaction, the Company borrows securities from a counterparty in exchange for cash. When the Company returns the securities, the counterparty returns the cash. Interest is generally paid periodically over the life of the transaction.

Prior to transitioning to a fully disclosed clearing model, the Company obtained securities purchased under agreements to resell, securities borrowed and margin agreements on terms that permit it to repledge or resell the securities to others, typically pursuant to repurchase agreements. The Company obtained securities with a fair value of approximately \$192.2 million at December 31, 2016, of which \$185.2 million had been pledged or otherwise transferred to satisfy its commitments under financial instruments and other inventory positions sold, but not yet purchased.

Reverse repurchase agreements, repurchase agreements and securities borrowed and loaned are reported on a net basis by counterparty when a legal right of offset exists. The Company had no outstanding securities lending arrangements as of December 31, 2017 or 2016. See Note 5 for information related to the Company's offsetting of derivative contracts.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 11 Investments

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

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Investments at fair value	\$ 165,564	\$ 156,102
Investments at cost	2,416	2,755
Investments accounted for under the equity method	8,232	9,200
Total investments	<u>176,212</u>	<u>168,057</u>
Less investments attributable to noncontrolling interests (1)	<u>(44,397)</u>	<u>(45,123)</u>
	<u>\$ 131,815</u>	<u>\$ 122,934</u>

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

At December 31, 2017, investments carried on a cost basis had an estimated fair market value of \$4.1 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.

Note 12 Other Assets

<i>(Dollars in thousands)</i>	December 31, 2017	December 31, 2016
Fee receivables	\$ 20,884	\$ 22,840
Accrued interest receivables	6,981	9,259
Forgivable loans, net	7,452	9,307
Prepaid expenses	6,769	6,363
Secured loan receivables	2,975	6,236
Other	9,773	13,124
Total other assets	<u>\$ 54,834</u>	<u>\$ 67,129</u>

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 13 Goodwill and Intangible Assets

<i>(Dollars in thousands)</i>	Capital Markets	Asset Management	Total
Goodwill			
Balance at December 31, 2015	\$ 21,132	\$ 196,844	\$ 217,976
Goodwill acquired	60,723	419	61,142
Impairment charge	—	(82,900)	(82,900)
Balance at December 31, 2016	\$ 81,855	\$ 114,363	\$ 196,218
Impairment charge	—	(114,363)	(114,363)
Balance at December 31, 2017	\$ 81,855	\$ —	\$ 81,855
Intangible assets			
Balance at December 31, 2015	\$ 8,256	\$ 22,274	\$ 30,530
Intangible assets acquired	26,651	1,267	27,918
Amortization of intangible assets	(15,587)	(5,627)	(21,214)
Balance at December 31, 2016	\$ 19,320	\$ 17,914	\$ 37,234
Intangible assets acquired	—	1,000	1,000
Amortization of intangible assets	(10,178)	(5,222)	(15,400)
Balance at December 31, 2017	\$ 9,142	\$ 13,692	\$ 22,834

The Company tests goodwill and indefinite-life intangible assets for impairment on an annual basis and on an interim basis when circumstances exist that could indicate possible impairment. The Company tests for impairment at the reporting unit level, which is generally one level below its operating segments. The Company has identified two reporting units: capital markets and asset management. When testing for impairment, the Company has the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after making an assessment, the Company determines it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then further analysis is unnecessary. However, if the Company concludes otherwise, then the Company is required to perform a two-step impairment test, which requires management to make judgments in determining what assumptions to use in the calculation. The first step requires a comparison of the fair value of the reporting unit to its carrying value, including allocated goodwill. The estimated fair value of the reporting unit is derived based on valuation techniques that a market participant would use. The Company estimates the fair value of the reporting unit using the income approach (discounted cash flow method) and market approach (earnings and/or transaction multiples). As discussed in Note 3, the Company adopted ASU 2017-04 effective July 1, 2017. ASU 2017-04 eliminates the second step from the goodwill impairment test. Accordingly, the Company will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value.

The Company identified impairment indicators in the third quarter of 2017 related to the asset management reporting unit resulting from declining profitability and performed an interim goodwill impairment test as of July 31, 2017, which resulted in a non-cash goodwill impairment charge of \$114.4 million. The fair value of the asset management reporting unit was calculated using the income approach (discounted cash flow method based on revenue and EBITDA forecasts) and market approach (earnings multiples of comparable public companies).

The Company performed its annual goodwill impairment testing for its capital markets reporting unit as of October 31, 2017, which resulted in no impairment.

The Company concluded there was a \$82.9 million non-cash goodwill impairment charge in 2016 related to the asset management reporting unit. The annual goodwill impairment testing for 2016 resulted in no impairment associated with the capital markets reporting unit. The Company concluded there was no goodwill impairment in 2015.

The Company also evaluated its intangible assets (indefinite and definite-lived) and concluded there was no impairment in 2017, 2016 and 2015, respectively.

The addition of goodwill and intangible assets during the year ended December 31, 2016 primarily related to the acquisition of Simmons, as discussed in Note 4. Management identified \$26.6 million of intangible assets, consisting of customer relationships

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

(\$17.5 million) and the Simmons trade name (\$9.1 million), which are being amortized over a weighted average life of 1.6 years and 4.0 years, respectively.

Intangible assets with determinable lives consist of customer relationships and the Simmons trade name. The following table summarizes the future aggregate amortization expense of the Company's intangible assets with determinable lives for the years ended:

(Dollars in thousands)

2018	\$	10,460
2019		8,001
2020		1,256
2021		258
Total	<u>\$</u>	<u>19,975</u>

Note 14 Fixed Assets

(Dollars in thousands)

	December 31, 2017	December 31, 2016
Furniture and equipment	<u>\$ 38,506</u>	<u>\$ 37,712</u>
Leasehold improvements	<u>31,290</u>	<u>31,982</u>
Software	<u>11,327</u>	<u>13,957</u>
Total	<u>81,123</u>	<u>83,651</u>
Accumulated depreciation and amortization	<u>(55,944)</u>	<u>(58,308)</u>
	<u>\$ 25,179</u>	<u>\$ 25,343</u>

For the years ended December 31, 2017, 2016 and 2015, depreciation and amortization of furniture and equipment, leasehold improvements and software totaled \$7.3 million, \$6.4 million and \$5.1 million, respectively, and are included in occupancy and equipment expense on the consolidated statements of operations.

Note 15 Short-Term Financing

(Dollars in thousands)

	Outstanding Balance		Weighted Average Interest Rate	
	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
Commercial paper (secured)	<u>\$ 49,974</u>	<u>\$ 147,021</u>	<u>2.32%</u>	<u>2.12%</u>
Prime broker arrangements	<u>239,963</u>	<u>271,811</u>	<u>2.23%</u>	<u>1.49%</u>
Total short-term financing	<u>\$ 289,937</u>	<u>\$ 418,832</u>		

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. CP Series III A was discontinued during the third quarter of 2017. As of December 31, 2017, the weighted average maturity of outstanding CP Notes was 8 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 revised covenant that requires the Company's U.S. broker dealer subsidiary to maintain excess net capital of \$100 million.

The Company has established arrangements to obtain financing with prime brokers related to its municipal bond fund and convertible securities. Financing under these arrangements is primarily secured by municipal and convertible securities, and collateral limitations could reduce the amount of funding available under the arrangements. Prime broker financing activities are recorded net of receivables from trading activity. The funding is at the discretion of the prime brokers subject to a notice period.

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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

The Company's committed short-term bank line financing at December 31, 2017 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 December 31, 2017, the Company had no advances against this line of credit.

The Company's uncommitted secured line at December 31, 2017 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 December 31, 2017, the Company had no advances against this line of credit.

Note 16 Senior Notes

The Company has entered into variable and fixed rate senior notes with certain entities advised by Pacific Investment Management Company ("PIMCO"). The following table presents the outstanding balance by note class:

	Outstanding Balance	
	December 31, 2017	December 31, 2016
<i>(Dollars in thousands)</i>		
Class A Notes	\$ —	\$ 50,000
Class C Notes	125,000	125,000
Total senior notes	<u>\$ 125,000</u>	<u>\$ 175,000</u>

On October 8, 2015, the Company entered into a second amended and restated note purchase agreement ("Second Amended and Restated Note Purchase Agreement") under which the Company 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 mature on October 9, 2018. The unpaid principal amount is due in full on the maturity date and may not be prepaid by the Company. The variable rate Class A Notes were repaid by the Company upon maturity on May 31, 2017.

The Second Amended and Restated Note Purchase Agreement includes customary events of default and covenants that, among other things, require the Company to maintain a minimum consolidated tangible net worth and regulatory net capital, limit the Company's leverage ratio and require the Company to maintain a minimum ratio of operating cash flow to fixed charges. At December 31, 2017, the Company was in compliance with all covenants.

The senior notes are recorded at amortized cost which approximate fair value at December 31, 2017.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****Note 17 Contingencies, Commitments and Guarantees****Legal Contingencies**

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 December 31, 2017 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.

Litigation-related reserve activity included within other operating expenses resulted in expense of \$0.1 million, \$0.3 million, and \$9.7 million (primarily related to a municipal derivatives class action settlement paid in 2016) for the years ended December 31, 2017, 2016 and 2015, respectively.

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 December 31, 2017 are as follows:

(Dollars in thousands)

2018	\$	14,509
2019		12,884
2020		12,214
2021		7,888
2022		6,544
Thereafter		14,872
Total	\$	<u>68,911</u>

Total minimum rentals to be received from 2018 through 2022 under noncancelable subleases were \$4.5 million at December 31, 2017.

Rental expense, including operating costs and real estate taxes, was \$17.1 million, \$17.3 million and \$13.7 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Investment Commitments

As of December 31, 2017, the Company had commitments to invest approximately \$72.5 million in limited partnerships or limited liability companies that make direct or indirect equity or debt investments in companies or provide financing for senior living facilities.

Other Guarantees

The Company is a member of numerous exchanges. Under the membership agreements with these entities, members generally are required to guarantee the performance of other members, and if a member becomes unable to satisfy its obligations to the exchange, other members would be required to meet shortfalls. To mitigate these performance risks, the exchanges often require members to post collateral. In addition, the Company identifies and guarantees certain clearing agents against specified potential losses in connection with providing services to the Company or its affiliates. The Company's maximum potential liability under these arrangements cannot be quantified. However, management believes the likelihood that the Company would be required to make payments under these arrangements is remote. Accordingly, no liability is recorded in the consolidated financial statements for these arrangements.

Concentration of Credit Risk

The Company provides investment, capital-raising and related services to a diverse group of domestic and foreign customers, including governments, corporations, and institutional and individual investors. The Company's exposure to credit risk associated with the non-performance of customers in fulfilling their contractual obligations pursuant to securities transactions can be directly impacted by volatile securities markets, credit markets and regulatory changes. This exposure is measured on an individual customer basis and on a group basis for customers that share similar attributes. To alleviate the potential for risk concentrations, counterparty credit limits have been implemented for certain products and are continually monitored in light of changing customer and market conditions.

Note 18 Restructuring

The Company incurred the following pre-tax restructuring charges within the Capital Markets segment primarily in conjunction with its acquisition activities.

	Year Ended December 31,		
	2017	2016	2015
<i>(Dollars in thousands)</i>			
Severance, benefits and outplacement costs	\$ —	\$ 6,608	\$ 8,806
Vacated redundant leased office space	—	1,320	—
Contract termination costs	—	1,026	546
Total pre-tax restructuring charges	\$ —	\$ 8,954	\$ 9,352

Note 19 Shareholders' Equity

The certificate of incorporation of Piper Jaffray Companies provides for the issuance of up to 100,000,000 shares of common stock with a par value of \$0.01 per share and up to 5,000,000 shares of undesignated preferred stock with a par value of \$0.01 per share.

Common Stock

The holders of Piper Jaffray Companies common stock are entitled to one vote per share on all matters to be voted upon by the shareholders. Subject to preferences that may be applicable to any outstanding preferred stock of Piper Jaffray Companies, the holders of its common stock are entitled to receive ratably such dividends, if any, as may be declared out of funds legally available for that purpose. There are also restrictions on the payment of dividends as set forth in Note 24. The Company's board of directors determines the declaration and payment of dividends on a quarterly basis, and is free to change the Company's dividend policy at any time. Piper Jaffray Companies did not pay cash dividends on its common stock in 2016 or 2015.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

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. The Company declared and paid dividends of \$1.25 per share, totaling \$19.0 million, for the year ended December 31, 2017. In addition, the Company's board of directors approved a new dividend policy with the intention of returning a metric based on net income from the previous fiscal year. This will include an annual special cash dividend, payable in the first quarter of each year, beginning in 2018.

On February 1, 2018, the Company's board of directors declared both a quarterly and annual special cash dividend on its common stock of \$0.375 and \$1.62 per share, respectively, to be paid on March 15, 2018, to shareholders of record as of the close of business on February 26, 2018.

In the event that Piper Jaffray Companies is liquidated or dissolved, the holders of its common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to any prior distribution rights of Piper Jaffray Companies preferred stock, if any, then outstanding. Currently, there is no outstanding preferred stock. The holders of the common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to Piper Jaffray Companies common stock.

Share Repurchases

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. In 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. During the year ended December 31, 2016, the Company repurchased 1,536,226 shares at an average price of \$38.89 per share for an aggregate purchase price of \$59.7 million related to this authorization. During the year ended December 31, 2015, the Company repurchased 2,459,400 shares at an average price of \$48.17 per share for an aggregate purchase price of \$118.5 million related to the August 2015 and prior authorizations.

On August 10, 2017, the Company's board of directors authorized the repurchase of up to \$150.0 million in common shares, effective from September 30, 2017 through September 30, 2019. No repurchases have been made in conjunction with this authorization through December 31, 2017.

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 314,542 shares or \$23.0 million; 261,685 shares or \$11.1 million, and 281,180 shares or \$14.5 million of the Company's common stock for this purpose during the years ended December 31, 2017, 2016 and 2015, 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 21. During the years ended December 31, 2017, 2016 and 2015, the Company issued 867,327 shares, 854,416 shares and 784,751 shares, respectively, related to these obligations.

Preferred Stock

The Piper Jaffray Companies board of directors has the authority, without action by its shareholders, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights associated with the common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of common stock until the Piper Jaffray Companies board of directors determines the specific rights of the holders of preferred stock. However, the effects might include, among other things, the following: restricting dividends on its common stock, diluting the voting power of its common stock, impairing the liquidation rights of its common stock and delaying or preventing a change in control of Piper Jaffray Companies without further action by its shareholders.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****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 \$42.7 million and a senior living fund aggregating \$5.2 million as of December 31, 2017. As of December 31, 2016, noncontrolling interests included the minority equity holders' proportionate share of the equity in a merchant banking fund of \$35.0 million, a municipal bond fund with employee investors of \$9.2 million and a senior living fund aggregating \$12.8 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 years ended December 31, 2017, 2016 and 2015.

Note 20 Employee Benefit Plans

The Company has various employee benefit plans, and substantially all employees are covered by at least one plan. The plans include health and welfare plans and a tax-qualified retirement plan (the "Retirement Plan"). During the years ended December 31, 2017, 2016 and 2015, the Company incurred employee benefits expenses of \$19.9 million, \$17.6 million and \$15.1 million, respectively.

Health and Welfare Plans

Company employees who meet certain work schedule and service requirements are eligible to participate in the Company's health and welfare plans. The Company subsidizes the cost of coverage for employees. The health plans contain cost-sharing features such as deductibles and coinsurance.

The Company is self-insured for losses related to health claims, although it obtains third party stop loss insurance coverage on both an individual and a group plan basis. Self-insured liabilities are based on a number of factors, including historical claims experience, an estimate of claims incurred but not reported and valuations provided by third party actuaries. For the years ended December 31, 2017, 2016 and 2015, the Company recognized expense of \$12.0 million, \$10.4 million and \$9.1 million, respectively, in compensation and benefits expense on the consolidated statements of operations related to its health plans.

Retirement Plan

The Retirement Plan consists of a defined contribution retirement savings plan. The defined contribution retirement savings plan allows qualified employees, at their option, to make contributions through salary deductions under Section 401(k) of the Internal Revenue Code. Employee contributions are 100 percent matched by the Company to a maximum of six percent of recognized compensation up to the social security taxable wage base. Although the Company's matching contribution vests immediately, a participant must be employed on December 31 to receive that year's matching contribution.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****Note 21 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 December 31, 2017:

Incentive Plan

Restricted Stock	
Annual grants	903,821
Sign-on grants	240,424
	<u>1,144,245</u>
<i>Inducement Plan</i>	
Restricted Stock	260,231
	<u>1,404,476</u>
Total restricted stock related to compensation	<u>1,404,476</u>
Simmons Deal Consideration (1)	821,141
	<u>2,225,617</u>
Total restricted stock outstanding	<u><u>2,225,617</u></u>

Incentive Plan

Restricted Stock Units	
Leadership grants	244,772
	<u>244,772</u>

(1) The Company issued restricted stock with service conditions as part of deal consideration for the acquisition of Simmons. See Note 4 for further discussion.

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 (1.0 million shares remained available for future issuance under the Incentive Plan as of December 31, 2017). 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 not meet the criteria for an in-substance service condition, as defined by ASC 718. 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-

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

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").

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 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.

2017 Leadership Grant

Restricted stock units granted in 2017 will vest and convert to shares of common stock at the end of the performance period only if the Company satisfies predetermined performance and/or market conditions over the 36-month performance period from January 1, 2017 through December 31, 2019. Under the terms of the award, 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 the performance period. The maximum payout leverage under this grant 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 agreement. 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 share units upon termination of employment with a corresponding reversal of compensation expense. As of December 31, 2017, the Company has determined that the performance condition is probable of achieving 75 percent of the grant 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 award 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 share units upon termination of employment with a corresponding reversal of compensation expense. For this portion of the award, 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
2017	1.62%	35.9%

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued**

Because the market condition portion of the award vesting depends 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 assumption was determined using historical volatility, as correlation coefficients can only be developed through historical volatility. The risk-free interest rate was determined based on the three-year U.S. Treasury bond yield.

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:

Grant Year	Risk-free Interest Rate	Expected Stock Price Volatility
2016	0.98%	34.9%
2015	0.90%	29.8%
2014	0.82%	41.3%

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.

Stock Options

The Company previously granted options to purchase Piper Jaffray Companies common stock to employees and non-employee directors in fiscal years 2004 through 2008. Employee and director options were expensed by the Company on a straight-line basis over the required service period, based on the estimated fair value of the award on the date of grant using a Black-Scholes option-pricing model. As described above pertaining to the Company's Annual Grants of restricted shares, stock options granted to employees were expensed in the calendar year preceding the annual February grant date. For example, the Company recognized compensation expense during fiscal 2007 for its February 2008 option grant. The maximum term of the stock options granted to employees and directors was ten years. The Company has not granted stock options since 2008, and all awards have been exercised or expired as of March 31, 2017.

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 15, 2016. These shares cliff vest in three years. 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Stock-Based Compensation Activity

The Company recorded compensation expense of \$39.1 million, \$54.1 million and \$48.2 million for the years ended December 31, 2017, 2016 and 2015, respectively, related to employee restricted stock and restricted stock unit awards. Forfeitures were \$3.0 million, \$1.4 million and \$0.5 million for the years ended December 31, 2017, 2016 and 2015, respectively. The tax benefit related to stock-based compensation expense totaled \$9.7 million, \$14.2 million and \$18.8 million for the years ended December 31, 2017, 2016 and 2015, respectively.

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, 2014	1,095,305	\$ 36.51
Granted	783,758	51.08
Vested	(575,716)	34.72
Canceled	(15,432)	40.83
December 31, 2015	1,287,915	\$ 46.20
Granted	2,359,672	41.87
Vested	(623,961)	44.89
Canceled	(149,509)	42.49
December 31, 2016	2,874,117	\$ 43.12
Granted	248,749	77.78
Vested	(717,782)	45.08
Canceled	(179,467)	42.70
December 31, 2017	2,225,617	\$ 46.40

The fair value of restricted stock that vested during the years ended December 31, 2017, 2016 and 2015 was \$32.4 million, \$28.0 million and \$20.0 million, respectively.

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, 2014	405,826	\$ 17.99
Granted	123,687	21.83
Vested	(149,814)	12.12
Canceled	(23,457)	12.12
December 31, 2015	356,242	\$ 22.18
Granted	135,483	19.93
Vested	(117,265)	21.32
Canceled	—	—
December 31, 2016	374,460	\$ 21.63
Granted	35,981	84.10
Vested	(115,290)	23.42
Canceled	(50,379)	31.73
December 31, 2017	244,772	\$ 27.89

As of December 31, 2017, there was \$23.2 million of total unrecognized compensation cost related to restricted stock and restricted stock units expected to be recognized over a weighted average period of 1.3 years.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

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

	Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value
December 31, 2014	217,873	\$ 46.66	2.0	\$ 3,066,839
Granted	—	—		
Exercised	(50,671)	36.62		
Canceled	—	—		
Expired	(10,001)	39.62		
December 31, 2015	157,201	\$ 50.35	1.6	\$ —
Granted	—	—		
Exercised	(104,175)	43.75		
Canceled	—	—		
Expired	(22,413)	59.83		
December 31, 2016	30,613	\$ 65.86	0.3	\$ 203,291
Granted	—	—		
Exercised	(26,149)	65.13		
Canceled	—	—		
Expired	(4,464)	70.13		
December 31, 2017	—	\$ —	0	\$ —
Options exercisable at December 31, 2015	157,201	\$ 50.35	1.6	\$ —
Options exercisable at December 31, 2016	30,613	\$ 65.86	0.3	\$ 203,291
Options exercisable at December 31, 2017	—	\$ —	0	\$ —

As of December 31, 2017, there was no unrecognized compensation cost related to stock options expected to be recognized over future years. The intrinsic value of options exercised and the resulting tax benefit realized was \$0.3 million and \$0.1 million, respectively, for the year ended December 31, 2017. For the year ended December 31, 2016, the intrinsic value of options exercised and the resulting tax benefit realized was \$2.0 million and \$0.8 million, respectively. For the year ended December 31, 2015, the intrinsic value of options exercised and the resulting tax benefit realized was \$0.9 million and \$0.3 million, respectively.

The Company has a policy of issuing shares out of treasury (to the extent available) to satisfy share option exercises and restricted stock vesting. The Company expects to withhold approximately 0.3 million shares from employee equity awards vesting in 2018, related to employee individual income tax withholding obligations on restricted stock vesting. For accounting purposes, withholding shares to cover employees' tax obligations is deemed to be a repurchase of shares by the Company.

Piper Jaffray Companies**Notes to the Consolidated Financial Statements – Continued****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 \$31.5 million and \$24.4 million as of December 31, 2017 and 2016, 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 \$31.6 million and \$24.5 million as of December 31, 2017 and 2016, 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 the aforementioned vesting restrictions) and as such are not included on the consolidated statements of financial condition.

The Company has also granted MFRS Awards to new employees as a recruiting tool. Employees must fulfill service requirements in exchange for rights to the awards. Compensation expense from these awards will be amortized on a straight-line basis over the requisite service period of two to five years.

The Company recorded compensation expense of \$58.4 million, \$17.5 million and \$26.6 million for the years ended December 31, 2017, 2016 and 2015, respectively, related to employee MFRS Awards. Total compensation cost includes year-end compensation for MFRS Awards and the amortization of sign-on MFRS Awards, less forfeitures. Forfeitures were \$1.3 million for the year ended December 31, 2017. Forfeitures were immaterial for the years ended December 31, 2016 and 2015, respectively.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 22 Earnings Per Share

The Company calculates earnings per share using the two-class method. Basic earnings per common share is computed by dividing net income/(loss) applicable to Piper Jaffray Companies' common shareholders by the weighted average number of common shares outstanding for the period. Net income/(loss) applicable to Piper Jaffray Companies' common shareholders represents net income/(loss) 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. 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 unvested 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:

	Year Ended December 31,		
	2017	2016	2015
<i>(Amounts in thousands, except per share data)</i>			
Net income/(loss) applicable to Piper Jaffray Companies	\$ (61,939)	\$ (21,952)	\$ 52,075
Earnings allocated to participating securities (1)	(2,936)	—	(4,015)
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders (2)	<u>\$ (64,875)</u>	<u>\$ (21,952)</u>	<u>\$ 48,060</u>
Shares for basic and diluted calculations:			
Average shares used in basic computation	12,807	12,674	14,368
Stock options	—	15	21
Restricted stock units	171	90	—
Average shares used in diluted computation	<u>12,978</u> ⁽³⁾	<u>12,779</u> ⁽³⁾	<u>14,389</u>
Earnings/(loss) per common share:			
Basic	\$ (5.07)	\$ (1.73)	\$ 3.34
Diluted	\$ (5.07) ⁽³⁾	\$ (1.73) ⁽³⁾	\$ 3.34

(1) 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. Distributed earnings (e.g., dividends) are allocated to participating securities. Participating securities include all of the Company's unvested restricted shares. The weighted average participating shares outstanding were 2,349,476; 2,691,728 and 1,201,610 for the years ended December 31, 2017, 2016 and 2015, respectively.

(2) Net income/(loss) applicable to Piper Jaffray Companies' common shareholders for diluted and basic EPS may differ 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. Common shares of 2,225,617 and 2,874,117 were excluded from diluted EPS at December 31, 2017 and 2016, respectively, as the Company had a net loss for these years.

The anti-dilutive effects from stock options and restricted stock units were immaterial for the years ended December 31, 2017, 2016 and 2015.

Piper Jaffray Companies
Notes to the Consolidated Financial Statements – Continued
Note 23 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:

<i>(Dollars in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Capital Markets			
Investment banking			
Financing			
Equities	\$ 98,996	\$ 71,161	\$ 114,468
Debt	93,434	115,013	91,195
Advisory services	443,303	304,654	209,163
<i>Total investment banking</i>	635,733	490,828	414,826
Institutional sales and trading			
Equities	81,717	87,992	78,584
Fixed income	89,455	91,466	94,305
<i>Total institutional sales and trading</i>	171,172	179,458	172,889
<i>Management and performance fees</i>	5,566	6,363	4,642
<i>Investment income</i>	17,640	24,791	24,468
<i>Long-term financing expenses</i>	(7,676)	(9,136)	(7,494)
Net revenues	822,435	692,304	609,331
Operating expenses (1)	738,339	645,863	530,937
Segment pre-tax operating income	\$ 84,096	\$ 46,441	\$ 78,394
Segment pre-tax operating margin	10.2 %	6.7 %	12.9%

Continued on next page

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

	Year Ended December 31,		
	2017	2016	2015
<i>(Dollars in thousands)</i>			
Asset Management			
Management and performance fees			
Management fees	\$ 51,269	\$ 53,725	\$ 70,167
Performance fees	—	584	208
<i>Total management and performance fees</i>	<u>51,269</u>	<u>54,309</u>	<u>70,375</u>
<i>Investment income/(loss)</i>	<u>1,219</u>	<u>736</u>	<u>(6,788)</u>
Net revenues	52,488	55,045	63,587
Operating expenses (1)	<u>165,907</u>	<u>132,360</u>	<u>55,558</u>
Segment pre-tax operating income/(loss)	<u>\$ (113,419)</u>	<u>\$ (77,315)</u>	<u>\$ 8,029</u>
Segment pre-tax operating margin	(216.1)%	(140.5)%	12.6%
Total			
Net revenues	\$ 874,923	\$ 747,349	\$ 672,918
Operating expenses (1)	<u>904,246</u>	<u>778,223</u>	<u>586,495</u>
Pre-tax operating income/(loss)	<u>\$ (29,323)</u>	<u>\$ (30,874)</u>	<u>\$ 86,423</u>
Pre-tax operating margin	(3.4)%	(4.1)%	12.8%

(1) Operating expenses include non-cash goodwill impairment charges of \$114.4 million and \$82.9 million for the years ended December 31, 2017 and 2016, respectively, related to the Asset Management segment, as well as intangible asset amortization as set forth in the table below:

	Year Ended December 31,		
	2017	2016	2015
<i>(Dollars in thousands)</i>			
Capital Markets	\$ 10,178	\$ 15,587	\$ 1,622
Asset Management	5,222	5,627	6,040
Total intangible asset amortization	<u>\$ 15,400</u>	<u>\$ 21,214</u>	<u>\$ 7,662</u>

Reportable segment assets are as follows:

	December 31,	December 31,
	2017	2016
<i>(Dollars in thousands)</i>		
Capital Markets	\$ 1,933,050	\$ 1,934,528
Asset Management	91,633	190,975
	<u>\$ 2,024,683</u>	<u>\$ 2,125,503</u>

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 24 *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 December 31, 2017, net capital calculated under the SEC rule was \$137.6 million, and exceeded the minimum net capital required under the SEC rule by \$136.6 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. ("PJL"), 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 December 31, 2017, PJL 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 December 31, 2017, Piper Jaffray Hong Kong Limited was in compliance with the liquid capital requirements of the Hong Kong Securities and Futures Commission.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Note 25 Income Taxes

Income tax expense/(benefit) is provided using the asset and liability method. Deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to temporary differences between amounts reported for income tax purposes and financial statement purposes, using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The Tax Reform Act was enacted on December 22, 2017. ASC 740 requires companies to recognize the effect of the tax law changes in the period of enactment even though the effective date for most provisions is for tax years beginning after December 31, 2017. In accordance with SAB 118, the Company has made a reasonable estimate of the impact of the Tax Reform Act, and recorded a discrete item in its 2017 provisional income tax expense of \$54.2 million. This amount reflects an estimated reduction of deferred tax assets as a result of the statutory federal rate decrease from 35 percent to 21 percent. The Company continues to evaluate its estimates surrounding the remeasurement of deferred tax assets.

The components of income tax expense/(benefit) are as follows:

<i>(Dollars in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Current:			
Federal	\$ 27,611	\$ 11,704	\$ 33,818
State	5,550	2,454	7,030
Foreign	93	(703)	58
	<u>33,254</u>	<u>13,455</u>	<u>40,906</u>
Deferred:			
Federal	5,783	(27,764)	(11,620)
State	(7,554)	(3,758)	(1,901)
Foreign	(1,254)	939	556
	<u>(3,025)</u>	<u>(30,583)</u>	<u>(12,965)</u>
Total income tax expense/(benefit)	<u>\$ 30,229</u>	<u>\$ (17,128)</u>	<u>\$ 27,941</u>

A reconciliation of federal income taxes at statutory rates to the Company's effective tax rates is as follows:

<i>(Dollars in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Federal income tax expense/(benefit) at statutory rates	\$ (10,263)	\$ (10,806)	\$ 30,248
Increase/(reduction) in taxes resulting from:			
Impact of the Tax Cuts and Jobs Act	54,154	—	—
State income taxes, net of federal tax benefit	(791)	(1,110)	3,155
Net tax-exempt interest income	(5,040)	(4,600)	(4,299)
Foreign jurisdictions tax rate differential	865	1,860	191
Change in valuation allowance	(752)	362	—
Vestings of stock awards	(9,172)	—	—
Income attributable to noncontrolling interests	(835)	(2,872)	(2,243)
Other, net	2,063	38	889
Total income tax expense/(benefit)	<u>\$ 30,229</u>	<u>\$ (17,128)</u>	<u>\$ 27,941</u>

In accordance with ASC 740, U.S. income taxes are not provided on undistributed earnings of international subsidiaries that are permanently reinvested. As of December 31, 2017, no deferred taxes have been provided for withholding taxes or other taxes that would result upon repatriation of our foreign earnings to the U.S.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements – Continued

Deferred income tax assets and liabilities reflect the tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for the same items for income tax reporting purposes. The net deferred income tax assets consisted of the following items:

<i>(Dollars in thousands)</i>	<u>December 31, 2017</u>	<u>December 31, 2016</u>
Deferred tax assets:		
Deferred compensation	\$ 61,555	\$ 79,230
Goodwill tax basis in excess of book basis	38,592	18,357
Net operating loss carryforwards	4,789	3,900
Liabilities/accruals not currently deductible	1,744	1,060
Other	3,296	5,474
Total deferred tax assets	<u>109,976</u>	<u>108,021</u>
Valuation allowance	<u>(159)</u>	<u>(911)</u>
Deferred tax assets after valuation allowance	<u>109,817</u>	<u>107,110</u>
Deferred tax liabilities:		
Unrealized gains on firm investments	6,599	6,406
Fixed assets	1,813	2,075
Other	200	796
Total deferred tax liabilities	<u>8,612</u>	<u>9,277</u>
Net deferred tax assets	<u>\$ 101,205</u>	<u>\$ 97,833</u>

The realization of deferred tax assets is assessed and a valuation allowance is recorded to the extent that it is more likely than not that any portion of the deferred tax asset will not be realized. The Company believes that its future tax profits will be sufficient to recognize its deferred tax assets, with the exception of \$0.2 million in state net operating loss carryforwards.

The Company accounts for unrecognized tax benefits in accordance with the provisions of ASC 740, which requires tax reserves to be recorded for uncertain tax positions on the consolidated statements of financial condition. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

<i>(Dollars in thousands)</i>	
Balance at December 31, 2014	\$ 2,323
Additions based on tax positions related to the current year	—
Additions for tax positions of prior years	—
Reductions for tax positions of prior years	(2,000)
Settlements	(200)
Balance at December 31, 2015	\$ 123
Additions based on tax positions related to the current year	—
Additions for tax positions of prior years	—
Reductions for tax positions of prior years	—
Settlements	—
Balance at December 31, 2016	\$ 123
Additions based on tax positions related to the current year	—
Additions for tax positions of prior years	166
Reductions for tax positions of prior years	—
Settlements	(123)
Balance at December 31, 2017	\$ 166

As of December 31, 2017, approximately \$0.2 million of the Company's unrecognized tax benefits would impact the annual effective rate, if recognized.

Piper Jaffray Companies
Notes to the Consolidated Financial Statements – Continued

The Company recognizes interest and penalties accrued related to unrecognized tax benefits as a component of income tax expense. The Company had no accruals related to the payment of interest and penalties at December 31, 2017, 2016 and 2015, respectively. The Company or one of its subsidiaries files income tax returns with the various states and foreign jurisdictions in which the Company operates. The Company is not subject to examination by U.S. federal tax authorities for years before 2014 and is not subject to examination by state and local or non-U.S. tax authorities for taxable years before 2013. The Company anticipates all of its uncertain income tax positions will be resolved within the next twelve months.

Note 26 *Piper Jaffray Companies (Parent Company only)*

Condensed Statements of Financial Condition

<i>(Amounts in thousands)</i>	<u>December 31, 2017</u>	<u>December 31, 2016</u>
Assets		
Cash and cash equivalents	\$ 2,348	\$ 1,170
Investment in and advances to subsidiaries	827,158	941,215
Other assets	21,120	22,031
Total assets	<u>\$ 850,626</u>	<u>\$ 964,416</u>
Liabilities and Shareholders' Equity		
Senior notes	\$ 125,000	\$ 175,000
Accrued compensation	30,579	27,756
Other liabilities and accrued expenses	1,715	2,410
Total liabilities	<u>157,294</u>	<u>205,166</u>
Shareholders' equity	<u>693,332</u>	<u>759,250</u>
Total liabilities and shareholders' equity	<u>\$ 850,626</u>	<u>\$ 964,416</u>

Condensed Statements of Operations

<i>(Amounts in thousands)</i>	<u>Year Ended December 31,</u>		
	<u>2017</u>	<u>2016</u>	<u>2015</u>
Revenues:			
Dividends from subsidiaries	\$ 120,102	\$ 104,016	\$ 37,649
Interest	1,125	994	650
Investment income/(loss)	4,060	1,835	(2,033)
Total revenues	<u>125,287</u>	<u>106,845</u>	<u>36,266</u>
Interest expense	<u>7,170</u>	<u>8,195</u>	<u>6,406</u>
Net revenues	<u>118,117</u>	<u>98,650</u>	<u>29,860</u>
Non-interest expenses:			
Total non-interest expenses	<u>4,936</u>	<u>4,505</u>	<u>3,487</u>
Income before income tax expense and equity in income of subsidiaries	113,181	94,145	26,373
Income tax expense	<u>35,589</u>	<u>27,952</u>	<u>9,191</u>
Income of parent company	77,592	66,193	17,182
Equity in undistributed/(distributed in excess of) income of subsidiaries	<u>(139,531)</u>	<u>(88,145)</u>	<u>34,893</u>
Net income/(loss)	<u>\$ (61,939)</u>	<u>\$ (21,952)</u>	<u>\$ 52,075</u>

Piper Jaffray Companies
Notes to the Consolidated Financial Statements – Continued
Condensed Statements of Cash Flows

<i>(Amounts in thousands)</i>	Year Ended December 31,		
	2017	2016	2015
Operating Activities:			
Net income/(loss)	\$ (61,939)	\$ (21,952)	\$ 52,075
Adjustments to reconcile net income/(loss) to net cash provided by operating activities:			
Stock-based and deferred compensation	208	944	70
Equity in undistributed/(distributed in excess of) income of subsidiaries	139,531	88,145	(34,893)
Net cash provided by operating activities	77,800	67,137	17,252
Investing Activities:			
Repayment of note receivable	—	—	1,500
Net cash provided by investing activities	—	—	1,500
Financing Activities:			
Issuance of senior notes	—	—	125,000
Repayment of senior notes	(50,000)	—	(75,000)
Advances from/(to) subsidiaries	(5,177)	(6,276)	49,560
Repurchase of common stock	(2,498)	(59,739)	(118,464)
Payment of cash dividend	(18,947)	—	—
Net cash used in financing activities	(76,622)	(66,015)	(18,904)
Net increase/(decrease) in cash and cash equivalents	1,178	1,122	(152)
Cash and cash equivalents at beginning of year	1,170	48	200
Cash and cash equivalents at end of year	\$ 2,348	\$ 1,170	\$ 48

Piper Jaffray Companies
Supplementary Data
Quarterly Information (unaudited)

	2017 Fiscal Quarter			
	First	Second	Third	Fourth
<i>(Amounts in thousands, except per share data)</i>				
Total revenues	\$ 205,487	\$ 204,007	\$ 244,915	\$ 240,782
Interest expense	4,958	6,262	4,348	4,700
Net revenues	200,529	197,745	240,567	236,082
Non-interest expenses	177,720	177,878	322,803 ⁽¹⁾	225,845
Income/(loss) before income tax expense/(benefit)	22,809	19,867	(82,236)	10,237
Income tax expense/(benefit)	(395)	4,906	(31,423)	57,141 ⁽⁴⁾
Net income/(loss)	23,204	14,961	(50,813)	(46,904)
Net income/(loss) applicable to noncontrolling interests	2,929	1,388	(1,100)	(830)
Net income/(loss) applicable to Piper Jaffray Companies	\$ 20,275	\$ 13,573	\$ (49,713)	(46,074)
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders	\$ 16,828	\$ 11,522	\$ (50,415) ⁽²⁾	\$ (46,771) ⁽²⁾
Earnings/(loss) per common share				
Basic	\$ 1.33	\$ 0.89	\$ (3.91)	\$ (3.63)
Diluted	\$ 1.31	\$ 0.89	\$ (3.91) ⁽³⁾	\$ (3.63) ⁽³⁾
Dividends declared per common share				
	\$ 0.3125	\$ 0.3125	\$ 0.3125	\$ 0.3125
Weighted average number of common shares				
Basic	12,594	12,826	12,898	12,906
Diluted	12,922	12,937	12,975 ⁽³⁾	13,075 ⁽³⁾

(1) Includes a \$114.4 million non-cash goodwill impairment charge.

(2) No allocation of undistributed income was made due to loss position.

(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.

(4) Includes a \$54.2 million remeasurement of deferred tax assets due to a lower federal corporate rate resulting from the enactment of the Tax Reform Act.

	2016 Fiscal Quarter			
	First	Second	Third	Fourth
<i>(Amounts in thousands, except per share data)</i>				
Total revenues	\$ 159,601	\$ 176,392	\$ 206,276	\$ 227,605
Interest expense	6,045	5,909	5,429	5,142
Net revenues	153,556	170,483	200,847	222,463
Non-interest expenses	150,114	163,974	182,396	281,739 ⁽¹⁾
Income/(loss) before income tax expense/(benefit)	3,442	6,509	18,451	(59,276)
Income tax expense/(benefit)	256	1,996	6,515	(25,895)
Net income/(loss)	3,186	4,513	11,936	(33,381)
Net income applicable to noncontrolling interests	749	2,575	1,278	3,604
Net income/(loss) applicable to Piper Jaffray Companies	\$ 2,437	\$ 1,938	\$ 10,658	\$ (36,985)
Net income/(loss) applicable to Piper Jaffray Companies' common shareholders	\$ 2,124	\$ 1,577	\$ 8,582	\$ (36,985) ⁽²⁾
Earnings/(loss) per common share				
Basic	\$ 0.16	\$ 0.12	\$ 0.70	\$ (3.00)
Diluted	\$ 0.16	\$ 0.12	\$ 0.70	\$ (3.00) ⁽³⁾
Weighted average number of common shares				
Basic	13,160	12,927	12,282	12,337
Diluted	13,172	12,942	12,298	12,353 ⁽³⁾

(1) Includes a \$82.9 million non-cash goodwill impairment charge.

(2) No allocation of undistributed income was made due to loss position.

(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.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. 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 ended December 31, 2017, we migrated to a fully disclosed clearing model for all of our self clearing broker dealer operations. Management believes this conversion constituted a 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. Other than as described above, there were no other changes in our system of internal control over financial reporting during the fourth quarter of our fiscal year ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting and the attestation report of our independent registered public accounting firm on management's assessment of internal control over financial reporting are included in Part II, Item 8 of this Form 10-K entitled "Financial Statements and Supplementary Data" and are incorporated herein by reference.

ITEM 9B. OTHER INFORMATION.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information regarding our executive officers included in Part I of this Form 10-K under the caption "Executive Officers" is incorporated herein by reference. The information in the definitive proxy statement for our 2018 annual meeting of shareholders to be held on May 17, 2018, under the captions "Item I — Election of Directors," "Information Regarding the Board of Directors and Corporate Governance — Committees of the Board — Audit Committee," "Information Regarding the Board of Directors and Corporate Governance — Codes of Ethics and Business Conduct" and "Section 16(a) Beneficial Ownership Reporting Compliance" is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION.

The information in the definitive proxy statement for our 2018 annual meeting of shareholders to be held on May 17, 2018, under the captions "Executive Compensation," "Certain Relationships and Related Transactions — Compensation Committee Interlocks and Insider Participation," "Information Regarding the Board of Directors and Corporate Governance — Compensation Program for Non-Employee Directors" and "Information Regarding the Board of Directors and Corporate Governance — Non-Employee Director Compensation for 2017" is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS.

The information in the definitive proxy statement for our 2018 annual meeting of shareholders to be held on May 17, 2018, under the captions "Security Ownership — Beneficial Ownership of Directors, Nominees and Executive Officers," "Security Ownership — Beneficial Owners of More than Five Percent of Our Common Stock" and "Executive Compensation — Outstanding Equity Awards" are incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information in the definitive proxy statement for our 2018 annual meeting of shareholders to be held on May 17, 2018, under the captions "Information Regarding the Board of Directors and Corporate Governance — Director Independence," "Certain Relationships and Related Transactions — Transactions with Related Persons" and "Certain Relationships and Related Transactions — Review and Approval of Transactions with Related Persons" is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information in the definitive proxy statement for our 2018 annual meeting of shareholders to be held on May 17, 2018, under the captions "Audit Committee Report and Payment of Fees to Our Independent Auditor — Auditor Fees" and "Audit Committee Report and Payment of Fees to Our Independent Auditor — Auditor Services Pre-Approval Policy" is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a)(1) FINANCIAL STATEMENTS OF THE COMPANY.

The Consolidated Financial Statements are incorporated herein by reference and included in Part II, Item 8 to this Form 10-K.

(a)(2) FINANCIAL STATEMENT SCHEDULES.

All financial statement schedules for the Company have been included in the Consolidated Financial Statements or the related footnotes, or are either inapplicable or not required.

(a)(3) EXHIBITS.

Exhibit Number	Description
2.1	Separation and Distribution Agreement dated as of December 23, 2003, between U.S. Bancorp and Piper Jaffray Companies (incorporated by reference to Exhibit 2.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, filed March 8, 2004). #
2.2	Securities Purchase Agreement dated November 16, 2015 among Piper Jaffray Companies, Piper Jaffray & Co., Simmons & Company International, SCI JV LP, SCI GP, LLC, and Simmons & Company International Holdings LLC (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed November 17, 2015). #
2.3	First Amendment to Securities Purchase Agreement dated February 25, 2016 among Piper Jaffray Companies, Piper Jaffray & Co., Simmons & Company International, SCI JV LP, SCI GP, LLC, and Simmons & Company International Holdings LLC (incorporated by reference to Exhibit 2.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, filed May 4, 2016). #
2.4	Second Amendment to Securities Purchase Agreement dated April 19, 2017 between Piper Jaffray & Co. and SCI JV LP (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2017, filed May 9, 2017).
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2007, filed August 3, 2007).

**Exhibit
Number**

Description

3.2	<u>Amended and Restated Bylaws (as of August 5, 2016) (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed August 5, 2016).</u>
4.1	<u>Form of Specimen Certificate for Piper Jaffray Companies Common Stock. *</u>
4.2	<u>Second Amended and Restated Indenture dated as of June 11, 2012 (Secured Commercial Paper Notes), between Piper Jaffray & Co. and the Bank of New York Mellon (incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2012, filed August 2, 2012).</u>
4.3	<u>First Amendment to Second Amended and Restated Indenture (Secured Commercial Paper Notes - Series I), dated September 29, 2017, between Piper Jaffray & Co. and the Bank of New York Mellon (incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2017, filed November 8, 2017).</u>
4.4	<u>Amended and Restated Indenture (Secured Commercial Paper Notes - Series II), dated as of April 30, 2015, between Piper Jaffray & Co. and the Bank of New York Mellon (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed October 2, 2017).</u>
4.5	<u>First Amendment to Amended and Restated Indenture (Secured Commercial Paper Notes - Series II), dated as of September 29, 2017, between Piper Jaffray & Co. and the Bank of New York Mellon (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, filed October 2, 2017).</u>
4.6	<u>Second Amended and Restated Indenture dated April 21, 2014 (Secured Commercial Paper Notes -- Series III), between Piper Jaffray & Co. and the Bank of New York Mellon (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed April 21, 2014).</u>
10.1	<u>Form of director indemnification agreement between Piper Jaffray Companies and its directors (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed March 17, 2014). †</u>
10.2	<u>Office Lease Agreement, dated May 30, 2012, by and among Piper Jaffray & Co. and Wells REIT – 800 Nicollett Avenue Owner, LLC (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed June 1, 2012).</u>
10.3	<u>U.S. Bancorp Piper Jaffray Inc. Second Century 2000 Deferred Compensation Plan (incorporated by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, filed March 8, 2004). †</u>
10.4	<u>U.S. Bancorp Piper Jaffray Inc. Second Century Growth Deferred Compensation Plan, as amended and restated effective September 30, 1998 (incorporated by reference to Exhibit 10.11 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, filed March 8, 2004). †</u>
10.5	<u>Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (as amended May 31, 2015) (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed May 14, 2015). †</u>
10.6	<u>Piper Jaffray Companies Deferred Compensation Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2013, filed July 31, 2013). †</u>
10.7	<u>Form of Restricted Stock Agreement for Employee Grants in 2014 (related to 2013 performance) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.8 to the Company's Annual Report on Form 10-K for the year ended December 31, 2013, filed February 28, 2014). †</u>
10.8	<u>Form of Restricted Stock Agreement for California-based Employee Grants in 2015 (related to 2014 performance) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed February 26, 2015). †</u>
10.9	<u>Form of Performance Share Unit Agreement for 2014 Leadership Team Grants under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2014, filed July 30, 2014). †</u>
10.10	<u>Form of Performance Share Unit Agreement for 2015 Leadership Team Grants under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2015, filed August 5, 2015). †</u>
10.11	<u>Form of Performance Share Unit Agreement for 2016 Leadership Team Grants under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, filed May 4, 2016). †</u>

**Exhibit
Number****Description**

10.12	Form of Performance Share Unit Agreement for 2017 Leadership Team Grants under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.20 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016, filed February 24, 2017). †
10.13	Form of Performance Share Unit Agreement for 2018 Leadership Team Grants under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan. †*
10.14	Piper Jaffray Companies Deferred Compensation Plan for Non-Employee Directors, as amended and restated effective May 4, 2016 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2016, filed August 5, 2016). †
10.15	Summary of Non-Employee Director Compensation Program. †*
10.16	Form of Notice Period Agreement (incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K for the year ended December 31, 2006, filed March 1, 2007). †
10.17	Amended and Restated Loan Agreement dated December 28, 2012, between Piper Jaffray & Co. and U.S. Bank National Association (incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012, filed February 27, 2013).
10.18	First Amendment to Amended and Restated Loan Agreement, dated December 28, 2013, between Piper Jaffray & Co. and U.S. Bank National Association (incorporated by reference to Exhibit 10.18 to the Company's Annual Report on Form 10-K for the year ended December 31, 2013, filed February 28, 2014).
10.19	Second Amendment to Amended and Restated Loan Agreement, dated December 19, 2014, between Piper Jaffray & Co. and U.S. Bank National Association (incorporated by reference to Exhibit 10.23 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed February 26, 2015).
10.20	Third Amendment to Amended and Restated Loan Agreement, dated December 18, 2015, between Piper Jaffray & Co. and U.S. Bank National Association (incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed February 25, 2016).
10.21	Fourth Amendment to Amended and Restated Loan Agreement, dated December 17, 2016, between Piper Jaffray & Co. and U.S. Bank National Association (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2017, filed May 9, 2017).
10.22	Fifth Amendment to Amended and Restated Loan Agreement, dated December 16, 2017, between Piper Jaffray & Co. and U.S. Bank National Association. *
10.23	Amended and Restated Note Purchase Agreement dated June 2, 2014 among Piper Jaffray Companies, Piper Jaffray & Co. and the Purchasers party thereto (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed June 5, 2014).
10.24	Second Amended and Restated Note Purchase Agreement dated October 8, 2015 among Piper Jaffray Companies, Piper Jaffray & Co., and the Purchasers party thereto (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed October 13, 2015).
10.25	Advisory Research, Inc. Long-Term Incentive Plan (incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K for the year ended December 31, 2013, filed February 28, 2014). †
10.26	Piper Jaffray Companies Amended and Restated Mutual Fund Restricted Share Investment Plan, effective as of December 13, 2016 (incorporated by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed February 24, 2017). †
10.27	Form of Mutual Fund Restricted Share Agreement for Employee Grants in 2014 (related to performance in 2013) (incorporated by reference to Exhibit 10.29 to the Company's Annual Report on Form 10-K for the year ended December 31, 2013, filed February 28, 2014). †
10.28	Form of Mutual Fund Restricted Share Agreement for Employee Grants in 2015 (related to performance in 2014) (incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed February 26, 2015). †
10.29	Form of Mutual Fund Restricted Share Agreement for California-based Employee Grants in 2015 (related to performance in 2014) (incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed February 26, 2015). †
10.30	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for Employee Grants in 2016 (related to performance in 2015) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan (incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed February 25, 2016). †

Exhibit Number	Description
10.31	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for California-based Employee Grants in 2016 (related to performance in 2015) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan (incorporated by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed February 25, 2016). †
10.32	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for Employee Grants in 2017 (related to performance in 2016) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan (incorporated by reference to Exhibit 10.41 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed February 24, 2017). †
10.33	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for California-based Employee Grants in 2017 (related to performance in 2016) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan (incorporated by reference to Exhibit 10.42 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed February 24, 2017). †
10.34	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for Employee Grants in 2018 (related to performance in 2017) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan. †*
10.35	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for California-based Employee Grants in 2018 (related to performance in 2017) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan. †*
10.36	Form of Restricted Stock and Mutual Fund Restricted Share Agreement for Andrew S. Duff in 2018 (related to performance in 2017) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan and Mutual Fund Restricted Share Investment Plan. †*
10.37	Form of 2018 Performance Share Unit Agreement for Andrew S. Duff under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan. †*
10.38	Form of Non-Qualified Stock Option Agreement for 2018 Promotional Grants under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed February 9, 2018). †
10.39	Separation Agreement and General Release, dated August 1, 2017, between Piper Jaffray & Co. and Jeff Klinefelter (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2017, filed August 4, 2017). †
10.40	Separation Agreement and Release, dated December 4, 2017, between Piper Jaffray & Co. and Stuart C. Harvey, Jr. †*
10.41	Amendment No.1 to Separation Agreement and Release, dated December 22, 2017, between Piper Jaffray & Co. and Stuart C. Harvey, Jr. †*
10.42	Confidential Separation Agreement and Release, dated October 6, 2017, between Advisory Research, Inc. and Christopher D. Crawshaw. †*
10.43	Post-Termination Agreement, dated as of January 1, 2018, between Piper Jaffray Companies and Andrew S. Duff (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed January 4, 2018). †
10.44	Piper Jaffray Companies 2016 Employment Inducement Award Plan (incorporated by reference to Exhibit 4.4 to the Company's Registration Statement on Form S-8, filed February 25, 2016). †
10.45	Form of Restricted Stock Agreement for Grants under the Piper Jaffray Companies 2016 Employment Inducement Award Plan (incorporated by reference to Exhibit 4.5 to the Company's Registration Statement on Form S-8, filed February 25, 2016). †
10.46	Consulting Agreement for Services of Independent Contractor dated November 16, 2015 by and between Piper Jaffray & Co. and Michael E. Frazier (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, filed May 4, 2016). †
10.47	Restricted Stock Agreement dated November 16, 2015 by and between Piper Jaffray Companies and Michael E. Frazier (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, filed May 4, 2016). †
21.1	Subsidiaries of Piper Jaffray Companies *
23.1	Consent of Ernst & Young LLP *
24.1	Power of Attorney *
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.

Exhibit Number	Description
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.
32.1	Section 1350 Certifications.
101	Interactive data files pursuant to Rule 405 Registration S-T: (i) the Consolidated Statements of Financial Condition as of December 31, 2017 and December 31, 2016, (ii) the Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015, (iii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015, (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015 and (v) the notes to the Consolidated Financial Statements.

The Company hereby agrees to furnish supplementally to the Commission upon request any omitted exhibit or schedule.

† This exhibit is a management contract or compensatory plan or agreement.

* Filed herewith

** This information is furnished and not filed for purposes of Section 11 and 12 of the Securities Act of 1933 and Section 18 of the Securities Exchange Act of 1934.

ITEM 16. FORM 10-K SUMMARY.

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 26, 2018.

PIPER JAFFRAY COMPANIES

By /s/ Chad R. Abraham
Its Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 26, 2018.

<u>SIGNATURE</u>	<u>TITLE</u>
<u>/s/ Chad R. Abraham</u> Chad R. Abraham	Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Timothy L. Carter</u> Timothy L. Carter	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ Andrew S. Duff</u> Andrew S. Duff	Chairman
<u>/s/ William R. Fitzgerald</u> William R. Fitzgerald	Director
<u>/s/ Michael E. Frazier</u> Michael E. Frazier	Director
<u>/s/ B. Kristine Johnson</u> B. Kristine Johnson	Director
<u>/s/ Addison L. Piper</u> Addison L. Piper	Director
<u>/s/ Sherry M. Smith</u> Sherry M. Smith	Director
<u>/s/ Philip E. Soran</u> Philip E. Soran	Director
<u>/s/ Scott C. Taylor</u> Scott C. Taylor	Director
<u>/s/ Michele Volpi</u> Michele Volpi	Director

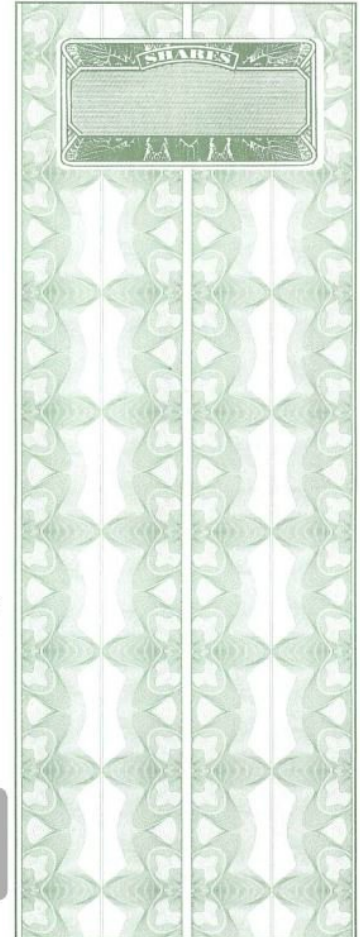
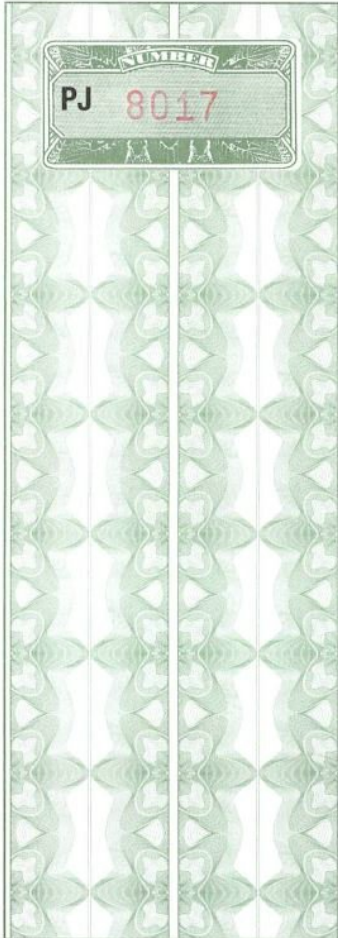
COMMON STOCK

PIPER JAFFRAY COMPANIES

SEE REVERSE SIDE
FOR CERTAIN DEFINITIONS

CUSIP 724078 10 0

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE



THIS CERTIFIES THAT XXXXXXXX SAMPLE SAMPLE SAMPLE XXXXXXXX
XXXXXXXX SAMPLE SAMPLE SAMPLE XXXXXXXX

XXXXXXXXXXXXX
XXXXXXXXXXXXX

XXXXXXXXXXXXXXXXX

is the owner of XXXXXXXX SAMPLE SAMPLE SAMPLE XXXXXXXX
XXXXXXXX SAMPLE SAMPLE SAMPLE XXXXXXXX

FULLY PAID AND NON-ASSESSABLE COMMON SHARES, \$0.01 PAR VALUE, OF

PIPER JAFFRAY COMPANIES

transferable on the books of the Corporation by the holder hereof in person or by Attorney upon surrender of this certificate properly endorsed. This certificate is not valid until countersigned and registered by the Transfer Agent and Registrar.

IN WITNESS WHEREOF, the said Corporation has caused this certificate to be signed by facsimile signatures of its duly authorized officers.

Dated:

COUNTERSIGNED:
BROADRIDGE CORPORATE ISSUER SOLUTIONS, INC.
1717 ARCH ST., STE. 1300, PHILADELPHIA, PA 19103
TRANSFER AGENT
BY: SAMPLE SAMPLE SAMPLE

AUTHORIZED SIGNATURE

Chad R. Abelman
CHIEF EXECUTIVE OFFICER

John Gaelan
CORPORATE SECRETARY

**PIPER JAFFRAY COMPANIES
AMENDED AND RESTATED
2003 ANNUAL AND LONG-TERM INCENTIVE PLAN**

PERFORMANCE SHARE UNIT AGREEMENT

Name of Employee:[_____]	
Target No. of Performance Share Units Covered: [_____]	Date of Issuance: [_____]
Maximum No. of Performance Share Units Covered: [_____]	

This is a Performance Share Unit Agreement (“Agreement”) between Piper Jaffray Companies, a Delaware corporation (the “Company”), and the above-named employee of the Company (the “Employee”).

Recitals

WHEREAS, the Company maintains the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan, as amended from time to time (the “Plan”);

WHEREAS, the Board of Directors of the Company has delegated to the Compensation Committee (the “Committee”) the authority to determine the awards to be granted under the Plan; and

WHEREAS, the Committee or its delegee has determined that the Employee is eligible to receive an award under the Plan in the form of performance share units and has set the terms thereof;

NOW, THEREFORE, the Company hereby grants this award to the Employee under the terms set by the Committee as follows.

Terms and Conditions*

1. Grant of Performance Share Units.

(a) Subject to the terms and conditions of this Agreement, the Company has granted to the Employee the number of Performance Share Units specified at the beginning of this Agreement (collectively the “Performance Share Units,” and each a “Performance Share Unit.”) Each Performance Share Unit represents the right to receive a Share and dividend equivalent amounts corresponding to the Share, subject to the terms and conditions of this Agreement and the Plan.

(b) The Performance Share Units granted to the Employee shall be credited to an account in the Employee’s name. This account shall be a record of book-keeping entries only and shall be utilized solely as a device for the measurement and determination of the number of Shares to be granted to or in respect of the Employee pursuant to this Agreement.

2. Vesting. Except as provided in Section 4, the Performance Share Units will vest on the last day of the Performance Period to the extent such Performance Share Units are earned pursuant to Section 3.

3. Earned Performance Share Units. If the Employee remains continuously employed (including during the continuance of any leave of absence as approved by the Company or an Affiliate) by the Company or an Affiliate, the Employee shall earn the number of Performance Share Units determined by taking the sum of the percentages earned in the tables shown in Section 3(a) and 3(b) below, and multiplying the sum percentage times the target number of Performance Share Units specified at the beginning of this Agreement.

(a) The number of the Performance Share Units that will be earned pursuant to this Section 3(a) will be determined by reference to the Company’s Total Shareholder Return relative to the Total Shareholder Return of the Peer Group as provided in the table below:

Company Total Shareholder Return Relative to Peer Group	% of Performance Share Units Earned
Below 35th percentile	0%
35th percentile (threshold)	25%
50th percentile (target)	50%
75th percentile or above (maximum)	75%

Note: Interpolation between points in the table above will be on a straight-line basis (from threshold to target and from target to maximum).

* Unless the context indicates otherwise, terms that are not defined in this Agreement shall have the meaning set forth in the Plan.

(b) The number of the Performance Share Units that will be earned pursuant to this Section 3(b) will be determined by reference to the Company’s Average Adjusted Return on Equity as provided in the table below:

Company Average Adjusted Return on Equity	% of Performance Share Units Earned
Below 8.5%	0%
8.5% (threshold)	25%
13.5 - 15.5% (target)	50%
17.5% or greater (maximum)	75%

Note: Interpolation between points in the table above will be on a straight-line basis (from threshold to target and from target to maximum).

(c) As used in this Agreement, the following terms have the meanings provided below:

(i) “Adjusted Earnings” is equal to the net income attributable to the Company as set forth in the Company’s published fiscal year-end financial disclosures, as adjusted to exclude (1) revenues and expenses related to non-controlling interests; (2) amortization of intangible assets related to acquisitions; (3) compensation and non-compensation expenses for acquisition-related agreements; (4) restructuring and acquisition integration costs; (5) losses related to the impairment of goodwill and other intangible assets; (6) adjustments resulting from a change in an existing, or application of a new, accounting principle that is not applied on a fully retroactive basis; and (7) other expenses, losses, income or gains that are separately disclosed and are unusual in nature or infrequent in occurrence (collectively, items #1 through #7 are the “Adjustment Items”). In each case, each Adjustment Item that is applied to determine the Adjusted Earnings shall be adjusted for any tax benefit associated with the Adjustment Item as reported in the net income attributable to the Company. The Committee may exercise discretion to not make adjustment for one or more Adjustment Items, or any amount of an Adjustment Item, when determining Adjusted Earnings, but only if the exercise of discretion reduces amounts payable under this award.

(ii) “Adjusted Return on Equity” is equal to the Company’s Adjusted Earnings divided by the Average Annual Shareholders’ Equity.

(iii) “Average Adjusted Return on Equity” is equal the average of the Adjusted Return on Equity for each of the three fiscal years in the Performance Period.

(iv) “Average Annual Shareholders’ Equity” is equal to the average of the total common shareholders’ equity (which is the total shareholders’ equity less amounts attributed to noncontrolling interests) as set forth in the Company’s published quarterly financial disclosures during the fiscal year, as adjusted to reflect appropriate adjustments to total common shareholders’ equity in the event that an adjustment is made to Adjusted Earnings under the Adjustment Item provided in item #5 of Section 3(c)(i). The Committee may exercise discretion to not make an adjustment when determining Average Annual Shareholders’ Equity, but only if the exercise of discretion reduces amounts payable under this award.

(v) “Beginning Price” with respect to a company means the average closing price of a share of common stock of such company as reported by such company’s primary national securities market or exchange at the end of each trading day during the 60 calendar days immediately prior to the first day of the Performance Period.

(vi) “Dividends” with respect to a company means the per share amount of each cash or stock dividend paid by such company with respect to its common stock during the Performance Period. All such dividends will be deemed to be reinvested in such company’s common stock for purposes of calculating Total Shareholder Return hereunder.

(vii) “End Price” with respect to a company means the average closing price of a share of common stock of such company as reported by such company’s primary national securities market or exchange at the end of each trading day during the last 60 calendar days of the Performance Period.

(viii) “Peer Group” means companies identified on Appendix A attached hereto. If, after the date of this Agreement and prior to the end of the Performance Period (A) a member of the Peer Group is acquired by a company not included in the Peer Group, then the acquired company will be removed from the Peer Group effective as of the beginning of the Performance Period; (B) a member of the Peer Group is acquired by a company that is included in the Peer Group, then the acquired company will be removed from the Peer Group effective as of the beginning of the Performance Period and the acquiring company (or its successor, by merger or otherwise) will remain a member of the Peer Group subject to the other terms of this Section 3(c)(iv); and (C) any member of the Peer Group ceases continuing operations or ceases to be traded on a national securities market or exchange (other than in connection with an acquisition of such company), then such company will continue to be a member of the Peer Group and the End Price for such company will be deemed to be zero.

(ix) “Performance Period” means the 36-month period beginning on January 1, 2018 and ending on December 31, 2020.

(x) “Total Shareholder Return” with respect to a company means $((\text{End Price} + \text{Dividends}) - \text{Beginning Price}) / \text{Beginning Price}$.

(xi) The Beginning Price, End Price and amount of Dividends for the Company and each company that is part of the Peer Group shall be adjusted by the Committee to account for any change in capitalization such as a stock split or a corporate transaction (such as any merger, consolidation, separation, including a spin-off, or other distribution of stock or property of such company (including any extraordinary cash or stock dividend)) in the Committee’s sole discretion.

(d) Notwithstanding the foregoing, if the Employee’s employment with the Company or an Affiliate terminates because of the Employee’s death or long-term disability (as defined in the Company’s long-term disability plan, as the same may be amended hereafter, a “Disability”), then the number of Performance Share Units that will be earned will equal the number of Performance Share Units that would otherwise be earned pursuant to Sections 3(a) and 3(b) but for the Employee’s termination.

(e) Notwithstanding the foregoing, if the Employee’s employment by the Company or an Affiliate terminates as a result of a Severance Event (as defined in the Company’s Severance Plan, as the same may be amended hereafter, and as determined in the sole discretion of the Company), then the number of Performance Share Units that will be earned will equal (i) the number of Performance Share Units that would otherwise be earned pursuant to Sections 3(a) and 3(b) but for the Employee’s termination multiplied by (ii) a fraction, (x) the numerator of which is the number of days during the Performance Period up to and including the date of termination of the Employee’s employment with the Company or an Affiliate and (y) the denominator of which is the total number of days in the Performance Period (the “Pro Rata Vesting Portion”).

(f) Notwithstanding the foregoing, if the Employee's employment by the Company or an Affiliate terminates under circumstances qualifying as a "Retirement" (as defined below), then the Company shall offer the Employee an opportunity to sign a Post-Termination Agreement and execute a general release of all claims against the Company and its Affiliates on a form provided by the Company for this purpose and within the timeframe designated by the Company.

If the Employee signs a Post-Termination Agreement, and thereafter complies with the Employee's obligations under such Post-Termination Agreement, including the obligation to refrain from engaging in any Restricted Activities (as defined below) for the duration of the Performance Period, and the Employee signs and does not rescind the general release as described above, then the unvested Performance Share Units shall not be forfeited, but rather, the Employee shall continue to have the opportunity to earn the number of Performance Share Units that would otherwise be earned pursuant to Sections 3(a) and 3(b) but for the Employee's Retirement provided that the Employee continuously refrains from engaging in all Restricted Activities for the duration of the remaining Performance Period.

For purposes of this Agreement, the termination of an Employee's employment is deemed to qualify as a "Retirement" if the Employee's employment terminates for any reason other than Cause, and, at the time of such termination, the Employee satisfies the following two conditions: (1) the Employee has provided at least five years of service as an employee to the Company, and (2) the sum of the Employee's age at the time of termination and the Employee's total years of service to the Company is greater than seventy (70).

(g) Notwithstanding the foregoing, if the Employee's employment with the Company or an Affiliate is terminated by the Company or an Affiliate without Cause and such termination does not occur under circumstances qualifying as a Retirement, then the Company shall offer the Employee an opportunity to sign a Post-Termination Agreement and execute a general release of all claims against the Company and its Affiliates on a form provided by the Company for this purpose and within the timeframe designated by the Company.

If the Employee signs a Post-Termination Agreement, and thereafter complies with the Employee's obligations under such Post-Termination Agreement, including the obligation to refrain from engaging in any Restricted Activities (as defined below) for the duration of the Performance Period, and the Employee signs and does not rescind the general release as described above, then the unvested Performance Share Units shall not be forfeited, but rather, the Employee shall continue to have the opportunity to earn the Pro Rata Vesting Portion provided that the Employee continuously refrains from engaging in all Restricted Activities for the duration of the remaining Performance Period.

(h) Except as expressly provided herein, if the Employee's employment with the Company or an Affiliate terminates under any other circumstances (whether voluntary or involuntary), then the Performance Share Units shall cease vesting and shall be deemed forfeited upon the termination of the Employee's employment.

(i) The Performance Share Units that are earned pursuant to this Section 3 will be determined by the Committee's certification of attainment of the applicable Performance Goal hereunder as provided in Section 5.

4. Change in Control. If a Change in Control occurs during the Performance Period prior to any forfeiture of the unvested Performance Share Units in accordance with Section 6, then, notwithstanding the other terms of this Agreement or Section 7 of the Plan:

(a) If the Change in Control occurs within the first fiscal year of the Performance Period, the Employee shall be entitled to receive Shares of Restricted Stock (each a “Restricted Share” and collectively the “Restricted Shares”), under the Agreement based on, and assuming that, performance would have been achieved at the target level. Accordingly, the target number of Performance Share Units automatically will become an equal number of Restricted Shares (and no additional Performance Share Units shall be eligible to vest under this Agreement), and, on the closing date of the Change in Control, the Company will cause its transfer agent to make a book entry in the transfer agent’s records in the name of the Employee (unless the Employee requests a certificate evidencing the Restricted Shares).

(b) If the Change in Control occurs within the second or third fiscal year of the Performance Period, the Employee shall be entitled to receive Restricted Shares based on performance achieved as if the Change in Control were the last day of the Performance Period. For purposes of determining Adjusted Return on Equity for the fiscal year in which the Change in Control occurs, net income and the average of the total common shareholders’ equity as set forth in the Company’s published quarterly financials for the fiscal quarter ending immediately prior to the date of the Change in Control shall be used. Accordingly, the number of Performance Share Units determined to have been earned under this paragraph shall automatically become an equal number of Restricted Shares (and no additional Performance Share Units shall be eligible to vest under this Agreement), and, on the closing date of the Change in Control, the Company will cause its transfer agent to make a book entry in the transfer agent’s records in the name of the Employee (unless the Employee requests a certificate evidencing the Restricted Shares).

(c) The Employee shall have all of the rights of a shareholder with respect to the Restricted Shares. All restrictions provided for in this Section 4 will apply to each Restricted Share and to any other securities distributed with respect to that Restricted Share. Each Restricted Share will remain restricted and subject to forfeiture to the Company unless and until that Restricted Share has vested in the Employee in accordance this Section 4. Each book entry (or stock certificate if requested by the Employee) evidencing any Restricted Share may contain such notations or legends and stock transfer instructions or limitations as may be determined or authorized by the Company in its sole discretion. If a certificate evidencing any Restricted Share is requested by the Employee, the Company may, in its sole discretion, retain custody of any such certificate throughout the period during which any restrictions are in effect and require, as a condition to issuing any such certificate, that the Employee tender to the Company a stock power duly executed in blank relating to such custody. The Company will not be required (i) to transfer on its books any Restricted Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of the Restricted Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom the Restricted Shares shall have been so transferred.

(d) Provided the Employee remains continuously employed (including during the continuance of any leave of absence as approved by the Company or an Affiliate) by the Company or an Affiliate after the closing of the Change in Control through the end of the Performance Period, all unvested Restricted Shares as of the last day of the Performance Period will vest on such date.

(e) If the Employee’s employment with the Company or an Affiliate is terminated after the closing of the Change in Control and prior to the end of the Performance Period (i) by the Company or an Affiliate without Cause, (ii) by the Employee for Good Reason, or (iii) in connection with the Employee’s death or Disability, all unvested Restricted Shares will vest on the date of termination of the Employee’s employment with the Company or an Affiliate.

(f) If the Employee elects to terminate his or her employment with the Company or an Affiliate after the closing of the Change in Control and prior to the end of the Performance Period by the Employee under circumstances qualifying as a Retirement, then the Employee shall be given the opportunity to sign a

Post-Termination Agreement and execute a general release of all claims against the Company and its Affiliates on a form provided by the Company for this purpose and within the timeframe designated by the Company.

If the Employee signs a Post-Termination Agreement, and thereafter complies with the Employee's obligations under such Post-Termination Agreement, including the obligation to refrain from engaging in any Restricted Activities (as defined below) for the duration of the Performance Period, and the Employee signs and does not rescind the general release as described above, then all unvested Restricted Shares as of the last day of the Performance Period will vest on such date.

(g) If the Employee's employment with the Company or an Affiliate is terminated under any other circumstances (whether voluntary or involuntary), then all unvested Restricted Shares shall cease vesting and shall be deemed forfeited upon the termination of the Employee's employment.

(h) If the Change in Control is a Corporate Transaction, the Company shall arrange for the surviving entity or acquiring entity (or the surviving or acquiring entity's parent company) to assume or continue the Award evidenced hereby or to substitute a similar award for the Award evidenced hereby, in each case as determined by the Committee in its sole discretion.

(i) For purposes of this Agreement,

(i) "Good Reason" means (1) a material diminution of the Employee's duties; (2) a significant, adverse reduction in the Employee's title; or (3) any relocation of the Employee's principal place of business to a location more than a 30 mile radius from its current location; and

(ii) "Cause" means (1) the Employee's continued failure to substantially perform his or her duties with the Company or an Affiliate after written demand for substantial performance is delivered to the Employee; (2) the Employee's conviction of a crime (including a misdemeanor) that, in the Company's determination, impairs the Employee's ability to perform his or her duties with the Company or an Affiliate; (3) the Employee's violation of any policy of the Company or an Affiliate that the Company deems material; (4) the Employee's violation of any securities law, rule or regulation that the Company deems material; (5) the Employee's engagement in conduct that, in the Company's determination, exposes the Company or an Affiliate to civil or regulatory liability or injury to their reputations; (6) the Employee's engagement in conduct that would subject the Employee to statutory disqualification pursuant to Section 15(b) of the Exchange Act and the regulations promulgated thereunder; or (7) the Employee's gross or willful misconduct, as determined by the Company.

5. Settlement.

(a) After any Performance Share Units vest in accordance with Section 2, the Company shall cause to be issued to the Employee, or to the Employee's designated beneficiary or estate in the event of the Employee's death, one Share in payment and settlement of each vested Performance Share Unit. The Committee shall certify the Total Shareholder Return and the Average Adjusted Return on Equity of the Company and the number of Performance Share Units (if any) that are earned pursuant to the terms and conditions hereof, and the Company shall cause the Shares issuable in connection with the vesting of any such Performance Share Units to be issued, on or before the 15th day of the third calendar month after the date on which the vesting of Performance Share Units occurs, and the Employee shall have no power to affect the timing of such issuance. Such issuance shall be evidenced by a stock certificate or appropriate entry on the books of the Company or a duly authorized transfer agent of the Company, shall be subject to the tax withholding provisions of Section 8, and shall be in complete settlement and satisfaction of such vested Performance Share Units. Notwithstanding the foregoing, if the ownership of or issuance of Shares

to the Employee as provided herein is not feasible due to applicable exchange controls, securities or tax laws or other provisions of applicable law, as determined by the Committee in its sole discretion the Employee or the Employee's legal representative shall receive cash proceeds in an amount equal to the Fair Market Value (as of the date the applicable Performance Share Units are vested) of the Shares otherwise issuable to the Employee or the Employee's legal representative, net of any amount required to satisfy withholding tax obligations as provided in Section 8.

(b) Upon the vesting of any Restricted Shares, such vested Restricted Shares will no longer be subject to forfeiture as provided in Section 6 and the Company will, or will cause its transfer agent to, remove all notations and legends and revoke all stock transfer instructions from the book entry or stock certificate evidencing the Restricted Shares so vested as may have been made or given as a result of the terms of this Agreement, and the Company will deliver to the Employee, or the Employee's designated beneficiary or estate in the event of the Employee's death, all certificates (or replacement certificates removing all legends contemplated hereby) in the Company's custody relating to the Restricted Shares.

(c) Notwithstanding the foregoing, if the common equity of the surviving entity or acquiring entity (or the surviving or acquiring entity's parent company) in any Corporate Transaction is not listed or quoted on an established securities market at the time of vesting of any Restricted Shares, the Company will deliver to the Employee or the Employee's designated beneficiary or estate in the event of the Employee's death, in lieu of shares of capital stock not subject to restrictions pursuant hereto, cash in an amount equal to the Fair Market Value (as of the date of closing of the Corporate Transaction) of the Restricted Shares vested pursuant to the terms hereof, net of any amount required to satisfy withholding tax obligations as provided in Section 8.

6. Forfeiture. If (i) the Employee attempts to pledge, encumber, assign, transfer or otherwise dispose of any of the Performance Share Units or, prior to vesting, any Restricted Shares without the Committee's prior written consent or other than by will or by the laws of descent and distribution, or if the Performance Share Units or Restricted Shares become subject to attachment or any similar involuntary process in violation of this Agreement; (ii) the Employee breaches any of the restrictive covenants provided by Section 9; or (iii) the Employee's employment with the Company or an Affiliate is terminated (1) by the Company for Cause; or (2) under any other circumstance other than (A) due to the Employee's death or Disability, or (b) by the Employee for Good Reason following a Change in Control, and the Employee does not enter into the Post-Termination Agreement or fails to comply with the terms and conditions of the Post-Termination Agreement, including execution of a general release of all claims against the Company and any designated Affiliates and their respective agents, on a form provided by the Company for this purpose and within the timeframe designated by the Company, that becomes effective and enforceable, then any Performance Share Units or Restricted Shares (as applicable) that have not previously vested automatically will be forfeited by the Employee. Any Performance Share Units or Restricted Shares that are unvested as of the last day of the Performance Period also shall be forfeited.

7. Stockholder Rights. The Performance Share Units do not entitle the Employee to any rights of a stockholder of the Company. Notwithstanding the foregoing, the Employee shall accumulate an unvested right to payment of cash dividend equivalents on the Shares underlying Performance Share Units with respect to any cash dividends paid on the Shares that have a record date on or after the Date of Issuance. Such dividend equivalents will be in an amount of cash per Performance Share Unit equal to the cash dividend paid with respect to one Share. The Employee shall be entitled solely to payment of accumulated dividend equivalents with respect to the number of Performance Share Units equal to the number of Shares (or Restricted Shares) ultimately issued to the Employee pursuant to this Agreement. Dividend equivalents will be paid to the Employee as soon as administratively possible following the date that the Shares (or Restricted Shares) are issued to the Employee. The Employee shall not be entitled to dividend equivalents with respect

to dividends with a record date prior to the Date of Issuance. All dividend equivalents accumulated with respect to forfeited Performance Share Units shall also be irrevocably forfeited.

As of the date of issuance of Shares (or Restricted Shares) underlying Performance Share Units, the Employee shall have all of the rights of a stockholder of the Company with respect to any Shares (or Restricted Shares) issued pursuant hereto, except as otherwise specifically provided in this Agreement. The Employee's rights with respect to the Performance Share Units and Restricted Shares shall remain forfeitable at all times by the Employee until satisfaction of the vesting conditions set forth herein.

8. Tax Withholding. The parties hereto recognize that the Company or an Affiliate may be obligated to withhold federal and state taxes or other taxes upon the vesting of the Performance Share Units or Restricted Stock or, in the event that the Employee elects under Code Section 83(b) to report the receipt of the Restricted Shares as income in the year of receipt, upon the Employee's receipt of the Restricted Shares, and upon the payment of any cash relating to earned dividend equivalents at the time of issuance. The Employee agrees that, at such time, if the Company or an Affiliate is required to withhold such taxes, the Employee will promptly pay, in cash upon demand (or in any other manner permitted by the Committee in accordance with the terms of the Plan), to the Company or an Affiliate such amounts as shall be necessary to satisfy such obligation, and the issuance of Shares in connection with the vesting of any Performance Share Units shall be conditioned upon the prior payment by the Employee, or the establishment of arrangements satisfactory to the Committee for the payment by the Employee, of such obligation. The Employee further acknowledges that the Company has directed the Employee to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which the Employee may reside, and the tax consequences of the Employee's death.

9. Restricted Activities. In consideration of the grant of this award, the Employee agrees to comply with and be bound by the following restrictive covenants (each a "Restricted Activity" and together the "Restricted Activities"):

(a) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, except in connection with the performance of the Employee's job duties for the benefit of the Company, use, disclose or misappropriate any Company-Confidential Information (as defined below) unless the Company or an Affiliate consents otherwise in writing. "Company-Confidential Information" shall have the same meaning as provided in the Company's Code of Ethics and Business Conduct, and shall include without limitation any confidential, secret or proprietary knowledge or information of the Company or an Affiliate that the Employee has acquired or become acquainted with during the Employee's employment with the Company or an Affiliate. For the avoidance of doubt, nothing in this paragraph or any other provision of this Agreement precludes you from reporting to the Company's management or directors or to the government, a regulator, or a self-regulatory agency conduct that you believe to be in violation of the law, or responding truthfully to questions or requests from the government, a regulator, a self-regulatory agency, or in a court of law.

(b) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, directly or indirectly, on behalf of the Employee or any other person (including but not limited to any Talent Competitor (as defined below)), solicit, induce or encourage any person then employed, or employed within the 180-day period preceding the Employee's termination, by the Company or an Affiliate to terminate or otherwise modify their employment relationship with the Company;

(c) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, on behalf of the Employee or any other person

(including but not limited to any Talent Competitor (as defined below)), hire, retain or employ in any capacity any person then employed, or employed within the 180-day period preceding the Employee's termination, by the Company or an Affiliate;

(d) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, directly or indirectly, on behalf of the Employee or any other person (including but not limited to any Talent Competitor), solicit any customer, client or account of the Company or an Affiliate, or otherwise seek to divert any customer, client or account of the Company or an Affiliate away from engaging in business with the Company or an Affiliate. For purposes of this subparagraph, "customer, client or account" shall include the following: then-current customers, clients, or accounts of the Company or an Affiliate; any customers, clients or accounts that had been represented by or had a business relationship with the Company or an Affiliate within the 365-day period preceding the Employee's termination; and any individual, company or other form of legal entity that had been solicited or pitched for business by the Company or an Affiliate within the 365-day period preceding the Employee's termination, if the Employee was involved in any capacity in the solicitation or pitch;

(e) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, without the prior written consent of the Company or an Affiliate, (x) become a director, officer, employee, partner, consultant or independent contractor of, or otherwise work or provide services for, a Talent Competitor doing business in the same geographic or market area(s) in which the Company or an Affiliate is also doing business, or (y) acquire any material ownership or similar financial interest in any such Talent Competitor;

(f) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, make disparaging, derogatory, or defamatory statements about the Company or an Affiliate in any public forum or media; and

(g) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, fail to cooperate fully with and provide full and accurate information to the Company and its counsel with respect to any matter (including any audit, tax proceeding, litigation, investigation or governmental proceeding) with respect to which the Employee may have knowledge or information, subject to reimbursement for actual, appropriate and reasonable expenses incurred by the Employee.

For purposes of this Section 9, the "Applicable Post-Employment Restricted Period" means: (i) with respect to Sections 9(b) and (c), one year following any termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee); (ii) with respect to Section 9(d), six months following any termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee); and (iii) with respect to Section 9(e), one month following any termination of the Employee's employment initiated and effected by the Company or an Affiliate without Cause, or three months following any other termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee); *provided, however*, that if the Company requests that the Employee sign a Post-Termination Agreement and the Employee voluntarily elects to sign such Post-Termination Agreement with the Company pursuant to Section 3(f) or Section 3(g), then the Applicable Post-Employment Restricted Period provided by the Post-Termination Agreement shall be of the same duration as the Performance Period.

For purposes of this Section 9, a "Talent Competitor" means any corporation, partnership, limited liability company or other business association, organization or entity that engages in the investment banking, securities brokerage or investment management business, including, but not limited to, investment banks,

sell-side broker dealers, mergers and acquisitions or strategic advisory firms, merchant banks, hedge funds, private equity firms, venture capital firms, asset managers and investment advisory firms.

10. Interpretation of This Agreement. All decisions and interpretations made by the Committee with regard to any question arising hereunder or under the Plan shall be binding and conclusive upon the Company and the Employee. If there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan shall govern (including, for avoidance of doubt, any provisions under the Plan imposing limitations on the number of Performance Share Units that may be awarded under this Agreement).

11. Not Part of Employment Contract; Discontinuance of Employment. The Employee acknowledges that this Agreement awards performance share units to the Employee, but does not impose any obligation on the Company to make any future grants or issue any future Awards to the Employee or otherwise continue the participation of the Employee under the Plan. This Agreement does not constitute a contract of employment, shall not give the Employee a right to continued employment with the Company or any Affiliate, and the Company or Affiliate employing the Employee may terminate his or her employment and otherwise deal with the Employee without regard to the effect it may have upon him or her under this Agreement.

12. Binding Effect. This Agreement shall be binding in all respects on the heirs, representatives, successors and assigns of the Employee.

13. Choice of Law. This Agreement is entered into under the laws of the State of Delaware and shall be construed and interpreted thereunder (without regard to its conflict-of-law principles).

14. Entire Agreement. This Agreement and the Plan set forth the entire agreement and understanding of the parties hereto with respect to the issuance of the Performance Share Units or Restricted Shares in lieu thereof and the administration of the Plan and supersede all prior agreements, arrangements, plans, and understandings relating to the issuance of the Performance Share Units, Restricted Shares in lieu thereof and the administration of the Plan.

15. Securities Law Compliance. No Shares shall be delivered upon the vesting and settlement of any Performance Share Units unless and until the Company and/or the Employee shall have complied with all applicable federal, state or foreign registration, listing and/or qualification requirements and all other requirements of law or of any regulatory agencies having jurisdiction, unless the Committee has received evidence satisfactory to it that the Employee may acquire such shares pursuant to an exemption from registration under the applicable securities laws. Any determination in this connection by the Committee shall be final, binding, and conclusive. The Company reserves the right to legend any Share certificate or book entry, conditioning sales of such Shares upon compliance with applicable federal and state securities laws and regulations.

16. Potential Clawback. This Award and any compensation associated therewith is subject to the Company's Incentive Compensation Recovery Policy and may be made subject to forfeiture, recovery by the Company or other action pursuant to any compensation recovery policy adopted by the Board or the Committee at any time, including any amendment to the Company's Incentive Compensation Recovery Policy in effect as of the date hereof or in response to the requirements of Section 10D of the Exchange Act and any implementing rules and regulations thereunder, or as otherwise required by law. This Agreement may be unilaterally amended by the Committee at any time to comply with any such compensation recovery policy.

17. **Amendment and Waiver.** Except as provided in this Agreement or in the Plan, this Agreement may be amended, waived, modified, or canceled only by a written instrument executed by the parties or, in the case of a waiver, by the party waiving compliance.

18. **Acknowledgment of Receipt of Copy.** By execution hereof, the Employee acknowledges having received a copy of the prospectus related to the Plan and instructions on how to access a copy of the Plan.

IN WITNESS WHEREOF, the Employee and the Company have executed this Agreement as of the date of issuance specified at the beginning of this Agreement.

EMPLOYEE

Printed name:

PIPER JAFFRAY COMPANIES

By _____
Its

List of companies contained in the KBW Capital Markets Index (KSX) as of February 6, 2018(excluding Piper Jaffray Companies):

1. TD Ameritrade Holding Corp. (AMTD)
2. Franklin Resources, Inc. (BEN)
3. Blackrock Inc. (BLK)
4. CBOE Holdings, Inc. (CBOE)
5. CME Group, Inc. (CME)
6. Eaton Vance Corp. (EV)
7. Greenhill & Co. (GHL)
8. The Goldman Sachs Group, Inc. (GS)
9. Interactive Brokers Group, Inc. (IBKR)
10. Intercontinental Exchange, Inc. (ICE)
11. Investment Technology Group, Inc. (ITG)
12. Invesco Ltd. (IVZ)
13. Janus Henderson Group PLC (JHG)
14. Lazard Ltd. (LAZ)
15. Legg Mason Inc. (LM)
16. Morgan Stanley (MS)
17. The NASDAQ OMX Group, Inc. (NDAQ)
18. Raymond James Financial Inc. (RJF)
19. The Charles Schwab Corporation (SCHW)
20. SEI Investments Company (SEIC)
21. State Street Corporation (STT)
22. T. Rowe Price Group Inc. (TROW)
23. Virtu Financial (VIRT)

PIPER JAFFRAY COMPANIES
2018 Compensation and Benefits for Non-Employee Directors

	<i>Amount</i>	<i>Objective</i>	<i>Time and Terms of Payment</i>
Annual Cash Retainer	\$60,000	Consideration for Board and committee service for the current calendar year	Paid quarterly in arrears. For any director joining or leaving the Board during a quarter, the amount paid shall be a pro rata sum based on the number of days served during the quarter.
Additional Annual Retainer for Chairman, Lead Director, Committee Chairpersons	\$100,000 - Chairman \$50,000 cash \$50,000 PJC equity granted at the time of the annual equity grant \$20,000 cash -Lead Director \$25,000 cash -Audit \$15,000 cash -Compensation \$15,000 cash -Nominating and Governance	Consideration for service as lead director or committee chairperson for the current calendar year	Paid quarterly in arrears. For any director gaining (or resigning) a lead director or committee chairperson position during a quarter, the amount paid shall be a pro rata sum based on the number of days served during the quarter.
Additional Annual Cash Retainer for Committee Members	\$10,000-Audit \$5,000-Compensation \$5,000-Nominating and Governance	Consideration for service as committee member for the current calendar year	Paid quarterly in arrears. For any director joining or leaving a committee during a quarter, the amount paid shall be a pro rata sum based on the number of days served during the quarter.
Additional Cash Fee for Non-Member Attendance at Committee Meetings	\$1,000 per meeting (Chairman is not eligible. Maximum annual non-member attendance fees being: \$10,000 - Audit \$5,000 - Compensation \$5,000 - Nominating and Governance)	Consideration for attendance at a meeting of a committee on which the attendee is not a member	Paid on the last business day in December.
Initial Equity Grant	\$60,000 (valued as of election date)	Establish PJC equity interest upon initial election to the Board to align director and shareholder interests	Shares of PJC common stock granted on the date of the director's initial election or appointment to the Board.
Annual Equity Grant	\$80,000 (valued on the date of the annual meeting of shareholders)	Incentive compensation for continuing service on the Board and enhanced alignment of director and shareholder interests	Shares of PJC common stock granted on the date of the annual meeting of shareholders to any director whose service on the Board will continue following the annual meeting. For directors joining the Board after the annual meeting in any year, an equity award will be granted on the date the director is elected to the Board covering a pro rata number of shares based on the number of days during which the director will serve on the Board during that year.

Deferral Opportunity	All cash and equity received on an annual basis	Increase equity stake by directors	Annual opportunity to participate in the Amended and Restated Piper Jaffray Companies Deferred Compensation Plan for Non-Employee Directors, permitting deferral into phantom stock units of all or a portion of the director's annual cash compensation for service as a Piper Jaffray Companies director, and deferral of any shares granted in consideration of the director's service as a director. To participate in any year, irrevocable election must be made by December 31 of the preceding year for continuing directors and on the date of initial election or appointment to the Board for new directors. Annual opportunity to change the subsequent year's election. The deferral date for the cash retainer is the date that each quarterly payment would have otherwise been made; the deferral date for the equity grant is the date of the annual meeting of shareholders each year.
Charitable Gift Matching Program	Up to \$1,500	Encourage charitable giving	Pursuant to the Piper Jaffray Gift Matching Program, Piper Jaffray will match directors' gifts to eligible organizations dollar for dollar from a minimum of \$50 up to an aggregate maximum of \$1,500 per year (the same terms and conditions as are applicable to employees).
Reimbursement of Out-of-Pocket Expenses	In addition to the foregoing, non-employee directors will be reimbursed for reasonable out-of-pocket expenses incurred in connection with their service on the Board and Board committees.		

FIFTH AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT

THIS FIFTH AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT (this “Amendment”) made and entered into as of December 16, 2017 (the “Effective Date”), by and between **PIPER JAFFRAY & CO.**, a Delaware corporation (“Borrower”) and **U.S. BANK NATIONAL ASSOCIATION**, a national banking association (“Lender”); has reference to the following facts and circumstances (the “Preambles”):

A. Borrower and Lender entered into the Amended and Restated Loan Agreement dated as of December 28, 2012 (as amended, the “Agreement”; all capitalized terms used and not otherwise defined in this Amendment shall have the respective meanings ascribed to them in the Agreement as amended by this Amendment), pursuant to which Borrower executed the Amended and Restated Revolving Credit Note dated December 28, 2012, payable to the order of Lender in the original principal amount of up to \$250,000,000 (subsequently decreased to \$200,000,000) (as amended, the “Note”).

B. The Agreement was previously amended as described in the First Amendment to Amended and Restated Loan Agreement dated as of December 28, 2013, the Second Amendment to Amended and Restated Loan Agreement dated as of December 19, 2014, the Third Amendment to Amended and Restated Loan Agreement dated as of December 18, 2015 and the Fourth Amendment to Amended and Restated Loan Agreement dated as of December 17, 2016.

C. Borrower and Lender desire to further amend the Agreement in order to extend the Termination Date until December 14, 2018, on the terms set forth below.

NOW, THEREFORE, in consideration of the premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Borrower and Lender hereby agree as follows:

1. Preambles. The Preambles are true and correct, and, with the defined terms set forth herein, are incorporated herein by this reference.

2. Amendments to Agreement. As of the Effective Date, the Agreement is amended as follows:

(a) The definition of “Termination Date” in Section 1 of the Agreement IS deleted and replaced with the following:

Termination Date shall mean the earlier of December 14, 2018, or the date on which this Agreement is terminated pursuant to Section 12.

(b) The reference to “December 17, 2016” in Exhibit C (Pricing and Fees) to the Agreement is deleted and replaced with “December 16, 2017.”

3. References. All references in the other Credit Documents to “the Loan Agreement” or “the Note” and any other references of similar import shall mean the Agreement and the Note as amended by this Amendment.

4. Full Force and Effect. Except to the extent specifically amended by this Amendment, all of the terms, provisions, conditions, covenants, representations and warranties contained in the Agreement shall be and remain in full force and effect and the same are hereby ratified and confirmed.

5. Continuing Security. The Agreement, as hereby amended, and the Note, are, and shall continue to be, secured by the Collateral Pledge Agreement.

6. Successors and Assigns. This Amendment shall be binding upon and inure to the benefit of Borrower and Lender and their respective successors and assigns, except that Borrower may not assign, transfer or delegate any of its rights or obligations under the Agreement as amended by this Amendment.

7. Representations and Warranties. Borrower hereby represents and warrants to Lender that:

(a) the execution, delivery and performance by Borrower of this Amendment are within the corporate powers of Borrower, have been duly authorized by all necessary corporate action and require no action by or in respect of, consent of or filing or recording with, any governmental or regulatory body, instrumentality, authority, agency or official or any other person or entity;

(b) the execution, delivery and performance by Borrower of this Amendment do not conflict with, or result in a breach of the terms, conditions or provisions of, or constitute a default under or result in any violation of, the terms of the Certificate of Incorporation or Bylaws of Borrower, any applicable law, rule, regulation, order, writ, judgment or decree of any court or governmental or regulatory body, instrumentality authority, agency or official or any agreement, document or instrument to which Borrower is a party or by which Borrower or any of its property or assets is bound or to which Borrower or any of its property is subject;

(c) this Amendment has been duly executed and delivered by Borrower and constitutes the legal, valid and binding obligation of Borrower enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by (i) applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally and (ii) general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law);

(d) all of the representations and warranties made by Borrower in the Agreement, the Note, the Collateral Pledge Agreement, and the other Credit Documents are true and correct in all material respects on and as of the date of this Amendment as if made on and as of the date of this Amendment;

(e) Borrower is an "exempted borrower" (as defined in Section 221.2 of Federal Reserve Board Regulation U) and Borrower acknowledges that Lender is entering into this Agreement and the Other Agreements based on Lender's good faith determination that Borrower is an "exempted borrower"; and

(f) as of the date of this Amendment, Borrower is in compliance with all provisions of the Agreement, the Note, the Collateral Pledge Agreement, and the other Credit Documents.

8. Inconsistency. In the event of any inconsistency or conflict between this Amendment and the Agreement, the terms, provisions and conditions contained in this Amendment shall govern and control.

9. Governing Law. This Amendment shall be governed by and construed in accordance with the substantive laws of the State of Minnesota (without reference to conflict of law principles) but giving effect to Federal laws applicable to national banks.

10. Electronic Imaging. Borrower hereby acknowledges the receipt of a copy of the Agreement, the Note, the Collateral Pledge Agreement, this Amendment and all other Advance Documents. Lender may, on behalf of Borrower, create a microfilm or optical disk or other electronic image of any or all of the Credit Documents. Lender may store the electronic image of any Credit Document in its electronic form and then destroy the paper original as part of Lender's normal business practices, with the electronic image deemed to be an original.

11. Conditions. Notwithstanding any provision contained in this Amendment to the contrary, this Amendment shall not be effective unless and until Lender shall have received:

(a) this Amendment and the 2017 Pricing Letter, duly executed by Borrower;

(b) a Certificate of Secretary (with Resolutions), certified by the Secretary of Borrower;

(c) a certificate of good standing for Borrower issued by the Delaware Secretary of State (or other evidence of good standing acceptable to Lender); and

(d) such other documents and information as reasonably required by Lender.

Borrower and Lender executed this Amendment as of the Effective Date.

[SIGNATURES ON FOLLOWING PAGE]

**SIGNATURE PAGE-
FIFTH AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT**

Borrower:

PIPER JAFFRAY & CO.

By: /s/ Debbra L. Schoneman
Name: Debbra L. Schoneman
Title: Chief Financial Officer

By: /s/ Timothy L. Carter
Name: Timothy L. Carter
Title: Treasurer

Lender:

U.S. BANK NATIONAL ASSOCIATION

By: /s/ Christopher M. Doering
Name: Christopher M. Doering
Title: Senior Vice President

[U.S. Bank Letterhead]

December 16, 2017

Piper Jaffray & Co.
800 Nicollet Mall, J09S04
Minneapolis, Minnesota 55402
Attention: Debbra L. Schoneman, President and Timothy L. Carter, Chief Financial Officer

Re: Amended and Restated Loan Agreement dated as of December 28, 2012, executed by U.S. Bank National Association (“Lender”) and Piper Jaffray & Co. (“Borrower”), as amended by the First Amendment to Amended and Restated Loan Agreement dated as of December 28, 2013, the Second Amendment to Amended and Restated Loan Agreement dated as of December 19, 2014, the Third Amendment to Amended and Restated Loan Agreement dated as of December 18, 2015, the Fourth Amendment to Amended and Restated Loan Agreement dated as of December 17, 2016 and Fifth Amendment to Amended and Restated Loan Agreement dated as of December 16, 2017 (as amended, the “Agreement”; all capitalized terms used and not otherwise defined in this Amendment shall have the respective meanings ascribed to them in the Agreement as amended by this letter agreement).

Dear Debbra and Tim:

This letter agreement is the Pricing Letter, as defined in the Agreement (and amends, restates and replaces the Pricing Letter dated December 17, 2016). The following terms are defined and incorporated into the Agreement by reference:

Applicable Margin shall mean 1.0%.

Commitment Fee. From and including the date of this Agreement to but excluding the Termination Date, Borrower shall pay a nonrefundable commitment fee on the unused portion of the Facility Amount (determined by subtracting the outstanding principal amount of all Advances from the Facility Amount) at an annual rate of 0.20%. The commitment fee shall be (a) calculated on a daily basis, (b) payable quarterly in arrears on the first day of each calendar quarter prior to the Termination Date and on the Termination Date, and (c) calculated on an actual day, 360-day year basis.

Work Fee. Borrower shall pay Lender, in conjunction with the Fifth Amendment to Loan Agreement dated as of December 16, 2017, a work fee in the amount of \$250,000.

Please indicate your acceptance of this Pricing Letter by signing in the space indicated below and returning a copy of this letter to the undersigned.

Very Truly Yours,

U.S. BANK NATIONAL ASSOCIATION

By: /s/ Christopher M. Doering
Name: Christopher M. Doering
Title: Senior Vice President

[BORROWER’S SIGNATURES ON PAGE 2]

Piper Jaffray & Co.
December 16, 2017
Page 2

Accepted and agreed to by Borrower as of December 16, 2017:

PIPER JAFFRAY & CO.

By: /s/ Debbra L. Schoneman
Name: Debbra L. Schoneman
Title: Chief Financial Officer

By: /s/ Timothy L. Carter
Name: Timothy L. Carter
Title: Treasurer

RESTRICTED STOCK AND MUTUAL FUND RESTRICTED SHARE AGREEMENT

(2018 Annual Grant)

Under the

**PIPER JAFFRAY COMPANIES
AMENDED AND RESTATED 2003 ANNUAL AND LONG-TERM INCENTIVE PLAN
AND
MUTUAL FUND RESTRICTED SHARE INVESTMENT PLAN**

Notice of Grant

Piper Jaffray Companies, a Delaware corporation (the “Company”), hereby grants to the below-named employee of the Company or an Affiliate of the Company (the “Employee”) (i) a Restricted Stock Award pursuant to the Company’s Amended and Restated 2003 Annual and Long-Term Incentive Plan, as amended from time to time (the “2003 Plan”), and (ii) a Mutual Fund Restricted Share Award (the “MFRS Award”) pursuant to the Company’s Mutual Fund Restricted Share Investment Plan, as amended from time to time (the “MFRS Plan” and together with the Restricted Stock Plan, the “Plans”). The terms and conditions of the Restricted Stock Award and MFRS Award (collectively, the “Awards”) are set forth in this Restricted Stock and Mutual Fund Restricted Share Agreement (the “Agreement”), consisting of this Notice of Grant and the Terms and Conditions on the following pages. This Agreement and the Awards are subject to all of the provisions of the applicable Plans. Any capitalized term that is not defined in this Agreement shall have the meaning set forth in the Plans as they currently exist or as they are amended in the future.

Name of Employee: _____

Date of Issuance: _____, 2018

Restricted Stock Award

No. of Restricted Shares Covered:

Vesting Schedule pursuant to Section 3:

The Restricted Shares shall vest ratably over three years on the 16th day of the month (or, if the 16th falls on a weekend or another day on which the New York Stock Exchange is closed, on the immediately preceding business day) in which the first, second, and third anniversaries of the date of issuance occurs.

Mutual Fund Restricted Share Award

Restricted Mutual Fund Shares Covered:*	
Vanguard Short-term Government Bond Index Fund	
Dodge & Cox Income Fund	
T. Rowe Price Blue Chip Growth Fund	
Vanguard Extended Market Index Fund	
Vanguard Global Equity Fund	
Vanguard 500 Index	
ARI MLP & Energy Infrastructure Fund	

Vesting Schedule pursuant to Section 3:
The Restricted Mutual Fund Shares shall vest ratably over three years on the 16th day of the month (or, if the 16th falls on a weekend or another day on which the New York Stock Exchange is closed, on the immediately preceding business day) in which the first, second, and third anniversaries of the date of issuance occurs.

* Subject to adjustment in accordance with the terms of this Agreement

IMPORTANT ACKNOWLEDGEMENT: *By signing this Agreement, Employee voluntarily elects to receive and accept the Restricted Stock Award and MFRS Award subject to all of the terms and conditions set forth in this Agreement, and specifically acknowledges and agrees that under certain circumstances, as specified in Section 5(a), the unvested Restricted Shares and Restricted Mutual Fund Shares may cease to vest and be forfeited to the Company. Employee also acknowledges and agrees that such terms and conditions are fair and reasonable under the circumstances.*

EMPLOYEE

PIPER JAFFRAY COMPANIES

By _____
Its _____

Terms and Conditions

1. Restricted Shares.

(a) The Shares subject to the Restricted Stock Award are subject to the restrictions provided for in this Agreement and are referred to collectively as the “Restricted Shares” and each as a “Restricted Share.”

(b) The Restricted Shares will be evidenced by a book entry made in the records of the Company’s transfer agent in the name of the Employee (unless the Employee requests a certificate evidencing the Restricted Shares). All restrictions provided for in this Agreement will apply to each Restricted Share and to any other securities distributed with respect to that Restricted Share. Unless otherwise permitted by the Committee in accordance with the terms of the Plan, the Restricted Shares may not (until such Restricted Shares have vested in the Employee in accordance with all terms and conditions of this Agreement) be assigned or transferred other than by will or the laws of descent and distribution and shall not be subject to pledge, hypothecation, execution, attachment or similar process. Each Restricted Share will remain restricted and subject to forfeiture to the Company unless and until that Restricted Share has vested in the Employee in accordance with all of the terms and conditions of this Agreement and the 2003 Plan. Each book entry (or stock certificate if requested by the Employee) evidencing any Restricted Share may contain such notations or legends and stock transfer instructions or limitations as may be determined or authorized by the Company in its sole discretion. If a certificate evidencing any Restricted Share is requested by the Employee, the Company may, in its sole discretion, retain custody of the certificate throughout the period during which any restrictions are in effect and require, as a condition to issuing a certificate, that the Employee tender to the Company a stock power duly executed in blank relating to such custody.

2. Restricted Mutual Fund Shares.

(a) The Restricted Mutual Fund Shares represent Restricted Mutual Fund Shares that have been awarded to the Employee by the Company as well as any additional Restricted Mutual Fund Shares that the Employee has elected to receive in lieu of amounts that would have been otherwise awarded as Restricted Shares, in accordance with the Committee’s determination to permit such an election and in the amount so permitted. The Restricted Mutual Fund Shares were to be allocated by the Employee among mutual funds and exchange-traded funds selected by the Company. The deadline for submitting an allocation form for this award cycle has passed and no reallocation among selected mutual funds or exchange-traded funds shall be permitted. The Employee’s allocation, and any election to increase the amount of Restricted Mutual Fund Shares received in lieu of amounts that would have been otherwise awarded as Restricted Shares, is irrevocable. If the Employee failed to allocate their Restricted Mutual Fund Shares among the available mutual funds and exchange-traded funds prior to the deadline, the Company’s determination of the allocation shall be binding on the Employee, and no reallocation shall be permitted.

(b) All vesting contingencies and restrictions provided for in this Agreement will apply to each Restricted Mutual Fund Share. The Restricted Mutual Fund Shares may not (until such Restricted Mutual Fund Shares have vested in the Employee in accordance with all terms and conditions of this Agreement) be assigned or transferred other than by will or the laws of descent and distribution and shall not be subject to pledge, hypothecation, execution, attachment or similar process. Each Restricted Mutual Fund Share will remain restricted, and its unvested portion subject to forfeiture to the Company, unless and until that Restricted Mutual Fund Share has vested in the Employee in accordance with all of the terms and conditions of this Agreement and the MFRS Plan. The Employee shall execute such pledge or other agreement that the Company may require at any time to perfect such restriction.

3. Vesting.

(a) Continuous Employment: So long as the Employee remains continuously employed (including during the continuance of any leave of absence as approved by the Company or an Affiliate) by the Company or an Affiliate, then the Restricted Shares and Restricted Mutual Fund Shares will vest in the numbers and on the dates specified in their respective Vesting Schedules in the Notice of Grant. Except as otherwise provided herein, if and when the Employee's employment with the Company or an Affiliate terminates, whether by the Employee or by the Company (or an Affiliate), voluntarily or involuntarily, for any reason, then, in accordance with Section 5 of this Agreement, the Restricted Shares and Restricted Mutual Fund Shares shall cease vesting, the unvested Restricted Shares and Restricted Mutual Fund Shares as of the termination date shall be forfeited to the Company.

(b) Vesting in Event of Death: If the Employee's employment by the Company or an Affiliate terminates because of the Employee's death, then the unvested Restricted Shares and Restricted Mutual Fund Shares will immediately vest in full.

(c) Vesting in Event of Long-Term Disability: If the Employee's employment by the Company or an Affiliate terminates because of the Employee's long-term disability (as defined in the Company's long-term disability plan, a "Disability"), then the unvested Restricted Shares and Restricted Mutual Fund Shares will continue vesting during the Employee's long-term disability period in accordance with their respective Vesting Schedules set forth in the Notice of Grant. If, however, the Employee recovers from the Disability, and returns to gainful employment with any employer other than the Company or an Affiliate, the Employee's entitlement to the unvested Restricted Shares and Restricted Mutual Fund Shares will be subject to the requirements of subparagraph 3(f) below.

(d) Vesting in Event of Severance Event: If the Employee's employment by the Company or an Affiliate is involuntarily terminated as a result of a Company-determined severance event (i.e., an event specifically designated as a severance event by the Company in a written notice to the Employee that he or she is eligible for severance benefits under the Company's Severance Plan, as may be amended from time to time), then the unvested Restricted Shares and Restricted Mutual Fund Shares will, as set forth in writing in a severance agreement, vest in full upon the expiration of a thirty-day period commencing upon the Employee's execution of a general release of all claims against the Company and its Affiliates, on a form provided by the Company for this purpose and within the timeframe designated by the Company; provided that, no such vesting will occur unless (i) the Employee has not revoked the general release and it remains effective and enforceable upon expiration of the thirty-day period following its execution, and (ii) the Employee has complied with the terms and conditions of the Company's Severance Plan and the applicable severance agreement.

(e) Vesting in Event of For Cause Discharge: If the Employee's employment with the Company or an Affiliate terminates because the Employee was discharged for "Cause" (as that term is defined in subparagraph 5(b)) below, then the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease vesting and be forfeited to the Company.

(f) Vesting in the Event of Any Other Type of Separation: If the Employee's employment with the Company or an Affiliate terminates for any reason other than the Employee's death, Disability, termination in a Company-determined severance event, or for Cause (all as described above), then the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease vesting and be forfeited to the Company; *provided, however,* that at the time of termination, the Company shall offer the Employee an opportunity to (a) sign a Post-Termination Agreement, and (b) execute a general release of all claims against the Company and its

Affiliates on a form provided by the Company for this purpose and within the timeframe designated by the Company.

If the Employee signs a Post-Termination Agreement, and thereafter complies with the Employee's obligations under such Post-Termination Agreement, including the obligation to refrain from engaging in any Restricted Activities (as defined below) for the shorter of the remaining vesting period of the unvested Restricted Shares and Restricted Mutual Fund Shares, or the restricted period identified in the Post-Termination Agreement (which may extend beyond the Applicable Post-Employment Restricted Period (as defined below) and be up to two years following the date of termination), and the Employee signs and does not rescind or take any action to revoke the general release as described above in whole or in part, then the unvested Restricted Shares and Restricted Mutual Fund Shares shall not cease to vest and shall not be forfeited, but rather, as set forth in the Post-Termination Agreement, shall continue to vest in the numbers and on the dates specified in their respective Vesting Schedules in the Notice of Grant for so long as the Employee continuously refrains from engaging in all Restricted Activities for the shorter of the remaining vesting period of the unvested Restricted Shares and Restricted Mutual Fund Shares, or the restricted period identified in the Post-Termination Agreement.

(g) Notwithstanding any other provisions of this Agreement to the contrary, the Committee may, in its sole discretion, declare at any time that the unvested Restricted Shares or Restricted Mutual Fund Shares, or any portion of either thereof, shall vest immediately or, to the extent they otherwise would be forfeited, shall vest in the numbers and on such dates as are determined by the Committee to be in the interests of the Company as determined by the Committee in its sole discretion.

4. **Effect of Vesting.** Upon the vesting of any Restricted Shares or Restricted Mutual Fund Shares, such vested Restricted Shares and Restricted Mutual Fund Shares will no longer be subject to forfeiture; provided, however, that such vested Restricted Shares and Restricted Mutual Fund Shares shall remain subject to potential recovery by the Company pursuant to Section 7 of this Agreement.

5. **Forfeiture of Unvested Restricted Shares and Restricted Mutual Fund Shares.**

(a) If (i) the Employee attempts to pledge, encumber, assign, transfer or otherwise dispose of any of the Restricted Shares (except as permitted by Section 1(b) of this Agreement) or the Employee's interest in or rights to any of the Restricted Mutual Fund Shares (except as permitted by Section 2(b) of this Agreement), or the Restricted Shares or Restricted Mutual Fund Shares become subject to attachment or any similar involuntary process in violation of this Agreement, or (ii) the Employee's employment with the Company or an Affiliate (A) is terminated for Cause or (B) terminates under the circumstances covered by Section 3(d) or Section 3(f) (including as Section 3(f) applies with respect to Section 3(c)) of this Agreement and either (1) the conditions or restrictions of such Section, as applicable, are not satisfied or (2) the conditions or restrictions of such Section, as applicable, are satisfied but the Employee subsequently violates any of them, then any Restricted Shares and Restricted Mutual Fund Shares that have not previously vested shall cease to vest and shall be forfeited to the Company immediately, the Employee shall thereafter have no right, title or interest whatsoever in such unvested Restricted Shares and Restricted Mutual Fund Shares, and, if the Company does not have custody of any and all certificates representing Restricted Shares so forfeited, the Employee shall immediately return to the Company any and all certificates representing Restricted Shares so forfeited. Additionally, the Employee will deliver to the Company a stock power duly executed in blank relating to any and all certificates representing such forfeited Restricted Shares to the Company in accordance with the previous sentence or, if such stock power has previously been tendered to the Company, the Company will be authorized to deem such previously tendered stock power delivered, and the Company will be authorized to cancel any and all certificates representing Restricted Shares so forfeited and to cause a book entry to be made in the records of the Company's transfer agent in the name of the Employee (or a new stock

certificate to be issued, if requested by the Employee) evidencing any Restricted Shares that vested prior to the forfeiture of unvested Restricted Shares under this Section 5. If the Restricted Shares are evidenced by a book entry made in the records of the Company's transfer agent, then the Company will be authorized to cause such book entry to be adjusted to reflect the number of Restricted Shares so forfeited.

(b) For purposes of this Agreement, "Cause" means (i) the Employee's continued failure to substantially perform his or her duties with the Company or an Affiliate after written demand for substantial performance is delivered to the Employee; the Employee shall be provided thirty (30) days to attempt to remedy the deficiencies identified by the Company or an Affiliate in its written demand; (ii) the Employee's conviction of a felony; (iii) the Employee committing a felony or engaging in other misconduct that the Company determines in its sole discretion impairs the Employee's ability to perform his or her duties with the Company or an Affiliate, and/or results in negative or otherwise adverse publicity for the Company or an Affiliate; (iv) the Employee's violation of any policy of the Company or an Affiliate that the Company, in its sole discretion, deems material; (v) the Employee's violation of any securities law, rule or regulation that the Company, in its sole discretion, deems material; (vi) the Employee's engagement in conduct that, in the Company's sole discretion, exposes the Company or an Affiliate to civil or regulatory liability or injury to its reputation; (vii) the Employee's engagement in conduct that would subject the Employee to statutory disqualification pursuant to Section 15(b) of the Exchange Act and the regulations promulgated thereunder; or (viii) the Employee's gross or willful misconduct that the Company, in its sole discretion, deems material.

6. Restricted Activities. In consideration of the grant of this Award, the Employee agrees to comply with and be bound by the following restrictive covenants (each a "Restricted Activity" and together the "Restricted Activities"):

(a) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, except in connection with the performance of the Employee's job duties for the benefit of the Company, use, disclose or misappropriate any Company-Confidential Information (as defined below) unless the Company or an Affiliate consents otherwise in writing. "Company-Confidential Information" shall have the same meaning as provided in the Company's Code of Ethics and Business Conduct, and shall include without limitation any confidential, secret or proprietary knowledge or information of the Company or an Affiliate that the Employee has acquired or become acquainted with during the Employee's employment with the Company or an Affiliate. For the avoidance of doubt, nothing in this paragraph or any other provision of this Agreement precludes you from reporting to the Company's management or directors or to the government, a regulator, or a self-regulatory agency conduct that you believe to be in violation of the law, or responding truthfully to questions or requests from the government, a regulator, a self-regulatory agency, or in a court of law.

(b) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, directly or indirectly, on behalf of the Employee or any other person (including but not limited to any Talent Competitor (as defined below)), solicit, induce or encourage any person then employed, or employed within the 180-day period preceding the Employee's termination, by the Company or an Affiliate to terminate or otherwise modify their employment relationship with the Company;

(c) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, on behalf of the Employee or any other person (including but not limited to any Talent Competitor (as defined below)), hire, retain or employ in any capacity any person then employed, or employed within the 180-day period preceding the Employee's termination, by the Company or an Affiliate;

(d) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, directly or indirectly, on behalf of the Employee or any other person (including but not limited to any Talent Competitor), solicit any customer, client or account of the Company or an Affiliate, or otherwise otherwise seek to divert any customer, client or account of the Company or an Affiliate away from engaging in business with the Company or an Affiliate. For purposes of this subparagraph, "customer, client or account" shall include the following: then-current customers, clients, or accounts of the Company or an Affiliate; any customers, clients or accounts that had been represented by or had a business relationship with the Company or an Affiliate within the 365-day period preceding the Employee's termination; and any individual, company or other form of legal entity that had been solicited or pitched for business by the Company or an Affiliate within the 365-day period preceding the Employee's termination, if the Employee was involved in any capacity in the solicitation or pitch;

(e) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the Applicable Post-Employment Restricted Period, without the prior written consent of the Company or an Affiliate, (x) become a director, officer, employee, partner, consultant or independent contractor of, or otherwise work or provide services for, a Talent Competitor doing business in the same geographic or market area(s) in which the Company or an Affiliate is also doing business, or (y) acquire any material ownership or similar financial interest in any such Talent Competitor;

(f) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, make disparaging, derogatory, or defamatory statements about the Company or an Affiliate in any public forum or media; and

(g) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, fail to cooperate fully with and provide full and accurate information to the Company and its counsel with respect to any matter (including any audit, tax proceeding, litigation, investigation or governmental proceeding) with respect to which the Employee may have knowledge or information, subject to reimbursement for actual, appropriate and reasonable expenses incurred by the Employee.

For purposes of this Section 6, the "Applicable Post-Employment Restricted Period" means: (i) with respect to Sections 6(b) and (c), one year following any termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee); (ii) with respect to Section 6(d), six months following any termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee); and (iii) with respect to Section 6(e), one month following any termination of the Employee's employment initiated and effected by the Company or an Affiliate without Cause, or three months following any other termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee); provided, however, that if the Employee voluntarily elects to sign a Post-Termination Agreement with the Company pursuant to Section 3(f), then such Post-Termination Agreement may include one or more restricted periods that are longer than the Applicable Post-Employment Restricted Period with respect to one or more of the Restricted Activities.

For purposes of this Section 6, a "Talent Competitor" means any corporation, partnership, limited liability company or other business association, organization or entity that engages in the investment banking, securities brokerage or investment management business, including, but not limited to, investment banks, sell-side broker dealers, mergers and acquisitions or strategic advisory firms, merchant banks, hedge funds, private equity firms, venture capital firms, asset managers and investment advisory firms.

7. **Potential Clawback.** The Employee acknowledges that he or she has been provided a copy of the Company's Incentive Compensation Recovery Policy, dated February 4, 2014 (the "Recovery Policy"), and understands, accepts and agrees that this grant in this Agreement of Restricted Shares and Restricted Mutual Fund Shares, and any other outstanding Award he or she may have been granted under the Plans after May 8, 2013 (a "Prior Award") are subject to the terms and conditions of the Recovery Policy as it currently exists and as it may be amended from time to time, which include the potential forfeiture to or recovery by the Company of the Restricted Stock Award or the MFRS Award, any Prior Award, any Shares issued or mutual fund shares vested pursuant to this Agreement or any Prior Award, any proceeds received by the Employee upon the sale of any such Shares or mutual fund shares, and any other compensatory value received by Employee under the Restricted Stock Award, the MFRS Award or any Prior Award under the circumstances and to the extent set forth in the Recovery Policy. This Agreement may be unilaterally amended by the Committee at any time to comply with the Recovery Policy as it may be amended from time to time.

8. **Shareholder Rights.** As of the date of issuance specified at the beginning of this Agreement, the Employee shall have all of the rights of a shareholder of the Company with respect to the Restricted Shares, and all the rights of a mutual fund shareholder with respect to the Restricted Mutual Fund Shares, except as otherwise specifically provided in this Agreement.

9. **Fund Fees and Distributions.**

(a) Management fees of the applicable mutual funds for the Restricted Mutual Fund Shares shall be the sole responsibility of the Employee.

(b) If any mutual fund in which the Employee holds an interest distributes dividends, income or earnings with respect to the Restricted Mutual Fund Shares prior to the vesting of such Restricted Mutual Fund Shares, then the following shall apply. In the event of distributions made in cash, such cash distributions shall be reinvested in the mutual fund from which the distribution occurred and the mutual fund shares representing the reinvested amounts shall be considered Restricted Mutual Fund Shares under this Agreement, and shall vest along with the other unvested Restricted Mutual Fund Shares in equal installments over the remaining vesting dates provided in the Vesting Schedule in the Notice of Grant. In the event of in-kind distributions, extraordinary distributions (whether in other securities or other property) or other adjustments, such distributions shall be held in the account of the Employee together with the Restricted Mutual Fund Shares. All Restricted Mutual Fund Shares received via distributions shall also be restricted and shall vest on the dates specified in the applicable Vesting Schedule in the Notice of Grant. For the avoidance of doubt, in the event that any unvested Restricted Mutual Fund Shares are forfeited in accordance with this Agreement, the distributions with respect to any such Restricted Mutual Fund Shares not previously paid out will also be forfeited.

10. **Tax Withholding.** The parties hereto recognize that the Company or an Affiliate may be obligated to withhold federal and state taxes or other taxes upon the vesting of the Restricted Shares or Restricted Mutual Fund Shares, or, in the event that the Employee elects under Code Section 83(b) to report the receipt of the Restricted Shares or Restricted Mutual Fund Shares as income in the year of receipt, upon the Employee's receipt of the Restricted Shares or Restricted Mutual Fund Shares, respectively. The Employee agrees that, at such time, if the Company or an Affiliate is required to withhold such taxes, the Employee will promptly pay, in cash upon demand (or in any other manner permitted by the Committee in accordance with the terms of the Plans), to the Company or an Affiliate such amounts as shall be necessary to satisfy such obligation. The Employee further acknowledges that the Company has directed the Employee to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which the Employee may reside, and the tax consequences of the Employee's death.

11. Injunctive Relief. In the event of a breach by the Employee of the Employee's obligations under this Agreement, including but not limited to a commission by the Employee of a Restricted Activity as described in Section 6, in addition to being entitled to exercise all rights granted by law, including recovery of damages, the Company will be entitled to specific performance of its rights under this Agreement. The Employee acknowledges that a violation or attempted violation of the obligations set forth herein will cause immediate and irreparable damage to the Company, and therefore agrees that the Company shall be entitled as a matter of right to an injunction, from any court of competent jurisdiction, restraining any violation or further violation of such obligations (without posting any bond or other security).

12. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. The book entry or certificate representing the Restricted Shares shall contain a notation or bear the following legend (as well as any notations or legends required by applicable state and federal corporate and securities laws) noting the existence of the restrictions and the Company's rights to reacquire the Restricted Shares set forth in this Agreement:

“THE SHARES REPRESENTED BY THIS [BOOK ENTRY][CERTIFICATE] MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF A RESTRICTED STOCK AND MUTUAL FUND RESTRICTED SHARE AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.”

(b) Stop-Transfer Notices. The Employee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Restricted Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of the Restricted Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom the Restricted Shares shall have been so transferred.

13. Interpretation of This Agreement. All decisions and interpretations made by the Committee with regard to any question arising hereunder or under the Plans shall be binding and conclusive upon the Company and the Employee. If there is any inconsistency between the provisions of this Agreement and the Plans, the provisions of the Plans shall govern.

14. No Promise of Future Awards or Continued Employment. The Employee acknowledges that this Agreement awards restricted stock and/or property to the Employee, but does not impose any obligation on the Company to make any future grants or issue any future restricted shares or restricted mutual fund shares to the Employee or otherwise continue the participation of the Employee under either of the Plans. This Agreement shall not give the Employee a right to continued employment with the Company or any Affiliate, and the Company or Affiliate employing the Employee may terminate his or her employment at will, and otherwise deal with the Employee without regard to this Agreement.

15. Binding Effect. This Agreement shall be binding in all respects on the heirs, administrators, representatives, executors and successors of the Employee, and on the Company and its successors and assigns.

16. Agreement to Arbitrate. The Company and the Employee each agrees (i) that any dispute, claim or controversy arising out of or relating directly or indirectly to the construction, performance or breach of this Agreement (including, without limitation, the grant, issuance or forfeiture of Restricted Shares and Restricted Mutual Fund Shares) shall be settled by arbitration conducted before and in accordance with the rules of the Financial Industry Regulatory Authority; and (ii) that judgment upon any award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. Accordingly, the Company and the Employee each waive their right (if any) to a trial before a court judge and/or jury to resolve any such disputes; provided, this Section 16 shall not be construed to limit the Company's right to obtain equitable relief under Section 11 with respect to any matter or controversy subject to Section 11, and pending a final determination by the arbitrators with respect to any such matter or controversy, the Company shall be entitled to obtain any such relief by direct application to state, federal, or other applicable court, without being required to first arbitrate such matter or controversy.

17. Choice of Law. The Company is incorporated in the State of Delaware, and by their terms the Plans are governed by the laws of the State of Delaware. Accordingly, this Agreement is entered into under the laws of the State of Delaware and shall be construed and interpreted thereunder (without regard to its conflict-of-law principles).

18. Modification. In the event that any one or more of the Restricted Activities described in Section 6 above shall be held to be unenforceable, invalid or illegal for any reason including, but not limited to, being excessively broad as to duration, geographical scope, activity or subject, such restriction shall be construed or modified by limiting and reducing it, so as to provide the Company with the maximum protection of its business interests and the intent of the parties as set forth herein and yet be valid and enforceable under the applicable law as it shall then exist. If any such restriction held to be unenforceable, invalid or illegal cannot be so construed or modified, such finding shall not affect the enforceability of any of the other restrictions contained herein.

19. Entire Agreement. This Agreement and the Plans set forth the entire agreement and understanding of the parties hereto with respect to the issuance and sale of the Restricted Shares and Restricted Mutual Fund Shares and the administration of the Plans, and supersede all prior agreements, arrangements, plans, and understandings relating to the issuance and sale of the Restricted Shares and Restricted Mutual Fund Shares and the administration of the Plans.

20. Amendment and Waiver. Except as provided in the Plans or in Section 7 above, this Agreement may be amended, modified, or canceled only by a written instrument executed by the parties. No term or condition of this Agreement shall be deemed to have been waived, nor shall there be any estoppel to enforce any provision of this Agreement, except by a statement in writing signed by the party against whom enforcement of the waiver or estoppel is sought. Any written waiver shall not be deemed a continuing waiver unless specifically stated, shall operate only as to the specific term or condition waived, and shall not constitute a waiver of such term or condition for the future or as to any other act other than that specifically waived.

21. Acknowledgment of Receipt of Copy. By execution hereof, the Employee acknowledges having received a copy of the prospectus related to the 2003 Plan and instructions on how to access a copy of each of the Plans.

22. Acknowledgement of Voluntary Election; Fairness. By executing this Agreement, the Employee acknowledges his or her voluntary election to receive and accept the Restricted Shares and any Restricted Mutual Fund Shares subject to all of the terms and conditions set forth in this Agreement, and agrees to be bound thereby, including, without limitation, the terms and conditions specifying the circumstances under which the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease to vest and be forfeited.

Employee further acknowledges and agrees that such terms and conditions are fair and reasonable in light of the circumstances under which the award of Restricted Shares and any award of Restricted Mutual Fund Shares is being made.

RESTRICTED STOCK AND MUTUAL FUND RESTRICTED SHARE AGREEMENT

(2018 Annual Grant - California-based employees)

Under the

PIPER JAFFRAY COMPANIES
AMENDED AND RESTATED 2003 ANNUAL AND LONG-TERM INCENTIVE PLAN
AND
MUTUAL FUND RESTRICTED SHARE INVESTMENT PLAN

Notice of Grant

Piper Jaffray Companies, a Delaware corporation (the “Company”), hereby grants to the below-named employee of the Company or an Affiliate of the Company (the “Employee”) (i) a Restricted Stock Award pursuant to the Company’s Amended and Restated 2003 Annual and Long-Term Incentive Plan, as amended from time to time (the “2003 Plan”), and (ii) a Mutual Fund Restricted Share Award (the “MFRS Award”) pursuant to the Company’s Mutual Fund Restricted Share Investment Plan, as amended from time to time (the “MFRS Plan” and together with the Restricted Stock Plan, the “Plans”). The terms and conditions of the Restricted Stock Award and MFRS Award (collectively, the “Awards”) are set forth in this Restricted Stock and Mutual Fund Restricted Share Agreement (the “Agreement”), consisting of this Notice of Grant and the Terms and Conditions on the following pages. This Agreement and the Awards are subject to all of the provisions of the applicable Plans. Any capitalized term that is not defined in this Agreement shall have the meaning set forth in the Plans as they currently exist or as they are amended in the future.

Name of Employee: _____

Date of Issuance: _____, 2018

Restricted Stock Award

No. of Restricted Shares Covered:

Vesting Schedule pursuant to Section 3:

The Restricted Shares shall vest ratably over three years on the 16th day of the month (or, if the 16th falls on a weekend or another day on which the New York Stock Exchange is closed, on the immediately preceding business day) in which the first, second, and third anniversaries of the date of issuance occurs.

Mutual Fund Restricted Share Award

Restricted Mutual Fund Shares Covered:*	
Vanguard Short-term Government Bond Index Fund	
Dodge & Cox Income Fund	
T. Rowe Price Blue Chip Growth Fund	
Vanguard Extended Market Index Fund	
Vanguard Global Equity Fund	
Vanguard 500 Index	
ARI MLP & Energy Infrastructure Fund	

Vesting Schedule pursuant to Section 3:
The Restricted Mutual Fund Shares shall vest ratably over three years on the 16th day of the month (or, if the 16th falls on a weekend or another day on which the New York Stock Exchange is closed, on the immediately preceding business day) in which the first, second, and third anniversaries of the date of issuance occurs.

* Subject to adjustment in accordance with the terms of this Agreement

IMPORTANT ACKNOWLEDGEMENT: *By signing this Agreement, Employee voluntarily elects to receive and accept the Restricted Stock Award and MFRS Award subject to all of the terms and conditions set forth in this Agreement, and specifically acknowledges and agrees that under certain circumstances, as specified in Section 5(a), the unvested Restricted Shares and Restricted Mutual Fund Shares may cease to vest and be forfeited to the Company. Employee also acknowledges and agrees that such terms and conditions are fair and reasonable under the circumstances.*

EMPLOYEE

PIPER JAFFRAY COMPANIES

By _____
Its _____

Terms and Conditions

1. Restricted Shares.

(a) The Shares subject to the Restricted Stock Award are subject to the restrictions provided for in this Agreement and are referred to collectively as the “Restricted Shares” and each as a “Restricted Share.”

(b) The Restricted Shares will be evidenced by a book entry made in the records of the Company’s transfer agent in the name of the Employee (unless the Employee requests a certificate evidencing the Restricted Shares). All restrictions provided for in this Agreement will apply to each Restricted Share and to any other securities distributed with respect to that Restricted Share. Unless otherwise permitted by the Committee in accordance with the terms of the Plan, the Restricted Shares may not (until such Restricted Shares have vested in the Employee in accordance with all terms and conditions of this Agreement) be assigned or transferred other than by will or the laws of descent and distribution and shall not be subject to pledge, hypothecation, execution, attachment or similar process. Each Restricted Share will remain restricted and subject to forfeiture to the Company unless and until that Restricted Share has vested in the Employee in accordance with all of the terms and conditions of this Agreement and the 2003 Plan. Each book entry (or stock certificate if requested by the Employee) evidencing any Restricted Share may contain such notations or legends and stock transfer instructions or limitations as may be determined or authorized by the Company in its sole discretion. If a certificate evidencing any Restricted Share is requested by the Employee, the Company may, in its sole discretion, retain custody of the certificate throughout the period during which any restrictions are in effect and require, as a condition to issuing a certificate, that the Employee tender to the Company a stock power duly executed in blank relating to such custody.

2. Restricted Mutual Fund Shares.

(a) The Restricted Mutual Fund Shares represent Restricted Mutual Fund Shares that have been awarded to the Employee by the Company as well as any additional Restricted Mutual Fund Shares that the Employee has elected to receive in lieu of amounts that would have been otherwise awarded as Restricted Shares, in accordance with the Committee’s determination to permit such an election and in the amount so permitted. The Restricted Mutual Fund Shares were to be allocated by the Employee among mutual funds and exchange-traded funds selected by the Company. The deadline for submitting an allocation form for this award cycle has passed and no reallocation among selected mutual funds or exchange-traded funds shall be permitted. The Employee’s allocation, and any election to increase the amount of Restricted Mutual Fund Shares received in lieu of amounts that would have been otherwise awarded as Restricted Shares, is irrevocable. If the Employee failed to allocate their Restricted Mutual Fund Shares among the available mutual funds and exchange-traded funds prior to the deadline, the Company’s determination of the allocation shall be binding on the Employee, and no reallocation shall be permitted.

(b) All vesting contingencies and restrictions provided for in this Agreement will apply to each Restricted Mutual Fund Share. The Restricted Mutual Fund Shares may not (until such Restricted Mutual Fund Shares have vested in the Employee in accordance with all terms and conditions of this Agreement) be assigned or transferred other than by will or the laws of descent and distribution and shall not be subject to pledge, hypothecation, execution, attachment or similar process. Each Restricted Mutual Fund Share will remain restricted, and its unvested portion subject to forfeiture to the Company, unless and until that Restricted Mutual Fund Share has vested in the Employee in accordance with all of the terms and conditions of this Agreement and the MFRS Plan. The Employee shall execute such pledge or other agreement that the Company may require at any time to perfect such restriction.

3. Vesting.

(a) Continuous Employment: So long as the Employee remains continuously employed (including during the continuance of any leave of absence as approved by the Company or an Affiliate) by the Company or an Affiliate, then the Restricted Shares and Restricted Mutual Fund Shares will vest in the numbers and on the dates specified in their respective Vesting Schedules in the Notice of Grant. Except as otherwise provided herein, if and when the Employee's employment with the Company or an Affiliate terminates, whether by the Employee or by the Company (or an Affiliate), voluntarily or involuntarily, for any reason, then, in accordance with Section 5 of this Agreement, the Restricted Shares and Restricted Mutual Fund Shares shall cease vesting, the unvested Restricted Shares and Restricted Mutual Fund Shares as of the termination date shall be forfeited to the Company.

(b) Vesting in Event of Death: If the Employee's employment by the Company or an Affiliate terminates because of the Employee's death, then the unvested Restricted Shares and Restricted Mutual Fund Shares will immediately vest in full.

(c) Vesting in Event of Long-Term Disability: If the Employee's employment by the Company or an Affiliate terminates because of the Employee's long-term disability (as defined in the Company's long-term disability plan, a "Disability"), then the unvested Restricted Shares and Restricted Mutual Fund Shares will continue vesting during the Employee's long-term disability period in accordance with their respective Vesting Schedules set forth in the Notice of Grant. If, however, the Employee recovers from the Disability, and returns to gainful employment with any employer other than the Company or an Affiliate, the Employee's entitlement to the unvested Restricted Shares and Restricted Mutual Fund Shares will be subject to the requirements of subparagraph 3(f) below.

(d) Vesting in Event of Severance Event: If the Employee's employment by the Company or an Affiliate is involuntarily terminated as a result of a Company-determined severance event (i.e., an event specifically designated as a severance event by the Company in a written notice to the Employee that he or she is eligible for severance benefits under the Company's Severance Plan, as may be amended from time to time), then the unvested Restricted Shares and Restricted Mutual Fund Shares will, as set forth in writing in a severance agreement, vest in full upon the expiration of a thirty-day period commencing upon the Employee's execution of a general release of all claims against the Company and its Affiliates, on a form provided by the Company for this purpose and within the timeframe designated by the Company; provided that, no such vesting will occur unless (i) the Employee has not revoked the general release and it remains effective and enforceable upon expiration of the thirty-day period following its execution, and (ii) the Employee has complied with the terms and conditions of the Company's Severance Plan and the applicable severance agreement.

(e) Vesting in Event of For Cause Discharge: If the Employee's employment with the Company or an Affiliate terminates because the Employee was discharged for "Cause" (as that term is defined in subparagraph 5(b)) below, then the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease vesting and be forfeited to the Company.

(f) Vesting in the Event of Any Other Type of Separation: If the Employee's employment with the Company or an Affiliate terminates for any reason other than the Employee's death, Disability, termination in a Company-determined severance event, or for Cause (all as described above), then the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease vesting and be forfeited to the Company; *provided, however,* that at the time of termination, the Company shall offer the Employee an opportunity to (a) sign a Post-Termination Agreement, and (b) execute a general release of all claims against the Company and its

Affiliates on a form provided by the Company for this purpose and within the timeframe designated by the Company.

If the Employee signs a Post-Termination Agreement, and thereafter complies with the Employee's obligations under such Post-Termination Agreement, including the obligation to refrain from engaging in any Restricted Activities (as defined below) for the shorter of the remaining vesting period of the unvested Restricted Shares and Restricted Mutual Fund Shares, or the restricted period identified in the Post-Termination Agreement (which may extend beyond the Applicable Post-Employment Restricted Period (as defined below) and be up to two years following the date of termination), and the Employee signs and does not rescind or take any action to revoke the general release as described above in whole or in part, then the unvested Restricted Shares and Restricted Mutual Fund Shares shall not cease to vest and shall not be forfeited, but rather, as set forth in the Post-Termination Agreement, shall continue to vest in the numbers and on the dates specified in their respective Vesting Schedules in the Notice of Grant for so long as the Employee continuously refrains from engaging in all Post-Termination Restricted Activities for the shorter of the remaining vesting period of the unvested Restricted Shares and Restricted Mutual Fund Shares, or the restricted period identified in the Post-Termination Agreement.

"Post-Termination Restricted Activities" shall include the following restrictive covenants:

- (i) the Employee will not at any time during the period set forth in the Post-Termination Agreement engage in a Restricted Activity as defined in Section 6 below;
- (ii) the Employee will not during the period set forth in the Post-Termination Agreement, on behalf of the Employee or any other person (including but not limited to any Talent Competitor (as defined below)), hire, retain or employ in any capacity any person then employed, or employed within the 180-day period preceding the Employee's termination, by the Company or an Affiliate;
- (iii) the Employee will not at any time during the period set forth in the Post Termination Agreement, directly or indirectly, on behalf of the Employee or any other person (including but not limited to any Talent Competitor), solicit any customer, client or account of the Company or an Affiliate, or otherwise otherwise seek to divert any customer, client or account of the Company or an Affiliate away from engaging in business with the Company or an Affiliate. For purposes of this subparagraph, "customer, client or account" shall include the following: then-current customers, clients, or accounts of the Company or an Affiliate; any customers, clients or accounts that had been represented by or had a business relationship with the Company or an Affiliate within the 365-day period preceding the Employee's termination; and any individual, company or other form of legal entity that had been solicited or pitched for business by the Company or an Affiliate within the 365-day period preceding the Employee's termination, if the Employee was involved in any capacity in the solicitation or pitch; and
- (iv) the Employee will not during the period set forth in the Post-Termination Agreement, without the prior written consent of the Company or an Affiliate, (x) become a director, officer, employee, partner, consultant or independent contractor of, or otherwise work or provide services for, a Talent Competitor doing business in the same geographic or market area(s) in which the Company or an Affiliate is also doing business, or (y)

acquire any material ownership or similar financial interest in any such Talent Competitor.

For purposes of this Agreement, a “Talent Competitor” means any corporation, partnership, limited liability company or other business association, organization or entity that engages in the investment banking, securities brokerage or investment management business, including, but not limited to, investment banks, sell-side broker dealers, mergers and acquisitions or strategic advisory firms, merchant banks, hedge funds, private equity firms, venture capital firms, asset managers and investment advisory firms.

For clarity of understanding, Employee acknowledges and agrees that this Section 3(f) is not intended, and shall not operate, to prevent Employee from working or providing services for a Talent Competitor upon termination of employment. Rather, this Section 3(f) specifies the circumstances under which Employee has the opportunity to choose to forestall the cancellation of the unvested Restricted Shares and Restricted Mutual Fund Shares under this Section 3(f) by voluntarily electing to sign a Post-Termination Agreement and complying with the obligations thereunder (including the obligation to refrain from engaging in the specified Post-Termination Restricted Activities during the period set forth in the specified Post-Termination Agreement). Employee need not so choose, however, and is free to elect not to sign a Post-Termination Agreement, in which case the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease vesting and be forfeited to the Company as described above.

(g) Notwithstanding any other provisions of this Agreement to the contrary, the Committee may, in its sole discretion, declare at any time that the unvested Restricted Shares or Restricted Mutual Fund Shares, or any portion of either thereof, shall vest immediately or, to the extent they otherwise would be forfeited, shall vest in the numbers and on such dates as are determined by the Committee to be in the interests of the Company as determined by the Committee in its sole discretion.

4. Effect of Vesting. Upon the vesting of any Restricted Shares or Restricted Mutual Fund Shares, such vested Restricted Shares and Restricted Mutual Fund Shares will no longer be subject to forfeiture; provided, however, that such vested Restricted Shares and Restricted Mutual Fund Shares shall remain subject to potential recovery by the Company pursuant to Section 7 of this Agreement.

5. Forfeiture of Unvested Restricted Shares and Restricted Mutual Fund Shares.

(a) If (i) the Employee attempts to pledge, encumber, assign, transfer or otherwise dispose of any of the Restricted Shares (except as permitted by Section 1(b) of this Agreement) or the Employee’s interest in or rights to any of the Restricted Mutual Fund Shares (except as permitted by Section 2(b) of this Agreement), or the Restricted Shares or Restricted Mutual Fund Shares become subject to attachment or any similar involuntary process in violation of this Agreement, or (ii) the Employee’s employment with the Company or an Affiliate (A) is terminated for Cause or (B) terminates under the circumstances covered by Section 3(d) or Section 3(f) (including as Section 3(f) applies with respect to Section 3(c)) of this Agreement and either (1) the conditions or restrictions of such Section, as applicable, are not satisfied or (2) the conditions or restrictions of such Section, as applicable, are satisfied but the Employee subsequently violates any of them, then any Restricted Shares and Restricted Mutual Fund Shares that have not previously vested shall cease to vest and shall be forfeited to the Company immediately, the Employee shall thereafter have no right, title or interest whatsoever in such unvested Restricted Shares and Restricted Mutual Fund Shares, and, if the Company does not have custody of any and all certificates representing Restricted Shares so forfeited, the Employee shall immediately return to the Company any and all certificates representing Restricted Shares so forfeited. Additionally, the Employee will deliver to the Company a stock power duly executed in blank relating to any and all certificates representing such forfeited Restricted Shares to the Company in accordance with the previous sentence or, if such stock power has previously been tendered to the Company, the Company

will be authorized to deem such previously tendered stock power delivered, and the Company will be authorized to cancel any and all certificates representing Restricted Shares so forfeited and to cause a book entry to be made in the records of the Company's transfer agent in the name of the Employee (or a new stock certificate to be issued, if requested by the Employee) evidencing any Restricted Shares that vested prior to the forfeiture of unvested Restricted Shares under this Section 5. If the Restricted Shares are evidenced by a book entry made in the records of the Company's transfer agent, then the Company will be authorized to cause such book entry to be adjusted to reflect the number of Restricted Shares so forfeited.

(b) For purposes of this Agreement, "Cause" means (i) the Employee's continued failure to substantially perform his or her duties with the Company or an Affiliate after written demand for substantial performance is delivered to the Employee; the Employee shall be provided thirty (30) days to attempt to remedy the deficiencies identified by the Company or an Affiliate in its written demand; (ii) the Employee's conviction of a felony; (iii) the Employee committing a felony or engaging in other misconduct that the Company determines in its sole discretion impairs the Employee's ability to perform his or her duties with the Company or an Affiliate, and/or results in negative or otherwise adverse publicity for the Company or an Affiliate; (iv) the Employee's violation of any policy of the Company or an Affiliate that the Company, in its sole discretion, deems material; (v) the Employee's violation of any securities law, rule or regulation that the Company, in its sole discretion, deems material; (vi) the Employee's engagement in conduct that, in the Company's sole discretion, exposes the Company or an Affiliate to civil or regulatory liability or injury to its reputation; (vii) the Employee's engagement in conduct that would subject the Employee to statutory disqualification pursuant to Section 15(b) of the Exchange Act and the regulations promulgated thereunder; or (viii) the Employee's gross or willful misconduct that the Company, in its sole discretion, deems material.

6. Restricted Activities. In consideration of the grant of this Award, the Employee agrees to comply with and be bound by the following restrictive covenants (each a "Restricted Activity" and together the "Restricted Activities"):

(a) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, except in connection with the performance of the Employee's job duties for the benefit of the Company, use, disclose or misappropriate any Company-Confidential Information (as defined below) unless the Company or an Affiliate consents otherwise in writing. "Company-Confidential Information" shall have the same meaning as provided in the Company's Code of Ethics and Business Conduct, and shall include without limitation any confidential, secret or proprietary knowledge or information of the Company or an Affiliate that the Employee has acquired or become acquainted with during the Employee's employment with the Company or an Affiliate. For the avoidance of doubt, nothing in this paragraph or any other provision of this Agreement precludes you from reporting to the Company's management or directors or to the government, a regulator, or a self-regulatory agency conduct that you believe to be in violation of the law, or responding truthfully to questions or requests from the government, a regulator, a self-regulatory agency, or in a court of law.

(b) the Employee will not, during the Employee's employment by the Company or an Affiliate and during the twelve-month period following any termination of the Employee's employment with the Company or an Affiliate (not including any period of notice provided by the Employee), directly or indirectly, on behalf of the Employee or any other person (including but not limited to any Talent Competitor, solicit, induce or encourage any person then employed, or employed within the 180-day period preceding the Employee's termination, by the Company or an Affiliate to terminate or otherwise modify their employment relationship with the Company;

(c) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, make disparaging, derogatory, or defamatory statements about the Company or an Affiliate in any public forum or media; and

(d) the Employee will not, either during the Employee's employment by the Company or an Affiliate or at any time thereafter, fail to cooperate fully with and provide full and accurate information to the Company and its counsel with respect to any matter (including any audit, tax proceeding, litigation, investigation or governmental proceeding) with respect to which the Employee may have knowledge or information, subject to reimbursement for actual, appropriate and reasonable expenses incurred by the Employee.

7. Potential Clawback. The Employee acknowledges that he or she has been provided a copy of the Company's Incentive Compensation Recovery Policy, dated February 4, 2014 (the "Recovery Policy"), and understands, accepts and agrees that this grant in this Agreement of Restricted Shares and Restricted Mutual Fund Shares, and any other outstanding Award he or she may have been granted under the Plans after May 8, 2013 (a "Prior Award") are subject to the terms and conditions of the Recovery Policy as it currently exists and as it may be amended from time to time, which include the potential forfeiture to or recovery by the Company of the Restricted Stock Award or the MFRS Award, any Prior Award, any Shares issued or mutual fund shares vested pursuant to this Agreement or any Prior Award, any proceeds received by the Employee upon the sale of any such Shares or mutual fund shares, and any other compensatory value received by Employee under the Restricted Stock Award, the MFRS Award or any Prior Award under the circumstances and to the extent set forth in the Recovery Policy. This Agreement may be unilaterally amended by the Committee at any time to comply with the Recovery Policy as it may be amended from time to time.

8. Shareholder Rights. As of the date of issuance specified at the beginning of this Agreement, the Employee shall have all of the rights of a shareholder of the Company with respect to the Restricted Shares, and all the rights of a mutual fund shareholder with respect to the Restricted Mutual Fund Shares, except as otherwise specifically provided in this Agreement.

9. Fund Fees and Distributions.

(a) Management fees of the applicable mutual funds for the Restricted Mutual Fund Shares shall be the sole responsibility of the Employee.

(b) If any mutual fund in which the Employee holds an interest distributes dividends, income or earnings with respect to the Restricted Mutual Fund Shares prior to the vesting of such Restricted Mutual Fund Shares, then the following shall apply. In the event of distributions made in cash, such cash distributions shall be reinvested in the mutual fund from which the distribution occurred and the mutual fund shares representing the reinvested amounts shall be considered Restricted Mutual Fund Shares under this Agreement, and shall vest along with the other unvested Restricted Mutual Fund Shares in equal installments over the remaining vesting dates provided in the Vesting Schedule in the Notice of Grant. In the event of in-kind distributions, extraordinary distributions (whether in other securities or other property) or other adjustments, such distributions shall be held in the account of the Employee together with the Restricted Mutual Fund Shares. All Restricted Mutual Fund Shares received via distributions shall also be restricted and shall vest on the dates specified in the applicable Vesting Schedule in the Notice of Grant. For the avoidance of doubt, in the event that any unvested Restricted Mutual Fund Shares are forfeited in accordance with this Agreement, the distributions with respect to any such Restricted Mutual Fund Shares not previously paid out will also be forfeited.

10. Tax Withholding. The parties hereto recognize that the Company or an Affiliate may be obligated to withhold federal and state taxes or other taxes upon the vesting of the Restricted Shares or Restricted Mutual Fund Shares, or, in the event that the Employee elects under Code Section 83(b) to report the receipt of the Restricted Shares or Restricted Mutual Fund Shares as income in the year of receipt, upon the Employee's receipt of the Restricted Shares or Restricted Mutual Fund Shares, respectively. The Employee agrees that, at such time, if the Company or an Affiliate is required to withhold such taxes, the Employee will promptly pay, in cash upon demand (or in any other manner permitted by the Committee in accordance with the terms of the Plans), to the Company or an Affiliate such amounts as shall be necessary to satisfy such obligation. The Employee further acknowledges that the Company has directed the Employee to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which the Employee may reside, and the tax consequences of the Employee's death.

11. Injunctive Relief. In the event of a breach by the Employee of the Employee's obligations under this Agreement, including but not limited to a commission by the Employee of a Restricted Activity as described in Section 6, in addition to being entitled to exercise all rights granted by law, including recovery of damages, the Company will be entitled to specific performance of its rights under this Agreement. The Employee acknowledges that a violation or attempted violation of the obligations set forth herein will cause immediate and irreparable damage to the Company, and therefore agrees that the Company shall be entitled as a matter of right to an injunction, from any court of competent jurisdiction, restraining any violation or further violation of such obligations (without posting any bond or other security).

12. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. The book entry or certificate representing the Restricted Shares shall contain a notation or bear the following legend (as well as any notations or legends required by applicable state and federal corporate and securities laws) noting the existence of the restrictions and the Company's rights to reacquire the Restricted Shares set forth in this Agreement:

“THE SHARES REPRESENTED BY THIS [BOOK ENTRY][CERTIFICATE] MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF A RESTRICTED STOCK AND MUTUAL FUND RESTRICTED SHARE AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.”

(b) Stop-Transfer Notices. The Employee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Restricted Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of the Restricted Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom the Restricted Shares shall have been so transferred.

13. Interpretation of This Agreement. All decisions and interpretations made by the Committee with regard to any question arising hereunder or under the Plans shall be binding and conclusive upon the Company and the Employee. If there is any inconsistency between the provisions of this Agreement and the Plans, the provisions of the Plans shall govern.

14. No Promise of Future Awards or Continued Employment. The Employee acknowledges that this Agreement awards restricted stock and/or property to the Employee, but does not impose any obligation on the Company to make any future grants or issue any future restricted shares or restricted mutual fund shares to the Employee or otherwise continue the participation of the Employee under either of the Plans. This Agreement shall not give the Employee a right to continued employment with the Company or any Affiliate, and the Company or Affiliate employing the Employee may terminate his or her employment at will, and otherwise deal with the Employee without regard to this Agreement.

15. Binding Effect. This Agreement shall be binding in all respects on the heirs, administrators, representatives, executors and successors of the Employee, and on the Company and its successors and assigns.

16. Agreement to Arbitrate. The Company and the Employee each agrees (i) that any dispute, claim or controversy arising out of or relating directly or indirectly to the construction, performance or breach of this Agreement (including, without limitation, the grant, issuance or forfeiture of Restricted Shares and Restricted Mutual Fund Shares) shall be settled by arbitration conducted before and in accordance with the rules of the Financial Industry Regulatory Authority; and (ii) that judgment upon any award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. Accordingly, the Company and the Employee each waive their right (if any) to a trial before a court judge and/or jury to resolve any such disputes; provided, this Section 16 shall not be construed to limit the Company's right to obtain equitable relief under Section 11 with respect to any matter or controversy subject to Section 11, and pending a final determination by the arbitrators with respect to any such matter or controversy, the Company shall be entitled to obtain any such relief by direct application to state, federal, or other applicable court, without being required to first arbitrate such matter or controversy.

17. Choice of Law. The Company is incorporated in the State of Delaware, and by their terms the Plans are governed by the laws of the State of Delaware. Accordingly, this Agreement is entered into under the laws of the State of Delaware and shall be construed and interpreted thereunder (without regard to its conflict-of-law principles).

18. Termination; Modification. In the event that any one or more of the Post-Termination Restricted Activities described in Section 3(f) above shall be held to be unenforceable, invalid or illegal for any reason including, but not limited to, being excessively broad as to duration, geographical scope, activity or subject, such restriction shall be construed or modified by limiting and reducing it, so as to provide the Company with the maximum protection of its business interests and the intent of the parties as set forth herein and yet be valid and enforceable under the applicable law as it shall then exist. If any such restriction held to be unenforceable, invalid or illegal cannot be so construed or modified, then this Agreement shall terminate in its entirety, and at the time of such termination, vesting of the Restricted Shares and Restricted Mutual Fund Shares that are the subject of this Agreement shall cease immediately and automatically and unvested Restricted Shares and Restricted Mutual Fund Shares shall be forfeited and shall be cancelled in accordance with Section 5 above.

19. Entire Agreement. This Agreement and the Plans set forth the entire agreement and understanding of the parties hereto with respect to the issuance and sale of the Restricted Shares and Restricted Mutual Fund Shares and the administration of the Plans, and supersede all prior agreements, arrangements, plans, and understandings relating to the issuance and sale of the Restricted Shares and Restricted Mutual Fund Shares and the administration of the Plans.

20. Amendment and Waiver. Except as provided in the Plans or in Section 7 above, this Agreement may be amended, modified, or canceled only by a written instrument executed by the parties. No term or

condition of this Agreement shall be deemed to have been waived, nor shall there be any estoppel to enforce any provision of this Agreement, except by a statement in writing signed by the party against whom enforcement of the waiver or estoppel is sought. Any written waiver shall not be deemed a continuing waiver unless specifically stated, shall operate only as to the specific term or condition waived, and shall not constitute a waiver of such term or condition for the future or as to any other act other than that specifically waived.

21. Acknowledgment of Receipt of Copy. By execution hereof, the Employee acknowledges having received a copy of the prospectus related to the 2003 Plan and instructions on how to access a copy of each of the Plans.

22. Acknowledgement of Voluntary Election; Fairness. By executing this Agreement, the Employee acknowledges his or her voluntary election to receive and accept the Restricted Shares and any Restricted Mutual Fund Shares subject to all of the terms and conditions set forth in this Agreement, and agrees to be bound thereby, including, without limitation, the terms and conditions specifying the circumstances under which the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease to vest and be forfeited. Employee further acknowledges and agrees that such terms and conditions are fair and reasonable in light of the circumstances under which the award of Restricted Shares and any award of Restricted Mutual Fund Shares is being made.

RESTRICTED STOCK AND MUTUAL FUND RESTRICTED SHARE AGREEMENT

(2018 Annual Grant - Andrew S. Duff)

Under the

PIPER JAFFRAY COMPANIES
AMENDED AND RESTATED 2003 ANNUAL AND LONG-TERM INCENTIVE PLAN
AND
MUTUAL FUND RESTRICTED SHARE INVESTMENT PLAN

Notice of Grant

Piper Jaffray Companies, a Delaware corporation (the “Company”), hereby grants to the below-named director of the Company (the “Chairman”) (i) a Restricted Stock Award pursuant to the Company’s Amended and Restated 2003 Annual and Long-Term Incentive Plan, as amended from time to time (the “2003 Plan”), and (ii) a Mutual Fund Restricted Share Award (the “MFRS Award”) pursuant to the Company’s Mutual Fund Restricted Share Investment Plan, as amended from time to time (the “MFRS Plan” and together with the Restricted Stock Plan, the “Plans”). The terms and conditions of the Restricted Stock Award and MFRS Award (collectively, the “Awards”) are set forth in this Restricted Stock and Mutual Fund Restricted Share Agreement (the “Agreement”), consisting of this Notice of Grant and the Terms and Conditions on the following pages. This Agreement and the Awards are subject to all of the provisions of the applicable Plans. Any capitalized term that is not defined in this Agreement shall have the meaning set forth in the Plans as they currently exist or as they are amended in the future.

Name of Chairman: Andrew S. Duff

Date of Issuance: _____, 2018

Restricted Stock Award

No. of Restricted Shares Covered:

Vesting Schedule pursuant to Section 3:

The Restricted Shares shall vest ratably over three years on the 16th day of the month (or, if the 16th falls on a weekend or another day on which the New York Stock Exchange is closed, on the immediately preceding business day) in which the first, second, and third anniversaries of the date of issuance occurs.

Mutual Fund Restricted Share Award

Restricted Mutual Fund Shares Covered:*	
Vanguard Short-term Government Bond Index Fund	
Dodge & Cox Income Fund	
T. Rowe Price Blue Chip Growth Fund	
Vanguard Extended Market Index Fund	
Vanguard Global Equity Fund	
Vanguard 500 Index	
ARI MLP & Energy Infrastructure Fund	
Vesting Schedule pursuant to Section 3: The Restricted Mutual Fund Shares shall vest ratably over three years on the 16 th day of the month (or, if the 16 th falls on a weekend or another day on which the New York Stock Exchange is closed, on the immediately preceding business day) in which the first, second, and third anniversaries of the date of issuance occurs.	

* Subject to adjustment in accordance with the terms of this Agreement

IMPORTANT ACKNOWLEDGEMENT: *By signing this Agreement, Chairman voluntarily elects to receive and accept the Restricted Stock Award and MFRS Award subject to all of the terms and conditions set forth in this Agreement, and specifically acknowledges and agrees that under certain circumstances, as specified in Section 5(a), the unvested Restricted Shares and Restricted Mutual Fund Shares may cease to vest and be forfeited to the Company. Chairman also acknowledges and agrees that such terms and conditions are fair and reasonable under the circumstances.*

ANDREW S. DUFF

PIPER JAFFRAY COMPANIES

By _____
Its _____

Terms and Conditions

1. Restricted Shares.

(a) The Shares subject to the Restricted Stock Award are subject to the restrictions provided for in this Agreement and are referred to collectively as the “Restricted Shares” and each as a “Restricted Share.”

(b) The Restricted Shares will be evidenced by a book entry made in the records of the Company’s transfer agent in the name of the Chairman (unless the Chairman requests a certificate evidencing the Restricted Shares). All restrictions provided for in this Agreement will apply to each Restricted Share and to any other securities distributed with respect to that Restricted Share. Unless otherwise permitted by the Committee in accordance with the terms of the Plan, the Restricted Shares may not (until such Restricted Shares have vested in the Chairman in accordance with all terms and conditions of this Agreement) be assigned or transferred other than by will or the laws of descent and distribution and shall not be subject to pledge, hypothecation, execution, attachment or similar process. Each Restricted Share will remain restricted and subject to forfeiture to the Company unless and until that Restricted Share has vested in the Chairman in accordance with all of the terms and conditions of this Agreement and the 2003 Plan. Each book entry (or stock certificate if requested by the Chairman) evidencing any Restricted Share may contain such notations or legends and stock transfer instructions or limitations as may be determined or authorized by the Company in its sole discretion. If a certificate evidencing any Restricted Share is requested by the Chairman, the Company may, in its sole discretion, retain custody of the certificate throughout the period during which any restrictions are in effect and require, as a condition to issuing a certificate, that the Chairman tender to the Company a stock power duly executed in blank relating to such custody.

2. Restricted Mutual Fund Shares.

(a) The Restricted Mutual Fund Shares represent Restricted Mutual Fund Shares that have been awarded to the Chairman by the Company as well as any additional Restricted Mutual Fund Shares that the Chairman has elected to receive in lieu of amounts that would have been otherwise awarded as Restricted Shares, in accordance with the Committee’s determination to permit such an election and in the amount so permitted. The Restricted Mutual Fund Shares were to be allocated by the Chairman among mutual funds and exchange-traded funds selected by the Company. The deadline for submitting an allocation form for this award cycle has passed and no reallocation among selected mutual funds or exchange-traded funds shall be permitted. The Chairman’s allocation, and any election to increase the amount of Restricted Mutual Fund Shares received in lieu of amounts that would have been otherwise awarded as Restricted Shares, is irrevocable. If the Chairman failed to allocate their Restricted Mutual Fund Shares among the available mutual funds and exchange-traded funds prior to the deadline, the Company’s determination of the allocation shall be binding on the Chairman, and no reallocation shall be permitted.

(b) All vesting contingencies and restrictions provided for in this Agreement will apply to each Restricted Mutual Fund Share. The Restricted Mutual Fund Shares may not (until such Restricted Mutual Fund Shares have vested in the Chairman in accordance with all terms and conditions of this Agreement) be assigned or transferred other than by will or the laws of descent and distribution and shall not be subject to pledge, hypothecation, execution, attachment or similar process. Each Restricted Mutual Fund Share will remain restricted, and its unvested portion subject to forfeiture to the Company, unless and until that Restricted Mutual Fund Share has vested in the Chairman in accordance with all of the terms and conditions of this Agreement and the MFRS Plan. The Chairman shall execute such pledge or other agreement that the Company may require at any time to perfect such restriction.

3. **Vesting.**

(a) **Vesting in General:** As long as the Chairman refrains from engaging in any Restricted Activity (as defined below) for the duration of the remaining vesting period of the unvested Restricted Shares and Restricted Mutual Fund Shares, then the unvested Restricted Shares and Restricted Mutual Fund Shares shall continue to vest in the numbers and on the dates specified in their respective Vesting Schedules in the Notice of Grant.

(b) **Vesting in Event of Death:** In the event of the Chairman's death, the unvested Restricted Shares and Restricted Mutual Fund Shares will immediately vest in full.

4. **Effect of Vesting.** Upon the vesting of any Restricted Shares or Restricted Mutual Fund Shares, such vested Restricted Shares and Restricted Mutual Fund Shares will no longer be subject to forfeiture; provided, however, that such vested Restricted Shares and Restricted Mutual Fund Shares shall remain subject to potential recovery by the Company pursuant to Section 7 of this Agreement.

5. **Forfeiture of Unvested Restricted Shares and Restricted Mutual Fund Shares.**

(a) If (i) the Chairman attempts to pledge, encumber, assign, transfer or otherwise dispose of any of the Restricted Shares (except as permitted by Section 1(b) of this Agreement) or the Chairman's interest in or rights to any of the Restricted Mutual Fund Shares (except as permitted by Section 2(b) of this Agreement), or the Restricted Shares or Restricted Mutual Fund Shares become subject to attachment or any similar involuntary process in violation of this Agreement, or (ii) the Chairman breaches any of the restrictive covenants provided by Section 6, then any Restricted Shares and Restricted Mutual Fund Shares that have not previously vested shall cease to vest and shall be forfeited to the Company immediately, the Chairman shall thereafter have no right, title or interest whatsoever in such unvested Restricted Shares and Restricted Mutual Fund Shares, and, if the Company does not have custody of any and all certificates representing Restricted Shares so forfeited, the Chairman shall immediately return to the Company any and all certificates representing Restricted Shares so forfeited. Additionally, the Chairman will deliver to the Company a stock power duly executed in blank relating to any and all certificates representing such forfeited Restricted Shares to the Company in accordance with the previous sentence or, if such stock power has previously been tendered to the Company, the Company will be authorized to deem such previously tendered stock power delivered, and the Company will be authorized to cancel any and all certificates representing Restricted Shares so forfeited and to cause a book entry to be made in the records of the Company's transfer agent in the name of the Chairman (or a new stock certificate to be issued, if requested by the Chairman) evidencing any Restricted Shares that vested prior to the forfeiture of unvested Restricted Shares under this Section 5. If the Restricted Shares are evidenced by a book entry made in the records of the Company's transfer agent, then the Company will be authorized to cause such book entry to be adjusted to reflect the number of Restricted Shares so forfeited.

6. **Restricted Activities.** In consideration of the grant of this Award, the Chairman agrees to comply with and be bound by the following restrictive covenants (each a "Restricted Activity" and together the "Restricted Activities"):

(a) the Chairman will not, except in connection with the performance of the Chairman's duties for the benefit of the Company, use, disclose or misappropriate any Company-Confidential Information (as defined below) unless the Company or an Affiliate consents otherwise in writing. "Company-Confidential Information" shall have the same meaning as provided in the Company's Code of Ethics and Business Conduct, and shall include without limitation any confidential, secret or proprietary knowledge or information of the Company or an Affiliate that the Chairman has acquired or become acquainted with during the

Chairman's service to the Company or an Affiliate. For the avoidance of doubt, nothing in this paragraph or any other provision of this Agreement precludes you from reporting to the Company's management or directors or to the government, a regulator, or a self-regulatory agency conduct that you believe to be in violation of the law, or responding truthfully to questions or requests from the government, a regulator, a self-regulatory agency, or in a court of law.

(b) the Chairman will not, while any Restricted Shares remain outstanding under this Agreement, directly or indirectly, on behalf of the Chairman or any other person (including but not limited to any Talent Competitor (as defined below)), solicit, induce or encourage any person then employed by the Company or an Affiliate to terminate or otherwise modify their employment relationship with the Company;

(c) the Chairman will not, while any Restricted Shares remain outstanding under this Agreement, on behalf of the Chairman or any other person (including but not limited to any Talent Competitor (as defined below)), hire, retain or employ in any capacity any person then employed by the Company or an Affiliate;

(d) the Chairman will not, while any Restricted Shares remain outstanding under this Agreement, directly or indirectly, on behalf of the Chairman or any other person (including but not limited to any Talent Competitor), solicit any customer, client or account of the Company or an Affiliate, or otherwise otherwise seek to divert any customer, client or account of the Company or an Affiliate away from engaging in business with the Company or an Affiliate. For purposes of this subparagraph, "customer, client or account" shall include the following: then-current customers, clients, or accounts of the Company or an Affiliate; or any customers, clients or accounts with which the Chairman had substantive interaction prior to the Chairman's retirement;

(e) the Chairman will not, while any Restricted Shares remain outstanding under this Agreement, without the prior written consent of the Company or an Affiliate, (x) become a director, officer, employee, partner, consultant or independent contractor of, or otherwise work or provide services for, a Talent Competitor doing business in the same geographic or market area(s) in which the Company or an Affiliate is also doing business, or (y) acquire any material ownership or similar financial interest in any such Talent Competitor;

(f) the Chairman will not make disparaging, derogatory, or defamatory statements about the Company or an Affiliate in any public forum or media; and

(g) the Chairman will not fail to cooperate fully with and provide full and accurate information to the Company and its counsel with respect to any matter (including any audit, tax proceeding, litigation, investigation or governmental proceeding) with respect to which the Chairman may have knowledge or information, subject to reimbursement for actual, appropriate and reasonable expenses incurred by the Chairman.

For purposes of this Section 6, a "Talent Competitor" means any corporation, partnership, limited liability company or other business association, organization or entity that engages in the investment banking, securities brokerage or investment management business, including, but not limited to, investment banks, sell-side broker dealers, mergers and acquisitions or strategic advisory firms, merchant banks, hedge funds, private equity firms, venture capital firms, asset managers and investment advisory firms.

7. Potential Clawback. The Chairman acknowledges that he has been provided a copy of the Company's Incentive Compensation Recovery Policy, dated February 4, 2014 (the "Recovery Policy"), and understands, accepts and agrees that this grant in this Agreement of Restricted Shares and Restricted Mutual Fund Shares, and any other outstanding Award he may have been granted under the Plans after May 8, 2013 (a "Prior Award") are subject to the terms and conditions of the Recovery Policy as it currently exists and as

it may be amended from time to time, which include the potential forfeiture to or recovery by the Company of the Restricted Stock Award or the MFRS Award, any Prior Award, any Shares issued or mutual fund shares vested pursuant to this Agreement or any Prior Award, any proceeds received by the Chairman upon the sale of any such Shares or mutual fund shares, and any other compensatory value received by Chairman under the Restricted Stock Award, the MFRS Award or any Prior Award under the circumstances and to the extent set forth in the Recovery Policy. This Agreement may be unilaterally amended by the Committee at any time to comply with the Recovery Policy as it may be amended from time to time.

8. Shareholder Rights. As of the date of issuance specified at the beginning of this Agreement, the Chairman shall have all of the rights of a shareholder of the Company with respect to the Restricted Shares, and all the rights of a mutual fund shareholder with respect to the Restricted Mutual Fund Shares, except as otherwise specifically provided in this Agreement.

9. Fund Fees and Distributions.

(a) Management fees of the applicable mutual funds for the Restricted Mutual Fund Shares shall be the sole responsibility of the Chairman.

(b) If any mutual fund in which the Chairman holds an interest distributes dividends, income or earnings with respect to the Restricted Mutual Fund Shares prior to the vesting of such Restricted Mutual Fund Shares, then the following shall apply. In the event of distributions made in cash, such cash distributions shall be reinvested in the mutual fund from which the distribution occurred and the mutual fund shares representing the reinvested amounts shall be considered Restricted Mutual Fund Shares under this Agreement, and shall vest along with the other unvested Restricted Mutual Fund Shares in equal installments over the remaining vesting dates provided in the Vesting Schedule in the Notice of Grant. In the event of in-kind distributions, extraordinary distributions (whether in other securities or other property) or other adjustments, such distributions shall be held in the account of the Chairman together with the Restricted Mutual Fund Shares. All Restricted Mutual Fund Shares received via distributions shall also be restricted and shall vest on the dates specified in the applicable Vesting Schedule in the Notice of Grant. For the avoidance of doubt, in the event that any unvested Restricted Mutual Fund Shares are forfeited in accordance with this Agreement, the distributions with respect to any such Restricted Mutual Fund Shares not previously paid out will also be forfeited.

10. Tax Withholding. The parties hereto recognize that the Company or an Affiliate may be obligated to withhold federal and state taxes or other taxes upon the vesting of the Restricted Shares or Restricted Mutual Fund Shares, or, in the event that the Chairman elects under Code Section 83(b) to report the receipt of the Restricted Shares or Restricted Mutual Fund Shares as income in the year of receipt, upon the Chairman's receipt of the Restricted Shares or Restricted Mutual Fund Shares, respectively. The Chairman agrees that, at such time, if the Company or an Affiliate is required to withhold such taxes, the Chairman will promptly pay, in cash upon demand (or in any other manner permitted by the Committee in accordance with the terms of the Plans), to the Company or an Affiliate such amounts as shall be necessary to satisfy such obligation. The Chairman further acknowledges that the Company has directed the Chairman to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which the Chairman may reside, and the tax consequences of the Chairman's death.

11. Injunctive Relief. In the event of a breach by the Chairman of the Chairman's obligations under this Agreement, including but not limited to a commission by the Chairman of a Restricted Activity as described in Section 6, in addition to being entitled to exercise all rights granted by law, including recovery of damages, the Company will be entitled to specific performance of its rights under this Agreement. The Chairman acknowledges that a violation or attempted violation of the obligations set forth herein will cause

immediate and irreparable damage to the Company, and therefore agrees that the Company shall be entitled as a matter of right to an injunction, from any court of competent jurisdiction, restraining any violation or further violation of such obligations (without posting any bond or other security).

12. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. The book entry or certificate representing the Restricted Shares shall contain a notation or bear the following legend (as well as any notations or legends required by applicable state and federal corporate and securities laws) noting the existence of the restrictions and the Company's rights to reacquire the Restricted Shares set forth in this Agreement:

“THE SHARES REPRESENTED BY THIS [BOOK ENTRY][CERTIFICATE] MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF A RESTRICTED STOCK AND MUTUAL FUND RESTRICTED SHARE AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.”

(b) Stop-Transfer Notices. The Chairman agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Restricted Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of the Restricted Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom the Restricted Shares shall have been so transferred.

13. Interpretation of This Agreement. All decisions and interpretations made by the Committee with regard to any question arising hereunder or under the Plans shall be binding and conclusive upon the Company and the Chairman. If there is any inconsistency between the provisions of this Agreement and the Plans, the provisions of the Plans shall govern.

14. No Promise of Future Awards or Continued Employment. The Chairman acknowledges that this Agreement awards restricted stock and/or property to the Chairman, but does not impose any obligation on the Company to make any future grants or issue any future restricted shares or restricted mutual fund shares to the Chairman or otherwise continue the participation of the Chairman under either of the Plans. This Agreement shall not give the Chairman a right to employment or other service with the Company or any Affiliate.

15. Binding Effect. This Agreement shall be binding in all respects on the heirs, administrators, representatives, executors and successors of the Chairman, and on the Company and its successors and assigns.

16. Agreement to Arbitrate. The Company and the Chairman each agrees (i) that any dispute, claim or controversy arising out of or relating directly or indirectly to the construction, performance or breach of this Agreement (including, without limitation, the grant, issuance or forfeiture of Restricted Shares and Restricted Mutual Fund Shares) shall be settled by arbitration conducted before and in accordance with the rules of the Financial Industry Regulatory Authority; and (ii) that judgment upon any award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. Accordingly, the Company and the Chairman each waive their right (if any) to a trial before a court judge and/or jury to resolve any such disputes;

provided, this Section 16 shall not be construed to limit the Company's right to obtain equitable relief under Section 11 with respect to any matter or controversy subject to Section 11, and pending a final determination by the arbitrators with respect to any such matter or controversy, the Company shall be entitled to obtain any such relief by direct application to state, federal, or other applicable court, without being required to first arbitrate such matter or controversy.

17. Choice of Law. The Company is incorporated in the State of Delaware, and by their terms the Plans are governed by the laws of the State of Delaware. Accordingly, this Agreement is entered into under the laws of the State of Delaware and shall be construed and interpreted thereunder (without regard to its conflict-of-law principles).

18. Modification. In the event that any one or more of the Restricted Activities described in Section 6 above shall be held to be unenforceable, invalid or illegal for any reason including, but not limited to, being excessively broad as to duration, geographical scope, activity or subject, such restriction shall be construed or modified by limiting and reducing it, so as to provide the Company with the maximum protection of its business interests and the intent of the parties as set forth herein and yet be valid and enforceable under the applicable law as it shall then exist. If any such restriction held to be unenforceable, invalid or illegal cannot be so construed or modified, such finding shall not affect the enforceability of any of the other restrictions contained herein.

19. Entire Agreement. This Agreement and the Plans set forth the entire agreement and understanding of the parties hereto with respect to the issuance and sale of the Restricted Shares and Restricted Mutual Fund Shares and the administration of the Plans, and supersede all prior agreements, arrangements, plans, and understandings relating to the issuance and sale of the Restricted Shares and Restricted Mutual Fund Shares and the administration of the Plans.

20. Amendment and Waiver. Except as provided in the Plans or in Section 7 above, this Agreement may be amended, modified, or canceled only by a written instrument executed by the parties. No term or condition of this Agreement shall be deemed to have been waived, nor shall there be any estoppel to enforce any provision of this Agreement, except by a statement in writing signed by the party against whom enforcement of the waiver or estoppel is sought. Any written waiver shall not be deemed a continuing waiver unless specifically stated, shall operate only as to the specific term or condition waived, and shall not constitute a waiver of such term or condition for the future or as to any other act other than that specifically waived.

21. Acknowledgment of Receipt of Copy. By execution hereof, the Chairman acknowledges having received a copy of the prospectus related to the 2003 Plan and instructions on how to access a copy of each of the Plans.

22. Acknowledgement of Voluntary Election; Fairness. By executing this Agreement, the Chairman acknowledges his or her voluntary election to receive and accept the Restricted Shares and any Restricted Mutual Fund Shares subject to all of the terms and conditions set forth in this Agreement, and agrees to be bound thereby, including, without limitation, the terms and conditions specifying the circumstances under which the unvested Restricted Shares and Restricted Mutual Fund Shares shall cease to vest and be forfeited. Chairman further acknowledges and agrees that such terms and conditions are fair and reasonable in light of the circumstances under which the award of Restricted Shares and any award of Restricted Mutual Fund Shares is being made.

**PIPER JAFFRAY COMPANIES
AMENDED AND RESTATED
2003 ANNUAL AND LONG-TERM INCENTIVE PLAN**

PERFORMANCE SHARE UNIT AGREEMENT

Name of Employee: Andrew S. Duff	
Target No. of Performance Share Units Covered: []	Date of Issuance: []
Maximum No. of Performance Share Units Covered: []	

This is a Performance Share Unit Agreement (“Agreement”) between Piper Jaffray Companies, a Delaware corporation (the “Company”), and the above-named Chairman of the Company’s Board of Directors (the “Chairman”).

Recitals

WHEREAS, the Company maintains the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan, as amended from time to time (the “Plan”);

WHEREAS, the Board of Directors of the Company has delegated to the Compensation Committee (the “Committee”) the authority to determine the awards to be granted under the Plan; and

WHEREAS, the Committee or its delegee has determined that the Chairman is eligible to receive an award under the Plan in the form of performance share units and has set the terms thereof;

NOW, THEREFORE, the Company hereby grants this award to the Chairman under the terms set by the Committee as follows.

Terms and Conditions*

1. Grant of Performance Share Units.

(a) Subject to the terms and conditions of this Agreement, the Company has granted to the Chairman the number of Performance Share Units specified at the beginning of this Agreement (collectively the “Performance Share Units,” and each a “Performance Share Unit.”) Each Performance Share Unit represents the right to receive a Share and dividend equivalent amounts corresponding to the Share, subject to the terms and conditions of this Agreement and the Plan.

(b) The Performance Share Units granted to the Chairman shall be credited to an account in the Chairman’s name. This account shall be a record of book-keeping entries only and shall be utilized solely as a device for the measurement and determination of the number of Shares to be granted to or in respect of the Chairman pursuant to this Agreement.

2. Vesting. Except as provided in Section 4, the Performance Share Units will vest on the last day of the Performance Period to the extent such Performance Share Units are earned pursuant to Section 3.

3. Earned Performance Share Units. If the Chairman continuously refrains from engaging in any Restricted Activities (as defined below) for the duration of the Performance Period, the Chairman shall earn the number of Performance Share Units determined by taking the sum of the percentages earned in the tables shown in Section 3(a) and 3(b) below, and multiplying the sum percentage times the target number of Performance Share Units specified at the beginning of this Agreement.

(a) The number of the Performance Share Units that will be earned pursuant to this Section 3(a) will be determined by reference to the Company’s Total Shareholder Return relative to the Total Shareholder Return of the Peer Group as provided in the table below:

Company Total Shareholder Return Relative to Peer Group	% of Performance Share Units Earned
Below 35th percentile	—%
35th percentile (threshold)	25%
50th percentile (target)	50%
75th percentile or above (maximum)	75%

Note: Interpolation between points in the table above will be on a straight-line basis (from threshold to target and from target to maximum).

* Unless the context indicates otherwise, terms that are not defined in this Agreement shall have the meaning set forth in the Plan.

(b) The number of the Performance Share Units that will be earned pursuant to this Section 3(b) will be determined by reference to the Company's Average Adjusted Return on Equity as provided in the table below:

Company Average Adjusted Return on Equity	% of Performance Share Units Earned
Below 8.5%	—%
8.5% (threshold)	25%
13.5 - 15.5% (target)	50%
17.5% or greater (maximum)	75%

Note: Interpolation between points in the table above will be on a straight-line basis (from threshold to target and from target to maximum).

(c) As used in this Agreement, the following terms have the meanings provided below:

(i) "Adjusted Earnings" is equal to the net income attributable to the Company as set forth in the Company's published fiscal year-end financial disclosures, as adjusted to exclude (1) revenues and expenses related to non-controlling interests; (2) amortization of intangible assets related to acquisitions; (3) compensation and non-compensation expenses for acquisition-related agreements; (4) restructuring and acquisition integration costs; (5) losses related to the impairment of goodwill and other intangible assets; (6) adjustments resulting from a change in an existing, or application of a new, accounting principle that is not applied on a fully retroactive basis; and (7) other expenses, losses, income or gains that are separately disclosed and are unusual in nature or infrequent in occurrence (collectively, items #1 through #7 are the "Adjustment Items"). In each case, each Adjustment Item that is applied to determine the Adjusted Earnings shall be adjusted for any tax benefit associated with the Adjustment Item as reported in the net income attributable to the Company. The Committee may exercise discretion to not make adjustment for one or more Adjustment Items, or any amount of an Adjustment Item, when determining Adjusted Earnings, but only if the exercise of discretion reduces amounts payable under this award.

(ii) "Adjusted Return on Equity" is equal to the Company's Adjusted Earnings divided by the Average Annual Shareholders' Equity.

(iii) "Average Adjusted Return on Equity" is equal the average of the Adjusted Return on Equity for each of the three fiscal years in the Performance Period.

(iv) "Average Annual Shareholders' Equity" is equal to the average of the total common shareholders' equity (which is the total shareholders' equity less amounts attributed to noncontrolling interests) as set forth in the Company's published quarterly financial disclosures during the fiscal year, as adjusted to reflect appropriate adjustments to total common shareholders' equity in the event that an adjustment is made to Adjusted Earnings under the Adjustment Item provided in item #5 of Section 3(c)(i). The Committee may exercise discretion to not make an adjustment when determining Average Annual Shareholders' Equity, but only if the exercise of discretion reduces amounts payable under this award.

(v) "Beginning Price" with respect to a company means the average closing price of a share of common stock of such company as reported by such company's primary national securities market or exchange at the end of each trading day during the 60 calendar days immediately prior to the first day of the Performance Period.

(vi) “Dividends” with respect to a company means the per share amount of each cash or stock dividend paid by such company with respect to its common stock during the Performance Period. All such dividends will be deemed to be reinvested in such company’s common stock for purposes of calculating Total Shareholder Return hereunder.

(vii) “End Price” with respect to a company means the average closing price of a share of common stock of such company as reported by such company’s primary national securities market or exchange at the end of each trading day during the last 60 calendar days of the Performance Period.

(viii) “Peer Group” means companies identified on Appendix A attached hereto. If, after the date of this Agreement and prior to the end of the Performance Period (A) a member of the Peer Group is acquired by a company not included in the Peer Group, then the acquired company will be removed from the Peer Group effective as of the beginning of the Performance Period; (B) a member of the Peer Group is acquired by a company that is included in the Peer Group, then the acquired company will be removed from the Peer Group effective as of the beginning of the Performance Period and the acquiring company (or its successor, by merger or otherwise) will remain a member of the Peer Group subject to the other terms of this Section 3(c)(iv); and (C) any member of the Peer Group ceases continuing operations or ceases to be traded on a national securities market or exchange (other than in connection with an acquisition of such company), then such company will continue to be a member of the Peer Group and the End Price for such company will be deemed to be zero.

(ix) “Performance Period” means the 36-month period beginning on January 1, 2018 and ending on December 31, 2020.

(x) “Total Shareholder Return” with respect to a company means $((\text{End Price} + \text{Dividends}) - \text{Beginning Price}) / \text{Beginning Price}$.

(xi) The Beginning Price, End Price and amount of Dividends for the Company and each company that is part of the Peer Group shall be adjusted by the Committee to account for any change in capitalization such as a stock split or a corporate transaction (such as any merger, consolidation, separation, including a spin-off, or other distribution of stock or property of such company (including any extraordinary cash or stock dividend)) in the Committee’s sole discretion.

(d) Notwithstanding the foregoing, if the Chairman fails to refrain from engaging in any Restricted Activities at any time during the Performance Period, then the Performance Share Units shall cease vesting and shall be deemed forfeited immediately.

(e) The Performance Share Units that are earned pursuant to this Section 3 will be determined by the Committee’s certification of attainment of the applicable Performance Goal hereunder as provided in Section 5.

4. Change in Control. If a Change in Control occurs during the Performance Period prior to any forfeiture of the unvested Performance Share Units in accordance with Section 6, then, notwithstanding the other terms of this Agreement or Section 7 of the Plan:

(a) If the Change in Control occurs within the first fiscal year of the Performance Period, the Chairman shall be entitled to receive Shares of Restricted Stock (each a “Restricted Share” and collectively the “Restricted Shares”), under the Agreement based on, and assuming that, performance would have been achieved at the target level. Accordingly, the target number of Performance Share Units automatically will become an equal number of Restricted Shares (and no additional Performance Share Units shall be eligible

to vest under this Agreement), and, on the closing date of the Change in Control, the Company will cause its transfer agent to make a book entry in the transfer agent's records in the name of the Chairman (unless the Chairman requests a certificate evidencing the Restricted Shares).

(b) If the Change in Control occurs within the second or third fiscal year of the Performance Period, the Chairman shall be entitled to receive Restricted Shares based on performance achieved as if the Change in Control were the last day of the Performance Period. For purposes of determining Adjusted Return on Equity for the fiscal year in which the Change in Control occurs, net income and the average of the total common shareholders' equity as set forth in the Company's published quarterly financials for the fiscal quarter ending immediately prior to the date of the Change in Control shall be used. Accordingly, the number of Performance Share Units determined to have been earned under this paragraph shall automatically become an equal number of Restricted Shares (and no additional Performance Share Units shall be eligible to vest under this Agreement), and, on the closing date of the Change in Control, the Company will cause its transfer agent to make a book entry in the transfer agent's records in the name of the Chairman (unless the Chairman requests a certificate evidencing the Restricted Shares).

(c) The Chairman shall have all of the rights of a shareholder with respect to the Restricted Shares. All restrictions provided for in this Section 4 will apply to each Restricted Share and to any other securities distributed with respect to that Restricted Share. Each Restricted Share will remain restricted and subject to forfeiture to the Company unless and until that Restricted Share has vested in the Chairman in accordance with this Section 4. Each book entry (or stock certificate if requested by the Chairman) evidencing any Restricted Share may contain such notations or legends and stock transfer instructions or limitations as may be determined or authorized by the Company in its sole discretion. If a certificate evidencing any Restricted Share is requested by the Chairman, the Company may, in its sole discretion, retain custody of any such certificate throughout the period during which any restrictions are in effect and require, as a condition to issuing any such certificate, that the Chairman tender to the Company a stock power duly executed in blank relating to such custody. The Company will not be required (i) to transfer on its books any Restricted Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of the Restricted Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom the Restricted Shares shall have been so transferred.

(d) If the Change in Control is a Corporate Transaction, the Company shall arrange for the surviving entity or acquiring entity (or the surviving or acquiring entity's parent company) to assume or continue the Award evidenced hereby or to substitute a similar award for the Award evidenced hereby, in each case as determined by the Committee in its sole discretion.

(e) If the Chairman fails to refrain from engaging in any Restricted Activities at any time during the Performance Period, then the unvested Restricted Shares shall cease vesting and shall be deemed forfeited immediately. All unvested Restricted Shares as of the last day of the Performance Period will vest on such date.

5. Settlement.

(a) After any Performance Share Units vest in accordance with Section 2, the Company shall cause to be issued to the Chairman, or to the Chairman's designated beneficiary or estate in the event of the Chairman's death, one Share in payment and settlement of each vested Performance Share Unit. The Committee shall certify the Total Shareholder Return and the Average Adjusted Return on Equity of the Company and the number of Performance Share Units (if any) that are earned pursuant to the terms and conditions hereof, and the Company shall cause the Shares issuable in connection with the vesting of any such Performance Share Units to be issued, on or before the 15th day of the third calendar month after the

date on which the vesting of Performance Share Units occurs, and the Chairman shall have no power to affect the timing of such issuance. Such issuance shall be evidenced by a stock certificate or appropriate entry on the books of the Company or a duly authorized transfer agent of the Company, shall be subject to the tax withholding provisions of Section 8, and shall be in complete settlement and satisfaction of such vested Performance Share Units. Notwithstanding the foregoing, if the ownership of or issuance of Shares to the Chairman as provided herein is not feasible due to applicable exchange controls, securities or tax laws or other provisions of applicable law, as determined by the Committee in its sole discretion the Chairman or the Chairman's legal representative shall receive cash proceeds in an amount equal to the Fair Market Value (as of the date the applicable Performance Share Units are vested) of the Shares otherwise issuable to the Chairman or the Chairman's legal representative, net of any amount required to satisfy withholding tax obligations as provided in Section 8.

(b) Upon the vesting of any Restricted Shares, such vested Restricted Shares will no longer be subject to forfeiture as provided in Section 6 and the Company will, or will cause its transfer agent to, remove all notations and legends and revoke all stock transfer instructions from the book entry or stock certificate evidencing the Restricted Shares so vested as may have been made or given as a result of the terms of this Agreement, and the Company will deliver to the Chairman, or the Chairman's designated beneficiary or estate in the event of the Chairman's death, all certificates (or replacement certificates removing all legends contemplated hereby) in the Company's custody relating to the Restricted Shares.

(c) Notwithstanding the foregoing, if the common equity of the surviving entity or acquiring entity (or the surviving or acquiring entity's parent company) in any Corporate Transaction is not listed or quoted on an established securities market at the time of vesting of any Restricted Shares, the Company will deliver to the Chairman or the Chairman's designated beneficiary or estate in the event of the Chairman's death, in lieu of shares of capital stock not subject to restrictions pursuant hereto, cash in an amount equal to the Fair Market Value (as of the date of closing of the Corporate Transaction) of the Restricted Shares vested pursuant to the terms hereof, net of any amount required to satisfy withholding tax obligations as provided in Section 8.

6. Forfeiture. If (i) the Chairman attempts to pledge, encumber, assign, transfer or otherwise dispose of any of the Performance Share Units or, prior to vesting, any Restricted Shares without the Committee's prior written consent or other than by will or by the laws of descent and distribution, or if the Performance Share Units or Restricted Shares become subject to attachment or any similar involuntary process in violation of this Agreement; or (ii) the Chairman breaches any of the restrictive covenants provided by Section 9, then any Performance Share Units or Restricted Shares (as applicable) that have not previously vested automatically will be forfeited by the Chairman. Any Performance Share Units or Restricted Shares that are unvested as of the last day of the Performance Period also shall be forfeited.

7. Stockholder Rights. The Performance Share Units do not entitle the Chairman to any rights of a stockholder of the Company. Notwithstanding the foregoing, the Chairman shall accumulate an unvested right to payment of cash dividend equivalents on the Shares underlying Performance Share Units with respect to any cash dividends paid on the Shares that have a record date on or after the Date of Issuance. Such dividend equivalents will be in an amount of cash per Performance Share Unit equal to the cash dividend paid with respect to one Share. The Chairman shall be entitled solely to payment of accumulated dividend equivalents with respect to the number of Performance Share Units equal to the number of Shares (or Restricted Shares) ultimately issued to the Chairman pursuant to this Agreement. Dividend equivalents will be paid to the Chairman as soon as administratively possible following the date that the Shares (or Restricted Shares) are issued to the Chairman. The Chairman shall not be entitled to dividend equivalents with respect to dividends with a record date prior to the Date of Issuance. All dividend equivalents accumulated with respect to forfeited Performance Share Units shall also be irrevocably forfeited.

As of the date of issuance of Shares (or Restricted Shares) underlying Performance Share Units, the Chairman shall have all of the rights of a stockholder of the Company with respect to any Shares (or Restricted Shares) issued pursuant hereto, except as otherwise specifically provided in this Agreement. The Chairman's rights with respect to the Performance Share Units and Restricted Shares shall remain forfeitable at all times by the Chairman until satisfaction of the vesting conditions set forth herein.

8. Tax Withholding. The parties hereto recognize that the Company or an Affiliate may be obligated to withhold federal and state taxes or other taxes upon the vesting of the Performance Share Units or Restricted Stock or, in the event that the Chairman elects under Code Section 83(b) to report the receipt of the Restricted Shares as income in the year of receipt, upon the Chairman's receipt of the Restricted Shares, and upon the payment of any cash relating to earned dividend equivalents at the time of issuance. The Chairman agrees that, at such time, if the Company or an Affiliate is required to withhold such taxes, the Chairman will promptly pay, in cash upon demand (or in any other manner permitted by the Committee in accordance with the terms of the Plan), to the Company or an Affiliate such amounts as shall be necessary to satisfy such obligation, and the issuance of Shares in connection with the vesting of any Performance Share Units shall be conditioned upon the prior payment by the Chairman, or the establishment of arrangements satisfactory to the Committee for the payment by the Chairman, of such obligation. The Chairman further acknowledges that the Company has directed the Chairman to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which the Chairman may reside, and the tax consequences of the Chairman's death.

9. Restricted Activities. In consideration of the grant of this award, the Chairman agrees to comply with and be bound by the following restrictive covenants (each a "Restricted Activity" and together the "Restricted Activities"):

(a) the Chairman will not, except in connection with the performance of the Chairman's duties for the benefit of the Company, use, disclose or misappropriate any Company-Confidential Information (as defined below) unless the Company or an Affiliate consents otherwise in writing. "Company-Confidential Information" shall have the same meaning as provided in the Company's Code of Ethics and Business Conduct, and shall include without limitation any confidential, secret or proprietary knowledge or information of the Company or an Affiliate that the Chairman has acquired or become acquainted with during the Chairman's employment with the Company or an Affiliate. For the avoidance of doubt, nothing in this paragraph or any other provision of this Agreement precludes you from reporting to the Company's management or directors or to the government, a regulator, or a self-regulatory agency conduct that you believe to be in violation of the law, or responding truthfully to questions or requests from the government, a regulator, a self-regulatory agency, or in a court of law.

(b) the Chairman will not, during the Performance Period, directly or indirectly, on behalf of the Chairman or any other person (including but not limited to any Talent Competitor (as defined below)), solicit, induce or encourage any person then employed by the Company or an Affiliate to terminate or otherwise modify their employment relationship with the Company;

(c) the Chairman will not, during the Performance Period, on behalf of the Chairman or any other person (including but not limited to any Talent Competitor (as defined below)), hire, retain or employ in any capacity any person then employed by the Company or an Affiliate;

(d) the Chairman will not, during the Performance Period, directly or indirectly, on behalf of the Chairman or any other person (including but not limited to any Talent Competitor), solicit any customer, client or account of the Company or an Affiliate, or otherwise seek to divert any customer, client or account

of the Company or an Affiliate away from engaging in business with the Company or an Affiliate. For purposes of this subparagraph, “customer, client or account” shall include the following: then-current customers, clients, or accounts of the Company or an Affiliate; or any customers, clients or accounts with which the Chairman had substantive interaction prior to the Chairman’s retirement;

(e) the Chairman will not, during the Performance Period, without the prior written consent of the Company or an Affiliate, (x) become a director, officer, employee, partner, consultant or independent contractor of, or otherwise work or provide services for, a Talent Competitor doing business in the same geographic or market area(s) in which the Company or an Affiliate is also doing business, or (y) acquire any material ownership or similar financial interest in any such Talent Competitor;

(f) the Chairman will not make disparaging, derogatory, or defamatory statements about the Company or an Affiliate in any public forum or media; and

(g) the Chairman will not fail to cooperate fully with and provide full and accurate information to the Company and its counsel with respect to any matter (including any audit, tax proceeding, litigation, investigation or governmental proceeding) with respect to which the Chairman may have knowledge or information, subject to reimbursement for actual, appropriate and reasonable expenses incurred by the Chairman.

For purposes of this Section 9, a “Talent Competitor” means any corporation, partnership, limited liability company or other business association, organization or entity that engages in the investment banking, securities brokerage or investment management business, including, but not limited to, investment banks, sell-side broker dealers, mergers and acquisitions or strategic advisory firms, merchant banks, hedge funds, private equity firms, venture capital firms, asset managers and investment advisory firms.

10. Interpretation of This Agreement. All decisions and interpretations made by the Committee with regard to any question arising hereunder or under the Plan shall be binding and conclusive upon the Company and the Chairman. If there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan shall govern (including, for avoidance of doubt, any provisions under the Plan imposing limitations on the number of Performance Share Units that may be awarded under this Agreement).

11. Not Part of Employment Contract; Discontinuance of Employment. The Chairman acknowledges that this Agreement awards performance share units to the Chairman, but does not impose any obligation on the Company to make any future grants or issue any future Awards to the Chairman or otherwise continue the participation of the Chairman under the Plan. This Agreement does not constitute a contract of employment, shall not give the Chairman a right to employment or other with the Company or any Affiliate.

12. Binding Effect. This Agreement shall be binding in all respects on the heirs, representatives, successors and assigns of the Chairman.

13. Choice of Law. This Agreement is entered into under the laws of the State of Delaware and shall be construed and interpreted thereunder (without regard to its conflict-of-law principles).

14. Entire Agreement. This Agreement and the Plan set forth the entire agreement and understanding of the parties hereto with respect to the issuance of the Performance Share Units or Restricted Shares in lieu thereof and the administration of the Plan and supersede all prior agreements, arrangements, plans, and understandings relating to the issuance of the Performance Share Units, Restricted Shares in lieu thereof and the administration of the Plan.

15. Securities Law Compliance. No Shares shall be delivered upon the vesting and settlement of any Performance Share Units unless and until the Company and/or the Chairman shall have complied with all applicable federal, state or foreign registration, listing and/or qualification requirements and all other requirements of law or of any regulatory agencies having jurisdiction, unless the Committee has received evidence satisfactory to it that the Chairman may acquire such shares pursuant to an exemption from registration under the applicable securities laws. Any determination in this connection by the Committee shall be final, binding, and conclusive. The Company reserves the right to legend any Share certificate or book entry, conditioning sales of such Shares upon compliance with applicable federal and state securities laws and regulations.

16. Potential Clawback. This Award and any compensation associated therewith is subject to the Company's Incentive Compensation Recovery Policy and may be made subject to forfeiture, recovery by the Company or other action pursuant to any compensation recovery policy adopted by the Board or the Committee at any time, including any amendment to the Company's Incentive Compensation Recovery Policy in effect as of the date hereof or in response to the requirements of Section 10D of the Exchange Act and any implementing rules and regulations thereunder, or as otherwise required by law. This Agreement may be unilaterally amended by the Committee at any time to comply with any such compensation recovery policy.

17. Amendment and Waiver. Except as provided in this Agreement or in the Plan, this Agreement may be amended, waived, modified, or canceled only by a written instrument executed by the parties or, in the case of a waiver, by the party waiving compliance.

18. Acknowledgment of Receipt of Copy. By execution hereof, the Chairman acknowledges having received a copy of the prospectus related to the Plan and instructions on how to access a copy of the Plan.

IN WITNESS WHEREOF, the Chairman and the Company have executed this Agreement as of the date of issuance specified at the beginning of this Agreement.

CHAIRMAN

Printed name: Andrew S. Duff

PIPER JAFFRAY COMPANIES

By _____
Its

List of companies contained in the KBW Capital Markets Index (KSX) as of February 6, 2018(excluding Piper Jaffray Companies):

1. TD Ameritrade Holding Corp. (AMTD)
2. Franklin Resources, Inc. (BEN)
3. Blackrock Inc. (BLK)
4. CBOE Holdings, Inc. (CBOE)
5. CME Group, Inc. (CME)
6. Eaton Vance Corp. (EV)
7. Greenhill & Co. (GHL)
8. The Goldman Sachs Group, Inc. (GS)
9. Interactive Brokers Group, Inc. (IBKR)
10. Intercontinental Exchange, Inc. (ICE)
11. Investment Technology Group, Inc. (ITG)
12. Invesco Ltd. (IVZ)
13. Janus Henderson Group PLC (JHG)
14. Lazard Ltd. (LAZ)
15. Legg Mason Inc. (LM)
16. Morgan Stanley (MS)
17. The NASDAQ OMX Group, Inc. (NDAQ)
18. Raymond James Financial Inc. (RJF)
19. The Charles Schwab Corporation (SCHW)
20. SEI Investments Company (SEIC)
21. State Street Corporation (STT)
22. T. Rowe Price Group Inc. (TROW)
23. Virtu Financial (VIRT)

SEPARATION AGREEMENT AND RELEASE

This SEPARATION AGREEMENT AND RELEASE (the “**Agreement**”) is made and entered into by and between PIPER JAFFRAY & CO. (“**PJC**” or the “**Company**”), and Stuart C. Harvey, Jr. (“**Employee**”). The Company and Employee shall be referenced individually as a “**Party**,” and collectively as the “**Parties**.”

WHEREAS, Employee has been employed by the Company since August 17, 2015;

WHEREAS, Employee signed an Offer Letter dated June 11, 2015, which contains certain post-termination provisions restated herein;

WHEREAS, the Parties acknowledge that the Employee Non-Solicitation Restrictions, and the Confidential Information and Unfair Competition Restrictions set forth herein are valid, enforceable, and necessary to protect PJC’s legitimate business interests;

WHEREAS, the Parties have read and understood the terms of this Agreement, and the Parties have been represented by counsel throughout the negotiations leading up to the Parties entering into this Agreement.

NOW, THEREFORE, in recognition of Employee’s past service to the Company, and as consideration for the mutual promises and covenants set forth herein, the Parties covenant and agree as follows:

1. **Recitals**: The Recitals set forth above are incorporated into this Agreement, as if fully set forth herein.
2. **Separation**: Employee will resign from his current position at the Company, effective December 31, 2017 (the “**Separation Date**.”) The Company agrees to accept Employee’s resignation from employment immediately, effective as of the Separation Date, and further agrees that Employee will earn and accrue his regular salary and other benefits through the Separation Date. The Company shall reimburse Employee for all reasonable travel, entertainment or other expenses incurred by Employee prior to December 4, 2017, in accordance with the Company’s expense reimbursement policy. Employee acknowledges and agrees that, on and after the Separation Date, Employee will not earn or accrue any salary or other benefits from the Company, except as set forth in Sections 3 and 4 below. As of the Separation Date, the Company shall remove Employee from all positions that Employee holds as an officer of the Company and its affiliates, including Piper Jaffray Companies.
3. **Consideration**: Assuming Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will provide Employee the consideration set forth in this Section. First, the Company will provide Employee a lump sum payment in the gross amount of Two Million and Three Hundred and Eighty Thousand and No/100 Dollars (\$2,380,000.00), subject to payroll withholding, Second, assuming Employee fully qualifies pursuant to the terms of Paragraph 9 of this Agreement, the Additional Separation Payment set forth in Paragraph 9, and Third, again assuming Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will provide Employee a legal fee allowance in the amount of \$25,000, in addition to the lump sum payment noted above. The compensation and legal allowance described (together, the “**Separation Amount**”) will be provided to Employee in a lump sum in accordance with the following timetable and subject to the following conditions. Assuming that Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will provide Employee the Separation Amount no later than fifteen (15) days following the expiration of the latter of the two revocation periods described below. The check for legal fees shall be sent to Employee’s counsel upon receipt of a W-9. The Company shall issue a Form 1099 to Employee and his counsel for the legal fee allowance. Employee agrees that he is not entitled to the Consideration set forth in this Agreement absent his signing (and not revoking or rescinding) this Agreement.

Employee understands and agrees that notwithstanding any language to the contrary contained within the performance share unit agreement executed between Employee and the Company effective February 15, 2017 or the Company’s Amended and Restated 2003 Annual and Long-Term Incentive Plan (the “**LTIP**”), such performance share units shall be forfeited without consideration immediately upon the Separation Date. Employee also understands and agrees that he forfeits any right (i) an incentive payment under the Company’s 2017 Annual Incentive Program and (ii) any future performance share unit agreement under the LTIP, notwithstanding any language to the contrary contained in any policy or agreement. Employee understands and agrees that he has no eligibility for, or any entitlement to, any performance share units issued on any date after the Separation Date.

4. **Benefits**: Assuming Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will continue Employee’s benefit package through December 31, 2017. In addition, contingent on Employee remaining eligible for such coverage, Company shall reimburse Employee for the amount of the COBRA premiums

for the health and dental coverage in effect for Employee as of the Separation Date for twelve (12) months following the Separation Date. The value of the premiums paid on Employee's behalf will be treated as taxable income to Employee and will be reimbursed no later than sixty (60) days following submission of Employee's expenses for reimbursement, provided that no reimbursement payments shall be paid after December 31, 2019. Should Employee find alternative employment and elect to discontinue COBRA, Employee shall notify the Company and any eligibility for reimbursement shall terminate as of the month in which Employee makes the notification.

5. **Form U-5:** The Company will file a Form U-5 within thirty (30) days of Employee's Separation Date as it is required to do. The reason for Employee's termination will be "Voluntary Resignation."

6. **Transition of Responsibilities.** To the extent that Employee is requested to do so by the senior leaders, Employee will provide reasonable assistance in the transition of Employee's job responsibilities between the date he signs this Agreement and December 31, 2017, but will have no other duties or responsibilities during that time.

7. **General Release:**

(A) **In General.** Employee irrevocably and unconditionally releases any and all Claims described in Section 7(b) below arising up through the date on which he signs this Agreement that he had, may have had, has, or may have, against the "Released Parties," as that term is defined in Section 7(f) below.

(B) **Claims Released.** The Claims released by Employee under Section 7(a) include all known and unknown claims, causes of action, grievances, liabilities, debts, obligations, injuries, damages, or similar rights of any type that Employee had or presently may have ("**Claims**"), with respect to any Released Party listed in Section 7(f). Employee acknowledges that the Claims released under this section might arise under many different foreign, domestic, national, state, or local laws (including statutes, regulations, other administrative guidance, and common law doctrines), including, but not limited to, the following:

- (i) Claims for breach of contract (including, but not limited to, any claims for unpaid compensation or severance, and any claims under the LTIP, or the 2017 Annual Incentive Program), whether express, implied, implied-in-fact, promissory estoppel and/or detrimental reliance;
- (ii) Claims under or pursuant to the Americans with Disabilities Act, as amended; the Age Discrimination in Employment Act ("**ADEA**"), as amended; Title VII of the Civil Rights Act of 1964, as amended; the Civil Rights Act of 1991; the Equal Pay Act; 42 U.S.C. § 1981, as amended; 42 U.S.C. § 1985; the Immigration Reform and Control Act of 1986, as amended; the Employee Retirement Income Security Act of 1974 ("**ERISA**"); the Family and Medical Leave Act, as amended; the Sarbanes-Oxley Act; the Worker Adjustment and Retraining Notification Act; the Genetic Information Nondiscrimination Act; the Fair Labor Standards Act, as amended; the Fair Credit Reporting Act; the Occupational Safety & Health Act; the Uniformed Services Employment and Reemployment Rights Act, as amended; the Employee Polygraph Protection Act; as well as any other federal law, statute, ordinance, rule, regulation, or executive order relating to employment and/or discrimination in employment;
- (iii) Claims under or pursuant to the Minnesota Human Rights Act ("**MHRA**"), Minn. Stat. Chap. 363; any provision of Minn. Stat. Chapter 181; the Minnesota Equal Pay for Equal Work Law, Minn. Stat. §§ 181.66-181.71; Minn. § 181.81 (age discrimination); Minn. Stat. § 176.82 (retaliatory discharge); Minn. Stat. §§ 181.931, 181.932, 181.935 (whistleblower protection); Minn. Stat. §§ 181.940-181.944 (family leave); Minn. Stat. §§ 181.961-181.966 (personnel record access statutes); and any other Claims under any other Minnesota statutes; as well as any other state or local law, statute, ordinance, rule, regulation or order relating to employment and/or discrimination in employment;
- (iv) Claims for: wrongful discharge; retaliatory discharge; discharge in violation of any public policy; breach of the covenant (express or implied) of good faith and fair dealing; negligent or intentional infliction of emotional distress; interference with contractual relations; interference with prospective economic advantage; defamation (including libel, slander, and self-defamation); personal, emotional or physical injury; fraud; intentional or negligent misrepresentation; violation of public policy; invasion of privacy; intentional torts of any kind; torts grounded in negligence theories (including

gross negligence); negligent hiring, retention and/or supervision; or any other statutory or common law theory of recovery.

- (v) As to all Claims released, waived and discharged in connection with Sections 7(B)(i)-(iv) above, Employee understands, acknowledges and agrees that he is giving up and relinquishing any and all rights to seek damages of any kind from any or all of the Released Parties for any conduct predating his execution of this Agreement, including, without limitation, compensatory damages, incidental damages, consequential damages, exemplary or punitive damages, attorneys' fees, costs, and disbursements. Similarly, Employee understands that by releasing the Released Parties from the claims described above, he is giving up his rights to seek any type of injunctive and/or declaratory relief from any or all of the Released Parties.
 - (vi) Employee understands, agrees, and acknowledges that the General Release, including all of its subparts, set forth in Section 7(B)(i)-(iv) above is a substantial, material inducement to the Company to enter into this Agreement. Employee understands and agrees that if, at any time following his execution of this Agreement, Employee (either independently or through an agent or attorney) asserts or threatens to assert any claim released by this Agreement or otherwise violates the terms of this provision, then, in addition to any other legal or equitable remedies any of the Released Parties may have, Employee shall pay all the attorneys' fees, expenses, and costs incurred by any of the Released Parties as a consequence of Employee's breach of this Section 7.
- (C) Exclusion of Certain Claims. Nothing herein prevents Employee from instituting any action to enforce the terms of this Agreement. The Parties further agree that the release in this Section 7 shall not apply to any claims which may not, as a matter of law, be released. Nothing contained in this General Release shall: (i) release any claim that cannot be waived under applicable law; (ii) release Employee rights to any vested benefits under any employee benefit plan of the Company, if any; or (iii) release any entitlement to or with respect to indemnification that Employee may have pursuant to the Company's By-Laws, any policy of insurance maintained by the Company, or otherwise provided by law.
- (D) Unknown Claims. Employee acknowledges that he is releasing Claims that he may not know about, and that he does so with knowing and voluntary intent, after consulting with legal counsel. Employee expressly waives all rights that he may have under any law that is intended to protect him from waiving unknown Claims. Employee further acknowledges that he understands the significance of doing so.
- (E) Protected Activity. Notwithstanding the General Release set forth in this Section 7, nothing in this Agreement shall be construed to prohibit Employee from engaging in any Protected Activity. For purposes of this Agreement, "**Protected Activity**" means filing a charge, reporting possible violations of state or federal law, or cooperating with any investigation by any governmental agency or entity or any self-regulatory agency, including, without limitation, the United States Department of Labor, the Equal Employment Opportunity Commission, the National Labor Relations Board, the Securities and Exchange Commission, and FINRA. Protected Activity does not include the disclosure of any information Employee came to learn during the course of his employment that is protected from disclosure by any applicable privilege, including but not limited to the attorney-client privilege, the work product doctrine, the bank examiner's privilege, and/or privileges applicable to information covered by the Bank Secrecy Act (31 U.S.C. §§ 5311-5330), including information that would reveal the existence or contemplated filing of a suspicious activity report. Employee understands that he is not required to obtain prior authorization from PJC or to inform PJC prior to engaging in any Protected Activity. This release does, however, waive Employee's right to file an individual or class action lawsuit against the Company or receive any equitable or monetary relief in connection with any charge or investigation.
- (F) Released Parties. The "Released Parties" encompassed by this Section 7 shall include Piper Jaffray & Co., any Affiliates of PJC (including, without limitation, Piper Jaffray Companies), as well as its Affiliates' parents, subsidiaries, and related entities and affiliated companies, and the past or present Board members, officers, or directors, administrators, employees, agents, attorneys and the successors, assigns, and representatives of all of the entities identified in this Section 7(f), as well as all benefit plans sponsored by PJC, and its affiliated entities, and each of their respective present and former agents, employees, representatives, insurers, partners, associates, fiduciaries, successors, and assigns, in any and all capacities (including, but not limited to, the fiduciary, representative, or individual capacity of any released person or entity).

8. **Restrictive Covenants Contained in Offer Letter:** Employee agrees and acknowledges that as outlined in his Offer Letter, Employee agreed to certain post-employment restrictions, to which he will adhere as set forth below:

- (A) **Non-Solicitation of Employees.** In consideration of Employee's employment by the Company, Employee agrees that for the twelve (12) month period following the Separation Date, Employee will not, directly or indirectly, alone or in concert with others, hire or attempt to hire any person who is, at the time of the termination of Employee's employment, an employee, consultant or contractor of the Company or who was employed by or performed services for the Company during the twelve (12) month period prior to the Separation Date. Nor will Employee during this period, directly or indirectly, encourage or induce to leave from the Company any employee, consultant or contractor of the Company or any employee, consultant or contractor who was employed by or provided services to the Company within the twelve (12) month period prior to the Separation Date. Employee acknowledges that the covenants provided for in this Section are reasonable and necessary to protect the Company's legitimate business interests.
- (B) **Confidential Information and Unfair Competition.** Employee recognizes that any knowledge or information of any type whatsoever of a confidential nature relating to the business of PJC or any of its parents, subsidiaries or affiliates, including, without limitation, all types of trade secrets, client lists or information, employee lists or information, information regarding product development, marketing plans, management organization information, operating policies or manuals, performance results, business plans, financial records, or other financial, commercial, business or technical information (collectively, "Confidential Information"), must be protected as confidential, not copied, disclosed or used other than for the benefit of the Company at any time, unless and until such knowledge or information is in the public domain through no wrongful act by Employee. Employee further agrees not to divulge to anyone (other than the Company or any of its affiliates or any persons employed or designated by such entities), publish or make use of any such Confidential Information without the prior written consent of the Company, except by an order of a court having competent jurisdiction or under subpoena from an appropriate government agency. Employee further agrees that all such information, documents and records are and shall at all times remain the sole and exclusive property of PJC, and at the cessation of Employee's employment, Employee shall not retain and shall return to the Company any tangible property, documents or like material assigned to Employee by the Company or prepared by Employee during Employee's employment including all copies thereof; provided that the foregoing shall not include any contact information in Employee's electronic contacts relating to names, addresses, phone numbers and similar information for individuals or organizations. Employee acknowledges that his failure to comply with the provisions set forth herein would constitute unfair competition.
- (C) **Remedies for Certain Breaches.** Employee acknowledges and agrees that the covenants and obligations with respect to the provisions titled Non-Solicitation of Employees and Confidential Information and Unfair Competition (collectively, the "Restrictive Covenants") relate to special, unique and extraordinary services rendered by Employee to the Company and that the Company has provided valuable consideration to Employee in exchange for Employee's agreement to be bound by the Restrictive Covenants. Employee further acknowledges and agrees that a violation of any of the material terms of the Restrictive Covenants by Employee will cause the Company to suffer irreparable injury for which adequate remedies are not available at law and damages would be difficult to ascertain and speculative. Therefore, if Employee violates or threatens to violate any of the material terms of the Restrictive Covenants Employee agrees that the Company shall be entitled to an injunction, restraining order or such other equitable relief (without the requirement to post bond) restraining Employee from committing any violation of the Restrictive Covenants. This relief is cumulative and in addition to any other rights and remedies the Company may have, whether at law or in equity. Furthermore, Employee acknowledges and agrees that in the event a court of competent jurisdiction determines in a final and non-appealable judgment that Employee violated the material terms of any of the Restrictive Covenants, Employee shall forfeit Employee's right to the Separation Amount referenced in Section 3 and Employee agrees that Employee shall repay 50% of the full amount of the Separation Amount (and the Additional Separation Amount) to the Company if Employee has already received the Separation Amount and the Additional Separation Amount. This relief is cumulative and in addition to any further rights and remedies the Company may have at law or in equity.

9. **Additional Separation Payment:** Employee will be eligible for an additional separation payment in the gross amount of Four Hundred and Forty-Five Thousand and No/100 (\$445,000.00) ("Additional Separation Payment"), subject to withholding provided that he signs, and does not rescind, a release of claims in the form attached as **Exhibit A**, on the Separation Date. The Additional Separation Payment shall be sent to Employee's counsel within thirty (30) days of the date on which he signs, provided that Employee signs, and does not rescind the release attached as **Exhibit A**.

10. Promises:

- (A) Employment Termination. Employee agrees that his employment with the Company will end on the Separation Date. Employee acknowledges and agrees that the Company has accepted his resignation effective on the Separation Date after which he will have no employment rights with the Company.
- (B) Company Property and Confidential Information. On or before the Separation Date, Employee agrees to return to the Company all Company-owned property and Confidential Information in his possession.
- (C) Full Disclosure. Employee acknowledges that he has disclosed to the Company any information he has concerning any conduct involving any of the Released Parties or any of their subsidiaries, affiliates, shareholders, officers, directors, employees, or agents that he has reason to believe may be unlawful or involve any false claims to the United States or any other government having jurisdiction over the Company. Further, Employee promises to cooperate fully and voluntarily in any investigation that the Company undertakes into matters occurring during his employment with the Company or its affiliates, and agrees not to disclose to anyone who is not assisting the Company with the investigation, other than his attorney, the fact of, or the subject matter of the investigation, except as required by law. Employee will reasonably accommodate his schedule to cooperate with the Company and promptly provide such information; provided that the Company will pay Employee for the time spent by Employee in providing the cooperation required under this Section 10(C) at the rate of \$250 per hour upon submission of acceptable documentation for such time expended. Nothing herein is intended to or shall preclude Employee from cooperating with any appropriate federal, state, or local government agency, or with any self-regulatory agency, in any of said agencies' investigations.
- (D) Cooperation with Litigation. In the event that any of the Released Parties or any of their respective parent companies, subsidiaries, affiliates, shareholders, officers, or directors are involved in any litigation, arbitration, or administrative proceeding subsequent to the Separation Date, Employee agrees that, upon request, he will provide reasonable cooperation to the Released Parties and their attorneys in the prosecution or defense of any litigation, arbitration, or administrative proceeding, including participation in interviews with their attorneys, appearing for depositions, testifying in administrative, judicial, or arbitration proceedings, or any other reasonable participation necessary for the prosecution or defense of any such litigation, arbitration, or administrative proceeding. The Company agrees to reimburse Employee for his reasonable expenses in participating in the prosecution or defense of any litigation, arbitration, or administrative proceeding and pay Employee for the time (including any travel time) spent by Employee in providing the cooperation required under this Section 10(D) at the rate of \$250 per hour, provided that Employee submits acceptable documentation of all such expenses and time expended.
- (E) Non-Disparagement. Employee agrees that he will not make any disparaging remarks or statements about any of the Released Parties, or their respective parent companies, subsidiaries, and affiliates including, but not limited to, all related companies, partnerships, affiliated entities or joint ventures, as well as their respective current and former officers, directors, shareholders, principals, attorneys, agents, employees or any Released Party, or his prior employment with the Company. Employee further agrees that he will not make any disparaging remarks or statements about any of the products or services provided by PJC or any of its affiliates. Nothing in this Section, however, shall prevent Employee from engaging in Protected Activity. The Company agrees to use its best efforts to cause the Company's leadership team and members of the Board of Directors not to make any disparaging remarks or statements about Employee or his prior employment with the Company and Employee agrees to direct any prospective employers to Christine Eskilsen, Chief Human Capital Officer. The Company agrees that Ms. Eskilsen will inform any such prospective employer the dates of service and positions held by Employee with the Company and reference the statement referred to in Exhibit B.
- (F) Statement. The Company and Employee agree any statement by Employee or Piper's Leadership Team or members of Piper's Board of Directors regarding Employee's resignation or related matters shall be consistent with the statement attached hereto as **Exhibit B**, which shall be the basis for any additional written materials, such as "talking points" and FAQs.

11. Consideration of Agreement and Rescission Period:

- (A) ADEA/OWBPA Waiver and Acknowledgement. Insofar as this Agreement pertains to the release of Employee's Claims, if any, under the ADEA and the Older Workers Benefit Protection Act ("**OWBPA**"), Employee, pursuant to and in compliance with the rights afforded him under the OWBPA:

- (vii) acknowledges and confirms that he has read this Agreement in its entirety and understands all of its terms;
 - (viii) is hereby advised in writing to consult with an attorney of his own choosing before executing this Agreement;
 - (ix) acknowledges that he has had twenty-one (21) days to decide whether to release any potential Claims under the ADEA/OWBPA, which period of time he agrees is reasonable and he waives any right to take additional time to consider this Agreement and he is advised to consult with an attorney of his own choosing, which he has done;
 - (x) is hereby advised that he has the right to rescind or revoke his release of any Claims he may have under the ADEA/OWBPA, if done within seven (7) calendar days from the date he signs this Agreement;
 - (xi) is hereby advised that this Agreement shall not become effective or enforceable until the seven-day (7-day) revocation period has expired;
 - (xii) is hereby advised that he is not waiving claims that may arise after the date on which he executes the Agreement; and
 - (xiii) acknowledges that if he, in his sole discretion, elects to execute this Agreement prior to the expiration of the 21-day period, it is because he has decided that he does not need any additional time to consider whether he wishes to release any potential Claims under the ADEA/OWBPA.
- (B) Right to Rescind Release of MHRA Claims (if any). Employee understands and acknowledges that he has the right to rescind or revoke any release of any Claims he may have under the Minnesota Human Rights Act (“MHRA”), Minn. Stat. Chap. 363, if done within fifteen (15) calendar days from the date he signs this Agreement, as described further below.
- (C) Method of Rescission. Employee understands that if he wishes to rescind his release of Claims under the ADEA/OWBPA and/or the MHRA, the rescissions must be in writing and hand-delivered or mailed to Ms. Christine Eskilsen. If hand-delivered, the rescissions must be (a) addressed to: Ms. Christine Eskilsen, Piper Jaffray & Co., Chief Human Capital Officer, 800 Nicollet Mall, J09S02, Minneapolis, Minnesota 55402; and (b) delivered by the close of business on the last day of the applicable rescission period, as set forth above. If mailed, the rescissions must be: (a) postmarked within the applicable rescission period, as set forth above; (b) addressed to Ms. Christine Eskilsen, Piper Jaffray & Co., Chief Human Capital Officer, 800 Nicollet Mall, J09S02, Minneapolis, MN 55402, and (c) sent by certified mail, return receipt requested. As referenced above, the revocation of the ADEA/OWBPA Claims (if any) must be provided within seven (7) days, and the revocation of the MHRA Claims (if any) must be provided within fifteen (15) days. The revocation of the federal claim under the ADEA/OWBPA will not constitute a revocation of the state claim under the MHRA, or vice-versa, unless the revocations are each timely submitted and the revocations clearly define whether they apply to the federal claim, the state claim, or both.
- (D) Consequences of Rescission. Employee agrees, understands, and acknowledges that PJC’s obligations to him, as set forth in this Agreement, shall be unenforceable unless and until the rescission periods with regard to the ADEA/OWBPA and the MHRA have expired, and he has not rescinded or revoked the Agreement in any part. Employee further understands that any revocation by him of his release of any Claims under either the ADEA/OWBPA or the MHRA shall have no effect on his release of any other Claims. Nonetheless, in the event Employee rescinds his release of Claims under either the ADEA/OWBPA or MHRA, then PJC, in its sole discretion, may elect to declare this Agreement null and void as to all non-statutory, non-revoked claims (except that Employee’s employment ended as of the Separation Date). The Company will inform Employee of its determination on this issue within thirty (30) days of receiving any notice of revocation under either the ADEA/OWBPA or the MHRA.

12. Miscellaneous:

- (A) Non-Admission of Liability. Employee agrees that this Agreement does not constitute an admission of wrongdoing or liability by the Company or any Released Party, and acknowledges that the Released Parties do not believe or admit that any of them has done anything wrong.
- (B) Modifications. The Parties agree that the provisions of this Agreement may not be modified by any subsequent agreement unless the modifying agreement is: (i) in writing; (ii) specifically references this Agreement; (iii) signed by Employee; and (iv) signed and approved by an authorized officer of the Company.
- (C) Integration. The Parties acknowledge and agree that this Agreement constitutes the entire agreement between the Parties; that the Parties have executed this Agreement based upon the terms set forth herein; that the Parties have not relied on any prior agreement or representation, whether oral or written, which is not set forth in this Agreement; and that no prior agreement, whether oral or written, shall have any effect on the terms and provisions of this Agreement.
- (D) Severability and Waiver. The Parties acknowledge and agree that each provision of this Agreement shall be enforceable independently of every other provision. Furthermore, in the event that any provision is deemed to be unenforceable for any reason, the remaining provisions shall remain effective, binding, and enforceable. The Parties further acknowledge and agree that the failure of any Party to enforce any provision of this Agreement shall not constitute a waiver of that provision, or of any other provision of this Agreement.
- (E) Fees and Costs. In the event that any Party to this Agreement initiates legal action in any court or adjudicative body to enforce any provision of this Agreement, or initiates legal action based upon the breach of any provision of this Agreement by any other Party, the prevailing Party in any such legal proceeding shall recover, in addition to any legal or equitable relief otherwise available under applicable law, reasonable costs and expenses (including attorneys' fees) incurred in connection with the prosecution or defense of any such legal action.
- (F) Governing Law. Except to the extent governed by federal law, this Agreement shall be governed by the statutes and common law of the State of Minnesota, exclusive of any rules pertaining to conflicts of laws. The Parties agree that any litigation pertaining to the interpretation, application, or enforcement of any provision of this Agreement must be filed in a federal or state court of competent jurisdiction in Minnesota.
- (G) Successors and Assigns. This Agreement will be binding on Employee, his heirs, administrators, representatives, executors, successors, and assigns, and will inure to the benefit of all Released Parties and their respective heirs, administrators, representatives, executors, successors and assigns.
- (H) Assignment. Employee may not assign this Agreement or any rights he may have hereunder in whole or in part. Any purported assignment by Employee shall be null and void.
- (I) Third-Party Beneficiaries. The Released Parties, other than the Company, its successors, assigns, parents, subsidiaries, affiliates, and related entities, are not parties to this Agreement but are third-party beneficiaries of this Agreement and shall have enforceable rights under this Agreement subject to its terms. Employee and the Company intend, agree, and acknowledge that beyond the Released Parties, there shall be no other third-party beneficiaries to this Separation Agreement.
- (J) Code Section 409A Compliance. The Company and Employee each hereby affirm that it is in their mutual view that the provision of payments and benefits described or referenced herein are exempt from, or in compliance with, the requirements of Section 409A of the Code and the Treasury regulations relating thereto ("Section 409A") and that each Party's tax reporting shall be completed in a manner consistent with such view. The Company and Employee each agree that upon the Separation Date, Employee will experience a "separation from service" for purposes of Section 409A. Any payments that qualify for the "short-term deferral" exception or another exception under Section 409A shall be paid under the applicable exception. For purposes of the limitations on nonqualified deferred compensation under Section 409A of the Code, each payment of compensation under this Agreement shall be treated as a separate payment of compensation. Notwithstanding anything contained herein to the contrary, to the extent required to avoid accelerated taxation and/or tax penalties under Section 409A, amounts that would otherwise be payable and benefits that would otherwise be provided pursuant to this Agreement during the six-month period immediately following the Separation Date shall instead be paid on the first business day after the date that is six months following the Separation Date (or death, if

earlier). Neither the Company nor its affiliates shall be liable in any manner for any federal, state or local income or excise taxes (including but not limited to any taxes under Section 409A of the Code), or penalties or interest with respect thereto, as a result of the payment of any compensation or benefits hereunder, or the inclusion of any such compensation or benefits or the value thereof in Employee's income.

- (K) Interpretation. This Agreement shall be construed as a whole according to its fair meaning. It shall not be construed strictly for or against Employee or any Released Party, regardless of whether the Employee or any Released Party drafted or caused his or her representative to draft this Agreement or any specific provision. Unless the context indicates otherwise, the term "or" shall be deemed to include the term "and" and the singular or plural number shall be deemed to include the other. Captions are intended solely for convenience of reference and shall not be used in the interpretation of this Agreement.
- (L) Entire Agreement. The Parties acknowledge that this Agreement constitutes the entire agreement between the Parties regarding all of the subjects addressed in this Agreement. The Parties agree and acknowledge that there have been no inducements, statements, or representations leading them to execute this Agreement, except as expressly contained herein.
- (M) Form 8-K Report. The Parties agree that promptly upon execution of this Agreement, the Company will file a Form 8-K Report that will include as an exhibit a press release that will include language consistent with Exhibit B. The Form 8-K itself will include disclosure that Employee has voluntarily decided to resign from his employment effective December 31, 2017.
- (N) Public Disclosure of this Agreement. The Company retains the authority, in its discretion, to determine whether to file a copy of this Agreement with the SEC or any other public body, and the Company's decision to do so shall not be a breach of this Agreement.

READ THIS AGREEMENT CAREFULLY AND CAREFULLY CONSIDER ALL OF ITS PROVISIONS BEFORE SIGNING IT: IT INCLUDES A RELEASE OF KNOWN AND UNKNOWN CLAIMS. IF YOU WISH, YOU SHOULD TAKE ADVANTAGE OF THE FULL CONSIDERATION PERIOD AFFORDED BY SECTION 11 AND YOU SHOULD CONSULT AN ATTORNEY, WHICH YOU HAVE DONE.

Dated: December 4, 2017

STUART C. HARVEY, JR.

/s/ Stuart C. Harvey, Jr.

As to Form:

KAPLAN, STRANGIS AND KAPLAN, P.A.

Dated: December 4, 2017

/s/ Bruce Parker

Bruce Parker

90 South Seventh Street

Suite 5500

Minneapolis, MN 55402

Attorneys for Stuart Harvey

Dated: December 4, 2017

PIPER JAFFRAY & CO., INC.

By: /s/ Andrew S. Duff

Its: Chairman and CEO

As to Form:

DORSEY & WHITNEY LLP

Dated: December 4, 2017

/s/ Melissa Raphan

Melissa Raphan

50 South Sixth Street

Suite 1500

Minneapolis, MN 55402

Attorneys for Piper Jaffray & Co., Inc.

AMENDMENT NO. 1 TO SEPARATION AGREEMENT AND RELEASE

This AMENDMENT NO. 1 TO SEPARATION AGREEMENT AND RELEASE (the “**Amendment**”) is made and entered into by and between PIPER JAFFRAY & CO. (“**PJC**” or the “**Company**”), and Stuart C. Harvey, Jr. (“**Employee**”). The Company and Employee shall be referenced individually as a “**Party**,” and collectively as the “**Parties**.”

WHEREAS, the Parties entered into a Separation Agreement and Release (“**Agreement**”) on December 4, 2017;

WHEREAS, the Agreement provided, *inter alia*, for a Separation Date of December 31, 2017 and an Additional Separation Payment to Employee;

WHEREAS, the Parties have agreed to change the Separation Date to December 29, 2017; and to change the amount of the Additional Separation Payment to be paid to Employee;

WHEREAS, the Parties have read and understood the terms of this Amendment, and the Parties have been represented by counsel throughout the negotiations leading up to the Parties entering into this Amendment.

NOW, THEREFORE, as consideration for the mutual promises and covenants set forth herein, the Parties covenant and agree as follows:

1. **New Separation Date**: Employee will resign from his current position at the Company, effective December 29, 2017 (“**Separation Date**”). Any reference to “**Separation Date**” in the Agreement will refer to December 29, 2017, not to December 31, 2017.
2. **Additional Separation Payment**: The amount of the Additional Separation Payment provided for in Paragraph 9 of the Agreement shall be Five Hundred and Ninety-Five Thousand and No/100 Dollars (\$595,000.00).
3. **No Other Change**: Except for the changes provided in Paragraphs 1 and 2 above, the remaining terms and conditions remain in full force and effect as set forth in the Agreement.

(Intentionally left blank)

YOU AFFIRM THAT YOU HAVE HAD ADEQUATE TIME TO REVIEW THIS AMENDMENT AND HAVE BEEN ADVISED BY COUNSEL BEFORE SIGNING IT.

Dated: December 22, 2017

STUART C. HARVEY, JR.

/s/ Stuart C. Harvey, Jr.

As to Form:

KAPLAN, STRANGIS AND KAPLAN, P.A.

Dated: December 22, 2017

/s/ Bruce Parker

Bruce Parker
90 South Seventh Street
Suite 5500
Minneapolis, MN 55402
Attorneys for Stuart Harvey

Dated: December 22, 2017

PIPER JAFFRAY & CO., INC.

By: /s/ Andrew S. Duff

Its: CEO

As to Form:

DORSEY & WHITNEY LLP

Dated: December 22, 2017

/s/ Melissa Raphan

Melissa Raphan
50 South Sixth Street
Suite 1500
Minneapolis, MN 55402
Attorneys for Piper Jaffray & Co., Inc.

CONFIDENTIAL SEPARATION AGREEMENT AND RELEASE

This CONFIDENTIAL SEPARATION AGREEMENT AND RELEASE (the “**Agreement**”) is made and entered into by and between ADVISORY RESEARCH, INC. (“**ARI**”), and its Affiliates, including without limitation, PIPER JAFFRAY & CO. (“**PJC**”), collectively, the “**Company**”, and Christopher D. Crawshaw (“**Employee**”). The Company and Employee shall be referenced individually as a “**Party**,” and collectively as the “**Parties**.”

WHEREAS, Employee has been employed by the Company since January 15, 2001;

WHEREAS, on January 10, 2001, Employee entered into an Employment Agreement with the Company with an effective date of January 15, 2001 (the “**Employment Agreement**”);

WHEREAS, during the course of Employee’s employment with the Company, he entered into various Mutual Fund Restricted Share Agreements, and various Restricted Stock Agreements that were part of the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan, including, without limitation, the following agreements: a) the Mutual Fund Restricted Share Agreement dated February 17, 2015; b) the Restricted Stock and Mutual Fund Restricted Share Agreement dated February 16, 2016; c) the Performance Share Unit Agreement dated May 15, 2015; d) the Performance Share Unit Agreement dated May 16, 2016; e) the Performance Share Unit Agreement dated February 15, 2017; and f) the Restricted Stock Agreement (collectively, the “**Prior Equity Agreements**”).

WHEREAS, the Employment Agreement and the Prior Equity Agreements referenced in the preceding two Whereas Clauses define rights and obligations of the Employee and the Company, some of which are being modified by this Agreement, as described further below;

WHEREAS, the Parties acknowledge that the Confidentiality Restrictions, the Employee Non-Solicitation Restrictions, the Client/Customer Non-Solicitation Restrictions, and the Non-Competition Restrictions which are set forth in the Employment Agreement and the Prior Equity Agreements were valid, enforceable, and necessary to protect ARI’s and its Affiliates’ legitimate business interests;

WHEREAS, notwithstanding the legitimacy of the restrictive covenants referenced in the preceding Whereas clause, the Parties desire to modify certain aspects of these covenants, as described further below;

WHEREAS, Employee now desires and intends to expeditiously and amicably end his employment relationship with the Company; and

WHEREAS, the Parties have read and understood the terms of this Agreement, and the Parties have been provided with reasonable opportunities to consult with their respective legal counsel prior to entering into this Agreement;

NOW, THEREFORE, in recognition of Employee’s past service to the Company, and as consideration for the mutual promises and covenants set forth herein, the Parties covenant and agree as follows:

1. **Recitals**: The Recitals set forth above are incorporated into this Agreement, as if fully set forth herein.
2. **Separation**: Employee will resign from his current position at the Company, effective no sooner than October 1, 2017, and no later than December 31, 2017, unless extended by mutual agreement. The Parties will negotiate the precise date of Employee’s separation from the Company, which will become known as the “**Separation Date**.” The Company agrees to accept Employee’s resignation from employment as of the Separation Date, and further agrees that Employee will earn and accrue his regular salary and other benefits through the 12:00 a.m. of the Separation Date. The Company shall reimburse Employee for all reasonable travel, entertainment or other expenses incurred by Employee prior to the Separation Date, in accordance with the Company’s expense reimbursement policy. Employee acknowledges and agrees that, on and after the Separation Date, Employee will not earn or accrue any salary or other benefits from the Company, except as set forth in Sections 3, 4 and 5 below. As of the Separation Date, the Company shall remove Employee from all positions that Employee holds as an officer of the Company and its affiliates.
3. **Compensation**: Assuming Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will provide Employee the compensation set forth in this Section. First, the Company will provide Employee the remaining balance of his base compensation of Five Hundred, Fifty Thousand and No/100 Dollars (\$550,000.00), calculated as though Employee continued employment through December 31, 2017, regardless of his actual Separation Date. Second, again assuming Employee executes this Agreement and takes no steps to revoke or rescind any aspect

of this Agreement, the Company will provide Employee the balance of his full incentive component of his annual compensation, of Four Hundred, Fifty Thousand and No/100 Dollars (\$450,000.00), as though Employee continued employment through December 31, 2017. The compensation described in this Paragraph (including the base and incentive compensation) (together, the “**Separation Amount**”) will be provided to Employee in a lump sum in accordance with the following timetable and subject to the following conditions. Assuming that Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will provide Employee the Separation Amount no later than fifteen (15) days following the expiration of the latter of the two revocation periods described below, or fifteen (15) days after Employee has ceased working for the Company, whichever date comes later.

4. **Benefits:** Assuming Employee executes this Agreement and takes no steps to revoke or rescind any aspect of this Agreement, the Company will continue Employee’s benefit package through December 31, 2017.

5. **Equity Awards:** The restricted stock and mutual fund restricted stock awards identified below will continue to vest on their normal schedule so long as: (a) Employee executes a modified “Post-Termination Agreement”; (b) for the duration of the vesting period, Employee abides by the provisions of the Post-Termination Agreement; (c) Employee executes and does not make any attempt to revoke and does not revoke this Agreement and/or the Post-Termination Agreement; and (d) Employee complies with the terms of this Confidential Separation Agreement and Release. To the extent there is a conflict between the vesting provisions of the Prior Equity Agreements and this Agreement, the terms of this Agreement shall govern.

[Table]

6. **Restrictive Covenants Contained in Prior Equity Agreements:**

As described in the Whereas clauses above, Employee and the Company entered into various agreements that defined, in part, the restrictive covenants to which Employee agreed.

(a) These agreements included, among other provisions, restrictions relating to Confidential Information (as defined in the Employment Agreement, Paragraph 4.1) and in other paragraphs of the Prior Equity Agreements (the “**Confidentiality Obligations**”);

(b) These agreements included, among other provisions, restrictions prohibiting Employee from directly or indirectly, individually or in conjunction with others, soliciting, engaging or employing, for a period of twelve (12) months following the termination of Employee’s employment, any person employed by the Company (see, e.g., the Employment Agreement, Paragraph 4.2(i), and similar language in the Prior Equity Agreements) (the “**Non-Solicitation of Employee Obligations**”);

(c) The Employment Agreement and the Prior Equity Agreements included, among other provisions, restrictions prohibiting Employee from directly or indirectly, individually or in conjunction with others, for a period of twelve (12) months following the termination of Employee’s employment, soliciting or accepting any person or entity who is or was a client of the Company or an Affiliate (the “**Non-Solicitation of Customers Obligations**”);

(d) Certain of the Prior Equity Agreements also contain Non-Competition provisions prohibiting Employee from working for a Talent Competitor (as that term is defined in the Prior Equity Agreements) for a defined time period (the “**Non-Competition Obligations**”);

(e) In this Agreement, Employee hereby reaffirms his binding contractual commitments to abide by and honor the **Confidentiality Obligations** contained in his Employment Agreement and the Prior Equity Agreements, as modified herein. Specifically, Employee agrees that: He shall not, at any time, during his remaining employment with the Company, or at any time thereafter, in any manner, directly or indirectly, divulge, disclose or communicate to any person or entity in any manner whatsoever, any Confidential Information relating to the business of the Company and its affiliates (including any person or entity controlling, controlled by, or under common control with the Company). The term “**Confidential Information**” as used herein means all information of a business or other nature relative to the Company which information is not so generally known as to be part of the public domain, including without limitation, the investment advice, methodologies, strategies, business plans, and client lists of the Company, and all other confidential, secret, or proprietary knowledge or information of the Company or an Affiliate that the Employee has acquired or become acquainted with during Employee’s employment with the Company or an Affiliate.

(f) In this Agreement, Employee hereby reaffirms his binding contractual commitments to abide by and honor his **Non-Solicitation of Employee Obligations**, as set forth in the Prior Equity Agreements, as modified herein. Specifically, Employee agrees that: he will not, during the remainder of his employment and for a period of twelve (12) months following the Separation Date, on behalf of himself, or any other person, corporation or other legal entity, solicit, hire, retain, or employ in any capacity

any person then employed, or employed within the ninety-day (90-day) period preceding the Separation Date, by the Company or an Affiliate.

(g) In this Agreement, the Company hereby waives Employee's prior binding contractual commitments to abide by and honor his **Non-Solicitation of Customers Obligations**;

(h) In this Agreement, the Company hereby waives Employee's prior binding contractual commitments to abide by and honor his **Non-Competition Obligations**, with the narrow exception that, for a period of thirty-six (36) months following the Separation Date, Employee will not accept any employment of any kind (whether as an employee, independent contractor, consultant, or in any other capacity), with [redacted] and/or any company or other entity of any kind in which [redacted] has a twenty-five (25) percent or greater ownership interest.

(i) The Parties each acknowledge and agree that the mutual commitments set forth in the provisions of this Section 6 constitute sufficient additional and independent consideration to support this Agreement; and,

(j) The Parties agree that the waiver provisions set forth in Sections 6(g) and 6(h) above will have no effect if Employee takes any steps to revoke any aspect of this Agreement.

7. General Release:

(a) **In General.** Employee irrevocably and unconditionally releases any and all Claims described in Section 7(b) below that he had, may have had, has, or may have, against the "Released Parties," as that term is defined in Section 7(f) below.

(b) **Claims Released.** The Claims released by Employee under Section 7(a) include all known and unknown claims, causes of action, grievances, liabilities, debts, obligations, injuries, damages, or similar rights of any type that Employee had or presently may have ("**Claims**"), with respect to any Released Party listed in Section 7(f). Employee acknowledges that the Claims released under this section might arise under many different foreign, domestic, national, state, or local laws (including statutes, regulations, other administrative guidance, and common law doctrines), including, but not limited to, the following:

- (i) Claims for breach of contract, whether express, implied, implied-in-fact, promissory estoppel and/or detrimental reliance;
- (ii) Claims under or pursuant to the Americans with Disabilities Act, as amended; the Age Discrimination in Employment Act ("**ADEA**"), as amended; Title VII of the Civil Rights Act of 1964, as amended; the Civil Rights Act of 1991; the Equal Pay Act; 42 U.S.C. § 1981, as amended; 42 U.S.C. § 1985; the Immigration Reform and Control Act of 1986, as amended; the Employee Retirement Income Security Act of 1974 ("**ERISA**"); the Family and Medical Leave Act, as amended; the Sarbanes-Oxley Act; the Worker Adjustment and Retraining Notification Act; the Genetic Information Nondiscrimination Act; the Fair Labor Standards Act, as amended; the Fair Credit Reporting Act; the Occupational Safety & Health Act; the Uniformed Services Employment and Reemployment Rights Act, as amended; the Employee Polygraph Protection Act; as well as any other federal law, statute, ordinance, rule, regulation, or executive order relating to employment and/or discrimination in employment;
- (iii) Claims under or pursuant to the Minnesota Human Rights Act ("**MHRA**"), Minn. Stat. Chap. 363; any provision of Minn. Stat. Chapter 181; the Illinois Human Rights Act, 775 ILCS § 5; the Illinois Equal Pay Act of 2003, 820 ILCS §§ 112/1-90; the Illinois Minimum Wage Law, 820 ILCS §§ 105/1-15; the Illinois Wage Payment and Collection Act, 820 ILCS §§ 115/1-16; the Illinois Personnel Records Review Act, 820 ILCS §§ 40/0.01-13; the Illinois One Day Rest in Seven Act, 820 ILCS §§ 140/1-9; the Illinois Worker Adjustment and Retraining Notification Act, 820 ILCS § 65; and any other Claims under any other Minnesota or Illinois statutes; as well as any other state or local law, statute, ordinance, rule, regulation or order relating to employment and/or discrimination in employment;
- (iv) Claims for: wrongful discharge; retaliatory discharge; discharge in violation of any public policy; breach of the covenant (express or implied) of good faith and fair dealing; negligent or intentional infliction of emotional distress; interference with contractual relations;

interference with prospective economic advantage; defamation (including libel, slander, and self-defamation); personal, emotional or physical injury; fraud; intentional or negligent misrepresentation; violation of public policy; invasion of privacy; intentional torts of any kind; torts grounded in negligence theories (including gross negligence); negligent hiring, retention and/or supervision; or any other statutory or common law theory of recovery.

- (v) As to all Claims released, waived and discharged in connection with Sections 7(B)(i)-(iv) above, Employee understands, acknowledges and agrees that he is giving up and relinquishing any and all rights to seek damages of any kind from any or all of the Released Parties for any conduct predating his execution of this Agreement, including, without limitation, compensatory damages, incidental damages, consequential damages, exemplary or punitive damages, attorneys' fees, costs, and disbursements. Similarly, Employee understands that by releasing the Released Parties from the claims described above, he is giving up his rights to seek any type of injunctive and/or declaratory relief from any or all of the Released Parties.
- (vi) Employee understands, agrees, and acknowledges that the General Release, including all of its subparts, set forth in Section 7(B)(i)-(iv) above is a substantial, material inducement to the Company to enter into this Agreement. Employee understands and agrees that if, at any time following his execution of this Agreement, Employee (either independently or through an agent or attorney) asserts or threatens to assert any claim released by this Agreement or otherwise violates the terms of this provision, then, in addition to any other legal or equitable remedies any of the Released Parties may have, Employee shall pay all the attorneys' fees, expenses, and costs incurred by any of the Released Parties as a consequence of Employee's breach of this Section 7.

(c) Re-Execution of General Release. Employee agrees that if he and the Company mutually agree to continue his employment beyond October 1, 2017, and if he continues working until a mutually agreed upon date after October 1, 2017, Employee will re-execute another General Release, identical in form and content to this Paragraph (7), that will cover the time period following the date Employee executes this Separation Agreement through his last day of employment.

(d) Exclusion of Certain Claims. Nothing herein prevents Employee from instituting any action to enforce the terms of this Agreement. The Parties further agree that the release in this Section 7 shall not apply to any claims which may not, as a matter of law, be released. Nothing contained in this General Release shall: (i) release any claim that cannot be waived under applicable law; (ii) release Employee rights to any benefits under any employee benefit plan of the Company; or (iii) release any entitlement to or with respect to indemnification that Employee may have pursuant to the Company's By-Laws, any policy of insurance maintained by the Company, the Employment Agreement attached hereto as Exhibit A, or otherwise provided by law.

(e) Unknown Claims. Employee acknowledges that he is releasing Claims that he may not know about, and that he does so with knowing and voluntary intent, after consulting with legal counsel. Employee expressly waives all rights that he may have under any law that is intended to protect him from waiving unknown Claims. Employee further acknowledges that he understands the significance of doing so.

(f) Protected Activity. Notwithstanding the General Release set forth in this Section 7, nothing in this Agreement shall be construed to prohibit Employee from engaging in any Protected Activity. For purposes of this Agreement, "**Protected Activity**" means filing a charge, reporting possible violations of state or federal law, or communicating with any governmental agency or entity or any self-regulatory agency ("Agency"), or cooperating with any investigation by any Agency, including, without limitation, the United States Department of Labor, the Equal Employment Opportunity Commission, the National Labor Relations Board, the Securities and Exchange Commission, and FINRA. Protected Activity does not include the disclosure of any information Employee came to learn during the course of his employment that is protected from disclosure by any applicable privilege, including but not limited to the attorney-client privilege, the work product doctrine, the bank examiner's privilege, and/or privileges applicable to information covered by the Bank Secrecy Act (31 U.S.C. §§ 5311-5330), including information that would reveal the existence or contemplated filing of a suspicious activity report. Employee understands that he is not required to obtain prior authorization from ARI or to inform ARI prior to engaging in any Protected Activity. This release does not limit the Employee's right to receive an award for information provided to any Agency. This release does, however, waive Employee's right to file an individual

or class action lawsuit against the Company or receive any equitable or monetary relief in connection with any charge or investigation.

(g) Released Parties. The “**Released Parties**” encompassed by this Section 7 shall include ARI, any Affiliates of ARI (including, without limitation, Piper Jaffray & Co., and Piper Jaffray Companies), as well as ARI’s and its Affiliates’ parents, subsidiaries, and related entities and affiliated companies, and the past, present, and future Board members, officers, directors, administrators, shareholders, employees, agents, attorneys, successors, assigns, and representatives of all of the entities identified in this Section 7(f), as well as all benefit plans sponsored by ARI, and its affiliated entities, and each of their respective present and former agents, employees, representatives, insurers, partners, associates, fiduciaries, successors, and assigns, in any and all capacities (including, but not limited to, the fiduciary, representative, or individual capacity of any released person or entity), and any entity owned by or affiliated with any of the above.

8. Promises:

(a) Employment Termination. Employee agrees that his employment with the Company and its Affiliates will end on the Separation Date. Employee acknowledges and agrees that, on and after the Separation Date, he will have no employment rights with the Company.

(b) Company Property and Confidential Information. On or before the Separation Date, Employee agrees to return to the Company all Company-owned property in his possession. This includes, without limitation, Confidential Information that Employee learned in the course of his employment with the Company. For purposes of this Agreement, the term “**Confidential Information**” shall mean all information, whatever its nature and form and whether obtained orally, by observation, from written materials, or otherwise obtained by Employee during or as a result of his employment with the Company or in connection with his affiliation with any parent company, subsidiary company, affiliate, or entity that has been acquired by or merged into the Company, and relating to any sales; marketing; research; technical, business or commercial activities; or plans of the Company, whether made or conceived by Employee or otherwise, except such information as is generally available to the public. Confidential Information includes, without limitation, non-public information pertaining to the Company’s business that might be of use to the Company’s competitors or harmful to the Company or its clients if disclosed. Employee acknowledges and agrees that, except for Protected Activity, his obligation to preserve and not disclose Confidential Information continues even after his employment ends. Except for Protected Activity, Employee agrees to maintain the confidentiality of all Confidential Information that he learned or had access to through his employment at the Company.

(c) Full Disclosure. Employee acknowledges that he has disclosed to the Company any information he has concerning any conduct involving any of the Released Parties or any of their subsidiaries, affiliates, shareholders, officers, directors, employees, or agents that he has reason to believe may be unlawful or involve any false claims to the United States or any other government having jurisdiction over the Company. Further, Employee promises to cooperate fully and voluntarily in any investigation that the Company undertakes into matters occurring during his employment with the Company or its affiliates, and agrees not to disclose to anyone who is not assisting the Company with the investigation, other than his attorney, the fact of, or the subject matter of the investigation, except as required by law. Employee will accommodate his schedule to cooperate with the Company and promptly provide such information. Nothing herein is intended to or shall preclude Employee from cooperating with any appropriate federal, state, or local government agency, or with any self-regulatory agency, in any of said agencies’ investigations.

(d) Cooperation with Litigation. In the event that any of the Released Parties or any of their respective parent companies, subsidiaries, affiliates, shareholders, officers, or directors are involved in any litigation, arbitration, or administrative proceeding subsequent to the Separation Date, Employee agrees that, upon request, he will provide reasonable cooperation to the Released Parties and their attorneys in the prosecution or defense of any litigation, arbitration, or administrative proceeding, including participation in interviews with their attorneys, appearing for depositions, testifying in administrative, judicial, or arbitration proceedings, or any other reasonable participation necessary for the prosecution or defense of any such litigation, arbitration, or administrative proceeding. The Company agrees to reimburse Employee for his reasonable expenses in participating in the prosecution or defense of any litigation, arbitration, or administrative proceeding, provided that Employee submits acceptable documentation of all such expenses.

(e) This Agreement To Be Kept Confidential. Employee agrees not to disclose the terms or existence of this Agreement to anyone other than a member of his immediate family or his attorney, accountant, or other professional advisor. Employee further agrees that disclosure of the terms or existence of this Agreement to the person(s) listed above is permissible only if the person agrees to honor this confidentiality requirement. Any violation of this confidentiality requirement by any such person will be considered to be a violation of this Agreement by Employee. This subsection does not prohibit disclosures to the

extent legally necessary to enforce this Agreement, nor does it prohibit disclosures to the extent otherwise legally required (but only if Employee promptly notifies the Company of a disclosure obligation or request within two (2) business days after he learns of it and permits the Company to take all steps it deems to be appropriate to prevent or limit the required disclosure, as Employee recognizes the Parties' strong desire to keep this Agreement confidential).

(f) **Non-Disparagement.** Employee agrees that, subsequent to the Separation Date, he will not make any disparaging or derogatory remarks or statements about any of the Released Parties, or their respective parent companies, subsidiaries, and affiliates including, but not limited to, all related companies, partnerships, affiliated entities or joint ventures, as well as their respective current and former officers, directors, shareholders, principals, attorneys, agents, employees or any Released Party, or his prior employment with the Company. Employee further agrees that he will not make any disparaging or derogatory remarks or statements about any of the products or services provided by ARI or any of Affiliates. This section 8(f) supplements the Non-Disparagement obligations delineated in his Employment Agreement and the Prior Equity Agreements. Nothing in this Section, however, shall prevent Employee from engaging in Protected Activity. The Company agrees that its directors, officers, and executives will not make any disparaging or derogatory remarks or statements about Employee or his prior employment with the Company.

9. Consideration of Agreement and Rescission Period:

(a) **ADEA/OWBPA Waiver and Acknowledgement.** Insofar as this Agreement pertains to the release of Employee's Claims, if any, under the ADEA and the Older Workers Benefit Protection Act ("**OWBPA**"), Employee, pursuant to and in compliance with the rights afforded him under the OWBPA:

(i) acknowledges and confirms that he has read this Agreement in its entirety and understands all of its terms;

(ii) is hereby advised in writing to consult with an attorney of his own choosing before executing this Agreement;

(iii) is hereby advised that he may take up to twenty-one (21) days to decide whether to release any potential Claims under the ADEA/OWBPA and consult with an attorney of his own choosing;

(iv) is hereby advised that he has the right to rescind or revoke his release of any Claims he may have under the ADEA/OWBPA, if done within seven (7) calendar days from the date he signs this Agreement;

(v) is hereby advised that this Agreement shall not become effective or enforceable until the seven-day (7-day) revocation period has expired;

(vi) is hereby advised that he is not waiving claims that may arise after the date on which he executes the Agreement; and

(vii) acknowledges that if he, in his sole discretion, elects to execute this Agreement prior to the expiration of the 21-day period, it is because he has decided that he does not need any additional time to consider whether he wishes to release any potential Claims under the ADEA/OWBPA.

(b) **Right to Rescind Release of MHRA Claims (if any).** Employee understands and acknowledges that he has the right to rescind or revoke any release of any Claims he may have under the Minnesota Human Rights Act ("**MHRA**"), Minn. Stat. Chap. 363, if done within fifteen (15) calendar days from the date he signs this Agreement, as described further below.

(c) **Method of Rescission.** Employee understands that if he wishes to rescind his release of Claims under the ADEA/OWBPA and/or the MHRA, the rescissions must be in writing and hand-delivered or mailed to Ms. Christine Eskilsen. If hand-delivered, the rescissions must be (a) addressed to: Ms. Christine Eskilsen, Piper Jaffray & Co., Global Head of Human Capital and Assistant General Counsel, 800 Nicollet Mall, J09S02, Minneapolis, Minnesota 55402; and (b) delivered by the close of business on the last day of the applicable rescission period, as set forth above. If mailed, the rescissions must be: (a) postmarked within the applicable rescission period, as set forth above; (b) addressed to Ms. Christine Eskilsen, Piper Jaffray & Co., Global Head of Human Capital and Assistant General Counsel, 800 Nicollet Mall, J09S02, Minneapolis, MN 55402, and (c) sent by certified mail, return receipt requested. As referenced above, the revocation of the ADEA/OWBPA Claims (if any) must be provided within seven (7) days, and the revocation of the MHRA Claims (if any) must be provided within fifteen (15) days. The revocation of the federal claim under the ADEA/OWBPA will not constitute a revocation of the state claim under the MHRA, or

vice-versa, unless the revocations are each timely submitted and the revocations clearly define whether they apply to the federal claim, the state claim, or both.

(d) **Consequences of Rescission.** Employee agrees, understands, and acknowledges that ARI's obligations to him, as set forth in this Agreement, shall be unenforceable unless and until the rescission periods with regard to the ADEA/OWBPA and the MHRA have expired, and he has not rescinded or revoked the Agreement in any part. Employee further understands that any revocation by him of his release of any Claims under either the ADEA/OWBPA or the MHRA shall have no effect on his release of any other Claims. Nonetheless, in the event Employee rescinds his release of Claims under either the ADEA/OWBPA or MHRA, then ARI, in its sole discretion, may elect to declare this Agreement null and void as to all non-statutory, non-revoked claims. The Company will inform Employee of its determination on this issue within thirty (30) days of receiving any notice of revocation under either the ADEA/OWBPA or the MHRA.

10. **Miscellaneous:**

(a) **Non-Admission of Liability.** Employee agrees that this Agreement does not constitute an admission of wrongdoing or liability by the Company or any Released Party, acknowledges that the Released Parties do not believe or admit that any of them has done anything wrong, and further agrees that he will not represent to anyone at any time that the Released Parties' willingness to enter into this Agreement constitutes an admission or acknowledgement of any wrongful behavior or conduct.

(b) **Modifications.** The Parties agree that the provisions of this Agreement may not be modified by any subsequent agreement unless the modifying agreement is: (i) in writing; (ii) specifically references this Agreement; (iii) signed by Employee; and (iv) signed and approved by an authorized officer of the Company.

(c) **Integration.** The Parties acknowledge and agree that this Agreement constitutes the entire agreement between the Parties; that the Parties have executed this Agreement based upon the terms set forth herein; that the Parties have not relied on any prior agreement or representation, whether oral or written, which is not set forth in this Agreement; and that no prior agreement, whether oral or written, shall have any effect on the terms and provisions of this Agreement.

(d) **Severability and Waiver.** The Parties acknowledge and agree that each provision of this Agreement shall be enforceable independently of every other provision. Furthermore, in the event that any provision is deemed to be unenforceable for any reason, the remaining provisions shall remain effective, binding, and enforceable. The Parties further acknowledge and agree that the failure of any Party to enforce any provision of this Agreement shall not constitute a waiver of that provision, or of any other provision of this Agreement.

(e) **Fees and Costs.** The Company shall reimburse Employee for the actual and reasonable attorneys' fees and costs Employee incurred in connection with drafting and negotiating of this Agreement, up to a maximum limit of Ten Thousand and No/100 Dollars (\$10,000.00). In the event that any Party to this Agreement initiates legal action in any court or adjudicative body to enforce any provision of this Agreement, or initiates legal action based upon the breach of any provision of this Agreement by any other Party, the prevailing Party in any such legal proceeding shall recover, in addition to any legal or equitable relief otherwise available under applicable law, reasonable costs and expenses (including attorneys' fees) incurred in connection with the prosecution or defense of any such legal action.

(f) **Governing Law.** Except to the extent governed by federal law, this Agreement shall be governed by the statutes and common law of the State of Minnesota, exclusive of any rules pertaining to conflicts of laws. The Parties agree that any litigation pertaining to the interpretation, application, or enforcement of any provision of this Agreement must be filed in a federal or state court of competent jurisdiction in Minnesota.

(g) **Successors and Assigns.** This Agreement will be binding on Employee, his heirs, administrators, representatives, executors, successors, and assigns, and will inure to the benefit of all Released Parties and their respective heirs, administrators, representatives, executors, successors and assigns.

(h) **Assignment.** Employee may not assign this Agreement or any rights he may have hereunder in whole or in part. Any purported assignment by Employee shall be null and void.

(i) **Third-Party Beneficiaries.** The Released Parties, other than the Company, its successors, assigns, parents, subsidiaries, affiliates, and related entities, are not parties to this Agreement but are third-party beneficiaries of this Agreement and shall have enforceable rights under this Agreement. Employee and the Company intend, agree, and acknowledge that beyond the Released Parties, there shall be no other third-party beneficiaries to this Separation Agreement.

(j) **Code Section 409A Compliance.** The Company and Employee each hereby affirm that it is in their mutual view that the provision of payments and benefits described or referenced herein are exempt from, or in compliance with, the requirements of Section 409A of the Code and the Treasury regulations relating thereto (“Section 409A”) and that each Party’s tax reporting shall be completed in a manner consistent with such view. The Company and Employee each agree that upon the Separation Date, Employee will experience a “separation from service” for purposes of Section 409A. Any payments that qualify for the “short-term deferral” exception or another exception under Section 409A shall be paid under the applicable exception. For purposes of the limitations on nonqualified deferred compensation under Section 409A of the Code, each payment of compensation under this Agreement shall be treated as a separate payment of compensation. Notwithstanding anything contained herein to the contrary, to the extent required to avoid accelerated taxation and/or tax penalties under Section 409A, amounts that would otherwise be payable and benefits that would otherwise be provided pursuant to this Agreement during the six-month period immediately following the Separation Date separation from service shall instead be paid on the first business day after the date that is six months following the Separation Date (or death, if earlier). Neither the Company nor its affiliates shall be liable in any manner for any federal, state or local income or excise taxes (including but not limited to any taxes under Section 409A of the Code), or penalties or interest with respect thereto, as a result of the payment of any compensation or benefits hereunder, or the inclusion of any such compensation or benefits or the value thereof in Employee’s income.

(k) **Interpretation.** This Agreement shall be construed as a whole according to its fair meaning. It shall not be construed strictly for or against Employee or any Released Party, regardless of whether the Employee or any Released Party drafted or caused his or her representative to draft this Agreement or any specific provision. Unless the context indicates otherwise, the term “or” shall be deemed to include the term “and” and the singular or plural number shall be deemed to include the other. Captions are intended solely for convenience of reference and shall not be used in the interpretation of this Agreement.

(l) **Entire Agreement.** The Parties acknowledge that this Agreement, in combination with the Employment Agreement and the Prior Equity Agreements, which are incorporated herein by reference, constitute the entire agreement between the Parties regarding all of the subjects addressed in this Agreement. The Parties agree and acknowledge that there have been no inducements, statements, or representations leading them to execute this Agreement, except as expressly contained herein.

READ THIS AGREEMENT CAREFULLY AND CAREFULLY CONSIDER ALL OF ITS PROVISIONS BEFORE SIGNING IT: IT INCLUDES A RELEASE OF KNOWN AND UNKNOWN CLAIMS. IF YOU WISH, YOU SHOULD TAKE ADVANTAGE OF THE FULL CONSIDERATION PERIOD AFFORDED BY SECTION 8 AND YOU SHOULD CONSULT AN ATTORNEY.

Executed at _____, _____, this 6th day of October, 2017.

CHRISTOPHER D. CRAWSHAW

/s/ Christopher D. Crawshaw

Executed at _____, _____, this 6th day of October, 2017.

ADVISORY RESEARCH, INC.

By: /s/ Christine Eस्कilsen

Its: Chief Human Capital Officer

SUBSIDIARIES OF PIPER JAFFRAY COMPANIES
(as of January 31, 2018)

Name*	State or Jurisdiction of Entity
Piper Jaffray & Co.	Delaware
Piper Jaffray EVP, LLC	Delaware
Edgeview Partners, L.P.	Delaware
Piper Jaffray European Holdings Co.	Delaware
Piper Jaffray Ltd.	United Kingdom
Simmons & Company International Limited	United Kingdom
Parallel General Partner Limited	Guernsey
Simmons Private Equity II, L.P.	Guernsey
Piper Jaffray Financial, LLC	Delaware
Piper Jaffray Financial Trust Depositor LLC	Delaware
Piper Jaffray Financial Products Inc.	Delaware
Piper Jaffray Financial Products II Inc.	Delaware
Piper Jaffray Financial Products III Inc.	Delaware
Piper Jaffray Foundation	Delaware
Piper Jaffray Lending LLC	Delaware
Piper Jaffray Private Capital Inc.	Delaware
PJC Capital LLC	Delaware
Piper Jaffray Asset Management Inc.	Delaware
Advisory Research, Inc.	Delaware
Piper Jaffray Investment Group Inc.	Delaware
Piper Jaffray Investment Management LLC	Delaware
Piper Jaffray Funds Management LLC	Delaware
Piper Jaffray Municipal Opportunities Fund II, L.P.	Delaware
Piper Jaffray Senior Living, LLC	Delaware
Piper Jaffray Senior Living Fund I, L.P.	Delaware
PJC Capital Management LLC	Delaware
Piper Jaffray Merchant Banking Fund I, L.P.	Delaware
PJC Merchant Banking Partners I, LLC	Delaware
PJC Merchant Banking Partners II, LLC	Delaware
PJC Merchant Banking Partners III, LLC	Delaware
PJC Merchant Banking Partners IV, LLC	Delaware
PJC Capital Management II LLC	Delaware
Piper Jaffray Merchant Banking Fund II, L.P.	Delaware
PJC Capital Partners LLC	Delaware
Piper Jaffray Finance LLC	Delaware
Piper Jaffray Finance I, LLC	Delaware
Piper Jaffray Finance II, LLC	Delaware
Piper Jaffray Hong Kong Limited	Hong Kong

* Indentation indicates the principal parent of each subsidiary.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

1. Registration Statement (Form S-8 No. 333-111665) of the Company dated December 31, 2003
2. Registration Statement (Form S-8 No. 333-122494) of the Company dated February 2, 2005
3. Registration Statement (Form S-8 No. 333-142699) of the Company dated May 8, 2007
4. Registration Statement (Form S-8 No. 333-150962) of the Company dated May 16, 2008
5. Registration Statement (Form S-8 No. 333-159360) of the Company dated May 20, 2009
6. Registration Statement (Form S-8 No. 333-165094) of the Company dated February 26, 2010 and amended March 30, 2015
7. Registration Statement (Form S-8 No. 333-205229) of the Company dated June 25, 2015
8. Registration Statement (Form S-8 No. 333-209711) of the Company dated February 25, 2016 and amended August 5, 2016

of our reports dated February 26, 2018, with respect to the consolidated financial statements of Piper Jaffray Companies (“the Company”) and the effectiveness of internal control over financial reporting of the Company, included in this Annual Report (Form 10-K) of the Company for the year ended December 31, 2017.

/s/ Ernst & Young LLP

Minneapolis, Minnesota
February 26, 2018

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Chad R. Abraham, Timothy L. Carter and John W. Geelan, and each of them, his or her true and lawful attorneys-in-fact and agents, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign the Annual Report on Form 10-K of Piper Jaffray Companies (the "Company") for the Company's fiscal year ended December 31, 2017, and any or all amendments to said Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, and to file the same with such other authorities as necessary, granting unto each such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each such attorney-in-fact and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Dated and effective as of the 26th of February, 2018.

/s/ Chad R. Abraham

Chad R. Abraham,
Chief Executive Officer and Director

/s/ Addison L. Piper

Addison L. Piper, Director

/s/ Timothy L. Carter

Timothy L. Carter,
Chief Financial Officer

/s/ Sherry M. Smith

Sherry M. Smith, Director

/s/ Andrew S. Duff

Andrew S. Duff, Chairman

/s/ Philip E. Soran

Philip E. Soran, Director

/s/ William R. Fitzgerald

William R. Fitzgerald, Director

/s/ Scott C. Taylor

Scott C. Taylor, Director

/s/ Michael E. Frazier

Michael E. Frazier, Director

/s/ Michele Volpi

Michele Volpi, Director

/s/ B. Kristine Johnson

B. Kristine Johnson, Director

CERTIFICATIONS

I, Chad R. Abraham, certify that:

1. I have reviewed this annual report on Form 10-K of Piper Jaffray Companies;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2018

/s/ Chad R. Abraham

Chad R. Abraham

Chief Executive Officer and Director

CERTIFICATIONS

I, Timothy L. Carter, certify that:

1. I have reviewed this annual report on Form 10-K of Piper Jaffray Companies;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2018

/s/ Timothy L. Carter

Timothy L. Carter
Chief Financial Officer

Certification Under Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of Piper Jaffray Companies.

Dated: February 26, 2018

/s/ Chad R. Abraham

Chad R. Abraham

Chief Executive Officer and Director

/s/ Timothy L. Carter

Timothy L. Carter

Chief Financial Officer