

2016 Annual Report

Piper Jaffray Companies

PiperJaffray®

REALIZE THE POWER
OF PARTNERSHIP®

Chairman's Letter

Fellow Shareholders,

We delivered remarkable results in 2016, as we continued to execute against our core strategy and benefited from our recent growth investments. Adjusted* operating results included record revenues and record earnings, with an adjusted return-on-equity (ROE) of 9.2%. Our increased scale and profitability led us to initiate a quarterly dividend in 2017 to return additional value to our shareholders.

I would like to express my gratitude to all my fellow partners for the results we produced together this year. Our belief in our culture and our brand – Realize the Power of Partnership® – was key to these remarkable results. Our industry-leading healthcare and energy investment banking groups, our talented public finance and fixed income teams, and our dedicated corporate support staff, are but a few of the groups that embodied the spirit of partnership to make this happen.



We also named a new president and chief operating officer, Stuart Harvey, who will oversee our operating businesses, including investment banking and asset management. His diverse experience, combined with his deep knowledge and passion for Piper Jaffray, will serve us well in the years to come as we continue to transform and drive performance across our business.

Focus on Shareholder Value

In 2015, we invested for growth, and in 2016, we executed for growth. We remained keenly focused throughout the year on driving returns from our growth initiatives, headlined by entry into the energy sector through the acquisition of Simmons & Company International, growth in our fixed income group through the acquisition of GKST, and entry into the financial institutions sector within investment banking, sales and trading, and research. Here are the results:

Grew earnings and improved ROE. We grew adjusted earnings by 11% and made solid progress on our path to achieving a ROE that exceeds our cost of capital.

Remixed the business. An explicit element of our strategy is to remix the business toward activities that attract higher multiples in the market. For us, this translates to advisory, public finance and asset management. Over the past five years, we have doubled the revenue contribution from these areas to nearly two-thirds of our total revenue today, and most of our revenue growth has been in these activities.

Gained market share. Since we cannot control the markets, a key metric we look to in delivering value for our shareholders is gaining market share in our primary markets. In 2016, we did just that, with significant market share gains in both our advisory and public finance businesses.

Chairman's Letter

2016 Highlights

In a year that began with very challenging market conditions for many of our businesses, we nevertheless accomplished much of what our outlook presaged from last year's letter.

- Advisory revenues were a key highlight for the year. The addition of Simmons within the energy sector and our hiring in the financial institutions sector drove our advisory business to new heights with an additional boost from our debt capital markets partners. We averaged \$75 million for many years, grew revenues to \$200 million in 2014 and 2015 and achieved revenues over \$300 million in 2016 – record results for the year and in our history.
- We improved our market share in public finance and achieved record fourth quarter revenues, despite adverse market conditions. Revenue of \$115 million in 2016 exceeded our 2015 record, and represented an increase of 80% over the past two years. We invested in organic growth, expanded our presence in key sectors like senior living, and demonstrated differentiated product expertise to drive significant market share gains and returns.
- In our fixed income business, we improved our productivity, increased our operating leverage and produced a higher return-on-capital with the addition of GKST. We also navigated a period of market dislocation in municipal bonds following the election, demonstrating a deep expertise with this asset class. This translates into both effective management of risk and knowing when to deploy capital opportunistically in this market.
- We were gratified to see some revenue growth in our equity brokerage business. This business in 2016 was up about 12% versus 2015. Bouts of heavy trading post-Brexit and post-election spurred increased activity. More significantly, our expansion into the energy sector with the addition of the Simmons research team is having a very positive impact on our entire equities platform. We firmly believed that Simmons had a first-class research team, and the response from our clients has exceeded our expectations.
- We are well-positioned to attract opportunities that may arise in difficult markets, and there were opportunities within asset management in 2016. This business is facing challenging market conditions, with macro industry trends leading to asset flows away from active investing into passive funds. This trend, combined with investment performance below our benchmarks for certain products, caused a decline in profitability for the year. Our strategy is to diversify our product offerings and focus on niche investment strategies. To that end, we added Cupps Capital Management's growth investment strategies during 2016, a great addition to the team. We also saw a recovery in MLPs, our largest product area, to finish the year with MLP asset levels that were up 30% from the 2016 trough.



Chairman's Letter

I would also like to make special mention of our corporate support group, which contributed significantly to our success during the year. Through this team's efforts, we closed on the Simmons acquisition in the first quarter of 2016, which marked the third consecutive quarter where corporate support executed a closing on schedule and captured the cost synergies we expected from each acquisition. This skilled and dedicated group of professionals provides us with a competitive advantage in the market when it comes to acquiring and merging companies.

2017 Outlook

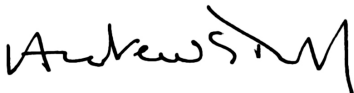
We enter 2017 with optimism about both the markets and our businesses. Steady or increasing growth, ample availability of funding and high levels of CEO confidence should serve to create a fertile environment for our businesses. Further, we believe economic growth and healthy valuations will produce continued strength in our advisory business and an improvement in capital-raising compared to what we experienced in 2016. With this, however, comes the assumption that market volatility is manageable and valuations hold up well during the year.

We also expect a slow but steady climb in interest rates to result in a more normalized yield curve. In our public finance and fixed income businesses, this interest rate environment should support an improved fixed income trading business as long as we avoid periods of heightened volatility or sharp increases in rates. Increasing rates, however, may slow public finance refunding activity and could lead to overall lower issuance compared to record levels in 2016. We believe that our public finance business, which features considerable sector and product diversification, is less susceptible to a potential decline in overall issuance and should continue to outperform the broader market.

Our asset management business has confronted challenging market conditions over the past couple of years, particularly by the shift from active managers to passive funds. With increasing market valuations and low volatility, passive investing is likely to continue attracting investment dollars at the expense of active managers. Our focus on niche investment strategies in relatively inefficient sectors of the market should enable us to maintain a competitive position in the market.

Overall, we continue to believe that the firm is well-positioned to take advantage of opportunities in our markets, both from an execution standpoint as well as a strategic growth standpoint. On behalf of my fellow partners across Piper Jaffray, we would like to thank you for trust in us. We remain committed to producing value for you every day, and we look forward to a strong 2017 and beyond.

Sincerely,



Andrew S. Duff
Chairman & CEO
Piper Jaffray Companies

Board of Directors

Andrew S. Duff

Chairman and Chief Executive Officer
Piper Jaffray Companies

Addison (Tad) L. Piper

Former Chairman and Chief Executive Officer
Piper Jaffray Companies Inc.

William R. Fitzgerald

Chairman and Chief Executive Officer
Ascent Capital Group, Inc.

Michael E. Frazier

Former Chairman and Chief Executive Officer
Simmons & Company International

B. Kristine Johnson

President
Affinity Capital Management

Sherry Smith

Former Executive Vice President, Chief Financial Officer
SUPERVALU INC.

Philip E. Soran

Former President
Dell Compellent Inc.

Scott C. Taylor

Executive Vice President, General Counsel and Secretary
Symantec Corp.

Michele Volpi

Chief Executive Officer
PRÆSIDIAD

Leadership Team

Andrew S. Duff

Chairman and Chief Executive Officer

Stuart C. Harvey, Jr.

President and Chief Operating Officer

Chad R. Abraham

Co-Head of Global Investment Banking and Capital Markets

Christopher D. Crawshaw

Head of Asset Management

Christine N. Eskilsen

Chief Human Capital Officer

Frank E. Fairman

Head of Public Finance

John W. Geelan

General Counsel and Secretary

Jeff P. Klinefelter

Global Head of Equities

R. Scott LaRue

Co-Head of Global Investment Banking and Capital Markets

Debra L. Schoneman

Chief Financial Officer

Thomas G. Smith

Chief Strategy Officer

M. Brad Wings

Head of Fixed Income Services

Our Guiding Principles

We create and implement superior financial solutions for our clients. Serving clients is our fundamental purpose.

We earn our clients' trust by delivering the best guidance and service.

Great people working together as a team are our competitive advantage.

As we serve, we are committed to these core values:

- Always place our clients' interests first
- Conduct ourselves with integrity and treat others with respect
- Work in partnership with our clients and each other
- Maintain a high-quality environment that attracts, retains and develops the best people
- Contribute our talents and resources to serve the communities in which we live and work



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, 2016
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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the 14,421,778 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, 2016 was approximately \$544 million.

As of February 21, 2017, the registrant had 15,164,929 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 2017 Annual Meeting of Shareholders to be held on May 11, 2017.

TABLE OF CONTENTS

PART I

| | | |
|----------|--------------------------------|----|
| ITEM 1. | BUSINESS | 3 |
| ITEM 1A. | RISK FACTORS | 8 |
| ITEM 1B. | UNRESOLVED STAFF COMMENTS..... | 22 |
| ITEM 2. | PROPERTIES..... | 22 |
| ITEM 3. | LEGAL PROCEEDINGS | 23 |
| ITEM 4. | MINE SAFETY DISCLOSURES..... | 23 |

PART II

| | | |
|----------|---|-----|
| ITEM 5. | MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES..... | 24 |
| ITEM 6. | SELECTED FINANCIAL DATA..... | 26 |
| ITEM 7. | MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS..... | 27 |
| ITEM 7A. | QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.... | 60 |
| ITEM 8. | FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA..... | 61 |
| ITEM 9. | CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE..... | 117 |
| ITEM 9A. | CONTROLS AND PROCEDURES | 117 |
| ITEM 9B. | OTHER INFORMATION..... | 117 |

PART III

| | | |
|----------|---|-----|
| ITEM 10. | DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE..... | 117 |
| ITEM 11. | EXECUTIVE COMPENSATION..... | 117 |
| ITEM 12. | SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS..... | 118 |
| ITEM 13. | CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE..... | 118 |
| ITEM 14. | PRINCIPAL ACCOUNTANT FEES AND SERVICES..... | 118 |

PART IV

| | | |
|----------|---|-----|
| ITEM 15. | EXHIBITS AND FINANCIAL STATEMENT SCHEDULES..... | 118 |
| ITEM 16. | FORM 10-K SUMMARY..... | 122 |
| | SIGNATURES | 123 |

PART I

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K for the year ended December 31, 2016 (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 and fixed income institutional brokerage; equity and fixed income research; 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 help raise capital through equity and debt financings. We also provide advisory services, primarily relating to mergers and acquisitions, equity private placements and debt advisory. We operate in the following focus sectors: healthcare; energy; consumer; diversified industrials and services; business services; technology; financial institutions; 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 700 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 as well as 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 domestic and international equity strategies, as well as MLP and energy infrastructure strategies, through open-end and closed-end funds. We also provide customized solutions to our clients. In many cases, we offer both diversified and more concentrated versions of our products, generally through separately managed accounts.

- *Equity* – For the majority of our equity product offerings, we take a value-driven approach to managing assets in the domestic and international equity markets. These investment strategies have an investment philosophy that centers on fundamental security selection across industries and regions with a focus on analyzing, among other things, a company's financial position, liquidity and profitability in light of its valuation. By focusing on securities with attractive net asset values, we seek to generate competitive long-term returns while minimizing investment risk. We added an aggressive growth equity product at the end of 2016. The investment philosophy for this equity product is centered around identifying and valuing U.S. growth franchises, recognizing investment themes, objective allocations to the investment themes, and a combination of fundamental and technical analysis.
- *Master Limited Partnerships ("MLPs") and Energy Infrastructure* – We also 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.

As of December 31, 2016, total assets under management ("AUM") were \$8.7 billion, of which approximately 47 percent was invested in equities and 53 percent in MLPs and energy infrastructure securities. As of the same date, approximately 15 percent of our AUM was invested in international and global investment strategies and 85 percent was invested in domestic investment strategies. Approximately 78 percent of our AUM as of December 31, 2016 was managed on behalf of institutional clients, including foundations, endowments, pension funds and corporations, and through mutual fund sponsors and registered advisors. Approximately 13 percent of our AUM was managed on behalf of individual client relationships, which are principally high net worth individuals, and approximately 9 percent of our AUM was managed through sub-advisory relationships on closed-end funds.

Financial Information about Geographic Areas

As of December 31, 2016, 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 21, 2017, we had approximately 1,315 employees, of whom approximately 775 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"). ARI has established a Tokyo office which is a Representative Office of a Foreign Investment Advisor subject to Japanese laws and regulations. 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 21, 2017, are as follows:

| <u>Name</u> | <u>Age</u> | <u>Position(s)</u> |
|------------------------------|------------|--|
| Andrew S. Duff..... | 59 | Chairman and Chief Executive Officer |
| Stuart C. Harvey, Jr..... | 55 | President and Chief Operating Officer |
| Chad R. Abraham..... | 48 | Co-Head of Global Investment Banking and Capital Markets |
| Christopher D. Crawshaw..... | 50 | Head of Asset Management |
| Christine N. Eskilsen..... | 48 | Chief Human Capital Officer |
| Frank E. Fairman..... | 59 | Head of Public Finance |
| John W. Geelan..... | 41 | General Counsel and Secretary |
| Jeff P. Klinefelter..... | 49 | Global Head of Equities |
| R. Scott LaRue..... | 56 | Co-Head of Global Investment Banking and Capital Markets |
| Debbra L. Schoneman..... | 48 | Chief Financial Officer |
| Thomas G. Smith..... | 60 | Chief Strategy Officer |
| M. Brad Wings..... | 48 | Head of Fixed Income Services and Piper Jaffray Firm Investments and Trading |

Andrew S. Duff is our chairman and chief executive officer. Mr. Duff became chairman and chief executive officer of Piper Jaffray Companies following completion of our spin-off from U.S. Bancorp on December 31, 2003. He also has served as chairman of our broker dealer subsidiary since 2003, as chief executive officer of our broker dealer subsidiary since 2000, and as president of our broker dealer subsidiary since 1996. He has been with Piper Jaffray since 1980. Prior to the spin-off from U.S. Bancorp, Mr. Duff also was a vice chairman of U.S. Bancorp from 1999 through 2003.

Stuart C. Harvey, Jr. is our president and chief operating officer, a position he has held since October 2016. Mr. Harvey rejoined Piper Jaffray in 2015 as a partner in our merchant banking group, having previously served as a managing director at Piper Jaffray in our investment banking group from 1993 to 2003.

Chad R. Abraham is our co-head of global investment banking and capital markets, a position he has held since October 2010. Prior to his current role, he served as head of equity capital markets since November 2005. Mr. Abraham joined Piper Jaffray in 1991.

Christopher D. Crawshaw is our head of asset management. He has served in this role since January 2014. Mr. Crawshaw joined Piper Jaffray from Advisory Research, Inc., a Chicago-based asset management firm that we acquired in 2010, where he had been a managing director since 2004, having joined the company in 2001. Mr. Crawshaw was named president of Advisory Research in 2012.

Christine N. Eskilsen is our chief human capital officer, a position she has held since January 2016. Ms. Eskilsen has been our global head of human capital and a managing director since 2011. She joined Piper Jaffray in 2002 as an assistant general counsel responsible for employment matters and litigation.

Frank E. Fairman is head of our public finance services business, a position he has held since July 2005. Prior to that, he served as head of the firm's public finance investment banking group from 1991 to 2005, as well as the head of the firm's municipal derivative business from 2002 to 2005. He has been with Piper Jaffray since 1983.

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.

Jeff P. Klinefelter is the global head of our equities business, a position he has held since July 2012. From May 2010 until July 2012, he served as head of equity research. Mr. Klinefelter joined Piper Jaffray in 1997 as a research analyst.

R. Scott LaRue is our co-head of global investment banking and capital markets, a position he has held since October 2010. He had previously served as global co-head of consumer investment banking since February 2010, after having served as co-head of consumer investment banking since August 2004. He has been with Piper Jaffray since 2003.

Debra L. Schoneman is our chief financial officer. Ms. Schoneman joined Piper Jaffray in 1990 and has held her current position since May 2008. She previously served as treasurer from August 2006 until May 2008. Prior to that, she served 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.

Thomas G. Smith is our chief strategy officer, a position he has held since January 2016, which encompasses his roles as our head of strategy, corporate development, and investor relations. He joined Piper Jaffray in 1998 as a managing director in our technology investment banking group. He became head of corporate development in 2006 and head of investor relations in 2012.

M. Brad Wings is head of fixed income services, a position he has held since January 2009, and head of Piper Jaffray firm investments and trading, a position he has held since February 2014. Mr. Wings joined Piper Jaffray in 1991 and served as head of public finance services sales and trading from June 2005 until obtaining his current position. Prior to that, he served as head of municipal sales and trading from June 2003 until June 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 Risks

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 following are those risk factors that we have identified as being most significant to our ability to develop and execute upon a strategic vision.

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 underwriting, placement and financial advisory 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 portion of our investment banking revenues are derived from initial public offerings of middle-market companies in growth sectors, and activity in this area is highly correlated to the macroeconomic environment and market conditions. Equity markets experienced significant declines in the beginning of 2016 amid signs of a slowdown in global economic growth, including in China and other developing markets. As a result, the number of initial public offerings declined significantly in the first half of 2016, and while there was some recovery in the second half as the macroeconomic outlook stabilized, 2016 saw the fewest initial public offerings since 2009, which negatively impacted our financial results during the year. A new decline in equity market valuations, whether due to reduced expectations of U.S. economic growth or a worsening or unstable global macroeconomic outlook, could cause financial market activity to decrease and negatively affect our equities investment banking 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 European Union, including further challenges to membership in the European Union and further sovereign debt crises, renewed concern about China's economy, complications involving global trade, and terrorism and armed conflicts around the world, including in the Middle East and Eastern Europe. These factors would affect not only our capital raising activities, but also our advisory fees from merger and acquisition engagements. Our advisory business was a significant contributor to our business performance in 2016, and a slowdown in this business for any reason, including an exogenous shock, would have a significant negative impact on our results of operations. 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 overall company results of operations.
- Interest rates have a significant impact on our business, particularly our fixed income institutional business. This includes periods of volatility that manifest itself in changes in the level and volatility of interest rates, changes in the slope of the yield curve and credit spreads, and the rate of prepayments on our interest-earning assets (e.g., inventory) and our funding sources (e.g., short-term financing) which finance these assets. There were marked periods of volatility in U.S. Treasury yields during 2016 attributed to the vote in the United Kingdom to leave the European Union and following the U.S. presidential election. The rise in interests rates following the U.S. presidential election appear to reflect the market's expectation of higher growth and inflation. Yields will be impacted in 2017 as more information becomes available concerning the new U.S. presidential administration's infrastructure spending, trade, and regulatory and tax reform priorities and the U.S. Congress's support of those priorities. Yields will also be impacted by the Federal Reserve's intent to increase

the federal funds rate further during the year based on economic and labor market conditions. As to the impact to our business, a large percentage of our securities inventory - both that are held for facilitating client activity as well as our own proprietary trading - consist of fixed income securities, and rapid increases in interest rates decrease the value of these inventories, sometimes significantly. Further, our interest rate hedging strategies may not mitigate this volatility as 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. In addition, interest rate increases in 2017, both gradual and more severe, may 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.

- Although many U.S. equity market indices reached record levels in 2016, a U.S. economic recession, a reduction in expectations for economic growth, declining prospects for future corporate earnings, or a significant worsening of global economic conditions would likely result in a decline in the financial markets, reducing asset valuations and adversely impacting our asset management business. A reduction in asset values would negatively impact this business by reducing the value of assets under management, and as a result, the revenues generated from this business.

It is difficult to predict the market conditions for 2017, which are dependent in large part upon the pace of global and U.S. economic growth and geopolitical events globally. 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, specifically healthcare, energy, consumer, diversified industrials and services, business services, technology, financial institutions, 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 capital markets and corporate advisory 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. Further, the energy sector has become one of our more significant sectors of coverage for our equity investment banking business since our acquisition of Simmons & Company International in February 2016. Energy markets suffered through much of 2015 and 2016 from a prolonged depression in oil and natural gas prices, which have only recently begun to recover. Disproportionately negative market conditions in the energy sector will slow and hinder our ability to realize the benefits from the acquisition. Lastly, 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 which 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, our fixed income institutional business and our public finance business are tied to the municipal market and the enactment, or the threat of enactment, of any legislation that would alter the financing alternatives available to municipalities through the elimination or reduction of tax-exempt bonds would impact these businesses. Any reduction or elimination of tax-exempt bond interest, or a reduction in individual income tax rates, could negatively impact the value of the municipal securities we hold in our inventory as well as our public finance investment banking business more generally, which would negatively impact the results of operations for these businesses.

- In recent years, there has been a shift in investor preference from actively managed investment strategies to passively managed investment strategies. This shift, if it is sustained, could further negatively impact our business and results of operations. For example, our asset management revenues are derived from actively managed equity strategies, and this type of investment product has experienced asset outflows in recent years, including in 2016, as the shift to passively managed strategies gained momentum and our performance lagged. Asset outflows negatively affect results of operations for this business, as revenues are largely made up of management fees which are based on a percentage of assets under management. In 2016, as a result of a decline in market valuations in certain sectors and net outflows of assets under management, we recorded an \$82.9 million non-cash impairment charge to reduce the carrying value of the goodwill associated with our Asset Management segment. Further outflows of assets under management caused by investor preference for passively managed equity strategies, especially if coupled with investment performance below comparable benchmarks or any outflows from equity strategies generally or decline in equity valuations, would negatively impact our results of operations for this business, and could lead to future non-cash impairment charges on the remaining goodwill associated with our Asset Management segment.
- 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 are a meaningful contributor to our asset management revenues. 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 further 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.
- 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 and 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, 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, or lumpy, 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 will likely 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 problems 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.

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 had investment performance beneath comparable benchmarks for an extended period of time, which we believe contributed to net asset outflows in 2016. 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 business in favor of better performing products or a different investment style or focus, our ability to attract new funds will likely be impaired, and our key employees in the business may depart, whether to join a competitor or otherwise. In addition, poor investment performance may negatively affect the value of our capital investments in our investment funds or the seed capital we have committed to certain investment strategies.

In addition, a significant portion of our asset management revenues are derived 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. To the extent that this trend 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, and be unable to maintain our current fee structures given price competition, which would negatively impact our results of operations. The decline in our asset management revenues in 2016 led us to a record an \$82.9 million non-cash goodwill impairment charge relating to our Asset Management segment. Future declines could lead to additional non-cash impairment charges on the remaining goodwill associated with our Asset Management segment.

We may make strategic acquisitions and minority investments, engage in joint ventures or divest or exit 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 may 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. We also added scale to our fixed income institutional sales and trading business through our acquisition of BMO Capital Markets GKST Inc. Of these three, the most significant was Simmons & Company International, making the energy sector 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, would 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 implied fair value is less than its carrying value, we may be required to recognize an impairment to the goodwill associated with that reporting unit. For example, we recorded a \$82.9 million non-cash goodwill impairment charge in the fourth quarter of 2016 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 2016. 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 shut down 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 extremely 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 continued and could 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 resources than we have, 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, these firms have used their resources and larger capital base to take advantage of growth in international markets and to support their investment banking business by offering credit products to corporate clients, which is a significant 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.

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.

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.

Market Risks

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 inherent in our business activities and is directly related to our role as a financial intermediary for our clients, our market-making activities, and our strategic trading activities. Market risks are inherent both to cash and derivative financial instruments. Our inability to identify and completely mitigate every market risk that we encounter could negatively impact our future financial condition or results of operations. The following are those market risk factors that we have identified as posing the most significant risks to us.

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 our 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 at 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. 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 intend to continue to develop these alternative asset management strategies. These investments comprise a meaningful percentage 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.

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. For example, in 2015, our principal investments in ARI funds focused on MLPs and other investments related to the energy sector, and, as a result, suffered significant declines related to the ongoing downturn in that sector. 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 and 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 and mortgage-backed 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.

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 earnings before interest, taxes, depreciation and amortization ("EBITDA")) and changes in market outlook, among other factors. These valuation techniques require significant management estimation and judgment.

Liquidity Risks

We face liquidity risk both with respect to our ability to timely divest securities that we hold in connection with our market-making, sales and trading, and proprietary trading activities, as well as our ability to timely access necessary funding sources in order to operate our business. Losses that we suffer on securities that we cannot timely divest, or inability to obtain necessary funding could negatively affect our future financial condition or results of operations. The following are those market risk factors that we have identified as posing the most significant risks to us.

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 would 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.

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 and bank financing as well as other funding sources such as the repurchase markets. Our bank financing includes uncommitted credit lines, which could become unavailable to us on relatively short notice. In an effort to mitigate this funding risk, we renewed a \$200 million committed credit facility in December 2016 for another twelve months. We also have \$175 million of unsecured notes. The notes consist of two classes, with \$125 million maturing in October 2018 and \$50 million maturing in May 2017. In order to further diversify our short-term funding needs, we also continue to maintain three commercial paper programs in the amounts of \$300 million, \$150 million, and \$125 million.

Our access to funding sources, particularly uncommitted funding sources, could be hindered by many factors, and many of these 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.

Credit Risks

Our business has 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. For example, credit risk associated with our derivatives is the risk that a counterparty will not perform in accordance with the terms of the applicable derivative contract. In addition, our business has credit risk from an obligor's failure to meet the terms of any contract with the company or otherwise fail to perform as agreed. This may be reflected on issues like settlement obligations or payment collections (e.g., margin and investment banking receivables).

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 adversely affects 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, customer margin accounts, liquidity providers on variable rate demand notes we remarket, and trading counterparty activities related to settlement 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 \$22.7 million at December 31, 2016 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, 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.

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, and underwriting businesses. We have committed capital to these businesses, and we may take substantial positions in particular types of securities and/or issuers. 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.

Human Capital Risks

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. 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, and develop the next generation of our business leadership 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.

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.

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 Risks

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, custody, 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. We outsource a substantial portion of our critical data processing activities, including trade processing and back office data processing. For example, we have entered into contracts with Broadridge Financial Solutions, Inc. ("Broadridge"), pursuant to which Broadridge handles our trade and back office processing, and Unisys Corporation ("Unisys"), pursuant to which Unisys supports our data center and helpdesk needs. We also contract with third parties for market data services, which constantly broadcast news, quotes, analytics and other relevant information to our employees. We contract with other vendors to produce and mail our customer statements and to provide other services. 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.

In 2017, we have made the strategic decision to move to a fully disclosed model for all of our currently self clearing broker dealer operations. In a fully disclosed model, we will 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 expect the conversion to occur in the second half of 2017. The conversion process introduces unique risks that could cause significant disruptions in our business or create other unexpected capital charges or losses. Once the conversion is completed, the clearing services provided by the clearing broker dealer will be critical to our business operations, and similar to other critical 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.

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 reputations, 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), and other events that could have an information security impact. We work with our clients, vendors, service providers, counterparties and other third parties to develop secure transmission capabilities and protect against these events, but we 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 and financial losses that are either not insured against or not fully covered through any insurance maintained by us.

Legal and Regulatory Risks

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.

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. For example, federal law currently allows investors in debt issuances by government and non-profit entities to exclude the bond interest for federal income tax purposes, resulting in lower interest expense for the issuer as compared to a taxable financing. In recent years, federal lawmakers have presented various proposals to limit or eliminate the tax-exempt status of this bond interest. Our public finance investment banking business receives significant revenues as a result of underwriting activity in connection with debt issuances by government and non-profit clients, primarily on a tax-exempt basis. Also, a significant percentage of our securities inventory - both positions held for client activity and our own proprietary trading positions - consist of municipal securities. Any reduction or elimination of tax-exempt bond interest, or a reduction in individual income tax rates, could negatively impact the value of the municipal securities we hold in our securities inventory as well as our public finance investment banking business more generally, which would negatively impact the results of operations for these businesses.

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.

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 2017, we are initiating the payment of a quarterly cash dividend to our 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, and return on equity. Our business, by its nature, does not produce steady and predictable earnings on a quarterly basis, which causes 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 21, 2017, we conducted our operations through 59 principal offices in 28 states, and the District of Columbia, and in London, Aberdeen, Hong Kong, Tokyo 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 21, 2017, 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, 2016 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 price information for the years ended December 31, 2016 and 2015. On February 21, 2017, the last reported sale price of our common stock was \$75.90.

| | 2016 Fiscal Year | | 2015 Fiscal Year | |
|----------------------|------------------|----------|------------------|----------|
| | High | Low | High | Low |
| First Quarter | \$ 49.56 | \$ 32.64 | \$ 58.24 | \$ 51.05 |
| Second Quarter | 49.23 | 35.92 | 55.39 | 43.45 |
| Third Quarter | 48.63 | 37.43 | 46.24 | 36.17 |
| Fourth Quarter | 77.45 | 48.80 | 42.81 | 34.40 |

Shareholders

We had 14,562 shareholders of record and approximately 26,613 beneficial owners of our common stock as of February 21, 2017.

Dividends

We have not historically paid cash dividends on our common stock. Beginning in 2017, we are initiating the payment of a quarterly cash dividend. Our board of directors has declared a dividend of \$0.3125 per share to be paid on March 13, 2017 to shareholders of record as of the close of business on February 20, 2017. 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.

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, 2016.

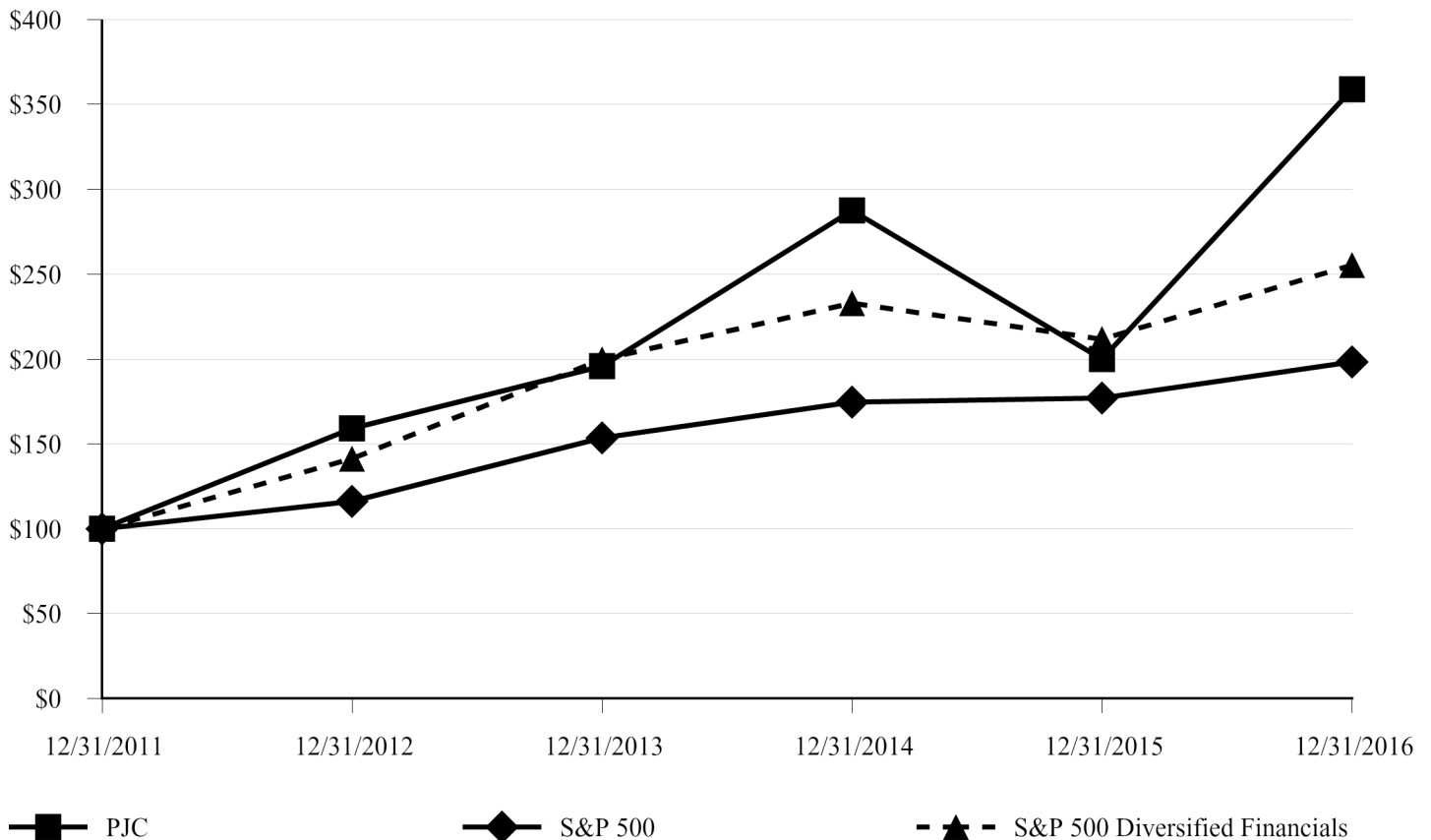
| Period | Total Number of Shares Purchased | Average Price Paid per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Approximate Dollar Value of Shares Yet to be Purchased Under the Plans or Programs (1) |
|--|----------------------------------|------------------------------|--|--|
| Month #1 (October 1, 2016 to October 31, 2016) | — | \$ — | — | \$ 72 million |
| Month #2 (November 1, 2016 to November 30, 2016) | 6,521 | \$ 66.22 | — | \$ 72 million |
| Month #3 (December 1, 2016 to December 31, 2016) | — | \$ — | — | \$ 72 million |
| Total | 6,521 | \$ 66.22 | — | \$ 72 million |

(1) Effective August 14, 2015, our board of directors authorized the repurchase of up to \$150.0 million of common stock through September 30, 2017.

Stock Performance Graph

The following graph compares the performance of an investment in our common stock from December 31, 2011 through December 31, 2016, with the S&P 500 Index and the S&P 500 Diversified Financials Index. The graph assumes \$100 was invested on December 31, 2011, 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



| Company/Index | 12/31/2011 | 12/31/2012 | 12/31/2013 | 12/31/2014 | 12/31/2015 | 12/31/2016 |
|-----------------------------------|------------|------------|------------|------------|------------|------------|
| Piper Jaffray Companies | 100 | 159.06 | 195.79 | 287.57 | 200.00 | 358.91 |
| S&P 500 Index | 100 | 116.00 | 153.57 | 174.60 | 177.01 | 198.18 |
| S&P 500 Diversified Financials... | 100 | 141.34 | 199.84 | 232.94 | 211.75 | 255.25 |

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, | | | | |
|---|----------------------------------|------------------|------------------|------------------|------------------|
| | 2016 | 2015 | 2014 | 2013 | 2012 |
| <i>(Dollars and shares in thousands, except per share data)</i> | | | | | |
| Revenues: | | | | | |
| Investment banking..... | \$ 490,340 | \$ 414,118 | \$ 369,811 | \$ 248,563 | \$ 232,958 |
| Institutional brokerage..... | 161,186 | 154,889 | 156,809 | 146,648 | 166,642 |
| Asset management..... | 60,672 | 75,017 | 85,062 | 83,045 | 65,699 |
| Interest..... | 33,074 | 41,557 | 48,716 | 50,409 | 37,845 |
| Investment income..... | 24,602 | 10,736 | 12,813 | 21,566 | 4,903 |
| Total revenues..... | <u>769,874</u> | <u>696,317</u> | <u>673,211</u> | <u>550,231</u> | <u>508,047</u> |
| Interest expense..... | 22,525 | 23,399 | 25,073 | 25,036 | 19,095 |
| Net revenues..... | <u>747,349</u> | <u>672,918</u> | <u>648,138</u> | <u>525,195</u> | <u>488,952</u> |
| Non-interest expenses: | | | | | |
| Compensation and benefits..... | 510,612 | 421,733 | 394,510 | 322,464 | 296,882 |
| Restructuring and integration costs..... | 10,206 | 10,652 | — | 4,689 | 3,642 |
| Goodwill impairment..... | 82,900 | — | — | — | — |
| Other..... | 174,505 | 154,110 | 143,317 | 122,429 | 119,417 |
| Total non-interest expenses..... | <u>778,223</u> | <u>586,495</u> | <u>537,827</u> | <u>449,582</u> | <u>419,941</u> |
| Income/(loss) from continuing operations before income tax expense | (30,874) | 86,423 | 110,311 | 75,613 | 69,011 |
| Income tax expense/(benefit)..... | (17,128) | 27,941 | 35,986 | 20,390 | 19,470 |
| Net income/(loss) from continuing operations | (13,746) | 58,482 | 74,325 | 55,223 | 49,541 |
| Discontinued operations: | | | | | |
| Loss from discontinued operations, net of tax..... | — | — | — | (4,739) | (5,807) |
| Net income/(loss) | (13,746) | 58,482 | 74,325 | 50,484 | 43,734 |
| Net income applicable to noncontrolling interests..... | 8,206 | 6,407 | 11,153 | 5,394 | 2,466 |
| Net income/(loss) applicable to Piper Jaffray Companies | \$ (21,952) | \$ 52,075 | \$ 63,172 | \$ 45,090 | \$ 41,268 |
| Net income/(loss) applicable to Piper Jaffray Companies' common shareholders | \$ (21,952)⁽¹⁾ | \$ 48,060 | \$ 58,141 | \$ 40,596 | \$ 35,335 |
| Amounts applicable to Piper Jaffray Companies | | | | | |
| Net income/(loss) from continuing operations..... | \$ (21,952) | \$ 52,075 | \$ 63,172 | \$ 49,829 | \$ 47,075 |
| Net loss from discontinued operations..... | — | — | — | (4,739) | (5,807) |
| Net income/(loss) applicable to Piper Jaffray Companies..... | \$ (21,952) | \$ 52,075 | \$ 63,172 | \$ 45,090 | \$ 41,268 |
| Earnings/(loss) per basic common share | | | | | |
| Income/(loss) from continuing operations..... | \$ (1.73) | \$ 3.34 | \$ 3.88 | \$ 2.98 | \$ 2.58 |
| Loss from discontinued operations..... | — | — | — | (0.28) | (0.32) |
| Earnings/(loss) per basic common share..... | \$ (1.73) | \$ 3.34 | \$ 3.88 | \$ 2.70 | \$ 2.26 |
| Earnings/(loss) per diluted common share | | | | | |
| Income/(loss) from continuing operations..... | \$ (1.73) | \$ 3.34 | \$ 3.87 | \$ 2.98 | \$ 2.58 |
| Loss from discontinued operations..... | — | — | — | (0.28) | (0.32) |
| Earnings/(loss) per diluted common share..... | \$ (1.73)⁽²⁾ | \$ 3.34 | \$ 3.87 | \$ 2.70 | \$ 2.26 |
| Weighted average number of common shares | | | | | |
| Basic..... | 12,674 | 14,368 | 14,971 | 15,046 | 15,615 |
| Diluted..... | 12,779 ⁽²⁾ | 14,389 | 15,025 | 15,061 | 15,616 |
| Other data | | | | | |
| Total assets..... | \$ 2,125,503 | \$ 2,138,518 | \$ 2,623,917 | \$ 2,318,157 | \$ 2,087,733 |
| Long-term debt..... | \$ 175,000 | \$ 175,000 | \$ 125,000 | \$ 125,000 | \$ 125,000 |
| Total common shareholders' equity..... | \$ 759,250 | \$ 783,659 | \$ 819,912 | \$ 734,676 | \$ 733,292 |
| Total shareholders' equity..... | \$ 816,266 | \$ 832,820 | \$ 969,460 | \$ 882,072 | \$ 790,175 |
| Total employees ⁽³⁾ | 1,297 | 1,152 | 1,026 | 1,026 | 907 |

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

(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 from acquisition-related agreements, (4) restructuring and acquisition integration costs and (5) goodwill impairment charges. These adjustments affect the following financial measures: net revenues, compensation expenses, non-compensation expenses, 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, as well as growth in earnings and improvement in our return on equity. In order to do so, we focused on increasing the contributions from our higher margin activities (i.e., advisory services, public finance and asset management), diversifying the business, and making investments to drive growth. Through strong execution on these strategic initiatives we have increased net revenues and changed the business mix to higher quality earnings. 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, mortgage-backed securities 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 made significant progress 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 our most recent activity.

- 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.
- In the second quarter of 2015, we began expanding our equity investment banking business into the financial institutions sector through significant hiring in our Capital Markets segment.
- On September 30, 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. The acquisition added investment banking resources dedicated to banks, thrifts, and depository institutions, and further strengthened our mergers and acquisitions leadership in the middle markets.
- On October 9, 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. This acquisition expanded our fixed income institutional sales, trading and underwriting platforms. Additionally, it strengthened our strategic analytic and advisory capabilities.
- For more information on our acquisitions, see Note 4 of our consolidated financial statements.

Asset Management – The Asset Management segment, which provides traditional asset management services, manages assets in domestic and international equity markets. Additionally, the asset management segment manages investments in master limited partnerships ("MLPs") and energy infrastructure securities focused on the energy sector for 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 we manage.

An explicit element of our strategy in asset management is to diversify our product offerings by adding high quality investment teams. Consistent with this strategy, we added Cupps Capital Management, LLC ("Cupps") in the fourth quarter of 2016. Cupps focuses on U.S. growth investment strategies with an aggressive growth equity product.

With respect to our Asset Management segment, an extended cycle of investors favoring passive investment vehicles over active management, combined with certain products having investment performance below their benchmarks, have reduced management fees for this business and caused a corresponding decline in profitability. Lower average assets under management 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. For more information on our goodwill impairment testing, please refer to the "Critical Accounting Policies" section.

Financial Highlights

| | Twelve Months Ended | | Percent Inc/(Dec) |
|---|---------------------|------------------|-------------------|
| | Dec. 31, 2016 | Dec. 31, 2015 | 2016 vs. 2015 |
| <i>(Amounts in thousands, except per share data)</i> | | | |
| U.S. GAAP | | | |
| Net revenues | \$ 747,349 | \$ 672,918 | 11.1% |
| Compensation and benefits expenses | 510,612 | 421,733 | 21.1 |
| Non-compensation expenses | 267,611 | 164,762 | 62.4 |
| Net income/(loss) applicable to Piper Jaffray Companies | (21,952) | 52,075 | N/M |
| Earnings/(loss) per diluted common share | \$ (1.73) | \$ 3.34 | N/M |
| Non-GAAP⁽¹⁾ | | | |
| Adjusted net revenues | \$ 736,279 | \$ 663,108 | 11.0% |
| Adjusted compensation and benefits expenses | 474,371 | 417,500 | 13.6 |
| Adjusted non-compensation expenses | 150,427 | 143,045 | 5.2 |
| Adjusted net income applicable to Piper Jaffray Companies | 72,642 | 65,850 | 10.3 |
| Adjusted earnings per diluted common share | \$ 4.69 | \$ 4.22 | 11.1 |

N/M — Not meaningful

For the year ended December 31, 2016

- Net revenues increased 11.1 percent compared to 2015, as higher advisory services and debt financing revenues were partially offset by lower equity financing and asset management revenues.
- Compensation and benefits expenses were up 21.1 percent compared to the year-ago period due primarily to higher compensation expenses arising from increased revenues, as well as additional compensation expenses associated with our recent acquisitions, including amortization of deal consideration tied to employment, and expansion into the financial institutions sector.
- Non-compensation expenses increased 62.4 percent compared to 2015, driven by an \$82.9 million goodwill impairment charge. Also, higher acquisition-related expenses and higher costs as a result of business expansion were partially offset by a \$9.8 million settlement of a legal matter in the prior-year period.
- In 2016, our return on average common shareholders' equity was a negative 2.8 percent, compared with 6.4 percent for 2015. On an adjusted basis, we generated a return on average common shareholders' equity of 9.2 percent⁽²⁾ in 2016, compared with 8.1 percent⁽²⁾ for 2015.

Continued on next page

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

| | Year Ended December 31, | |
|---|--------------------------------|-------------------|
| | 2016 | 2015 |
| <i>(Amounts in thousands, except per share data)</i> | | |
| Net revenues: | | |
| Net revenues – U.S. GAAP basis | \$ 747,349 | \$ 672,918 |
| Adjustments: | | |
| Revenue related to noncontrolling interests | <u>(11,070)</u> | <u>(9,810)</u> |
| Adjusted net revenues | <u>\$ 736,279</u> | <u>\$ 663,108</u> |
| Compensation and benefits: | | |
| Compensation and benefits – U.S. GAAP basis | \$ 510,612 | \$ 421,733 |
| Adjustments: | | |
| Compensation from acquisition-related agreements | <u>(36,241)</u> | <u>(4,233)</u> |
| Adjusted compensation and benefits | <u>\$ 474,371</u> | <u>\$ 417,500</u> |
| Non-compensation expenses: | | |
| Non-compensation expenses – U.S. GAAP basis | \$ 267,611 | \$ 164,762 |
| Adjustments: | | |
| Non-compensation expenses related to noncontrolling interests | <u>(2,864)</u> | <u>(3,403)</u> |
| Restructuring and integration costs | <u>(10,206)</u> | <u>(10,652)</u> |
| Goodwill impairment | <u>(82,900)</u> | <u>—</u> |
| Amortization of intangible assets related to acquisitions | <u>(21,214)</u> | <u>(7,662)</u> |
| Adjusted non-compensation expenses | <u>\$ 150,427</u> | <u>\$ 143,045</u> |
| Net income/(loss) applicable to Piper Jaffray Companies: | | |
| Net income/(loss) applicable to Piper Jaffray Companies – U.S. GAAP basis | \$ (21,952) | \$ 52,075 |
| Adjustments: | | |
| Compensation from acquisition-related agreements | <u>23,700</u> | <u>2,586</u> |
| Restructuring and integration costs | <u>7,014</u> | <u>6,508</u> |
| Goodwill impairment | <u>50,901</u> | <u>—</u> |
| Amortization of intangible assets related to acquisitions | <u>12,979</u> | <u>4,681</u> |
| Adjusted net income applicable to Piper Jaffray Companies | <u>\$ 72,642</u> | <u>\$ 65,850</u> |
| Earnings/(loss) per diluted common share: | | |
| Earnings/(loss) per diluted common share – U.S. GAAP basis | \$ (1.73) | \$ 3.34 |
| Adjustment for loss allocated to participating shares (3) | <u>0.30</u> | <u>—</u> |
| | <u>(1.43)</u> | <u>3.34</u> |
| Adjustments: | | |
| Compensation from acquisition-related agreements | <u>1.53</u> | <u>0.17</u> |
| Restructuring and integration costs | <u>0.45</u> | <u>0.42</u> |
| Goodwill impairment | <u>3.29</u> | <u>—</u> |
| Amortization of intangible assets related to acquisitions | <u>0.84</u> | <u>0.30</u> |
| Adjusted earnings per diluted common share | <u>\$ 4.69</u> | <u>\$ 4.22</u> |

(2) Adjusted return on average common shareholders' equity 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. Losses are not allocated to participating shares 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 | 2016 | 2015 | 2014 | 2016 v2015 | 2015 v2014 |
|---|-----------------|----------|----------|---------------|---------------|
| Dow Jones Industrials Average (a) | 19,763 | 17,425 | 17,823 | 13.4 % | (2.2)% |
| NASDAQ (a) | 5,383 | 5,007 | 4,736 | 7.5 % | 5.7 % |
| NYSE Average Daily Number of Shares Traded (millions of shares) | 1,256 | 1,187 | 1,039 | 5.8 % | 14.2 % |
| NASDAQ Average Daily Number of Shares Traded (millions of shares) | 1,896 | 1,886 | 1,952 | 0.5 % | (3.4)% |
| Mergers and Acquisitions (number of transactions in U.S.) (b) | 10,540 | 10,319 | 10,263 | 2.1 % | 0.5 % |
| Public Equity Offerings (number of transactions in U.S.) (c) (e) | 735 | 909 | 1,107 | (19.1)% | (17.9)% |
| Initial Public Offerings (number of transactions in U.S.) (c) | 106 | 171 | 282 | (38.0)% | (39.4)% |
| Municipal Negotiated Issuances (number of transactions in U.S.) (d) | 8,881 | 8,764 | 7,261 | 1.3 % | 20.7 % |
| Municipal Negotiated Issuances (value of transactions in billions in U.S.) (d) | \$ 352.6 | \$ 315.9 | \$ 266.1 | 11.6 % | 18.7 % |
| 10-Year Treasuries Average Rate | 1.84% | 2.14% | 2.21% | (14.0)% | (3.2)% |
| 3-Month Treasuries Average Rate | 0.32% | 0.05% | 0.03% | 540.0 % | 66.7 % |

(a) Data provided is at period end.

(b) Source: Securities Data Corporation.

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

(d) Source: Thomson Reuters.

(e) Number of transactions includes convertible offerings.

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 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 2017

Markets strengthened following the U.S. election in November 2016. Factors contributing to this market dynamic included the belief that administrative and legislative policies, including increased fiscal spending, deregulation and tax reform, may provide catalysts to propel the economy in 2017. However, uncertainty over the details of these policies and their transition, as well as political or economic instability internationally, may inject periods of volatility into the U.S. equity and debt markets. If economic growth accelerates we would expect that higher interest rates would ensue. We anticipate that the U.S. Federal Reserve would manage to a gradual and steady path to rate normalization. Exogenous conditions, however, may trigger episodes of volatility with respect to interest rates. A rising or volatile interest rate environment may have a mixed impact on certain of our businesses.

We expect the equity markets to be constructive in 2017 as U.S. economic growth, spurred by the lowering of tax rates and easing of the regulatory burden on companies, results in improving valuations and sustained CEO confidence levels. These conditions favor our equity capital raising and advisory services businesses. After challenging market conditions in the first half of 2016, we are optimistic that equity financing activity will improve compared to 2016, absent any episodes of heightened volatility or significant declines in equity market valuations. While lower volatility benefits our capital raising business, it adversely impacts our equity sales and trading business. If we experience sustained bouts of higher volatility or material market correction, however, our equity brokerage business may benefit while our equity capital raising and advisory businesses would suffer. Mergers and acquisition activity levels were strong in our advisory services business in 2016, and we believe this business will continue to perform well in 2017 on the strength of our market position, recent investments, and sustained CEO confidence levels. Advisory services revenues for any given quarter are impacted by the timing and size of the deals' closings, which can result in fluctuations in revenues period over period.

While higher interest rates would be favorable to our fixed income institutional brokerage business, the move to higher rates could adversely impact our public finance business in the short-term as the level of refunding activity abates prior to greater economic growth increasing new money issuance volumes. We believe that the level of municipal debt underwriting activity will decline in 2017 after record market issuance volumes in 2016. Our geographic range, product capabilities, and industry expertise should serve to mitigate somewhat the impact of less favorable market conditions on the performance of our public finance business.

Increased economic growth and higher valuations will benefit our asset management business. We will continue to monitor, however, the trend of investors shifting from active to passive investment vehicles. Changing market conditions and increased differentiation in performance by individual companies could begin to favor active managers over passive vehicles in terms of capturing market returns. This could lead to the slowing or reversal of funds flowing out of actively managed strategies which would be beneficial for our business. While it is difficult to anticipate which areas of the market will attract investor interest, we continue to expand our product offerings to broaden our exposure to areas of investor interest.

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, | | | |
|---|-------------------------|-----------|-----------|--------|---------|---|-------|-------|------|
| | 2016 | | 2015 | | 2014 | 2016 | | 2015 | 2014 |
| | | | | v2015 | v2014 | | | | |
| <i>(Dollars in thousands)</i> | | | | | | | | | |
| Revenues: | | | | | | | | | |
| Investment banking..... | \$490,340 | \$414,118 | \$369,811 | 18.4% | 12.0 % | 65.6 % | 61.5% | 57.1% | |
| Institutional brokerage..... | 161,186 | 154,889 | 156,809 | 4.1 | (1.2) | 21.6 | 23.0 | 24.2 | |
| Asset management..... | 60,672 | 75,017 | 85,062 | (19.1) | (11.8) | 8.1 | 11.1 | 13.1 | |
| Interest..... | 33,074 | 41,557 | 48,716 | (20.4) | (14.7) | 4.4 | 6.2 | 7.5 | |
| Investment income..... | 24,602 | 10,736 | 12,813 | 129.2 | (16.2) | 3.3 | 1.6 | 2.0 | |
| Total revenues..... | 769,874 | 696,317 | 673,211 | 10.6 | 3.4 | 103.0 | 103.5 | 103.9 | |
| Interest expense..... | 22,525 | 23,399 | 25,073 | (3.7) | (6.7) | 3.0 | 3.5 | 3.9 | |
| Net revenues..... | 747,349 | 672,918 | 648,138 | 11.1 | 3.8 | 100.0 | 100.0 | 100.0 | |
| Non-interest expenses: | | | | | | | | | |
| Compensation and benefits..... | 510,612 | 421,733 | 394,510 | 21.1 | 6.9 | 68.3 | 62.7 | 60.9 | |
| Outside services..... | 39,289 | 36,218 | 37,055 | 8.5 | (2.3) | 5.3 | 5.4 | 5.7 | |
| Occupancy and equipment..... | 34,813 | 28,301 | 28,231 | 23.0 | 0.2 | 4.7 | 4.2 | 4.4 | |
| Communications..... | 29,626 | 23,762 | 22,732 | 24.7 | 4.5 | 4.0 | 3.5 | 3.5 | |
| Marketing and business development..... | 30,404 | 29,990 | 27,260 | 1.4 | 10.0 | 4.1 | 4.5 | 4.2 | |
| Trade execution and clearance..... | 7,651 | 7,794 | 7,621 | (1.8) | 2.3 | 1.0 | 1.2 | 1.2 | |
| Restructuring and integration costs..... | 10,206 | 10,652 | — | (4.2) | N/M | 1.4 | 1.6 | — | |
| Goodwill impairment..... | 82,900 | — | — | N/M | N/M | 11.1 | — | — | |
| Intangible asset amortization expense..... | 21,214 | 7,662 | 9,272 | 176.9 | (17.4) | 2.8 | 1.1 | 1.4 | |
| Back office conversion costs..... | 561 | — | — | N/M | N/M | 0.1 | — | — | |
| Other operating expenses..... | 10,947 | 20,383 | 11,146 | (46.3) | 82.9 | 1.5 | 3.0 | 1.7 | |
| Total non-interest expenses..... | 778,223 | 586,495 | 537,827 | 32.7 | 9.0 | 104.1 | 87.2 | 83.0 | |
| Income/(loss) before income tax expense/(benefit)..... | (30,874) | 86,423 | 110,311 | N/M | (21.7) | (4.1) | 12.8 | 17.0 | |
| Income tax expense/(benefit)..... | (17,128) | 27,941 | 35,986 | N/M | (22.4) | (2.3) | 4.2 | 5.6 | |
| Net income/(loss)..... | (13,746) | 58,482 | 74,325 | N/M | (21.3) | (1.8) | 8.7 | 11.5 | |
| Net income applicable to noncontrolling interests..... | 8,206 | 6,407 | 11,153 | 28.1 | (42.6) | 1.1 | 1.0 | 1.7 | |
| Net income/(loss) applicable to Piper Jaffray Companies..... | \$ (21,952) | \$ 52,075 | \$ 63,172 | N/M | (17.6)% | (2.9)% | 7.7% | 9.7% | |

N/M — Not meaningful

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 the year-ago period. 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 reflect 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. In the prior year, we recorded losses on our investments of firm capital in our MLP strategies. 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 the prior year. 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 recent acquisitions and business expansion. Partially offsetting this increase was lower legal reserves associated with a \$9.8 million legal settlement in 2015.

For the year ended December 31, 2015, we recorded net income applicable to Piper Jaffray Companies of \$52.1 million. Net revenues for the year ended December 31, 2015 were \$672.9 million, a 3.8 percent increase compared to \$648.1 million in 2014. In 2015, investment banking revenues increased 12.0 percent to \$414.1 million, compared with \$369.8 million in 2014, driven by strong advisory services and debt financing revenues as we were able to continue to capitalize on the investments we have made to strengthen these businesses. For the year ended December 31, 2015, institutional brokerage revenues were \$154.9 million, compared with \$156.8 million in 2014. Asset management fees were \$75.0 million in 2015, compared with \$85.1 million in 2014, due to lower management fees from our equity product offerings resulting from decreased assets under management. For the year ended December 31, 2015, net interest income decreased to \$18.2 million, compared with \$23.6 million in 2014. The decrease primarily resulted from lower average inventory balances in municipal and treasury securities driven by the closure and liquidation of our municipal bond fund with outside investors in the second half of 2015, as well as lower interest income attributable to a merchant banking debt investment that was repaid in the second quarter of 2014. These decreases were partially offset by increased interest expense at the end of 2015 due to a higher amount of outstanding principal on our senior notes. In 2015, investment income was \$10.7 million, compared with \$12.8 million in 2014, as we recorded gains associated with our investment and the noncontrolling interests in the merchant banking fund that we manage, which were partially offset by losses on our investments of firm capital in our MLP strategies. Non-interest expenses were \$586.5 million for the year ended December 31, 2015, an increase of 9.0 percent compared to \$537.8 million in 2014, resulting from higher compensation expenses due to increased revenues and expansion of our financial institutions group, as well as higher non-compensation expenses due to a \$9.8 million legal settlement charge and restructuring and integration costs primarily associated with the acquisitions of River Branch and BMO GKST.

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 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, 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. We expect this ratio to continue at an elevated rate in 2017.

For the year ended December 31, 2015, compensation and benefits expenses increased 6.9 percent to \$421.7 million from \$394.5 million in 2014, due primarily to improved financial results. Compensation and benefits expenses as a percentage of net revenues was 62.7 percent in 2015, compared with 60.9 percent in 2014. The higher compensation expense ratio was attributable to incremental compensation related to the expansion of our financial institutions group as well as a change in our mix of revenues.

Outside Services – Outside services expenses include securities processing expenses, outsourced technology functions, outside legal fees, fund expenses associated with our consolidated alternative asset management funds and other professional fees. Outside services expenses increased 8.5 percent to \$39.3 million in 2016, compared with \$36.2 million in the corresponding period of 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.

Outside services expenses decreased 2.3 percent to \$36.2 million in 2015, compared with \$37.1 million in 2014. Excluding the portion of expenses from non-controlled equity interests in our consolidated alternative asset management funds, outside services expenses decreased 1.7 percent.

Occupancy and Equipment – 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.

For the year ended December 31, 2015, occupancy and equipment expenses were \$28.3 million, essentially flat compared with 2014.

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, 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 reflects a full year of incremental expenses associated with our acquisitions of River Branch and BMO GKST.

For the year ended December 31, 2015, communication expenses increased 4.5 percent to \$23.8 million, compared with \$22.7 million for the year ended December 31, 2014. The increase resulted from higher market data service expenses due to the additional headcount associated with our financial institutions group expansion and 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 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.

In 2015, marketing and business development expenses increased 10.0 percent to \$30.0 million, compared with \$27.3 million in the year ended December 31, 2014, due to higher travel expenses from increased business activity and acquisition-related travel.

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

For the year ended December 31, 2015, trade execution and clearance expenses were \$7.8 million, compared with \$7.6 million in the year ended December 31, 2014.

Restructuring and Integration Costs – During 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 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 the asset management reporting unit.

Intangible Asset Amortization Expense – Intangible asset amortization expense includes the amortization of definite-lived intangible assets consisting of customer relationships, the Simmons trade name, and non-competition agreements. For the year ended December 31, 2016, intangible asset amortization expense was \$21.2 million, compared with \$7.7 million in the corresponding period of 2015. The increase reflects incremental intangible asset amortization expense related to the acquisition of Simmons, and a full year of intangible asset amortization expense related to the 2015 acquisitions of River Branch and BMO GKST.

For the year ended December 31, 2015, intangible asset amortization expense was \$7.7 million, compared with \$9.3 million in the corresponding period of 2014.

Back Office Conversion Costs – In 2017, we will be migrating from a self clearing model to a fully disclosed model. Back office conversion costs includes costs incurred to move to a fully disclosed clearing model, such as contract termination fees, vendor migration fees, other professional fees, and severance benefits for impacted personnel. For the year ended December 31, 2016, we incurred back office conversion costs of \$0.6 million. We expect to complete this conversion in 2017 and incur costs of approximately \$3.0 million between 2016 and 2017. We anticipate a meaningful reduction in our trade clearing expenses by moving to a fully disclosed model.

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 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.

Other operating expenses increased to \$20.4 million in 2015, compared with \$11.1 million in 2014. In 2015, we recorded a \$9.8 million charge related to settlement of a legal matter.

Income Taxes – For the year ended December 31, 2016, our benefit from 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 tax rate, excluding noncontrolling interests, of 34.9 percent.

For the year ended December 31, 2014, our provision for income taxes was \$36.0 million, equating to an effective rate, excluding noncontrolling interests, of 36.3 percent.

Segment Performance

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

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

Adjusted segment pre-tax operating income and adjusted segment pre-tax operating margin exclude (1) revenues and expenses related to noncontrolling interests, (2) amortization of intangible assets related to acquisitions, (3) compensation 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 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 charge recognized in 2016 relates to the asset management reporting unit and primarily pertains to goodwill created from the 2010 acquisition of ARI.

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, | | | | | | | |
|---|-------------------------|----------------------|-----------------------------|--------------|-------------------|----------------------|-------------|--------------|
| | 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:

| | Year Ended December 31, | |
|---|-------------------------|------------------|
| | 2016 | 2015 |
| <i>(Dollars in thousands)</i> | | |
| Compensation from acquisition-related agreements | \$ 36,241 | \$ 4,019 |
| Restructuring and integration costs | 10,197 | 10,652 |
| Amortization of intangible assets related to acquisitions | 15,587 | 1,622 |
| | <u>\$ 62,025</u> | <u>\$ 16,293</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 in the prior-year period. For the year ended December 31, 2016, Capital Markets adjusted net revenues were \$681.2 million compared with \$599.5 million for the year ended December 31, 2015. 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 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 2016, investment banking revenues increased 18.3 percent to \$490.8 million compared with \$414.8 million in the corresponding period of 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 over the past year. Our revenues increased more than 45 percent compared to the prior year while mergers and acquisitions activity was declining, 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 in 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, an increase of 26.1 percent compared with \$91.2 million in the year-ago period, 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 municipal 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 the prior-year period. For the year ended December 31, 2016, equity financing revenues were \$71.2 million, down 37.8 percent compared with \$114.5 million in the prior-year period, due to fewer completed transactions and lower revenue per transaction. The equity capital raising business experienced challenging market conditions for most of the year. 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 the year-ago 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, mortgage-backed securities 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, 2016, institutional brokerage revenues increased 3.8 percent to \$179.5 million, compared with \$172.9 million in the prior-year period, 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 period. 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 the year negatively impacted our trading opportunities, which reduced our revenues. Credit spreads were volatile in the first quarter, and the municipal market, in which we have a meaningful presence, was volatile in the fourth quarter.

Management and performance fees include the fees generated from our merchant banking, energy, senior living and municipal bond funds with outside investors. 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 the prior-year period, 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, which we closed in the third quarter of 2015.

Investment income includes realized and unrealized gains and losses on investments, including amounts attributable to noncontrolling interests, in our merchant banking fund, municipal bond fund, senior living fund, and other firm investments. 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.

Long-term financing expenses primarily represent interest paid on our senior notes. For the year ended December 31, 2016, long-term financing expenses increased to \$9.1 million, compared to \$7.5 million in the prior-year period, 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 the year ended December 31, 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 the year ended December 31, 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.

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, | | | | | | | |
|---|-------------------------|--------------------------|-------------------|------------|------------|--------------------------|-------------------|------------|
| | 2015 | | | | 2014 | | | |
| | Total | Adjustments (1) | | U.S. | Total | Adjustments (1) | | U.S. |
| (Dollars in thousands) | Adjusted | Noncontrolling Interests | Other Adjustments | GAAP | Adjusted | Noncontrolling Interests | Other Adjustments | GAAP |
| Investment banking | | | | | | | | |
| Financing | | | | | | | | |
| Equities | \$ 114,468 | \$ — | \$ — | \$ 114,468 | \$ 109,706 | \$ — | \$ — | \$ 109,706 |
| Debt | 91,195 | — | — | 91,195 | 63,005 | — | — | 63,005 |
| Advisory services | 209,163 | — | — | 209,163 | 197,880 | — | — | 197,880 |
| Total investment banking | 414,826 | — | — | 414,826 | 370,591 | — | — | 370,591 |
| Institutional sales and trading | | | | | | | | |
| Equities | 78,584 | — | — | 78,584 | 82,211 | — | — | 82,211 |
| Fixed income | 93,489 | 816 | — | 94,305 | 92,200 | — | — | 92,200 |
| Total institutional sales and trading | 172,073 | 816 | — | 172,889 | 174,411 | — | — | 174,411 |
| Total management and performance fees | 4,642 | — | — | 4,642 | 5,398 | — | — | 5,398 |
| Investment income | 15,474 | 8,994 | — | 24,468 | 8,347 | 15,699 | — | 24,046 |
| Long-term financing expenses | (7,494) | — | — | (7,494) | (6,655) | — | — | (6,655) |
| Net revenues | 599,521 | 9,810 | — | 609,331 | 552,092 | 15,699 | — | 567,791 |
| Operating expenses | 511,241 | 3,403 | 16,293 | 530,937 | 467,198 | 4,546 | 6,917 | 478,661 |
| Segment pre-tax operating income | \$ 88,280 | \$ 6,407 | \$ (16,293) | \$ 78,394 | \$ 84,894 | \$ 11,153 | \$ (6,917) | \$ 89,130 |
| Segment pre-tax operating margin | 14.7% | | | 12.9% | 15.4% | | | 15.7% |

(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, | |
|---|-------------------------|----------|
| | 2015 | 2014 |
| (Dollars in thousands) | | |
| Compensation from acquisition-related agreements | \$ 4,019 | \$ 3,945 |
| Restructuring and integration costs | 10,652 | — |
| Amortization of intangible assets related to acquisitions | 1,622 | 2,972 |
| | \$ 16,293 | \$ 6,917 |

Capital Markets net revenues on a U.S. GAAP basis were \$609.3 million for the year ended December 31, 2015, compared with \$567.8 million for the year ended December 31, 2014. For the year ended December 31, 2015, Capital Markets adjusted net revenues were \$599.5 million compared with \$552.1 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 2015, investment banking revenues increased 11.9 percent to \$414.8 million compared with \$370.6 million in the prior year, due primarily to strong debt financing and advisory services revenues. For the year ended December 31, 2015, equity financing revenues were \$114.5 million, up 4.3 percent compared with \$109.7 million in the prior-year period, as a result of more completed transactions and slightly higher revenue per transaction. We were bookrunner on 70 percent of our transactions in 2015 compared to 52 percent in 2014. During 2015, we completed 95 equity financings, raising \$17.4 billion for our clients, compared with 90 equity financings, raising \$20.5 billion for our clients in 2014. Debt financing revenues for the year ended December 31, 2015 were \$91.2 million, up 44.7 percent compared with \$63.0 million in the prior year, due to higher public finance revenues resulting from market-wide increases in the volume of municipal issuances in 2015, as well as market share gains attributable to our geographic and sector expansion and product diversification. In 2015, our par value from negotiated debt issuances increased 49.8 percent, compared to 18.7 percent for the industry. During 2015, we completed 707 negotiated municipal issues with a total par value of \$14.3 billion, compared with 485 negotiated municipal issues with a total par value of \$9.5 billion during 2014. For the year ended December 31, 2015, advisory services revenues increased to \$209.2 million, compared with \$197.9 million in 2014, due to increased mergers and acquisitions services revenues from higher revenue per transaction. Our strategic focus to grow our mergers and acquisitions resources in the middle market and continued leadership in the healthcare sector has resulted in market share gains and increased revenues. We completed 82 transactions with an aggregate enterprise value of \$23.0 billion during 2015, compared with 91 transactions with an aggregate enterprise value of \$14.7 billion in 2014.

In 2015, institutional brokerage revenues decreased slightly to \$172.9 million, compared with \$174.4 million in 2014, due to lower equity institutional brokerage revenues, partially offset by higher fixed income institutional brokerage revenues. Equity institutional brokerage revenues were \$78.6 million in 2015, down 4.4 percent compared with \$82.2 million in 2014. The decrease was primarily due to lower client trading volumes, offset in part by contributions from our financial institutions group expansion. For the year ended December 31, 2015, fixed income institutional brokerage revenues were \$94.3 million, up slightly compared with \$92.2 million in the prior year, as a decline in strategic trading revenues was more than offset by solid performance in our customer flow business and incremental revenues associated with our acquisition of BMO GKST.

For the year ended December 31, 2015, management and performance fees were \$4.6 million, down 14.0 percent compared with \$5.4 million in 2014, due to decreased performance fees from our municipal bond fund, partially offset by higher performance fees from our merchant banking fund. In the third quarter of 2015, we closed the municipal bond fund and completed its liquidation in October 2015.

For the year ended December 31, 2015, investment income was \$24.5 million, compared to \$24.0 million in 2014. In 2015, we recorded higher gains on our merchant banking activities, which were offset by lower gains on the municipal bond fund with outside investors that we liquidated in the fourth quarter of 2015. Excluding the impact of noncontrolling interests, adjusted investment income was \$15.5 million in 2015.

In 2015, long-term financing expenses increased to \$7.5 million, compared to \$6.7 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 2015 decreased to 12.9 percent, compared with 15.7 percent for 2014. Adjusted segment pre-tax operating margin for 2015 decreased to 14.7 percent, compared with 15.4 percent for 2014. The decrease in pre-tax operating margin was due to higher non-compensation expenses resulting from a legal settlement as well as additional expenses associated with our acquisitions of River Branch and BMO GKST and our financial institutions group expansion.

Asset Management

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

| | 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> | <u>53,725</u> | <u>—</u> | <u>—</u> | <u>53,725</u> | <u>70,167</u> | <u>—</u> | <u>—</u> | <u>70,167</u> |
| Performance fees | | | | | | | | |
| Equity | 584 | — | — | 584 | 208 | — | — | 208 |
| MLP | — | — | — | — | — | — | — | — |
| <i>Total performance fees</i> | <u>584</u> | <u>—</u> | <u>—</u> | <u>584</u> | <u>208</u> | <u>—</u> | <u>—</u> | <u>208</u> |
| <i>Total management and performance fees</i> | <u>54,309</u> | <u>—</u> | <u>—</u> | <u>54,309</u> | <u>70,375</u> | <u>—</u> | <u>—</u> | <u>70,375</u> |
| Investment income/(loss) | 736 | — | — | 736 | (6,788) | — | — | (6,788) |
| 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) | <u>\$ 11,221</u> | <u>\$ —</u> | <u>\$ (88,536)</u> | <u>\$ (77,315)</u> | <u>\$ 14,283</u> | <u>\$ —</u> | <u>\$ (6,254)</u> | <u>\$ 8,029</u> |
| 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/(loss) 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.*

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, 2016, approximately five percent of our AUM was eligible to earn performance fees.

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 the prior-year period, 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 the prior-year period. The performance fees recorded in 2016 and 2015 resulted from certain funds exceeding their performance targets over a specified measurement period.

Investment income/(loss) includes gains and losses from our investments in registered funds and private funds or partnerships that we manage. In 2016, we recorded investment income of \$0.7 million, compared with a loss of \$6.8 million for the year ended December 31, 2015. The investment loss in 2015 was driven by losses in MLP investments.

Segment pre-tax operating margin for the year ended December 31, 2016 was a negative 140.5 percent, compared to 12.6 percent for the year ended December 31, 2015. The negative pre-tax operating margin in 2016 was driven by the \$82.9 million goodwill impairment charge. Excluding investment income/(loss) on firm capital invested in our strategies, adjusted operating margin declined from 29.9 percent in 2015 to 19.3 percent in 2016, due to lower management fees.

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

| | Year Ended December 31, | | | | | | | |
|---|-------------------------|--------------------------|---------------------------|-----------------|-------------------|--------------------------|-------------------|------------------|
| | 2015 | | | | 2014 | | | |
| | Total Adjusted | Adjustments (1) | | U.S. GAAP | Total Adjusted | Adjustments (1) | | U.S. GAAP |
| Noncontrolli Interests | | Other Adjustmen ts | Noncontrolli Interests | | | Other Adjustmen ts | | |
| <i>(Dollars in thousands)</i> | | | | | | | | |
| Management fees | | | | | | | | |
| Equity..... | \$ 38,249 | \$ — | \$ — | \$ 38,249 | \$ 47,987 | \$ — | \$ — | \$ 47,987 |
| MLP | 31,918 | — | — | 31,918 | 30,785 | — | — | 30,785 |
| <i>Total management fees.....</i> | <i>70,167</i> | <i>—</i> | <i>—</i> | <i>70,167</i> | <i>78,772</i> | <i>—</i> | <i>—</i> | <i>78,772</i> |
| Performance fees | | | | | | | | |
| Equity..... | 208 | — | — | 208 | 684 | — | — | 684 |
| MLP | — | — | — | — | 208 | — | — | 208 |
| <i>Total performance fees.....</i> | <i>208</i> | <i>—</i> | <i>—</i> | <i>208</i> | <i>892</i> | <i>—</i> | <i>—</i> | <i>892</i> |
| <i>Total management and performance fees.....</i> | <i>70,375</i> | <i>—</i> | <i>—</i> | <i>70,375</i> | <i>79,664</i> | <i>—</i> | <i>—</i> | <i>79,664</i> |
| <i>Investment income/(loss).....</i> | <i>(6,788)</i> | <i>—</i> | <i>—</i> | <i>(6,788)</i> | <i>683</i> | <i>—</i> | <i>—</i> | <i>683</i> |
| Total net revenues | 63,587 | — | — | 63,587 | 80,347 | — | — | 80,347 |
| Operating expenses | 49,304 | — | 6,254 | 55,558 | 51,582 | — | 7,584 | 59,166 |
| Segment pre-tax operating income | <u>\$ 14,283</u> | <u>\$ —</u> | <u>\$ (6,254)</u> | <u>\$ 8,029</u> | <u>\$ 28,765</u> | <u>\$ —</u> | <u>\$ (7,584)</u> | <u>\$ 21,181</u> |
| Segment pre-tax operating margin..... | 22.5% | | | 12.6% | 35.8% | | | 26.4% |
| Adjusted segment pre-tax operating margin excluding investment income/(loss) (2) | 29.9% | | | | 35.3% | | | |

(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, | |
|---|-------------------------|-----------------|
| | 2015 | 2014 |
| <i>(Dollars in thousands)</i> | | |
| Compensation from acquisition-related agreements | \$ 214 | \$ 1,284 |
| Amortization of intangible assets related to acquisitions | 6,040 | 6,300 |
| | <u>\$ 6,254</u> | <u>\$ 7,584</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, 2015, management fees were \$70.2 million, a decrease of 10.9 percent, compared with \$78.8 million in 2014, due to decreased management fees from our equity strategies. In 2015, management fees related to our equity strategies were \$38.2 million, down 20.3 percent compared to 2014, due to lower average AUM from net client outflows and market depreciation, as well as a lower average effective yield. The average effective revenue yield for our equity strategies was 69 basis points in 2015, compared to 78 basis points in the prior year. The decline in the average effective revenue yield was driven by large new investments from institutional investors, which have a lower fee structure. Management fees from our MLP strategies increased 3.7 percent in 2015 to \$31.9 million, compared with \$30.8 million in 2014, due to higher average effective revenue yields, partially offset by lower AUM, driven by sharp declines in MLP valuations. The average effective revenue yield for our MLP strategies was 61 basis points in 2015, compared to 54 basis points in 2014. The increase in the average effective revenue yield was due to more assets from individual investors in open-ended mutual funds, which earned higher fees.

For the year ended December 31, 2015, performance fees were \$0.2 million, compared to \$0.9 million in 2014. The performance fees recorded in 2015 and 2014 primarily resulted from certain funds exceeding their performance targets over a specified measurement period or at the time of client asset withdrawals.

In 2015, we recorded an investment loss of \$6.8 million driven by losses in MLP investments, compared with income of \$0.7 million in 2014.

Segment pre-tax operating margin for 2015 was 12.6 percent, compared to 26.4 percent for 2014. Excluding investment income/(loss) on firm capital invested in our strategies, adjusted segment pre-tax operating margin for the year ended December 31, 2015 was 29.9 percent, compared to 35.3 percent for the year ended December 31, 2014, 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, | | |
| | 2016 | 2015 | 2014 |
| Equity | | | |
| Beginning of period | \$ 4,954 | \$ 5,758 | \$ 6,683 |
| Net outflows | (1,331) | (572) | (979) |
| Net market appreciation/(depreciation) | 492 | (232) | 54 |
| End of period | <u>\$ 4,115</u> | <u>\$ 4,954</u> | <u>\$ 5,758</u> |
| MLP | | | |
| Beginning of period | \$ 3,924 | \$ 5,711 | \$ 4,549 |
| Net inflows/(outflows) | (286) | 434 | 719 |
| Net market appreciation/(depreciation) | 978 | (2,221) | 443 |
| End of period | <u>\$ 4,616</u> | <u>\$ 3,924</u> | <u>\$ 5,711</u> |
| Total | | | |
| Beginning of period | \$ 8,878 | \$ 11,469 | \$ 11,232 |
| Net outflows | (1,617) | (138) | (260) |
| Net market appreciation/(depreciation) | 1,470 | (2,453) | 497 |
| End of period | <u>\$ 8,731</u> | <u>\$ 8,878</u> | <u>\$ 11,469</u> |

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 has lagged their relative benchmarks which has 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.

Total AUM decreased to \$8.9 billion in 2015 driven by net market depreciation in our MLP product offerings. Equity AUM was \$5.0 billion at December 31, 2015, compared to \$5.8 billion at December 31, 2014 due to net client outflows and net market depreciation during the period. In 2015, our performance in our small/mid-cap value strategy lagged its relative benchmark, which contributed to client outflows, as did the continued movement to passive funds over actively-managed funds. These outflows were offset by client inflows related to our international and energy strategies. MLP AUM decreased \$1.8 billion to \$3.9 billion at December 31, 2015 as net market depreciation of \$2.2 billion was partially offset by net client inflows of \$0.4 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, 2016, we had goodwill of \$196.2 million. The goodwill balance consists of \$81.9 million recorded within our capital markets segment, of which \$60.7 million is attributable to our 2016 acquisition of Simmons. The remaining \$114.4 million relates to our asset management segment. At December 31, 2016, we had intangible assets of \$37.2 million, of which \$19.3 million relates to our capital markets segment and \$17.9 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. 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 performed our annual goodwill impairment analysis based on financial information as of October 31, 2016, which resulted in a non-cash goodwill impairment charge of \$82.9 million. The charge relates to the asset management reporting unit and primarily pertains to goodwill created from the 2010 acquisition of ARI. The impairment charge resulted from net outflows of AUM in 2016 as a result of an extended cycle of investors favoring passive investment vehicles over active management, combined with certain investment strategies having performance below their benchmarks, which led to reduced management fees and profitability. In addition, lower average AUM for our MLP strategies, driven by a decline in MLP valuations, resulted in decreased management fees and profitability. 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. The implied fair value of the reporting unit's goodwill was determined in the same manner as the amount of goodwill recognized in a business combination. The implied fair value of goodwill is the excess value of the reporting unit over the fair value assigned to its assets and liabilities.

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 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 2016.

Compensation Plans

Stock-Based Compensation Plans

As part of our compensation to employees and directors, we use stock-based compensation, consisting of restricted stock, restricted stock units and stock options. 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, including grants of employee stock options, 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, net of estimated forfeitures. 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 bases and for tax loss carry-forwards. 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, options, 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 U.S. 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. As of December 31, 2016, we have recorded a deferred tax asset valuation allowance of \$0.8 million, representing the entire deferred tax asset related to net operating loss carryforwards within Simmons & Company International Limited ("SCIL").

We record deferred tax benefits for future tax deductions expected upon the vesting of stock-based compensation. 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 additional paid-in capital. 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, we offset the deficiency first to any previously recognized excess tax benefits recorded as additional paid-in capital and any remaining deficiency is recorded as income tax expense. 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. As of December 31, 2016, we had \$7.3 million of excess tax benefits recorded as additional paid-in capital, which will remain in additional paid-in capital. In the first quarter of 2017, approximately 4,000 options expired and 611,000 shares vested at share prices greater than the grant date fair value, resulting in \$7.1 million of excess tax benefits recorded as income tax benefit in the first quarter of 2017.

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.

We have not historically paid cash dividends on our common stock. Beginning in 2017, we are initiating the payment of a quarterly cash dividend to holders of our common stock. Our board of directors has declared a dividend of \$0.3125 per share to be paid on March 13, 2017 to shareholders of record as of the close of business on February 20, 2017. Our board of directors is free to change our dividend policy at any time.

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 2016, we repurchased 1,536,226 shares our common stock at an average price of \$38.89 per share for an aggregate purchase price of \$59.7 million related to this authorization. We have \$71.8 million remaining under this authorization.

We also purchase shares of common stock from restricted stock award recipients upon the award vesting as recipients sell shares to meet their employment tax obligations. During 2016, we purchased 261,685 shares or \$11.1 million of our common shares for this purpose.

Cash Flows

Cash and cash equivalents at December 31, 2016 were \$41.4 million, a decrease of \$148.6 million 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 expense. The increase in intangible asset amortization expense was due to incremental expense related to our recent 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. In 2016, investing activities used \$83.7 million of cash, of which \$72.7 million related to the acquisition of Simmons, and \$11.0 million for the purchase of fixed assets. Cash of \$111.6 million was used in financing activities 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.

Cash and cash equivalents decreased \$107.8 million to \$15.9 million at December 31, 2014 from December 31, 2013. Operating activities used \$50.1 million of cash primarily due to an increase in operating assets, particularly related to our inventory and reverse repurchase agreements, which are principally used to make delivery on securities sold short. Partially offsetting these increases in operating assets were cash received from earnings and increased compensation related accruals. Investing activities in 2014 used \$5.4 million of cash primarily related to the purchase of fixed assets. Cash of \$52.0 million was used in financing activities as we reduced amounts due under our short-term financing related to commercial paper and our prime broker arrangement, offset in part by increases in repurchase agreements. Additionally, we experienced a \$9.0 million

decrease in noncontrolling interests due to net fund capital withdrawals and used \$10.9 million of cash to repurchase common stock from employees selling shares to meet their tax obligations related to award vestings.

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, 2016 | December 31, 2015 |
|---|------------------------------|------------------------------|
| Total assets..... | \$ 2,125,503 | \$ 2,138,518 |
| Deduct: Goodwill and intangible assets | (233,452) | (248,506) |
| Deduct: Assets from noncontrolling interests..... | (109,179) | (88,590) |
| Adjusted assets..... | <u>\$ 1,782,872</u> | <u>\$ 1,801,422</u> |
| | | |
| Total shareholders' equity..... | \$ 816,266 | \$ 832,820 |
| Deduct: Goodwill and intangible assets | (233,452) | (248,506) |
| Deduct: Noncontrolling interests..... | (57,016) | (49,161) |
| Tangible common shareholders' equity | <u>\$ 525,798</u> | <u>\$ 535,153</u> |
| | | |
| Leverage ratio (1) | 2.6 | 2.6 |
| | | |
| Adjusted leverage ratio (2) | 3.4 | 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.

Short-term financing

Our day-to-day funding and liquidity is obtained primarily through the use of commercial paper issuance, repurchase agreements, 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 overnight or 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.

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 issued under three separate programs, CP Series A, CP Series II A and CP Series III A, and is secured by different inventory classes, which is reflected in the interest rate paid on the respective program. The programs can issue with maturities of 27 to 270 days. CP Series III A includes a covenant that requires Piper Jaffray & Co. to maintain excess net capital of \$120 million. The following table provides information about our commercial paper programs at December 31, 2016:

(Dollars in millions)

| | <u>CP Series A</u> | <u>CP Series II A</u> | <u>CP Series III A</u> |
|--|--------------------|-----------------------|------------------------|
| Maximum amount that may be issued | \$ 300.0 | \$ 150.0 | \$ 125.0 |
| Amount outstanding | 67.6 | 20.0 | 59.4 |
| Weighted average maturity, in days | 45 | 13 | 15 |
| Weighted average maturity at issuance, in days | 142 | 95 | 42 |

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 and the alternative asset management fund that we previously managed with outside investors. 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, 2016, we had \$271.8 million of financing outstanding under these prime broker arrangements.

Committed Lines – We elected to decrease our committed line from \$250 million to a one-year \$200 million revolving secured credit facility in 2016. 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 16, 2017. This credit facility has been in place since 2008 and we renewed the facility for another one-year term in the fourth quarter of 2016. At December 31, 2016, we had no advances against this line of credit.

Uncommitted Lines – We use uncommitted lines in the ordinary course of business to fund a portion of our daily operations, and the amount borrowed under our uncommitted lines varies daily based on our funding needs. Our uncommitted secured lines total \$185 million with two banks and are 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 these secured lines. We also have an uncommitted unsecured facility with one of these banks. All of these uncommitted lines are discretionary and are not a commitment by the bank to provide an advance under the line. More specifically, these lines are subject to approval by the respective 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 relationships with the banks that provide these uncommitted facilities in order to have appropriate levels of funding for our business. At December 31, 2016, we had no advances against these lines of credit.

The following tables present the average balances outstanding for our various short-term funding sources by quarter for 2016 and 2015, respectively.

| | 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..... | 225.6 | 200.6 | 169.2 | 159.0 |
| Short-term bank loans..... | 5.3 | — | 6.4 | 0.8 |
| Total..... | <u>\$ 400.2</u> | <u>\$ 451.2</u> | <u>\$ 484.2</u> | <u>\$ 469.5</u> |

| | Average Balance for the Three Months Ended | | | |
|--------------------------------|---|-----------------------|----------------------|----------------------|
| | Dec. 31, 2015 | Sept. 30, 2015 | June 30, 2015 | Mar. 31, 2015 |
| <i>(Dollars in millions)</i> | | | | |
| Funding source: | | | | |
| Repurchase agreements..... | \$ 25.5 | \$ 32.1 | \$ 76.9 | \$ 66.4 |
| Commercial paper..... | 277.5 | 276.8 | 256.3 | 245.1 |
| Prime broker arrangements..... | 109.4 | 139.8 | 242.8 | 167.1 |
| Short-term bank loans..... | 0.3 | 0.2 | 11.9 | 28.4 |
| Total..... | <u>\$ 412.7</u> | <u>\$ 448.9</u> | <u>\$ 587.9</u> | <u>\$ 507.0</u> |

The average funding in the fourth quarter of 2016 decreased to \$400.2 million, compared with \$451.2 million during the third quarter of 2016, as we used excess cash to reduce commercial paper funding.

The following table presents the maximum daily funding amount by quarter for 2016 and 2015, respectively.

| | 2016 | | 2015 | |
|------------------------------|-------------|-------------|-------------|-------------|
| | 2016 | 2015 | 2015 | 2014 |
| <i>(Dollars in millions)</i> | | | | |
| First Quarter..... | \$ 576.4 | \$ 949.8 | \$ 876.0 | \$ 666.1 |
| Second Quarter..... | 669.7 | 876.0 | 666.1 | 531.7 |
| Third Quarter..... | 525.6 | 666.1 | 531.7 | |
| Fourth Quarter..... | 274.1 | 531.7 | | |

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, | December 31, |
| | 2016 | 2015 |
| <i>(Dollars in thousands)</i> | | |
| Class A Notes..... | \$ 50,000 | \$ 50,000 |
| Class C Notes..... | 125,000 | 125,000 |
| Total senior notes..... | <u>\$ 175,000</u> | <u>\$ 175,000</u> |

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, payable semi-annually and mature on October 9, 2018. The \$50 million of variable rate Class A Notes issued in 2014 bear interest at a rate equal to three-month LIBOR plus 3.00 percent, adjusted and payable quarterly and mature on May 31, 2017. The unpaid principal amounts of the senior notes are due in full on the respective maturity dates and may not be prepaid.

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, 2016, 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, 2016, 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> | <u>2017</u> | <u>2018 - 2019</u> | <u>2020 - 2021</u> | <u>2022 and thereafter</u> | <u>Total</u> |
|-----------------------------------|-------------|------------------------|------------------------|--------------------------------|--------------|
| Operating lease obligations | \$ 14.6 | \$ 25.5 | \$ 18.3 | \$ 20.0 | \$ 78.4 |
| Purchase commitments | 17.1 | 7.1 | — | — | 24.2 |
| Investment commitments (1) | — | — | — | — | 22.8 |
| Senior notes | 50.0 | 125.0 | — | — | 175.0 |

(1) *The investment commitments have no specified call dates. The timing of capital calls is based on market conditions and investment opportunities. Investment commitments consist of \$15.6 million to an affiliated merchant banking fund, and \$3.8 million to an affiliated fund, which provides financing to senior living facilities.*

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.

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 the greater of \$1.0 million or 2 percent of aggregate debit balances arising from customer transactions, as this is defined in the rule. FINRA may prohibit a member firm from expanding its business or paying dividends if resulting net capital would be less than 5 percent of aggregate debit balances. 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, 2016, our net capital under the SEC's uniform net capital rule was \$191.1 million, and exceeded the minimum net capital required under the SEC rule by \$190.1 million.

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

Our committed short-term credit facility and its senior notes include covenants requiring Piper Jaffray & Co. to maintain minimum net capital of \$120 million. CP Notes issued under CP Series III A include a covenant that requires Piper Jaffray & Co. to maintain excess net capital of \$120 million.

At December 31, 2016, Piper Jaffray Ltd. and SCIL, our broker dealer subsidiaries registered in the United Kingdom, were subject to, and were 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, 2016, Piper Jaffray Hong Kong Limited was in compliance with the liquid capital requirements of the Hong Kong Securities and Futures 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:

| <i>(Dollars in thousands)</i> | Expiration Per Period at December 31, | | | | | | Total Contractual Amount | |
|--|---------------------------------------|------|-----------|-----------|------------|--------------|--------------------------|--------------|
| | 2017 | 2018 | 2019 | 2020 | 2022 | Later | December 31, | December 31, |
| | | | | - 2021 | - 2023 | | 2016 | 2015 |
| Customer matched-book derivative contracts (1) (2) | \$ 40,950 | \$ — | \$ 34,650 | \$ 42,960 | \$ 165,780 | \$ 3,045,867 | \$ 3,330,207 | \$ 4,392,440 |
| Trading securities derivative contracts (2) | 393,800 | — | — | — | — | 29,750 | 423,550 | 290,600 |
| Credit default swap index contracts (2) | — | — | — | 7,470 | — | — | 7,470 | 94,270 |
| Futures and equity option derivative contracts (2) | — | — | — | — | — | — | — | 2,345,037 |
| Investment commitments (3) | — | — | — | — | — | — | 22,776 | 32,819 |

(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 \$183.4 million at December 31, 2016) 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, 2016, we had \$22.7 million of credit exposure with these counterparties, including \$15.6 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, 2016 and December 31, 2015, the net fair value of these derivative contracts approximated \$24.0 million and \$31.8 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 that provide financing or make investments in private equity companies. We commit capital and/or act as the managing partner of these entities. For a complete discussion of 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 to certain entities and these commitments generally have no specified call dates. We had \$22.8 million of commitments outstanding at December 31, 2016, of which \$15.6 million relate to an affiliated merchant banking fund, and \$3.8 million relate to an affiliated fund, which provides financing for senior living facilities.

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, 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, Chief Financial Officer, General Counsel, Treasurer, Head of Market and Credit Risk, Head of Public Finance, Head of Fixed Income Services and Firm Investments and Trading, and Head of Equities. 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, 2016 | December 31, 2015 |
|----------------------------------|------------------------------|------------------------------|
| Interest Rate Risk | \$ 696 | \$ 608 |
| Equity Price Risk | 41 | 119 |
| Diversification Effect (1) | (26) | (66) |
| Total Value-at-Risk | <u><u>\$ 711</u></u> | <u><u>\$ 661</u></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 value-at-risk calculated for each component of market risk during the years ended December 31, 2016 and 2015, respectively.

| <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 |

| <i>(Dollars in thousands)</i> | <u>High</u> | <u>Low</u> | <u>Average</u> |
|---|--------------------|-------------------|-----------------------|
| For the Year Ended December 31, 2015 | | | |
| Interest Rate Risk | \$ 853 | \$ 415 | \$ 582 |
| Equity Price Risk | 618 | 31 | 314 |
| Diversification Effect (1) | | | (133) |
| Total Value-at-Risk | \$ 1,128 | \$ 487 | \$ 763 |

(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 14 occasions during 2016.

The aggregate VaR as of December 31, 2016 was higher than the reported VaR on December 31, 2015. The increase in VaR is due to higher volatility and increased inventory levels at 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" in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," in this Form 10-K 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 and clearing organizations. 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 and conducting business through clearing organizations, which guarantee performance. Our risk management functions also evaluate the potential risk associated with institutional counterparties with whom we hold repurchase and resale agreement facilities, stock borrow or loan facilities, 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 \$22.7 million at December 31, 2016. 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 68.7 percent, or \$15.6 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, clearing houses, 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, and other events that could have an information security impact. The occurrence of one or more of these events 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 will be migrating to a fully disclosed clearing model for all of our currently self clearing operations. The migration process introduces unique risks that could cause disruptions in our business or create other unexpected capital charges or losses. We have preventative measures in place, including a project governance committee comprised of members of senior management, as well as senior management at our third party partner. In order to mitigate and control operational risk inherent in the migration, we have developed procedures specific to the project implementation process, including parallel system operations, mock conversion testing, and ongoing monitoring and reporting to members of the project governance committee. We also have the ability to obtain additional methods of financing from existing creditors in the event unknown capital charges arise.

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, use and safekeeping of customer funds and securities, 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.

INDEX TO AUDITED CONSOLIDATED FINANCIAL STATEMENTS

| | |
|---|-----|
| Management's Report on Internal Control Over Financial Reporting | 62 |
| Report of Independent Registered Public Accounting Firm | 63 |
| Report of Independent Registered Public Accounting Firm | 64 |
| Consolidated Financial Statements: | |
| Consolidated Statements of Financial Condition | 65 |
| Consolidated Statements of Operations | 66 |
| Consolidated Statements of Comprehensive Income | 67 |
| Consolidated Statements of Changes in Shareholders' Equity | 68 |
| Consolidated Statements of Cash Flows | 70 |
| Notes to the Consolidated Financial Statements | |
| Note 1 Organization and Basis of Presentation | 71 |
| Note 2 Summary of Significant Accounting Policies | 72 |
| Note 3 Recent Accounting Pronouncements | 77 |
| Note 4 Acquisitions | 79 |
| Note 5 Financial Instruments and Other Inventory Positions Owned and Financial Instruments and Other Inventory Positions Sold, but Not Yet Purchased | 81 |
| Note 6 Fair Value of Financial Instruments | 83 |
| Note 7 Variable Interest Entities | 91 |
| Note 8 Receivables from and Payables to Brokers, Dealers and Clearing Organizations | 92 |
| Note 9 Receivables from and Payables to Customers | 92 |
| Note 10 Collateralized Securities Transactions | 93 |
| Note 11 Investments | 95 |
| Note 12 Other Assets | 95 |
| Note 13 Goodwill and Intangible Assets | 96 |
| Note 14 Fixed Assets | 97 |
| Note 15 Short-Term Financing | 97 |
| Note 16 Senior Notes | 98 |
| Note 17 Contingencies, Commitments and Guarantees | 99 |
| Note 18 Restructuring | 100 |
| Note 19 Shareholders' Equity | 100 |
| Note 20 Employee Benefit Plans | 102 |
| Note 21 Compensation Plans | 103 |
| Note 22 Earnings Per Share | 108 |
| Note 23 Segment Reporting | 109 |
| Note 24 Net Capital Requirements and Other Regulatory Matters | 111 |
| Note 25 Income Taxes | 111 |
| Note 26 Piper Jaffray Companies (Parent Company only) | 113 |
| Supplementary Data | 116 |

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, 2016. 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, 2016.

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, 2016. Their report, which expresses an unqualified opinion on the effectiveness of Piper Jaffray Companies' internal control over financial reporting as of December 31, 2016, is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders
Piper Jaffray Companies

We have audited Piper Jaffray Companies' (the Company) internal control over financial reporting as of December 31, 2016, 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). Piper Jaffray Companies' 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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether 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.

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.

In our opinion, Piper Jaffray Companies maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the 2016 consolidated financial statements of Piper Jaffray Companies and our report dated February 24, 2017, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Minneapolis, Minnesota
February 24, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders
Piper Jaffray Companies

We have audited the accompanying consolidated statements of financial condition of Piper Jaffray Companies (the Company) as of December 31, 2016 and 2015, 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, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Piper Jaffray Companies at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, 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), Piper Jaffray Companies' internal control over financial reporting as of December 31, 2016, 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 24, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Minneapolis, Minnesota
February 24, 2017

Piper Jaffray Companies

Consolidated Statements of Financial Condition

| | December 31, | December 31, |
|---|---------------------|---------------------|
| | 2016 | 2015 |
| <i>(Amounts in thousands, except share data)</i> | | |
| Assets | | |
| Cash and cash equivalents | \$ 41,359 | \$ 189,910 |
| Cash and cash equivalents segregated for regulatory purposes..... | 29,015 | 81,022 |
| Receivables: | | |
| Customers | 31,917 | 41,167 |
| Brokers, dealers and clearing organizations | 212,730 | 147,949 |
| Securities purchased under agreements to resell | 159,697 | 136,983 |
| Financial instruments and other inventory positions owned | 464,610 | 283,579 |
| Financial instruments and other inventory positions owned and pledged as collateral..... | 594,361 | 707,355 |
| Total financial instruments and other inventory positions owned | <u>1,058,971</u> | <u>990,934</u> |
| Fixed assets (net of accumulated depreciation and amortization of \$58,308 and \$51,874, respectively)..... | 25,343 | 18,984 |
| Goodwill | 196,218 | 217,976 |
| Intangible assets (net of accumulated amortization of \$70,017 and \$48,803, respectively)..... | 37,234 | 30,530 |
| Investments | 168,057 | 165,398 |
| Other assets | 164,962 | 117,665 |
| Total assets..... | <u>\$ 2,125,503</u> | <u>\$ 2,138,518</u> |
| Liabilities and Shareholders' Equity | | |
| Short-term financing..... | \$ 418,832 | \$ 446,190 |
| Senior notes | 175,000 | 175,000 |
| Payables: | | |
| Customers | 29,352 | 37,364 |
| Brokers, dealers and clearing organizations | 40,842 | 48,131 |
| Securities sold under agreements to repurchase | 15,046 | 45,319 |
| Financial instruments and other inventory positions sold, but not yet purchased..... | 299,357 | 239,155 |
| Accrued compensation | 288,255 | 251,638 |
| Other liabilities and accrued expenses..... | 42,553 | 62,901 |
| Total liabilities | <u>1,309,237</u> | <u>1,305,698</u> |
| Shareholders' equity: | | |
| Common stock, \$0.01 par value: | | |
| Shares authorized: 100,000,000 at December 31, 2016 and December 31, 2015; | | |
| Shares issued: 19,535,307 at December 31, 2016 and 19,510,858 at December 31, 2015; | | |
| Shares outstanding: 12,391,970 at December 31, 2016 and 13,311,016 at December 31, 2015 | 195 | 195 |
| Additional paid-in capital | 788,927 | 752,066 |
| Retained earnings..... | 257,188 | 279,140 |
| Less common stock held in treasury, at cost: 7,143,337 at December 31, 2016 and 6,199,842 shares at December 31, 2015 | (284,461) | (247,553) |
| Accumulated other comprehensive loss..... | (2,599) | (189) |
| Total common shareholders' equity | <u>759,250</u> | <u>783,659</u> |
| Noncontrolling interests | 57,016 | 49,161 |
| Total shareholders' equity | <u>816,266</u> | <u>832,820</u> |
| Total liabilities and shareholders' equity..... | <u>\$ 2,125,503</u> | <u>\$ 2,138,518</u> |

See Notes to the Consolidated Financial Statements

Piper Jaffray Companies
Consolidated Statements of Operations

| | Year Ended December 31, | | |
|---|-----------------------------------|------------------|------------------|
| | 2016 | 2015 | 2014 |
| <i>(Amounts in thousands, except per share data)</i> | | | |
| Revenues: | | | |
| Investment banking | \$ 490,340 | \$ 414,118 | \$ 369,811 |
| Institutional brokerage | 161,186 | 154,889 | 156,809 |
| Asset management | 60,672 | 75,017 | 85,062 |
| Interest | 33,074 | 41,557 | 48,716 |
| Investment income | 24,602 | 10,736 | 12,813 |
| Total revenues | <u>769,874</u> | <u>696,317</u> | <u>673,211</u> |
| Interest expense | <u>22,525</u> | <u>23,399</u> | <u>25,073</u> |
| Net revenues | <u>747,349</u> | <u>672,918</u> | <u>648,138</u> |
| Non-interest expenses: | | | |
| Compensation and benefits | 510,612 | 421,733 | 394,510 |
| Outside services | 39,289 | 36,218 | 37,055 |
| Occupancy and equipment | 34,813 | 28,301 | 28,231 |
| Communications | 29,626 | 23,762 | 22,732 |
| Marketing and business development | 30,404 | 29,990 | 27,260 |
| Trade execution and clearance | 7,651 | 7,794 | 7,621 |
| Restructuring and integration costs | 10,206 | 10,652 | — |
| Goodwill impairment | 82,900 | — | — |
| Intangible asset amortization expense | 21,214 | 7,662 | 9,272 |
| Back office conversion costs | 561 | — | — |
| Other operating expenses | 10,947 | 20,383 | 11,146 |
| Total non-interest expenses | <u>778,223</u> | <u>586,495</u> | <u>537,827</u> |
| Income/(loss) before income tax expense/(benefit) | (30,874) | 86,423 | 110,311 |
| Income tax expense/(benefit) | <u>(17,128)</u> | <u>27,941</u> | <u>35,986</u> |
| Net income/(loss) | (13,746) | 58,482 | 74,325 |
| Net income applicable to noncontrolling interests | 8,206 | 6,407 | 11,153 |
| Net income/(loss) applicable to Piper Jaffray Companies | <u>\$ (21,952)</u> | <u>\$ 52,075</u> | <u>\$ 63,172</u> |
| Net income/(loss) applicable to Piper Jaffray Companies' common shareholders | <u>\$ (21,952)</u> ⁽¹⁾ | <u>\$ 48,060</u> | <u>\$ 58,141</u> |
| Earnings/(loss) per common share | | | |
| Basic | \$ (1.73) | \$ 3.34 | \$ 3.88 |
| Diluted | \$ (1.73) ⁽²⁾ | \$ 3.34 | \$ 3.87 |
| Weighted average number of common shares outstanding | | | |
| Basic | 12,674 | 14,368 | 14,971 |
| Diluted | 12,779 ⁽²⁾ | 14,389 | 15,025 |

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

(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, | | |
|--|--------------------------------|------------------|------------------|
| | 2016 | 2015 | 2014 |
| Net income/(loss) | \$ (13,746) | \$ 58,482 | \$ 74,325 |
| Other comprehensive loss, net of tax: | | | |
| Foreign currency translation adjustment | <u>(2,410)</u> | <u>(566)</u> | <u>(519)</u> |
| Total other comprehensive loss, net of tax | <u>(2,410)</u> | <u>(566)</u> | <u>(519)</u> |
| Comprehensive income/(loss) | (16,156) | 57,916 | 73,806 |
| Comprehensive income applicable to noncontrolling interests | <u>8,206</u> | <u>6,407</u> | <u>11,153</u> |
| Comprehensive income/(loss) applicable to Piper Jaffray Companies | <u>\$ (24,362)</u> | <u>\$ 51,509</u> | <u>\$ 62,653</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, 2013 | 14,383,418 | \$ 195 | \$ 740,321 | \$ 163,893 | \$ (170,629) | \$ 896 | \$ 734,676 | \$ 147,396 | \$ 882,072 |
| Net income..... | — | — | — | 63,172 | — | — | 63,172 | 11,153 | 74,325 |
| Amortization/issuance of restricted stock | — | — | 23,649 | — | — | — | 23,649 | — | 23,649 |
| Issuance of treasury shares for options exercised | 137,864 | — | 834 | — | 4,618 | — | 5,452 | — | 5,452 |
| Issuance of treasury shares for restricted stock vestings..... | 892,385 | — | (30,295) | — | 30,295 | — | — | — | — |
| Repurchase of common stock for employee tax withholding | (256,055) | — | — | — | (10,854) | — | (10,854) | — | (10,854) |
| Issuance of treasury shares for 401k match.. | 103,598 | — | 726 | — | 3,430 | — | 4,156 | — | 4,156 |
| Shares reserved/issued for director compensation | 4,210 | — | 180 | — | — | — | 180 | — | 180 |
| Other comprehensive loss | — | — | — | — | — | (519) | (519) | — | (519) |
| Fund capital withdrawals, net | — | — | — | — | — | — | — | (9,001) | (9,001) |
| 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 withdrawals, 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 |

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)..... | — | \$ — | \$ — | \$ (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 (1) | — | — | — | — | — | — | — | (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 |

(1) The Company deconsolidated certain investment partnerships upon adoption of ASU 2015-02. See Note 3 for further discussion.

See Notes to the Consolidated Financial Statements

Piper Jaffray Companies
Consolidated Statements of Cash Flows

| | Year Ended December 31, | | |
|--|-------------------------|-------------------|------------------|
| | 2016 | 2015 | 2014 |
| <i>(Dollars in thousands)</i> | | | |
| Operating Activities: | | | |
| Net income/(loss) | \$ (13,746) | \$ 58,482 | \$ 74,325 |
| Adjustments to reconcile net income/(loss) to net cash provided by/(used in) operating activities: | | | |
| Depreciation and amortization of fixed assets | 6,410 | 5,058 | 5,269 |
| Deferred income taxes | (31,023) | (20,959) | (10,843) |
| Stock-based and deferred compensation | 55,977 | 48,754 | 28,764 |
| Goodwill impairment | 82,900 | — | — |
| Amortization of intangible assets | 21,214 | 7,662 | 9,272 |
| Amortization of forgivable loans | 8,785 | 6,377 | 5,316 |
| Decrease/(increase) in operating assets: | | | |
| Cash and cash equivalents segregated for regulatory purposes | 52,007 | (56,011) | 18,001 |
| Receivables: | | | |
| Customers | 9,272 | (31,509) | 1,975 |
| Brokers, dealers and clearing organizations | (64,781) | 13,060 | (33,896) |
| Securities purchased under agreements to resell | (24,591) | 171,182 | (140,290) |
| Net financial instruments and other inventory positions owned | (7,835) | 126,458 | (27,042) |
| Investments | (10,881) | (38,558) | (14,797) |
| Other assets | (20,992) | 3,602 | 3,785 |
| Increase/(decrease) in operating liabilities: | | | |
| Payables: | | | |
| Customers | (8,012) | 24,036 | (19,781) |
| Brokers, dealers and clearing organizations | (7,289) | 22,567 | (2,158) |
| Securities sold under agreements to repurchase | (1,127) | 18,050 | — |
| Accrued compensation | 30,396 | 2,178 | 67,247 |
| Other liabilities and accrued expenses | (27,902) | 19,095 | (15,216) |
| Net cash provided by/(used in) operating activities | <u>48,782</u> | <u>379,524</u> | <u>(50,069)</u> |
| Investing Activities: | | | |
| Business acquisitions, net of cash acquired | (72,709) | (11,739) | — |
| Repayment of note receivable | — | 1,500 | 2,000 |
| Purchases of fixed assets, net | (11,017) | (5,914) | (7,387) |
| Net cash used in investing activities | <u>(83,726)</u> | <u>(16,153)</u> | <u>(5,387)</u> |
| Financing Activities: | | | |
| Increase/(decrease) in short-term financing | (27,358) | 68,423 | (136,944) |
| Issuance of senior notes | — | 125,000 | 50,000 |
| Repayment of senior notes | — | (75,000) | (50,000) |
| Increase/(decrease) in securities sold under agreements to repurchase | (27,269) | (75,377) | 98,249 |
| Increase/(decrease) in noncontrolling interests | 9,064 | (106,794) | (9,001) |
| Repurchase of common stock | (70,859) | (132,925) | (10,854) |
| Excess tax benefit from stock-based compensation | 304 | 5,858 | 1,081 |
| Proceeds from stock option exercises | 4,557 | 1,856 | 5,452 |
| Net cash used in financing activities | <u>(111,561)</u> | <u>(188,959)</u> | <u>(52,017)</u> |
| Currency adjustment: | | | |
| Effect of exchange rate changes on cash | (2,046) | (369) | (343) |
| Net increase/(decrease) in cash and cash equivalents | <u>(148,551)</u> | 174,043 | (107,816) |
| Cash and cash equivalents at beginning of year | <u>189,910</u> | <u>15,867</u> | <u>123,683</u> |
| Cash and cash equivalents at end of year | <u>\$ 41,359</u> | <u>\$ 189,910</u> | <u>\$ 15,867</u> |
| Supplemental disclosure of cash flow information – | | | |
| Cash paid during the year for: | | | |
| Interest | \$ 23,171 | \$ 24,668 | \$ 25,345 |
| Income taxes | \$ 27,298 | \$ 31,950 | \$ 58,599 |
| Non-cash investing activities – | | | |
| Issuance of common stock related to the acquisition of Simmons & Company International: | | | |
| 25,525 shares for the year ended December 31, 2016 | \$ 1,074 | \$ — | \$ — |
| Non-cash financing activities – | | | |
| Issuance of common stock for retirement plan obligations: | | | |
| 103,598 shares for the year ended December 31, 2014 | \$ — | \$ — | \$ 4,156 |
| Issuance of restricted common stock for annual equity award: | | | |
| 843,889 shares, 550,650 shares and 402,074 shares for the years ended December 31, 2016, 2015 and 2014, respectively | \$ 35,089 | \$ 30,429 | \$ 16,131 |

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 headquartered in London, England; Simmons & Company International Limited ("SCIL"), a firm providing mergers and acquisitions services to the energy industry headquartered in Aberdeen, Scotland; 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., which consists of entities providing alternative asset management services; Piper Jaffray Financial Products Inc., Piper Jaffray Financial Products II Inc. and Piper Jaffray Financial Products III Inc., entities that facilitate derivative transactions; and other immaterial subsidiaries. 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, mortgage-backed securities, 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.

In accordance with Rule 15c3-3 of the Securities Exchange Act of 1934, Piper Jaffray, as a registered broker dealer carrying customer accounts, is subject to requirements related to maintaining cash or qualified securities in a segregated reserve account for the exclusive benefit of its customers.

Customer Transactions

Customer securities transactions are recorded on a settlement date basis, while the related revenues and expenses are recorded on a trade-date basis. Customer receivables and payables include amounts related to both cash and margin transactions. 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

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

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

Securities borrowed and loaned result from transactions with other broker dealers or financial institutions and are recorded at the amount of cash collateral advanced or received. 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 require the Company to deposit cash or other collateral with the lender. Securities loaned transactions require the borrower to deposit cash with the Company. The Company monitors the market value of securities borrowed and loaned on a daily basis, with additional collateral obtained or refunded as necessary.

Interest is accrued on securities borrowed and loaned transactions and is 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, while warrants without a cashless exercise option are valued at cost. 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 net deferred income tax assets, receivables and prepaid expenses. Receivables include fee receivables, accrued interest 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,

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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.

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.

Investment Income – Investment income includes realized and unrealized gains and losses from the Company's merchant banking, 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 net of estimated forfeitures. 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. Losses are not 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 nonforfeitable dividends.

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 year-end rates of exchange. The gains or losses resulting from translating foreign currency financial statements are included in other comprehensive income. Gains or losses resulting from foreign currency transactions are included in net income.

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

Adoption of New Accounting Standards

Consolidation

In February 2015, the FASB issued Accounting Standard Update ("ASU") No. 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis" ("ASU 2015-02"). ASU 2015-02 makes several modifications to the consolidation guidance for VIEs and general partners' investments in limited partnerships, as well as modifications to the evaluation of whether limited partnerships are VIEs or voting interest entities. It was effective for the Company as of January 1, 2016. The adoption of ASU 2015-02 resulted in the deconsolidation of certain investment partnerships with assets (and the related noncontrolling interests) of approximately \$9.4 million. There was no impact to the Company's retained earnings upon adoption. In addition, certain entities previously consolidated as voting entities became consolidated VIEs under the amended guidance.

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 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 additional disclosures regarding the nature, amount, timing and uncertainty of revenue that is recognized. The FASB has subsequently issued various ASUs which amend specific areas of guidance in ASU 2014-09. The Company's implementation efforts include the identification of revenue within the scope of the guidance, and the potential impact on its consolidated results of operations and disclosures. The current industry treatment of netting deal expenses with investment banking revenues, and the timing of performance fee recognition related to certain consolidated entities and fees received for equity research may be impacted by the new guidance. The Company is also evaluating whether certain asset management contract costs can be capitalized on the consolidated statements of financial position. The Company will adopt this guidance as of January 1, 2018. The two permitted transition methods under ASU 2014-09 are the full retrospective method, in which case the standard would be applied to each prior reporting period presented, or the modified retrospective method, under which the cumulative effect of applying the standard would be recognized at the date of initial application. The Company is in the process of determining its method of adoption, which depends, in part, upon the completion of further analysis.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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 is not expected to have a material impact on the Company's results of operations or financial position, but may impact the Company's 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, 2016, the Company had approximately 65 operating leases for office space with aggregate minimum lease commitments of \$78.4 million. The Company is evaluating other service contracts which may include embedded leases. 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.

Stock-Based Compensation

In March 2016, the FASB issued ASU No. 2016-09, "Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" ("ASU 2016-09"). ASU 2016-09 makes targeted amendments to the accounting for share-based payments to employees. Under ASU 2016-09, entities will be required to recognize the income tax effects of awards in the income statement when the awards vest or are settled, rather than as additional paid-in capital. ASU 2016-09 also amends the guidance regarding the employer's statutory income tax withholding requirements and allows an entity to make an accounting policy election for forfeitures. The guidance is effective on a prospective basis for annual and interim periods beginning after December 15, 2016. As of December 31, 2016, the Company had \$7.3 million of excess tax benefits recorded as additional paid-in capital, which will remain in additional paid-in capital upon adoption. The adoption of ASU 2016-09 will impact the Company's 2017 results of operations as excess tax benefits generated from the vesting of share-based awards will be recognized in the income statement as opposed to additional paid-in capital.

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 15, 2017 and should be applied retrospectively. Early adoption is permitted. The Company expects that only a limited number of the amendments will impact the presentation of its consolidated statements of cash flows.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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 should be applied retrospectively. Early adoption is permitted.

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. ASU 2017-04 is effective for the Company's annual and any interim goodwill impairment tests in fiscal years beginning after December 15, 2019 and should be applied prospectively. Early adoption is permitted for interim and annual goodwill impairment testing dates after January 1, 2017.

Note 4 Acquisitions

The following acquisitions were accounted for pursuant to FASB Accounting Standards Codification Topic 805, "Business Combinations." Accordingly, the purchase price of each acquisition was allocated to the acquired assets and liabilities assumed based on their estimated fair values as of the respective acquisition dates. The excess of the purchase price over the net assets acquired was allocated between goodwill and intangible assets within the Capital Markets segment.

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 and was completed pursuant to the Securities Purchase Agreement dated November 16, 2015, as amended. The acquisition of Simmons expands the Company's equity underwriting and institutional brokerage businesses into the energy sector and grows its advisory business.

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 (a weighted average service period of 2.7 years). 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 will be 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. For the year ended December 31, 2016, the Company recorded \$4.3 million related to this performance award plan.

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 | \$ | 119,294 |
|---------------------------|----|---------|

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. The following unaudited pro forma financial data assumes the acquisition had occurred at the beginning of the comparable prior periods presented. Pro forma results have been prepared by adjusting the Company's historical results to include Simmons' results of operations adjusted for the following changes: amortization expense was adjusted to account for the acquisition-date fair value of intangible assets; compensation and benefits expenses were adjusted to reflect such expenses based on the Company's compensation arrangements and the restricted stock issued as equity consideration; and the income tax effect of applying the Company's statutory tax rates to Simmons' results of operations. The Company's unaudited pro forma information presented does not necessarily reflect the results of operations that would have resulted had the acquisition been completed at the beginning of the applicable periods presented, does not contemplate anticipated operational efficiencies of the combined entities, nor does it indicate the results of operations in future periods.

(Dollars in thousands)

| | Year Ended December 31, | | |
|---|--------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Net revenues..... | \$ 755,146 | \$ 753,369 | \$ 752,197 |
| Net income/(loss) applicable to Piper Jaffray Companies | (16,411) | 47,290 | 57,939 |

River Branch Holdings LLC and BMO Capital Markets GKST Inc.

On September 30, 2015, the Company acquired the assets of River Branch Holdings LLC ("River Branch"), an equity investment banking boutique focused on the financial institutions sector. On October 9, 2015, the Company completed the purchase of BMO Capital Markets GKST Inc. ("BMO GKST"), a municipal bond sales, trading and origination business of BMO Financial Corp. The Company recorded \$6.1 million of goodwill on the consolidated statements of financial condition related to these acquisitions and \$7.5 million of identifiable intangible assets consisting of customer relationships. In management's opinion, the goodwill represents the reputation and operating expertise of River Branch and BMO GKST.

The results of operations of River Branch and BMO GKST have been included in the Company's consolidated financial statements prospectively from the respective dates of acquisition. The terms of these transactions were not disclosed as the acquisitions did not have a material impact on the Company's consolidated financial statements.

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, 2016 | December 31, 2015 |
|---|------------------------------|------------------------------|
| Financial instruments and other inventory positions owned: | | |
| Corporate securities: | | |
| Equity securities..... | \$ 6,363 | \$ 9,505 |
| Convertible securities | 103,486 | 18,460 |
| Fixed income securities | 21,018 | 48,654 |
| Municipal securities: | | |
| Taxable securities..... | 63,090 | 111,591 |
| Tax-exempt securities | 559,329 | 416,966 |
| Short-term securities..... | 35,175 | 33,068 |
| Mortgage-backed securities | 5,638 | 121,794 |
| U.S. government agency securities | 205,685 | 188,140 |
| U.S. government securities | 29,970 | 7,729 |
| Derivative contracts | 29,217 | 35,027 |
| Total financial instruments and other inventory positions owned | 1,058,971 | 990,934 |
| Less noncontrolling interests (1)..... | (57,700) | (43,397) |
| | \$ 1,001,271 | \$ 947,537 |
| Financial instruments and other inventory positions sold, but not yet purchased: | | |
| Corporate securities: | | |
| Equity securities..... | \$ 89,453 | \$ 15,740 |
| Fixed income securities | 17,324 | 39,909 |
| U.S. government agency securities | 6,723 | 21,267 |
| U.S. government securities | 180,650 | 159,037 |
| Derivative contracts | 5,207 | 3,202 |
| Total financial instruments and other inventory positions sold, but not yet purchased.... | 299,357 | 239,155 |
| Less noncontrolling interests (2)..... | (631) | (4,586) |
| | \$ 298,726 | \$ 234,569 |

(1) Noncontrolling interests attributable to third party ownership in a consolidated municipal bond fund consist of \$1.3 million and \$7.5 million of taxable municipal securities, \$55.2 million and \$35.1 million of tax-exempt municipal securities, and \$1.2 million and \$0.8 million of derivative contracts as of December 31, 2016 and 2015, respectively.

(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 and 2015, respectively.

At December 31, 2016 and 2015, financial instruments and other inventory positions owned in the amount of \$594.4 million and \$707.4 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 and Eurodollar 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 and Eurodollar 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 and Eurodollar 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, 2016 | | | December 31, 2015 | | |
|---|----------------------------------|---------------------------------------|----------------------------|----------------------------------|---------------------------------------|----------------------------|
| | Derivative Assets (1) | Derivative Liabilities (2) | Notional Amount | Derivative Assets (1) | Derivative Liabilities (2) | Notional Amount |
| Interest rate | | | | | | |
| Customer matched-book .. | \$ 288,955 | \$ 272,819 | \$ 3,330,207 | \$ 406,888 | \$ 386,284 | \$ 4,392,440 |
| Trading securities | 13,952 | 1,707 | 423,550 | — | 7,685 | 290,600 |
| Credit default swap index | | | | | | |
| Trading securities | — | 127 | 7,470 | 5,411 | 530 | 94,270 |
| Futures and equity options | | | | | | |
| Trading securities | — | — | — | 164 | 149 | 2,345,037 |
| | <u>\$ 302,907</u> | <u>\$ 274,653</u> | <u>\$ 3,761,227</u> | <u>\$ 412,463</u> | <u>\$ 394,648</u> | <u>\$ 7,122,347</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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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:

(Dollars in thousands)

| Derivative Category | Operations Category | Year Ended December 31, | | |
|--|----------------------------|--------------------------------|------------------|-------------------|
| | | 2016 | 2015 | 2014 |
| Interest rate derivative contract | Investment banking | \$ (4,151) | \$ (2,274) | \$ (2,790) |
| Interest rate derivative contract | Institutional brokerage | 19,613 | 534 | (1,678) |
| Credit default swap index contract | Institutional brokerage | 4,317 | 12,228 | (1,080) |
| Futures and equity option derivative contracts | Institutional brokerage | 255 | (252) | 1,037 |
| | | \$ 20,034 | \$ 10,236 | \$ (4,511) |

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, 2016, the Company had \$22.7 million of uncollateralized credit exposure with these counterparties (notional contract amount of \$183.4 million), including \$15.6 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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

Cash Equivalents

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

Financial Instruments and Other Inventory Positions Owned

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

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

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

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

Taxable municipal securities – Taxable municipal securities are valued using recently executed observable trades or market price quotations and therefore are generally categorized as Level II. 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. Other mortgage-backed securities, which are principally collateralized by residential mortgages, have experienced low volumes of executed transactions resulting in less observable transaction data. 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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 126-952 basis points ("bps") on spreads over U.S. treasury securities, or models based upon prepayment expectations ranging from 13%-33% 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.

Derivatives – Derivative contracts include interest rate swaps, interest rate locks, credit default swap index contracts, U.S. treasury bond and Eurodollar 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 \$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, 2016 and 2015, 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 \$1.8 million, \$1.3 million and \$2.7 million for the years ended December 31, 2016, 2015 and 2014, 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, 2016:

| | Valuation Technique | Unobservable Input | Range | Weighted Average |
|--|--------------------------------|---------------------------------------|---------------|-----------------------------|
| Assets: | | | | |
| Financial instruments and other inventory positions owned: | | | | |
| Municipal securities: | | | | |
| Taxable securities..... | Discounted cash flow | Expected recovery rate (% of par) (2) | 62.6% | 62.6% |
| 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) | 0 - 4% | 2.7% |
| | | Prepayment rates (4) | 1 - 35% | 6.5% |
| | | Loss severity (3) | 0 - 100% | 72.9% |
| | | Valuation yields (3) | 3 - 7% | 3.8% |
| Derivative contracts: | | | | |
| Interest rate locks | Discounted cash flow | Premium over the MMD curve (1) | 1 - 19 bps | 6.9 bps |
| Investments at fair value: | | | | |
| Equity securities in private companies..... | Market approach | Revenue multiple (2) | 2 - 4 times | 3.8 times |
| | | EBITDA multiple (2) | 10 - 15 times | 12.0 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) | 2 - 30 bps | 17.1 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, 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.

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, 2015:

| <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..... | \$ 7,569 | \$ 1,936 | \$ — | \$ — | \$ 9,505 |
| Convertible securities | — | 18,460 | — | — | 18,460 |
| Fixed income securities | — | 48,654 | — | — | 48,654 |
| Municipal securities: | | | | | |
| Taxable securities..... | — | 105,775 | 5,816 | — | 111,591 |
| Tax-exempt securities | — | 415,789 | 1,177 | — | 416,966 |
| Short-term securities | — | 32,348 | 720 | — | 33,068 |
| Mortgage-backed securities | — | 670 | 121,124 | — | 121,794 |
| U.S. government agency securities..... | — | 188,140 | — | — | 188,140 |
| U.S. government securities | 7,729 | — | — | — | 7,729 |
| Derivative contracts | 164 | 412,299 | — | (377,436) | 35,027 |
| Total financial instruments and other inventory positions owned | 15,462 | 1,224,071 | 128,837 | (377,436) | 990,934 |
| Cash equivalents | 130,138 | — | — | — | 130,138 |
| Investments at fair value..... | 34,874 | — | 109,444 (2) | — | 144,318 |
| Total assets..... | <u>\$ 180,474</u> | <u>\$ 1,224,071</u> | <u>\$ 238,281</u> | <u>\$ (377,436)</u> | <u>\$ 1,265,390</u> |
| Liabilities: | | | | | |
| Financial instruments and other inventory positions sold, but not yet purchased: | | | | | |
| Corporate securities: | | | | | |
| Equity securities..... | \$ 13,489 | \$ 2,251 | \$ — | \$ — | \$ 15,740 |
| Fixed income securities | — | 39,909 | — | — | 39,909 |
| U.S. government agency securities..... | — | 21,267 | — | — | 21,267 |
| U.S. government securities | 159,037 | — | — | — | 159,037 |
| Derivative contracts | 149 | 387,351 | 7,148 | (391,446) | 3,202 |
| Total financial instruments and other inventory positions sold, but not yet purchased | <u>\$ 172,675</u> | <u>\$ 450,778</u> | <u>\$ 7,148</u> | <u>\$ (391,446)</u> | <u>\$ 239,155</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 \$41.0 million are attributable to third party ownership in consolidated merchant banking and senior living funds and private equity investment vehicles.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

The Company's Level III assets were \$147.1 million and \$238.3 million, or 12.1 percent and 18.8 percent of financial instruments measured at fair value at December 31, 2016 and 2015, respectively. The value of transfers between levels are recognized at the beginning of the reporting period. There were \$9.1 million of transfers of financial assets out of Level III for the year ended December 31, 2016, primarily related to the deconsolidation of certain investment partnerships as discussed in Note 3. There were no other significant transfers between Level I, Level II or Level III for the year ended December 31, 2016.

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:

| <i>(Dollars in thousands)</i> | Balance at December 31, 2015 | Purchases | Sales | Transfers in | Transfers out | Realized gains/ (losses) (1) | Unrealized gains/ (losses) (1) | Balance at December 31, 2016 | Unrealized gains/ (losses) for assets/ liabilities held at December 31, 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

| | Balance at | | | | Realized | Unrealized | Balance at | | Unrealized gains/ (losses) for assets/ liabilities held at |
|--|--------------|-------------|--------------|-----------------|------------------------|------------------------|--------------|------------|--|
| | December 31, | | | | gains/ (losses) (1) | gains/ (losses) (1) | December 31, | | December 31, |
| (Dollars in thousands) | 2014 | Purchases | Sales | Transfers in | Transfers out | | | 2015 | 2015 (1) |
| Assets: | | | | | | | | | |
| Financial instruments and other inventory positions owned: | | | | | | | | | |
| Municipal securities: | | | | | | | | | |
| Taxable securities... | \$ — | \$ 5,133 | \$ — | \$ — | \$ — | \$ — | \$ 683 | \$ 5,816 | \$ 683 |
| Tax-exempt securities | 1,186 | — | — | — | — | — | (9) | 1,177 | (9) |
| Short-term securities | 720 | — | — | — | — | — | — | 720 | — |
| Mortgage-backed securities | 124,749 | 130,534 | (138,874) | — | — | 3,301 | 1,414 | 121,124 | 2,157 |
| Derivative contracts .. | 140 | 520 | — | — | — | (520) | (140) | — | — |
| Total financial instruments and other inventory positions owned..... | 126,795 | 136,187 | (138,874) | — | — | 2,781 | 1,948 | 128,837 | 2,831 |
| Investments at fair value..... | 74,165 | 18,589 | (1,089) | — | — | 84 | 17,695 | 109,444 | 17,589 |
| Total assets..... | \$ 200,960 | \$ 154,776 | \$ (139,963) | \$ — | \$ — | \$ 2,865 | \$ 19,643 | \$ 238,281 | \$ 20,420 |
| Liabilities: | | | | | | | | | |
| Financial instruments and other inventory positions sold, but not yet purchased: | | | | | | | | | |
| Derivative contracts .. | \$ 7,822 | \$ (10,349) | \$ — | \$ — | \$ — | \$ 10,349 | \$ (674) | \$ 7,148 | \$ 7,148 |
| Total financial instruments and other inventory positions sold, but not yet purchased..... | \$ 7,822 | \$ (10,349) | \$ — | \$ — | \$ — | \$ 10,349 | \$ (674) | \$ 7,148 | \$ 7,148 |

(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 Measurement

During the fourth quarter of 2016, the Company recorded a goodwill impairment charge of \$82.9 million representing approximately 42 percent of the value of goodwill attributable to the asset management reporting unit. The fair value measurement used in the analysis was calculated using the income approach (discounted cash flow method) and market approach (earnings multiples of public company comparables). The discounted cash flow model was calculated using unobservable inputs, such as revenue and EBITDA forecasts, which are classified as Level III within the fair value hierarchy. See Note 13 for further discussion.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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.

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. Effective January 1, 2016, the Company adopted ASU 2015-02. Prior to the adoption of ASU 2015-02, the primary beneficiary analysis differed for entities which qualified for the deferral under previous consolidation guidance (i.e., asset managers and investment companies). For these entities, the Company was considered to be the primary beneficiary if it absorbed a majority of the VIE's expected losses, received a majority of the VIE's expected residual returns, or both.

Consolidated VIEs

The Company's consolidated VIEs at December 31, 2016 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. Prior to the adoption of ASU 2015-02, these entities lacked the characteristics of a VIE and were consolidated as voting interest entities.

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, 2016. 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. The assets and liabilities are presented prior to consolidation and thus a portion of these assets and liabilities are eliminated in consolidation.

| | <u>Alternative Asset Management Funds</u> |
|---|---|
| <i>(Dollars in thousands)</i> | |
| Assets: | |
| Receivables from brokers, dealers and clearing organizations..... | \$ 7,768 |
| Financial instruments and other inventory positions owned and pledged as collateral | 332,317 |
| Investments..... | 101,099 |
| Other assets..... | 5,602 |
| Total assets..... | <u>\$ 446,786</u> |
| Liabilities: | |
| Short-term financing..... | \$ 271,811 |
| Payables to brokers, dealers and clearing organizations | 13,948 |
| Financial instruments and other inventory positions sold, but not yet purchased..... | 3,632 |
| Other liabilities and accrued expenses | 5,120 |
| Total liabilities | <u>\$ 294,511</u> |

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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 \$0.8 billion and \$0.4 billion at December 31, 2016 and 2015, respectively. The Company's exposure to loss from these VIEs is \$7.6 million, which is the carrying value of its capital contributions recorded in investments on the consolidated statements of financial condition at December 31, 2016. The Company had no liabilities related to these VIEs at December 31, 2016 and 2015. 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, 2016.

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

| <i>(Dollars in thousands)</i> | December 31, 2016 | December 31, 2015 |
|--|------------------------------|------------------------------|
| Receivable arising from unsettled securities transactions | \$ 132,724 | \$ 62,105 |
| Deposits paid for securities borrowed | 27,573 | 47,508 |
| Receivable from clearing organizations | 3,293 | 3,155 |
| Deposits with clearing organizations..... | 35,713 | 27,019 |
| Securities failed to deliver | 975 | 2,100 |
| Other | 12,452 | 6,062 |
| Total receivables from brokers, dealers and clearing organizations | <u>\$ 212,730</u> | <u>\$ 147,949</u> |
| | | |
| <i>(Dollars in thousands)</i> | December 31, 2016 | December 31, 2015 |
| Payable arising from unsettled securities transactions | \$ 13,948 | \$ 34,445 |
| Payable to clearing organizations | 15,893 | 3,115 |
| Securities failed to receive..... | 3,043 | 4,468 |
| Other | 7,958 | 6,103 |
| Total payables to brokers, dealers and clearing organizations..... | <u>\$ 40,842</u> | <u>\$ 48,131</u> |

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.

Note 9 *Receivables from and Payables to Customers*

| <i>(Dollars in thousands)</i> | December 31, 2016 | December 31, 2015 |
|---------------------------------------|------------------------------|------------------------------|
| Cash accounts | \$ 29,610 | \$ 39,415 |
| Margin accounts | 2,307 | 1,752 |
| Total receivables from customers..... | <u>\$ 31,917</u> | <u>\$ 41,167</u> |

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

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

| <i>(Dollars in thousands)</i> | December 31, 2016 | December 31, 2015 |
|-----------------------------------|------------------------------|------------------------------|
| Cash accounts | \$ 14,416 | \$ 19,650 |
| Margin accounts | 14,936 | 17,714 |
| Total payables to customers | \$ 29,352 | \$ 37,364 |

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

Note 10 Collateralized Securities Transactions

The Company's financing and customer securities activities involve the Company using securities as collateral. In the event that the counterparty does not meet its contractual obligation to return securities used as collateral (e.g., pursuant to the terms of a repurchase agreement), or customers do not deposit additional securities or cash for margin when required, the Company may be exposed to the risk of reacquiring the securities or selling the securities at unfavorable market prices in order to satisfy its obligations to its customers or counterparties. The Company seeks to control 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 also uses unaffiliated third party custodians to administer the underlying collateral for the majority of its short-term financing 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.

In the normal course of business, the Company obtains 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 and \$185.8 million at December 31, 2016 and 2015, respectively, of which \$185.2 million and \$175.8 million, respectively, had been pledged or otherwise transferred to satisfy its commitments under financial instruments and other inventory positions sold, but not yet purchased.

The following is a summary of the Company's securities sold under agreements to repurchase ("Repurchase Liabilities"), the fair market value of collateral pledged and the interest rate charged by the Company's counterparty, which is based on LIBOR plus an applicable margin, as of December 31, 2016:

| <i>(Dollars in thousands)</i> | Repurchase Liabilities | Fair Market Value | Interest Rate |
|---|-----------------------------------|------------------------------|----------------------|
| On demand maturities: | | | |
| U.S. government agency securities | \$ 1,877 | \$ 1,975 | 0.80% |
| U.S. government securities | 15,046 | 14,877 | 0.00 - 0.25% |
| | \$ 16,923 | \$ 16,852 | |

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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 following table provides information about the offsetting of these instruments and related collateral amounts at December 31, 2016:

| <i>(Dollars in thousands)</i> | Gross | Gross Amount | Net Amounts | Gross Amounts Not Offset | | Net |
|-------------------------------------|-------------------|----------------------------|----------------------------|---------------------------------------|---------------------|---------------|
| Description | Recognized | Offset on the | Presented on the | on the Consolidated Statements | | Amount |
| Description | Assets | Consolidated | Consolidated | Financial | Collateral | Amount |
| Description | Assets | Statements of | Statements of | Instruments | Received (1) | Amount |
| Description | Assets | Financial Condition | Financial Condition | Instruments | Received (1) | Amount |
| Reverse repurchase agreements | \$ 161,574 | \$ (1,877) | \$ 159,697 | \$ — | \$ (159,697) | \$ — |
| Securities borrowed (3)..... | 27,573 | — | 27,573 | — | (27,573) | — |

| <i>(Dollars in thousands)</i> | Gross | Gross Amount | Net Amount | Gross Amount Not Offset | | Net |
|-------------------------------|--------------------|----------------------------|----------------------------|---------------------------------------|--------------------|---------------|
| Description | Recognized | Offset on the | Presented on the | on the Consolidated Statements | | Amount |
| Description | Liabilities | Consolidated | Consolidated | Financial | Collateral | Amount |
| Description | Liabilities | Statements of | Statements of | Instruments | Pledged (2) | Amount |
| Description | Liabilities | Financial Condition | Financial Condition | Instruments | Pledged (2) | Amount |
| Repurchase agreements | \$ 16,923 | \$ (1,877) | \$ 15,046 | \$ — | \$ (15,046) | \$ — |

- (1) Includes securities received by the Company from the counterparty. These securities are not included on the consolidated statements of financial condition unless there is an event of default.
- (2) Includes the fair value of securities pledged by the Company to the counterparty. These securities are included on the consolidated statements of financial condition unless the Company defaults.
- (3) Deposits paid for securities borrowed are included in receivables from brokers, dealers and clearing organizations on the consolidated statements of financial condition. See Note 8 for additional information on receivables from brokers, dealers and clearing organizations.

There were no gross amounts offset on the consolidated statements of financial condition for reverse repurchase agreements, securities borrowed or repurchase agreements at December 31, 2015, as a legal right of offset did not exist. The Company had no outstanding securities lending arrangements as of December 31, 2016 or 2015. 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, 2016 | December 31, 2015 |
|---|------------------------------|------------------------------|
| Investments at fair value | \$ 156,102 | \$ 144,318 |
| Investments at cost | 2,755 | 3,299 |
| Investments accounted for under the equity method | <u>9,200</u> | <u>17,781</u> |
| Total investments | <u>168,057</u> | 165,398 |
| Less investments attributable to noncontrolling interests (1) | <u>(45,123)</u> | <u>(41,008)</u> |
| | <u>\$ 122,934</u> | <u>\$ 124,390</u> |

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

At December 31, 2016, investments carried on a cost basis had an estimated fair market value of \$4.4 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 our 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, 2016 | December 31, 2015 |
|--------------------------------------|------------------------------|------------------------------|
| Net deferred income tax assets | \$ 97,833 | \$ 66,810 |
| Fee receivables | 22,840 | 18,362 |
| Accrued interest receivables | 9,259 | 6,145 |
| Forgivable loans, net | 9,307 | 10,234 |
| Prepaid expenses | 6,363 | 6,161 |
| Secured loan receivables | 6,236 | 3,289 |
| Other | <u>13,124</u> | <u>6,664</u> |
| Total other assets | <u>\$ 164,962</u> | <u>\$ 117,665</u> |

See Note 25 for additional details concerning the Company's net deferred income tax assets.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

Note 13 Goodwill and Intangible Assets

(Dollars in thousands)

| | <u>Capital Markets</u> | <u>Asset Management</u> | <u>Total</u> |
|---|----------------------------|-----------------------------|--------------------------|
| Goodwill | | | |
| Balance at December 31, 2014 | \$ 15,034 | \$ 196,844 | \$ 211,878 |
| Goodwill acquired | 6,098 | — | 6,098 |
| Balance at December 31, 2015 | <u>\$ 21,132</u> | <u>\$ 196,844</u> | <u>\$ 217,976</u> |
| Goodwill acquired | 60,723 | 419 | 61,142 |
| Impairment charge | — | (82,900) | (82,900) |
| Balance at December 31, 2016 | <u><u>\$ 81,855</u></u> | <u><u>\$ 114,363</u></u> | <u><u>\$ 196,218</u></u> |
| Intangible assets | | | |
| Balance at December 31, 2014 | \$ 2,344 | \$ 28,314 | \$ 30,658 |
| Intangible assets acquired | 7,534 | — | 7,534 |
| Amortization of intangible assets | (1,622) | (6,040) | (7,662) |
| Balance at December 31, 2015 | <u>\$ 8,256</u> | <u>\$ 22,274</u> | <u>\$ 30,530</u> |
| Intangible assets acquired | 26,651 | 1,267 | 27,918 |
| Amortization of intangible assets | (15,587) | (5,627) | (21,214) |
| Balance at December 31, 2016 | <u><u>\$ 19,320</u></u> | <u><u>\$ 17,914</u></u> | <u><u>\$ 37,234</u></u> |

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 performing the two-step impairment test is unnecessary. However, if the Company concludes otherwise, then the Company is required to perform the 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). If the estimated fair value is less than the carrying values, a second step is performed to measure the amount of the impairment loss, if any. An impairment loss is equal to the excess of the carrying amount of goodwill over its fair value.

The Company performed its annual goodwill impairment analysis as of October 31, 2016, which resulted in a non-cash goodwill impairment charge of \$82.9 million. The charge relates to the asset management reporting unit and primarily pertains to goodwill created from the 2010 acquisition of ARI. 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 impairment charge resulted from net outflows of assets under management in 2016 as a result of an extended cycle of investors favoring passive investment vehicles over active management, combined with certain investment strategies having performance below their benchmarks, which led to reduced management fees and profitability. The annual goodwill impairment testing resulted in no impairment associated with the capital markets reporting unit.

The Company also evaluated its intangible assets (indefinite and definite-lived) and concluded there was no impairment in 2016. The Company concluded there was no goodwill or intangible asset impairment in 2015 and 2014, 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 (\$17.5 million) and the Simmons trade name (\$9.1 million), which will be amortized over a weighted average life of 1.6 years and 4.0 years, respectively.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

The addition of goodwill and intangible assets during the year ended December 31, 2015 related to the acquisitions of River Branch and BMO GKST, as discussed in Note 4. Management identified intangible assets consisting of customer relationships with acquisition-date fair values of \$7.5 million, which are being amortized over a weighted average life of 2.1 years.

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)

| | | |
|------------|-----------|---------------|
| 2017..... | \$ | 15,289 |
| 2018..... | | 9,793 |
| 2019..... | | 7,779 |
| 2020..... | | 1,256 |
| 2021..... | | 258 |
| Total..... | <u>\$</u> | <u>34,375</u> |

Note 14 Fixed Assets

(Dollars in thousands)

| | December 31, 2016 | December 31, 2015 |
|--|------------------------------|------------------------------|
| Furniture and equipment..... | <u>\$ 37,712</u> | <u>\$ 31,953</u> |
| Leasehold improvements..... | <u>31,982</u> | <u>25,213</u> |
| Software..... | <u>13,957</u> | <u>13,692</u> |
| Total..... | <u>83,651</u> | <u>70,858</u> |
| Accumulated depreciation and amortization..... | <u>(58,308)</u> | <u>(51,874)</u> |
| | <u>\$ 25,343</u> | <u>\$ 18,984</u> |

For the years ended December 31, 2016, 2015 and 2014, depreciation and amortization of furniture and equipment, leasehold improvements and software totaled \$6.4 million, \$5.1 million and \$5.3 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, 2016 | December 31, 2015 | December 31, 2016 | December 31, 2015 |
| Commercial paper (secured)..... | <u>\$ 147,021</u> | <u>\$ 276,894</u> | <u>2.12%</u> | <u>1.74%</u> |
| Prime broker arrangements..... | <u>271,811</u> | <u>169,296</u> | <u>1.49%</u> | <u>1.07%</u> |
| Total short-term financing..... | <u>\$ 418,832</u> | <u>\$ 446,190</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 issued under three separate programs, CP Series A, CP Series II A and CP Series III A, and are secured by different inventory classes. As of December 31, 2016, the weighted average maturity of CP Series A, CP Series II A and CP Series III A was 45 days, 13 days and 15 days, respectively. 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 III A includes a covenant that requires the Company's U.S. broker dealer subsidiary to maintain excess net capital of \$120 million.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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

The Company's committed short-term bank line financing at December 31, 2016 consisted of a one-year \$200 million committed revolving credit facility with U.S. Bank, N.A., which was renewed in December 2016. 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 16, 2017. The Company pays a nonrefundable commitment fee on the unused portion of the facility on a quarterly basis. At December 31, 2016, the Company had no advances against this line of credit.

The Company's uncommitted secured lines at December 31, 2016 totaled \$185 million with two banks and are 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 lines are subject to approval by the individual banks each time an advance is requested and may be denied. At December 31, 2016, the Company had no advances against these lines 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, 2016 | December 31, 2015 |
| <i>(Dollars in thousands)</i> | | |
| Class A Notes..... | \$ 50,000 | \$ 50,000 |
| Class C Notes..... | 125,000 | 125,000 |
| Total senior notes..... | \$ 175,000 | \$ 175,000 |

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, payable semi-annually and mature on October 9, 2018. The variable rate Class A Notes bear interest at a rate equal to three-month LIBOR plus 3.00 percent, adjusted and payable quarterly and mature on May 31, 2017. The unpaid principal amounts are due in full on the respective maturity dates and may not be prepaid by the Company.

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, 2016, the Company was in compliance with all covenants.

The senior notes are recorded at amortized cost. As of December 31, 2016, the carrying value of the variable rate Class A Notes approximated fair value. As of December 31, 2016, the fair value of the fixed rate Class C Notes was approximately \$126.5 million.

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, 2016 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 \$0.3 million, \$9.7 million (primarily related to a municipal derivatives class action settlement paid in 2016), and \$0.8 million for the years ended December 31, 2016, 2015 and 2014, 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, 2016 are as follows:

(Dollars in thousands)

| | | |
|-----------------|----|---------------|
| 2017..... | \$ | 14,629 |
| 2018..... | | 13,601 |
| 2019..... | | 11,857 |
| 2020..... | | 11,307 |
| 2021..... | | 7,040 |
| Thereafter..... | | 20,006 |
| Total..... | \$ | <u>78,440</u> |

Total minimum rentals to be received from 2017 through 2021 under noncancelable subleases were \$4.7 million at December 31, 2016.

Rental expense, including operating costs and real estate taxes, was \$17.3 million, \$13.7 million and \$13.8 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

Fund Commitments

As of December 31, 2016, the Company had commitments to invest approximately \$22.8 million in limited partnerships that make investments in private equity companies or provide financing for senior living facilities.

Other Guarantees

The Company is a member of numerous exchanges and clearinghouses. 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 clearinghouse, other members would be required to meet shortfalls. To mitigate these performance risks, the exchanges and clearinghouses 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 the acquisitions of Simmons, River Branch and BMO GKST discussed in Note 4.

| | Year Ended December 31, | |
|--|-------------------------|-----------------|
| | 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..... | <u>\$ 8,954</u> | <u>\$ 9,352</u> |

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 from time to time by the Piper Jaffray Companies board of directors out of funds legally available for that purpose. Piper Jaffray Companies did not pay cash dividends on its common stock in 2016, 2015 or 2014. Beginning in 2017, the Company is initiating the payment of a quarterly cash dividend to holders of its common stock. Additionally, there are dividend restrictions as set forth in Note 24.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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. 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. The Company has \$71.8 million remaining under 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. The Company did not repurchase any shares of the Company's outstanding common stock during the year ended December 31, 2014.

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 261,685 shares or \$11.1 million, 281,180 shares or \$14.5 million and 256,055 shares or \$10.9 million of the Company's common stock for this purpose during the years ended December 31, 2016, 2015 and 2014, 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, 2016, 2015 and 2014, the Company issued 854,416 shares, 784,751 shares and 1,030,249 shares, respectively, related to these obligations. The Company also issued common shares out of treasury stock related to obligations under the Piper Jaffray Companies Retirement Plan. During the year ended December 31, 2014, the Company issued 103,598 shares or \$4.2 million out of treasury stock in fulfillment of 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.

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 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 as of December 31, 2016. As of December 31, 2015, noncontrolling interests included the minority equity holders' proportionate share of the equity in a merchant banking fund of \$31.8 million, a municipal bond fund with employee investors of \$7.0 million and private investment vehicles aggregating \$10.4 million.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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, 2016, 2015 and 2014.

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, 2016, 2015 and 2014, the Company incurred employee benefits expenses of \$17.6 million, \$15.1 million and \$13.2 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, 2016, 2015 and 2014, the Company recognized expense of \$10.4 million, \$9.1 million and \$7.7 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, net of estimated forfeitures.

The following table provides a summary of the Company's outstanding equity awards (in shares or units) as of December 31, 2016:

| | |
|---|-------------------------|
| <i>Incentive Plan</i> | |
| Restricted Stock | |
| Annual grants | 1,309,440 |
| Sign-on grants | 280,945 |
| | <u>1,590,385</u> |
| <i>Inducement Plan</i> | |
| Restricted Stock | |
| | <u>269,491</u> |
| Total restricted stock related to compensation | <u>1,859,876</u> |
| Simmons Deal Consideration (1) | <u>1,014,241</u> |
| Total restricted stock outstanding | <u><u>2,874,117</u></u> |
| <i>Incentive Plan</i> | |
| Restricted Stock Units | |
| Market condition leadership grants | <u>374,460</u> |
| <i>Incentive Plan</i> | |
| Stock Options | |
| | <u>30,613</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 (0.9 million shares remained available for future issuance under the Incentive Plan as of December 31, 2016). 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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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 2016 for its February 2017 Annual Grant. If an equity award related to the Annual Grants is forfeited as a result of violating the post-termination restrictions, the lower of the fair value of the award at grant date or the fair value of the award at the date of forfeiture is recorded within the consolidated statements of operations as a reversal of compensation expense.

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

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

Restricted Stock Units

The Company grants restricted stock units to its leadership team ("Leadership Grants"). The units 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 as described below. Compensation expense is amortized on a straight-line basis over the three-year requisite service period based on the fair value of the award on the grant date. The market condition must be met for the awards to vest and compensation cost will be recognized regardless if the market condition is satisfied. Employees forfeit unvested share units upon termination of employment with a corresponding reversal of compensation expense.

Up to 50 percent of the award 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 award 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:

| <u>Grant Year</u> | <u>Risk-free Interest Rate</u> | <u>Expected Stock Price Volatility</u> |
|-------------------|------------------------------------|--|
| 2016..... | 0.98% | 34.9% |
| 2015..... | 0.90% | 29.8% |
| 2014..... | 0.82% | 41.3% |

Because a 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 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 is ten years. The Company has not granted stock options since 2008.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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.

Stock-Based Compensation Activity

The Company recorded compensation expense of \$53.7 million, \$48.2 million and \$28.2 million for the years ended December 31, 2016, 2015 and 2014, respectively, related to employee restricted stock and restricted stock unit awards. Forfeitures were \$1.4 million, \$0.5 million and \$0.7 million for the years ended December 31, 2016, 2015 and 2014, respectively. The tax benefit related to stock-based compensation costs totaled \$14.0 million, \$18.8 million and \$11.0 million for the years ended December 31, 2016, 2015 and 2014, 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, 2013 | 1,582,062 | \$ 35.25 |
| Granted | 421,728 | 40.57 |
| Vested | (883,761) | 36.22 |
| Canceled | (24,724) | 36.02 |
| 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 |

The fair value of restricted stock that vested during the years ended December 31, 2016, 2015 and 2014 was \$28.0 million, \$20.0 million and \$32.0 million, respectively.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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, 2013 | 290,536 | \$ 15.83 |
| Granted | 115,290 | 23.42 |
| Vested | — | — |
| Canceled | — | — |
| 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 |

As of December 31, 2016, there was \$46.0 million of total unrecognized compensation cost related to restricted stock and restricted stock units expected to be recognized over a weighted average period of 2.1 years.

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

| | Options Outstanding | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term (in Years) | Aggregate Intrinsic Value |
|---|--------------------------------|--|---|--------------------------------------|
| December 31, 2013 | 469,289 | \$ 44.83 | 2.0 | \$ 288,318 |
| Granted | — | — | | |
| Exercised | (137,864) | 39.55 | | |
| Canceled | (55) | 39.62 | | |
| Expired | (113,497) | 47.72 | | |
| 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 |
| Options exercisable at December 31, 2014 ... | 217,873 | \$ 46.66 | 2.0 | \$ 3,066,839 |
| 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 |

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

Additional information regarding Piper Jaffray Companies options outstanding as of December 31, 2016 is as follows:

| <u>Range of Exercise Prices</u> | <u>Options Outstanding</u> | | | <u>Exercisable Options</u> | |
|-------------------------------------|----------------------------|---|--|----------------------------|--|
| | <u>Shares</u> | <u>Weighted Average Remaining Contractual Life (in Years)</u> | <u>Weighted Average Exercise Price</u> | <u>Shares</u> | <u>Weighted Average Exercise Price</u> |
| \$41.09..... | 4,502 | 1.1 | \$ 41.09 | 4,502 | \$ 41.09 |
| \$70.13..... | 26,111 | 0.1 | \$ 70.13 | 26,111 | \$ 70.13 |

As of December 31, 2016, 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 \$2.0 million and \$0.8 million, respectively, for the year ended December 31, 2016. 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. For the year ended December 31, 2014, the intrinsic value of options exercised and the resulting tax benefit realized was \$1.7 million and \$0.7 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 2017, 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.

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 \$24.4 million and \$14.6 million as of December 31, 2016 and 2015, 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 \$24.5 million and \$14.5 million as of December 31, 2016 and 2015, 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.

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.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

The Company recorded compensation expense of \$17.5 million, \$26.6 million and \$20.0 million for the years ended December 31, 2016, 2015 and 2014, 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 immaterial for the years ended December 31, 2016, 2015 and 2014, respectively.

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. Losses are not 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 share in the profits of the Company. 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, | | |
|---|------------------------------|------------------|------------------|
| | 2016 | 2015 | 2014 |
| <i>(Amounts in thousands, except per share data)</i> | | | |
| Net income/(loss) applicable to Piper Jaffray Companies..... | \$ (21,952) | \$ 52,075 | \$ 63,172 |
| Earnings allocated to participating securities (1) | — | (4,015) | (5,031) |
| Net income/(loss) applicable to Piper Jaffray Companies' common shareholders (2)..... | <u>\$ (21,952)</u> | <u>\$ 48,060</u> | <u>\$ 58,141</u> |
| Shares for basic and diluted calculations: | | | |
| Average shares used in basic computation..... | 12,674 | 14,368 | 14,971 |
| Stock options | 15 | 21 | 54 |
| Restricted stock units | 90 | — | — |
| Average shares used in diluted computation..... | <u>12,779</u> ⁽³⁾ | <u>14,389</u> | <u>15,025</u> |
| Earnings/(loss) per common share: | | | |
| Basic | \$ (1.73) | \$ 3.34 | \$ 3.88 |
| Diluted | \$ (1.73) ⁽³⁾ | \$ 3.34 | \$ 3.87 |

(1) Represents the allocation of earnings to participating securities. Losses are not allocated to participating securities. Participating securities include all of the Company's unvested restricted shares. The weighted average participating shares outstanding were 2,691,728; 1,201,610 and 1,299,827 for the years ended December 31, 2016, 2015 and 2014, 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 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. 2,874,117 common shares were excluded from diluted EPS as the Company had a net loss for the year.

The anti-dilutive effects from stock options and restricted stock units were immaterial for the years ended December 31, 2016, 2015 and 2014.

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, | | |
|--|--------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Capital Markets | | | |
| Investment banking | | | |
| Financing | | | |
| Equities | \$ 71,161 | \$ 114,468 | \$ 109,706 |
| Debt | 115,013 | 91,195 | 63,005 |
| Advisory services | 304,654 | 209,163 | 197,880 |
| <i>Total investment banking</i> | 490,828 | 414,826 | 370,591 |
| Institutional sales and trading | | | |
| Equities | 87,992 | 78,584 | 82,211 |
| Fixed income | 91,466 | 94,305 | 92,200 |
| <i>Total institutional sales and trading</i> | 179,458 | 172,889 | 174,411 |
| <i>Management and performance fees</i> | 6,363 | 4,642 | 5,398 |
| <i>Investment income</i> | 24,791 | 24,468 | 24,046 |
| <i>Long-term financing expenses</i> | (9,136) | (7,494) | (6,655) |
| Net revenues | 692,304 | 609,331 | 567,791 |
| Operating expenses (1) | 645,863 | 530,937 | 478,661 |
| Segment pre-tax operating income | \$ 46,441 | \$ 78,394 | \$ 89,130 |
| Segment pre-tax operating margin | 6.7 % | 12.9% | 15.7% |

Continued on next page

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

| <i>(Dollars in thousands)</i> | Year Ended December 31, | | |
|--|--------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Asset Management | | | |
| Management and performance fees | | | |
| Management fees..... | \$ 53,725 | \$ 70,167 | \$ 78,772 |
| Performance fees..... | 584 | 208 | 892 |
| <i>Total management and performance fees</i> | 54,309 | 70,375 | 79,664 |
| <i>Investment income/(loss)</i> | 736 | (6,788) | 683 |
| Net revenues | 55,045 | 63,587 | 80,347 |
| Operating expenses (1) | 132,360 | 55,558 | 59,166 |
| Segment pre-tax operating income/(loss)..... | \$ (77,315) | \$ 8,029 | \$ 21,181 |
| Segment pre-tax operating margin..... | (140.5)% | 12.6% | 26.4% |
| Total | | | |
| Net revenues | \$ 747,349 | \$ 672,918 | \$ 648,138 |
| Operating expenses (1) | 778,223 | 586,495 | 537,827 |
| Pre-tax operating income/(loss)..... | \$ (30,874) | \$ 86,423 | \$ 110,311 |
| Pre-tax operating margin | (4.1)% | 12.8% | 17.0% |

(1) *Operating expenses include a \$82.9 million goodwill impairment charge for the Asset Management segment, as well as intangible asset amortization expense as set forth in the table below:*

| <i>(Dollars in thousands)</i> | Year Ended December 31, | | |
|--|--------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Capital Markets | \$ 15,587 | \$ 1,622 | \$ 2,972 |
| Asset Management | 5,627 | 6,040 | 6,300 |
| Total intangible asset amortization expense..... | \$ 21,214 | \$ 7,662 | \$ 9,272 |

Reportable segment assets are as follows:

| <i>(Dollars in thousands)</i> | December 31, | December 31, |
|-------------------------------|---------------------|---------------------|
| | 2016 | 2015 |
| Capital Markets | \$ 1,934,528 | \$ 1,870,272 |
| Asset Management | 190,975 | 268,246 |
| | \$ 2,125,503 | \$ 2,138,518 |

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 the greater of \$1.0 million or 2 percent of aggregate debit balances arising from customer transactions, as such term is defined in the SEC rule. Under its rules, FINRA may prohibit a member firm from expanding its business or paying dividends if resulting net capital would be less than 5 percent of aggregate debit balances. Advances to affiliates, repayment of subordinated debt, dividend payments and other equity withdrawals by Piper Jaffray are subject to certain notification and other provisions of SEC and FINRA rules.

At December 31, 2016, net capital calculated under the SEC rule was \$191.1 million, and exceeded the minimum net capital required under the SEC rule by \$190.1 million.

The Company's committed short-term credit facility and its senior notes include covenants requiring Piper Jaffray to maintain minimum net capital of \$120 million. CP Notes issued under CP Series III A include a covenant that requires Piper Jaffray to maintain excess net capital of \$120 million.

Piper Jaffray Ltd. and SCIL, broker dealer subsidiaries registered in the United Kingdom, are subject to the capital requirements of the Prudential Regulation Authority and the Financial Conduct Authority. As of December 31, 2016, Piper Jaffray Ltd. and SCIL were 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, 2016, Piper Jaffray Hong Kong Limited was in compliance with the liquid capital requirements of the Hong Kong Securities and Futures Commission.

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

| <i>(Dollars in thousands)</i> | Year Ended December 31, | | |
|---|--------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Current: | | | |
| Federal..... | \$ 11,704 | \$ 33,818 | \$ 37,331 |
| State..... | 2,454 | 7,030 | 8,117 |
| Foreign..... | (703) | 58 | 161 |
| | 13,455 | 40,906 | 45,609 |
| Deferred: | | | |
| Federal..... | (27,764) | (11,620) | (8,641) |
| State..... | (3,758) | (1,901) | (1,317) |
| Foreign..... | 939 | 556 | 335 |
| | (30,583) | (12,965) | (9,623) |
| Total income tax expense/(benefit)..... | \$ (17,128) | \$ 27,941 | \$ 35,986 |

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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, | | |
|---|--------------------------------|-------------|-------------|
| | 2016 | 2015 | 2014 |
| Federal income tax expense/(benefit) at statutory rates | \$ (10,806) | \$ 30,248 | \$ 38,609 |
| Increase/(reduction) in taxes resulting from: | | | |
| State income taxes, net of federal tax benefit | (1,110) | 3,155 | 3,857 |
| Net tax-exempt interest income | (4,600) | (4,299) | (3,693) |
| Foreign jurisdictions tax rate differential | 1,860 | 191 | (63) |
| Change in valuation allowance | 362 | — | — |
| Income attributable to noncontrolling interests | (2,872) | (2,243) | (3,903) |
| Other, net | 38 | 889 | 1,179 |
| Total income tax expense/(benefit) | \$ (17,128) | \$ 27,941 | \$ 35,986 |

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, 2016, undistributed earnings permanently reinvested in the Company's foreign subsidiaries were not material.

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 included in other assets on the consolidated statements of financial condition consisted of the following items:

| <i>(Dollars in thousands)</i> | December 31, 2016 | December 31, 2015 |
|---|------------------------------|------------------------------|
| Deferred tax assets: | | |
| Deferred compensation | \$ 79,230 | \$ 74,127 |
| Goodwill tax basis in excess of book basis | 18,357 | — |
| Net operating loss carry forwards | 3,900 | 3,947 |
| Liabilities/accruals not currently deductible | 1,060 | 5,454 |
| Other | 5,474 | 5,175 |
| Total deferred tax assets | 108,021 | 88,703 |
| Valuation allowance | (911) | (159) |
| Deferred tax assets after valuation allowance | 107,110 | 88,544 |
| Deferred tax liabilities: | | |
| Goodwill book basis in excess of tax basis | — | 16,951 |
| Unrealized gains on firm investments | 6,406 | 2,917 |
| Fixed assets | 2,075 | 1,189 |
| Other | 796 | 677 |
| Total deferred tax liabilities | 9,277 | 21,734 |
| Net deferred tax assets | \$ 97,833 | \$ 66,810 |

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 \$0.9 million primarily related to SCIL's net operating loss carryforwards.

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

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:

(Dollars in thousands)

| | | |
|--|-----------|--------------|
| Balance at December 31, 2013 | \$ | 2,200 |
| Additions based on tax positions related to the current year | | — |
| Additions for tax positions of prior years | | 123 |
| Reductions for tax positions of prior years | | — |
| Settlements | | — |
| 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 |

As of December 31, 2016, approximately \$0.1 million of the Company's unrecognized tax benefits would impact the annual effective rate, if recognized.

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, 2016 and 2015, respectively. The Company had approximately \$0.2 million for the payment of interest and penalties accrued at December 31, 2014. 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 U.S. federal tax authorities for years before 2014 and is not subject to state and local or non-U.S. tax authorities for taxable years before 2010. The Company anticipates all of its uncertain income tax provisions will be resolved within the next twelve months.

Note 26 Piper Jaffray Companies (Parent Company only)

Condensed Statements of Financial Condition

(Amounts in thousands)

| | December 31, 2016 | December 31, 2015 |
|--|------------------------------|------------------------------|
| Assets | | |
| Cash and cash equivalents | \$ 1,170 | \$ 48 |
| Investment in and advances to subsidiaries | 941,215 | 982,426 |
| Other assets | 22,031 | 15,843 |
| Total assets | \$ 964,416 | \$ 998,317 |
| Liabilities and Shareholders' Equity | | |
| Senior notes | \$ 175,000 | \$ 175,000 |
| Accrued compensation | 27,756 | 36,347 |
| Other liabilities and accrued expenses | 2,410 | 3,311 |
| Total liabilities | 205,166 | 214,658 |
| Shareholders' equity | 759,250 | 783,659 |
| Total liabilities and shareholders' equity | \$ 964,416 | \$ 998,317 |

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

Condensed Statements of Operations

| | Year Ended December 31, | | |
|---|---------------------------|-------------------------|-------------------------|
| | 2016 | 2015 | 2014 |
| <i>(Amounts in thousands)</i> | | | |
| Revenues: | | | |
| Dividends from subsidiaries..... | \$ 104,016 | \$ 37,649 | \$ 50,333 |
| Interest..... | 994 | 650 | 662 |
| Investment income/(loss)..... | 1,835 | (2,033) | 275 |
| Total revenues..... | <u>106,845</u> | <u>36,266</u> | <u>51,270</u> |
| Interest expense..... | <u>8,195</u> | <u>6,406</u> | <u>5,463</u> |
| Net revenues..... | <u>98,650</u> | <u>29,860</u> | <u>45,807</u> |
| Non-interest expenses: | | | |
| Total non-interest expenses..... | <u>4,505</u> | <u>3,487</u> | <u>5,318</u> |
| Income before income tax expense and equity in undistributed income of subsidiaries..... | 94,145 | 26,373 | 40,489 |
| Income tax expense..... | <u>27,952</u> | <u>9,191</u> | <u>14,795</u> |
| Income of parent company..... | 66,193 | 17,182 | 25,694 |
| Equity in undistributed/(distributed in excess of) income of subsidiaries..... | <u>(88,145)</u> | <u>34,893</u> | <u>37,478</u> |
| Net income/(loss)..... | <u>\$ (21,952)</u> | <u>\$ 52,075</u> | <u>\$ 63,172</u> |

Piper Jaffray Companies

Notes to the Consolidated Financial Statements - Continued

Condensed Statements of Cash Flows

| | Year Ended December 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2016 | 2015 | 2014 |
| <i>(Amounts in thousands)</i> | | | |
| Operating Activities: | | | |
| Net income/(loss) | \$ (21,952) | \$ 52,075 | \$ 63,172 |
| Adjustments to reconcile net income/(loss) to net cash provided by operating activities: | | | |
| Stock-based and deferred compensation | 944 | 70 | 180 |
| Equity in undistributed/(distributed in excess of) income of subsidiaries..... | 88,145 | (34,893) | (37,478) |
| Net cash provided by operating activities..... | <u>67,137</u> | <u>17,252</u> | <u>25,874</u> |
| Investing Activities: | | | |
| Repayment of note receivable..... | — | 1,500 | 2,000 |
| Net cash provided by investing activities | <u>—</u> | <u>1,500</u> | <u>2,000</u> |
| Financing Activities: | | | |
| Issuance of senior notes | — | 125,000 | 50,000 |
| Repayment of senior notes | — | (75,000) | (50,000) |
| Advances from/(to) subsidiaries | (6,276) | 49,560 | (28,010) |
| Repurchase of common stock | (59,739) | (118,464) | — |
| Net cash used in financing activities | <u>(66,015)</u> | <u>(18,904)</u> | <u>(28,010)</u> |
| Net increase/(decrease) in cash and cash equivalents | 1,122 | (152) | (136) |
| Cash and cash equivalents at beginning of year | 48 | 200 | 336 |
| Cash and cash equivalents at end of year | <u>\$ 1,170</u> | <u>\$ 48</u> | <u>\$ 200</u> |
| Supplemental disclosures of cash flow information | | | |
| Cash paid during the year for: | | | |
| Interest | \$ (7,201) | \$ (5,756) | \$ (4,801) |
| Income taxes | \$ (27,952) | \$ (9,191) | \$ (14,795) |

Piper Jaffray Companies

Supplemental Information

Quarterly Information (unaudited)

| | 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 goodwill impairment charge.

(2) No allocation of 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.

| | 2015 Fiscal Quarter | | | |
|---|----------------------------|---------------|--------------|---------------|
| | First | Second | Third | Fourth |
| <i>(Amounts in thousands, except per share data)</i> | | | | |
| Total revenues..... | \$ 168,431 | \$ 170,110 | \$ 154,732 | \$ 203,044 |
| Interest expense | 6,560 | 6,044 | 5,115 | 5,680 |
| Net revenues | 161,871 | 164,066 | 149,617 | 197,364 |
| Non-interest expenses..... | 130,579 | 138,207 | 142,829 | 174,880 |
| Income before income tax expense | 31,292 | 25,859 | 6,788 | 22,484 |
| Income tax expense | 9,490 | 9,542 | 1,573 | 7,336 |
| Net income..... | 21,802 | 16,317 | 5,215 | 15,148 |
| Net income/(loss) applicable to noncontrolling interests | 4,830 | (682) | 384 | 1,875 |
| Net income applicable to Piper Jaffray Companies..... | \$ 16,972 | \$ 16,999 | \$ 4,831 | \$ 13,273 |
| Net income applicable to Piper Jaffray Companies' common shareholders | \$ 15,810 | \$ 15,699 | \$ 4,448 | \$ 12,147 |
| Earnings per common share | | | | |
| Basic..... | \$ 1.03 | \$ 1.08 | \$ 0.32 | \$ 0.88 |
| Diluted..... | \$ 1.03 | \$ 1.08 | \$ 0.32 | \$ 0.88 |
| Weighted average number of common shares | | | | |
| Basic..... | 15,294 | 14,487 | 13,938 | 13,775 |
| Diluted..... | 15,332 | 14,513 | 13,952 | 13,782 |

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 fourth quarter of our fiscal year ended December 31, 2016, there was no change in our system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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 2017 annual meeting of shareholders to be held on May 11, 2017, 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 2017 annual meeting of shareholders to be held on May 11, 2017, 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 2016" 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 2017 annual meeting of shareholders to be held on May 11, 2017, 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 2017 annual meeting of shareholders to be held on May 11, 2017, 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 2017 annual meeting of shareholders to be held on May 11, 2017, 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). # |

| Exhibit Number | Description |
|-------------------|---|
| 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). |
| 3.2 | 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). |
| 4.1 | Form of Specimen Certificate for Piper Jaffray Companies Common Stock (incorporated by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed February 25, 2016). |
| 4.2 | 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). |
| 4.3 | Indenture dated as of April 2, 2012 (Secured Commercial Paper Notes -- Series II), 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 5, 2012). |
| 4.4 | 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). |
| 10.1 | 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). † |
| 10.2 | 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). |
| 10.3 | 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). † |
| 10.4 | 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). † |
| 10.5 | 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). † |
| 10.6 | 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). † |
| 10.7 | Form of Restricted Stock Agreement for Employee Grants in 2011, 2012, and 2013 (related to 2010, 2011, and 2012 performance, respectively) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.9 to the Company's Annual Report on Form 10-K for the year ended December 31, 2010, filed February 28, 2011). † |
| 10.8 | 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). † |
| 10.9 | Form of Restricted Stock Agreement for 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 10.9 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed February 26, 2015). † |
| 10.10 | 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). † |
| 10.11 | Form of Stock Option Agreement for Employee Grants in 2004 and 2005 (related to 2003 and 2004 performance, respectively) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2004, filed August 4, 2004). † |

| Exhibit Number | Description |
|-------------------|---|
| 10.12 | Form of Stock Option Agreement for Employee Grants in 2006 (related to 2005 performance) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.11 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005, filed March 1, 2006). † |
| 10.13 | Form of Stock Option Agreement for Employee Grants in 2007 and 2008 (related to 2006 and 2007 performance, respectively) under the Piper Jaffray Companies Amended and Restated 2003 Annual and Long-Term Incentive Plan (incorporated by reference to Exhibit 10.9 to the Company's Annual Report on Form 10-K for the year ended December 31, 2006, filed March 1, 2007). † |
| 10.14 | Form of Stock Option Agreement for Non-Employee Director 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 June 30, 2004, filed August 4, 2004). † |
| 10.15 | Form of Performance Share Unit Agreement for 2012 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 fiscal quarter ended June 30, 2012, filed August 2, 2012). † |
| 10.16 | Form of Performance Share Unit Agreement for 2013 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, 2013, filed July 31, 2013). † |
| 10.17 | 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). † |
| 10.18 | 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). † |
| 10.19 | 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). † |
| 10.20 | 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. †* |
| 10.21 | 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). † |
| 10.22 | Summary of Non-Employee Director Compensation Program. †* |
| 10.23 | 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). † |
| 10.24 | 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). |
| 10.25 | 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). |
| 10.26 | 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). |
| 10.27 | 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). |
| 10.28 | Fourth Amendment to Amended and Restated Loan Agreement, dated December 17, 2016, between Piper Jaffray & Co. and U.S. Bank National Association. * |

| Exhibit Number | Description |
|-------------------|---|
| 10.29 | 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). |
| 10.30 | 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). |
| 10.31 | Compensation Arrangement with M. Brad Wings (incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012, filed February 27, 2013). † |
| 10.32 | Restricted Limited Partnership Interest Agreement dated February 23, 2015, by and between Piper Jaffray Investment Management LLC and M. Brad Wings (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed February 26, 2015). † |
| 10.33 | 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). † |
| 10.34 | Piper Jaffray Companies Amended and Restated Mutual Fund Restricted Share Investment Plan, effective as of December 13, 2016. † * |
| 10.35 | Form of Mutual Fund Restricted Share Agreement for Employee Grants in 2012 and 2013 (related to performance in 2011 and 2012, respectively) (incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K for the year ended December 31, 2011, filed February 27, 2012). † |
| 10.36 | 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). † |
| 10.37 | 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). † |
| 10.38 | 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). † |
| 10.39 | 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). † |
| 10.40 | 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). † |
| 10.41 | 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. †* |
| 10.42 | 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. †* |
| 10.43 | 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). † |
| 10.44 | 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). † |
| 10.45 | 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). † |
| 10.46 | 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). † |

| Exhibit Number | Description |
|-------------------|--|
| 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 Chairman and Chief Executive Officer. |
| 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, 2016 and December 31, 2015, (ii) the Consolidated Statements of Operations for the years ended December 31, 2016, 2015 and 2014, (iii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2016, 2015 and 2014, (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014 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 24, 2017.

PIPER JAFFRAY COMPANIES

By /s/ Andrew S. Duff
Its Chairman and 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 24, 2017.

| <u>SIGNATURE</u> | <u>TITLE</u> |
|---|---|
| <u>/s/ Andrew S. Duff</u> Andrew S. Duff | Chairman and Chief Executive Officer (Principal Executive Officer) |
| <u>/s/ Debra L. Schoneman</u> Debra L. Schoneman | Chief Financial Officer (Principal Financial and Accounting Officer) |
| <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 |

Corporate Headquarters

Piper Jaffray Companies
Mail Stop J09SSH
800 Nicollet Mall, Suite 1000
Minneapolis, MN 55402
612 303-6000

Company Website

piperjaffray.com

Stock Transfer Agent and Registrar

Wells Fargo acts as transfer agent and registrar for Piper Jaffray Companies and maintains all shareholder records for the company. If you have questions regarding Piper Jaffray Companies stock, transfers, corrections or changes, lost certificates or duplicate mailings, please contact Wells Fargo:

Online

shareowneronline.com

Telephone

800 401-1957 Toll-Free
Shareowner relations specialists
available Monday through Friday
7:00 a.m. to 7:00 p.m. CT

Written correspondence

Wells Fargo Shareowner Services
P.O. Box 64874
St. Paul, MN 55164-0874

Certified and overnight delivery

Wells Fargo Shareowner Services
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120

Independent Accountants

Ernst & Young LLP

Common Stock Listing

New York Stock Exchange (symbol: PJC)

Investor Inquiries

Shareholders, securities analysts and investors seeking more information about the company should contact Tom Smith, Director of Investor Relations, at thomas.g.smith@pjc.com, 612 303-6336, or the corporate headquarters address.

Website Access to SEC Reports and Corporate Governance Information

Piper Jaffray Companies makes available free of charge on its website, piperjaffray.com, its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as well as all other reports filed by Piper Jaffray Companies with the SEC, as soon as reasonably practicable after it electronically files them with, or furnishes them to, the SEC. Piper Jaffray Companies also makes available free of charge on its website the company's codes of ethics and business conduct, its corporate governance principles and the charters of the audit, compensation, and nominating and governance committees of the board of directors. Printed copies of these materials will be mailed upon request.

Dividends

Piper Jaffray Companies has not historically paid cash dividends on its common stock. Beginning in February 2017, the firm announced the payment of its first quarterly cash dividend.

Forward-Looking Statements

This annual report and the preceding letter to shareholders contain forward-looking statements. Statements that are not historical or current facts, including statements about beliefs and expectations, are forward-looking statements and are subject to significant risks and uncertainties that are difficult to predict. A number of these risks and uncertainties are described in our SEC reports, including our Annual Report on Form 10-K for the year ended December 31, 2016.

This page intentionally left blank.

This page intentionally left blank.

