

COWEN

ANNUAL
REPORT

2018

CELEBRATING
100
YEARS

COWEN
OUTPERFORM

WE ARE FULLY INVESTED
IN OUR CLIENTS' SUCCESS

VISION

Nasdaq

COWEN.COM

IN COWEN INC.

TW COWEN

TW COWENRESEARCH



LETTER FROM THE CEO

2018 was Cowen's strongest year for both revenues and economic income since the establishment of Cowen Inc. in 2009. We diversified our revenue mix in terms of both sectors and product offerings and expanded our higher-margin advisory capabilities. We are encouraged by the progress towards our goal of increasing return on equity for shareholders.

DEAR SHAREHOLDERS, PARTNERS, COLLEAGUES AND FRIENDS:

Having wrapped up my first full year as CEO, I have been reflecting on the strength of 2018 results, as well as the events of the past several years and how they inform what we aspire to be as a firm.

When I first took on responsibility for Cowen's investment bank back in the fall of 2011, the world was a very different place than it is today. Financial markets were reeling from the downgrade of the credit rating of the United States and we were only three years removed from the financial crisis of 2008.

OUT OF NECESSITY...

In my prior life as a portfolio manager, I had a ringside seat at the unfolding of the financial crisis. Between 2007 and 2009, I spent considerable time unofficially advising various Fed and Treasury staffers on the dangers of the interconnected financial system from my perspective as a market participant. My membership on the Committee for Capital Markets Regulation and my experience managing the Ramius Fund, a large, multi-strategy alternative investment vehicle, enabled me to provide regulators with real-time market insights that added to those

provided by traditional financial intermediaries. Those sessions included in-depth discussions over the weekend that Bear Stearns failed as well as the weekend before Lehman filed for bankruptcy.

I engaged in this dialogue because it was the right thing to do and because I thought I could help. During those interactions, I came to understand that the burgeoning complexity of the financial system and the speed of financial innovation made it extremely difficult for those charged with its oversight to fully comprehend the implications of their actions and, in many cases, the impact of years of inaction.

In the wake of the financial crisis, the populist rhetoric was aimed squarely at the Too-Big-To-Fail banks, and protesters were Occupying Wall Street. There was ample fodder for protest. It had taken less than a decade from the repeal of the Glass-Steagall Act for the global financial system to implode, requiring the Federal government to bail out large financial institutions which had spent the greater part of the 2000s creating sophisticated financial products with questionable (or even negative) value. Those products, mixed with an unhealthy amount of leverage, were at the center of the maelstrom.

People were angry, and for good reason. The behavior of some of the largest global financial institutions created perverse incentives, ultimately resulting in a form of “casino” capitalism that was greatly detached from the challenges facing most people. Much of the economic growth achieved during the 2000s - the result of this debt-induced binge by both companies and consumers - was not sustainable. 2008 not only wiped out significant

TODAY, COWEN IS ALMOST FOUR TIMES THE SIZE IT WAS IN 2012 IN TERMS OF REVENUE, AND WE ARE COMING OFF OUR MOST PROFITABLE YEAR IN OVER A DECADE.

corporate equity, but it also crushed household wealth and laid bare the yawning income gap that had widened during the bubble. While coordinated central bank monetary policy has repaired much of the financial system and reduced nominal unemployment, a lack of fundamental GDP growth and stagnant wages have continued to plague the global economy, further exacerbating the income and wealth gaps. As a result, we remain in the midst of a global rise in populism, the likes of which the world hasn't seen since the 1930s.

WE CHARTED A NEW COURSE...

When I assumed my first official role at Cowen's investment bank in 2011, the firm was still fresh from its 2009 merger with Ramius. The business was reeling from the aftershocks of the crisis, and there was no Federal bailout money on offer for us. In fact, it appeared to many as if Cowen's nearly century-old franchise would eventually join the growing list of once successful firms that faded into oblivion. As Cowen faced these existential risks, I remember discussing with colleagues that if Occupy Wall Street came to visit the firm, they would realize we were a very different animal from the giant banks which had fueled the crisis and had socialized the losses. By the beginning of 2012, as the crisis receded, we at Cowen set ourselves on a path very different from those of big Wall Street firms. We were determined to demonstrate the value-add of trusted financial partners like Cowen by working to benefit all our primary stakeholders — our clients, our teammates and our shareholders.

Today, Cowen is almost four times the size it was in 2012 in terms of revenue, and we are coming off our most profitable year in over a decade. Our success is the direct result of the long-term efforts we have made as a team across the entire platform to fulfill the promise of delivering outperformance. But in the most important ways, we are still the same people culturally: People who care deeply about delivering positive outcomes and doing right by our stakeholders.

Our markets business has grown to almost a half billion dollars in revenue, up from less than \$100 million in 2012. We are a premier global execution platform, with trading volumes rivaling those of some bulge bracket firms.

BY THE **NUMBERS**

\$909 MILLION

2018 ECONOMIC INCOME
REVENUE

+21%

CAGR 2012 – 2018

\$81 MILLION

2018 OPERATING ECONOMIC
INCOME ATTRIBUTABLE TO
COMMON SHAREHOLDERS

+43%

CAGR 2012 – 2018

\$2.63

2018 ECONOMIC OPERATING
INCOME PER COMMON SHARE
(DILUTED)

+79%

CAGR 2012 – 2018

\$32 MILLION

2018 CAPITAL RETURNED
THROUGH SHARE REPURCHASES

12%

2018 RETURN ON AVERAGE
COMMON EQUITY

We are also a major player in US equity research, with more than 50 publishing analysts covering nearly 775 securities across a range of growth industries. Our research has readership which is 3x-8x larger than Street averages.¹

We have the largest life sciences research franchise on the Street, and we are a top three bookrunner for biotech offerings since 2012.

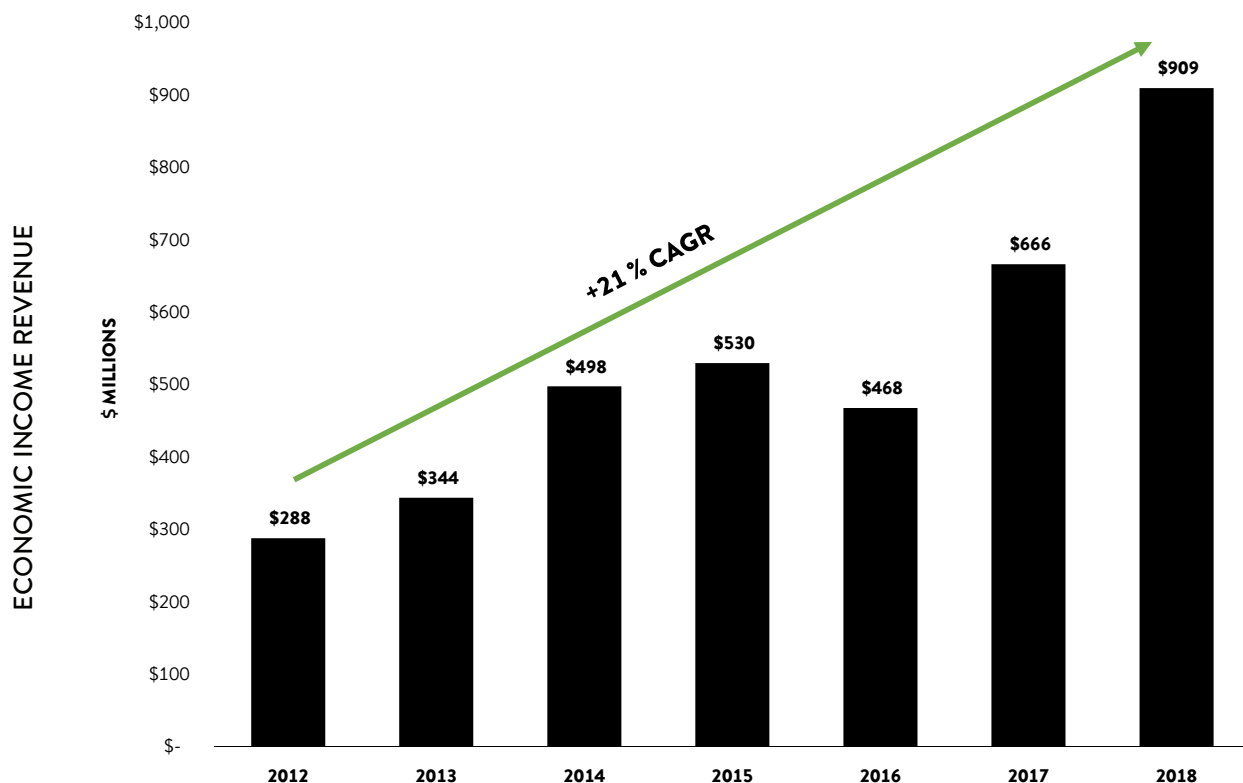
Indeed, Cowen has been a bookrunner on 60% of the best performing biotech IPOs over the past 5 years.²

But our capabilities extend far beyond biotech capital markets. Nearly half of our investment banking revenues are now from non-healthcare fields such as technology, consumer and industrials, and one-third of our banking revenues

¹ Financial Times, 2/8/17

² ECM Analytics as of April 2019

A GROWING PLATFORM



are from M&A and advisory work. Overall banking growth has been very strong, with revenues up nearly five-fold since 2012.

We also provide differentiated, actively managed investment offerings and a focus on products which are aligned with our firm's expertise, or Cowen DNA. We are growing both liquid fund structures as well as private equity-style vehicles. We currently have five investment management strategies, including two with a focus on healthcare.

In short, our future as a firm looks emphatically brighter than it did when we set out on this course. Our success is the result of the efforts of so many of our teammates who embody our core values of Vision, Empathy, Sustainability and Tenacious Teamwork.

However, if I had to pick the one Cowen value that has mattered most to our success, it is Empathy.

We have built our firm by creating an environment where Empathy is abundant. One in which our teammates get psychic joy out of helping others succeed. Where we openly discuss how to engage

with both civility and candor in order to achieve positive outcomes. And we do this not only for the benefit of our stakeholders, but for the broader good as well.

BASED ON GIVING BACK...

At Cowen, we believe that promoting an empathetic culture is essential to delivering on the goal of helping our clients Outperform. Indeed, our shared success over the long term is proof positive that it is possible to do well while also doing good, or as we say, "Doing Better Enables Us to Do More Good." In support of that concept, alongside the great strides in our operating performance, we have also created a philanthropic and community engagement program called Cowen Cares, and we recently launched a new Earth-friendly sustainability initiative, Cowen Green. Over the past year we have committed to improving our efforts on key environmental, social and governance matters to ensure that we are doing our part to advance sustainable, long-term growth. "Repairing the World" gives us great purpose because we have a responsibility to all our stakeholders – our clients, our shareholders, our

team members, our families and the communities in which we live. And yet, we realize that pursuing these initiatives only happens when we are successful at meeting our targeted financial and operating objectives.

BEING MEANINGFUL, NOT MERCENARY...

I am fond of telling people that for most my career I felt like I had to deal with Wall Street. I engaged because I needed access to markets financing, deal flow or financial advice. For the most part, I felt that the people providing those services only saw me as another potential source of revenue. However, over the years there were a few individuals that made a positive difference for me and my firm. They leaned into understanding our needs more viscerally. For those trusted advisors who exhibited Empathy, I have always had plenty of time and, as a result, they ended up getting a significant portion of our fee wallet.

So, as we set out to rebuild at the beginning of 2012, the premise of Cowen was straightforward: What if we could build the kind of investment bank we wished had covered us when we were clients? What if we could fill Cowen with the

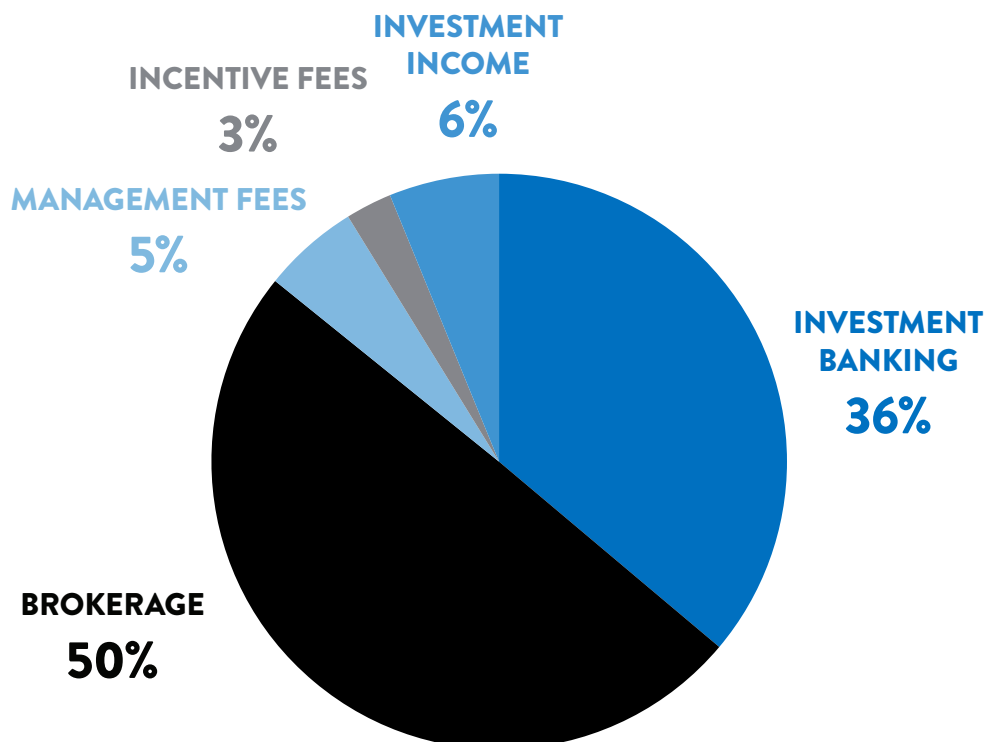
kind of individuals who have consistently shown a level of EQ (emotional intelligence) matching their intelligence and their tenacity. People who deliver the high-quality content and capabilities that are in such short supply, while understanding intuitively that we win more acting as a team than we do individually. We believed there was a place in our industry for that kind of firm.

Our growth has validated that belief. Our focus on empathetic engagement has led us to nourish the various industries in which we operate. In fact, if you should ever attend a Cowen conference or corporate access event, not only will you undoubtedly feel part of our powerful, valuable content network, but you will get a strong sense of community. In each one of our interactions, we strive to make all the various constituents feel like they are a part of something bigger.

AND STAYING AHEAD OF THE CURVE®

In 2017, when we unveiled our brand statement, “Outperform,” we did so for two reasons: First, financial markets were (and continue to be) filled with passive alternatives for investors. We believe that nobody strives to be average, that the desire

ECONOMIC INCOME REVENUE — 2018



WE REALIZE THAT WE CAN ONLY PURSUE SUCH INITIATIVES IF WE ARE SUCCESSFUL IN DELIVERING AT A HIGH LEVEL FOR OUR CLIENTS.

to outperform is basic to the human condition. We also believe that you simply cannot win over the long-term by just showing up and being average.

Second, we discovered that no other firm on Wall Street had ever affiliated their image with the notion of Outperformance. Why? Because it is hard to maintain a consistent level of excellence that befits that moniker. I do not think for a moment that Outperformance equates to perfection. We don't always get it right, but we sure do try. We believe that Outperformance is a state of mind. It is a purpose. As we have grown the firm we have focused on providing new ways to help our clients Outperform. And we have been assiduous in recruiting and retaining only people who we think can deliver the caliber of service and advice that consistently aims to Outperform.

Outperformance doesn't just apply to our immediate constituents and stakeholders. We have done several things to improve the broader ecosystem around Cowen. In 2012, we worked hard to help shape the federal legislation that ultimately became the JOBS Act. The premise of the JOBS Act, which was the only piece of meaningful bipartisanship in Congress that year, was that improvements to the ecosystem for capital formation would result in greater innovation and private sector job growth at smaller companies.

Since the enactment of the JOBS Act, almost 1,300 companies have done IPOs in the United States, compared to fewer than 1,000 over the seven previous years.³ Today we have approximately 4,400 companies listed on major U.S. exchanges versus 4,100 in 2012.⁴ This opening up of listings,

however modest, has resulted in more than 250,000 new jobs being created at those emerging growth companies.⁵

The fact that we still have more work to do is why I am proud to have been appointed by the SEC as Vice Chairman and an inaugural member of the Small Business Capital Formation Advisory Committee. The Committee is designed to provide a formal mechanism for the Commission to receive advice and recommendations on Commission rules, regulations and policy matters relating to small businesses, including smaller public companies. I am looking forward to helping foster growth in this important community in any way I can.

THE BOTTOM LINE

We realize that we can only pursue such initiatives if we are successful in delivering at a high level for our clients. And we know that every time we serve our clients, we are serving our shareholders, as we seek to deliver more consistent profitability and higher returns.

That is why, in each of our engagements, we strive to help people through our actions. By doing so, we aim to leave them in a better place than they were before they engaged with us. It's just that straightforward.

Working to live up to our values is what makes Cowen a special place to work now and for the foreseeable future. As we begin our next century, we will continue to find ways to make Cowen a better firm, while we stay true to our culture and purpose. In doing so, we hope to be able to continue doing what we do best for the next 100 years and beyond.

With thanks and gratitude for your continuing support,



JEFFREY M. SOLOMON
Chief Executive Officer

³ Source: Renaissance Capital

⁴ Source: World Bank

⁵ Cowen analysis of Capital IQ, Bloomberg, ECM Analytics and company filing data

**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, 2018**

Commission file number: **001-34516**

Cowen Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

27-0423711
(I.R.S. Employer
Identification No.)

**599 Lexington Avenue
New York, New York 10022
(212) 845-7900**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive office)

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

Title of Each Class	Name of Exchange on Which Registered
Class A Common Stock, par value \$0.01 per share	The Nasdaq Global Market
7.35% Senior Notes due 2027	The Nasdaq Global Market
7.75% Senior Notes due 2033	The Nasdaq Global Market

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 15(d) of the 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 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 the Annual Report on Form 10-K or any amendment to the Annual Report on 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 ☐
(Do not check if a smaller reporting company) Smaller reporting company ☐ Emerging growth company ☐

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

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

The aggregate market value of Class A common stock held by non-affiliates of the registrant on June 30, 2018, the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price of the Class A common stock on the NASDAQ Global Market on that date was \$396,548,671.

As of March 5, 2019 there were 29,472,029 shares of the registrant's 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 2019 Annual Meeting of Stockholders.

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Special Note Regarding Forward-Looking Statements

We have included or incorporated by reference into our Annual Report on Form 10-K (the "Annual Report"), and from time to time may make in our public filings, press releases or other public documents, certain statements, including (without limitation) those under Item 1—"Business," Item 1A—"Risk Factors," Item 3—"Legal Proceedings," Item 7—"Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 7A—"Quantitative and Qualitative Disclosures about Market Risk" that may constitute "forward-looking statements" within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify these statements by forward-looking terms such as "may," "might," "will," "would," "could," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "project," "possible," "potential," "intend," "seek" or "continue," the negative of these terms and other comparable terminology or similar expressions. In addition, our management may make forward-looking statements to analysts, representatives of the media and others. These forward-looking statements represent only the Company's beliefs regarding future events (many of which, by their nature, are inherently uncertain and beyond our control) and are predictions only, based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from those expressed or implied by the forward-looking statements. In particular, you should consider the risks outlined under Item 1A—"Risk Factors" in this Annual Report.

Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. We undertake no obligation to update any of these forward-looking statements after the date of this filing to conform our prior statements to actual results or revised expectations.

PART I

When we use the terms "we," "us," "Cowen" and the "Company," we mean Cowen Inc., a Delaware corporation, its consolidated subsidiaries and entities in which it has a controlling financial interest, taken as a whole, as well as any predecessor entities, unless the context otherwise indicates.

Item 1. Business

Overview

Cowen Inc., a Delaware corporation formed in 2009, is a diversified financial services firm and, together with its consolidated subsidiaries (collectively, "Cowen" or the "Company"), provides investment management, investment banking, research, sales and trading, prime brokerage, global clearing and commission management services through its two business segments: the investment management segment and the investment bank segment. The investment management segment includes advisers to investment funds (including privately placed hedge funds, real estate funds, and private equity structures), managed accounts, registered funds and a significant portion of the Company's proprietary capital. The investment bank segment offers industry focused investment banking for growth-oriented companies including advisory and global capital markets origination and domain knowledge-driven research, sales and trading platform for institutional investors, global clearing and commission management services and also a comprehensive suite of prime brokerage services.

The Company's investment management business, which operates primarily under the Cowen Investment Management name, offers innovative investment products and solutions across the liquidity spectrum to institutional and private clients. The predecessor to this business was founded in 1994 and, through one of its subsidiaries, has been registered with the United States ("U.S.") Securities and Exchange Commission (the "SEC") as an investment adviser under the Investment Advisers Act of 1940, as amended (the "Advisers Act") since 1997. The Company's investment management business offers investors access to a number of strategies to meet their specific needs including multi-sector long/short equity, merger arbitrage, activism, health care royalties, private healthcare investing, private sustainable investing, and real estate. The Company's investment management business focuses on attracting and retaining talented investment teams and providing seed capital and working capital, an institutional infrastructure, robust sales and marketing and industry knowledge. A significant portion of the Company's capital is invested alongside the Company's investment management clients. The Company has also invested some of its capital in its reinsurance businesses. Our investment management business had approximately \$10.4 billion of assets under management as of January 1, 2019. See the section titled "Assets Under Management and Fund Performance" for further analysis.

Our investment bank businesses include investment banking, research, sales and trading, prime brokerage, global clearing and commission management services provided primarily to institutional investor clients and other companies. Our primary target sectors ("Target Sectors") are healthcare, technology, media and telecommunications, information and technology services, consumer, aerospace and defense, industrials, energy and transportation. We provide research and brokerage services to over 5,000 domestic and international clients seeking to trade securities and other financial instruments, principally in our target sectors. The investment bank business also offers a full-service suite of introduced prime brokerage services targeting emerging private fund managers. Historically, we have focused our investment banking efforts on small to mid-capitalization public companies as well as private companies. From time to time, the Company invests in private capital raising transactions of its investment banking clients.

On December 5, 2016, the Company effected a one-for-four reverse stock split of our common stock. Except where the context indicates otherwise, all share and per share information has been retroactively adjusted to reflect the reverse stock split.

Principal Business Lines

Investment Management Products and Services

Investment Management Strategies

The Company's investment management business focuses on addressing the needs of institutional investors and high net worth individuals to preserve and grow allocated capital. The Company and its affiliated investment advisors offer a variety of investment management products that provide access to a number of strategies, including multi-sector long/short equity, merger arbitrage, activism, private healthcare investing, and private sustainable investing. The Company and one of its affiliated investment advisors also manage certain multi-strategy hedge funds that are currently in wind-down. The majority of assets remaining in these hedge funds include investments in private companies, real estate investments and special situations.

Investment Bank Business

Investment Banking

Our investment banking professionals are focused on providing strategic advisory and capital raising services to U.S. and international public and private companies in our Target Sectors. By focusing on our Target Sectors over a long period of time, we have developed a significant understanding of the unique challenges and demands with respect to public and private capital raising and strategic advice in these sectors. Our advisory and capital raising capabilities begin at the early stages of a private company's accelerated growth phase and continue through its evolution as a public company. Our advisory business focuses on mergers and acquisitions, including providing fairness opinions and providing advice on other strategic transactions. Our capital markets capabilities include equity, including private investments in public equity and registered direct offerings, credit and fixed income, including public and private debt placements, exchange offers, consent solicitations and tender offers, as well as origination and distribution capabilities for convertible securities. We have a unified capital markets group which we believe allows us to be effective in providing cohesive solutions for our clients. Historically, a significant majority of our investment banking revenue has been earned from high-growth small and mid-capitalization companies. The Company, from time to time, may invest in private capital raising transactions of its clients.

Brokerage

Our team of brokerage professionals serves institutional investor clients in the U.S. and internationally. We trade common stocks, listed options, equity-linked securities and other financial instruments on behalf of our clients and offer a full-service suite of introduced prime brokerage services targeting emerging private fund managers. We provide our clients with an electronic execution suite. We provide global, multi-asset class algorithmic execution trading models to both buy side and sell side clients and also offer execution capabilities relating to these trading models through ATM Execution LLC ("ATM Execution"). We also provide our clients with commentary on political, economic and market conditions. We have relationships with over 5,000 institutional investor clients. Our brokerage team is comprised of experienced professionals dedicated to our Target Sectors, which allows us to develop a level of knowledge and focus that we believe differentiates our brokerage capabilities from those of many of our competitors. We tailor our account coverage to the unique needs of our clients. We believe that our sector traders are able to provide superior execution because of their knowledge of the interests of our institutional investor clients in specific companies in our Target Sectors.

In connection with the brokerage services we provide, our sales professionals also provide our institutional investor clients with access to the management of our investment banking clients outside the context of financing transactions. These meetings are commonly referred to as non-deal road shows. Non-deal road shows allow our investment banking clients to increase their visibility within the institutional investor community while providing our institutional investor clients with the opportunity to further educate themselves on companies and industries through meetings with management. We believe our deep relationships with company management teams and our sector-focused approach provide us with broad access to management for the benefit of our institutional investor and investment banking clients.

Research

As of December 31, 2018, we had a research team of 45 senior analysts covering approximately 878 companies. Within our equity coverage universe, approximately 28% are healthcare companies, 25% are TMT (technology, media and telecom) companies, 16% are energy companies, 12% are capital goods and industrial companies, 4% are basic materials companies and 15% are consumer companies. Our differentiated approach to research focuses our analysts' efforts toward delivering specific investment ideas and de-emphasizes maintenance research. We place significant emphasis on analyst collaboration, both within and between sectors. We sponsor a number of conferences every year that are focused on our Target Sectors and sub-sectors. During these conferences we highlight our investment research and provide significant investor access to corporate management teams. We provide research solely through our broker-dealers in connection with our provision of brokerage services.

Information About Geographic Areas

We are principally engaged in providing investment management services to global institutional investors and investment banking sales and trading and research services to corporations and institutional investor clients primarily in the United States. We provide brokerage services to companies and institutional investor clients in Europe through our broker-dealers located in the United Kingdom ("U.K.") Cowen International Limited ("Cowen International Ltd") and Cowen Execution Services Limited ("Cowen Execution Ltd") (formerly Convergenx Limited).

Employees

As of March 5, 2019, the Company had 1,212 employees.

Competition

We compete with many other firms in all aspects of our business, including raising funds, seeking investment opportunities and hiring and retaining professionals, and we expect our business will continue to be highly competitive. The investment management and investment bank industries are currently undergoing contraction and consolidation, reducing the number of industry participants and generally resulting in the larger firms being better positioned to retain and gain market share. We compete in the United States and globally for investment opportunities, investor capital, client relationships, reputation and talent. We face competitors that are larger than we are and have greater financial, technical and marketing resources. Certain of these competitors continue to raise additional amounts of capital to pursue investment strategies that may be similar to ours. Some of these competitors may also have access to liquidity sources that are not available to us, which may pose challenges for us with respect to investment opportunities. In addition, some of these competitors may have higher risk tolerances or make different risk assessments than we do, allowing them to consider a wider variety of investments and establish broader networks of business relationships. Our competitive position depends on our reputation, our investment performance and processes, the breadth of our business platform and our ability to continue to attract and retain qualified employees while managing compensation and other costs. For additional information regarding the competitive risks that we face, see "Item 1A Risk Factors-Risks Related to the Company's Investment Management Business" and "Risk Factors-Risks Related to the Company's Investment Bank Business."

Regulation and Compliance

Our businesses, as well as the financial services industry generally, are subject to extensive regulation, including periodic examinations by governmental and self-regulatory organizations, in the United States and the jurisdictions in which we operate around the world. As a publicly traded company in the United States, we are subject to the U.S. federal securities laws and regulation by the SEC. Through our investment management and/or investment bank businesses we are subject to regulation by the SEC, the U.S. Commodity Futures Trading Commission (the "CFTC"), the Financial Industry Regulatory Authority, Inc. ("FINRA") the National Futures Association ("NFA"), other self-regulatory organizations and exchanges related to the financial services industry and the fifty state securities commissions in the U.S. and by the U.K. Financial Conduct Authority ("FCA").

Virtually all aspects of our business are subject to various laws and regulations both inside and outside the U.S., some of which are summarized below. Regulatory bodies in the United States and the rest of the world are charged with safeguarding the integrity of the securities and other financial markets and with protecting the interests of customers participating in those markets. Governmental authorities in the United States and in the other countries in which we operate from time to time propose additional disclosure requirements and regulations covering our broker-dealers and asset management businesses. The rules governing the regulation of the various aspects of our business are very detailed and technical. Accordingly, the discussion below is general in nature, does not purport to be complete and is current only as of the date of this report.

Rigorous legal and compliance analysis of our businesses and investments is important to our culture and risk management. We conduct regular training of our personnel to ensure that they are familiar with the laws and regulations governing our business and applicable to our clients as well as with our company's policies and procedures. In addition, we have adopted and implemented disclosure controls and procedures and internal controls over financial reporting, which have been documented, tested and assessed for design and operating effectiveness in compliance with the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley Act"). We strive to maintain a culture of compliance through the use of policies and procedures such as oversight compliance, codes of conduct, compliance systems, communication of compliance guidance, conduct of annual compliance reviews and on-going employee education and training. Our corporate risk management function further analyzes our business, investment and other key risks, reinforcing their importance in our environment. We have a compliance group that monitors our compliance with all of the regulatory requirements to which we are subject and manages our compliance policies and procedures. Our General Counsel supervises our compliance group, which is responsible for addressing all regulatory and compliance matters that affect our activities. Our compliance policies and procedures address a variety of regulatory and compliance risks such as the handling of material non-public information, position reporting, personal securities trading, valuation of investments, document retention, potential conflicts of interest and the allocation of investment opportunities. Our compliance group also monitors the information barriers that we maintain between those of our different businesses that we are required to conduct separately or which present conflicts of interest, which we address through the use of physical and systematic information barriers. We believe that our various businesses' access to the intellectual capital, contacts and relationships benefit all of our businesses. However, in order to maximize that access without compromising our legal and contractual obligations, our compliance group oversees and monitors the communications between or among our company's different businesses to ensure that we maintain material non-public information, client information and other confidential information in strict confidence. All parts of our business, including our investment bank and our investment management businesses, from time to time are subject to regulatory exams, investigations and proceedings, and our broker-dealers have received fines and penalties for infractions of various regulations relating to our activities. For additional information regarding the regulatory and compliance risks that we face, see "Item 1A Risk Factors-Risks Related to the Company's Investment Management Business" and "Risk Factors-Risks Related to the Company's Investment Bank Business."

Investment Management Business

The investment advisers responsible for the Company's investment management business are all registered as investment advisers with the SEC or rely upon the registration of an affiliated adviser, and all are currently exempt from registration as Commodity Pool Operators ("CPOs") and Commodity Trading Advisors ("CTAs").

Registered investment advisers are subject to the requirements of the Advisers Act and the regulations promulgated thereunder. Such requirements relate to, among other things, fiduciary duties to clients, maintaining an effective compliance program, operational and marketing requirements, disclosure obligations, conflicts of interest, fees and prohibitions on fraudulent activities.

The investment activities of our investment management business are also subject to regulation under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Securities Act of 1933, as amended (the "Securities Act"), the Investment Company Act of 1940, as amended ("the Investment Company Act") and various other statutes, as well as the laws of the fifty states and the rules of various United States and non-United States securities exchanges and self-regulatory organizations, including laws governing trading on inside information, market manipulation and a broad number of technical requirements (e.g., options and futures position limits, execution requirements and reporting obligations) and market regulation policies in the United States and globally. Congress, regulators, tax authorities and others continue to explore and implement regulations governing all aspects of the financial services industry. Pursuant to systemic risk reporting requirements adopted by the SEC, the Company's affiliated registered investment advisers with private investment fund clients are required to report certain information about their investment funds to the SEC.

In addition, certain of our investment advisers act as a "fiduciaries" under the Employee Retirement Income Security Act of 1974 ("ERISA") and similar state laws with respect to private and public benefit plan clients. As such, the advisers, and certain of the investment funds they advise, may be subject to ERISA and similar state law requirements and to regulations promulgated thereunder. ERISA, similar state laws and applicable provisions of the Internal Revenue Code of 1986 (the "IRC"), which regulate services provided to individual retirement accounts, impose duties on persons who are fiduciaries and other types of service providers to benefit plans and individual retirement accounts under ERISA, such state laws and the IRC, prohibit specified transactions involving IRA and benefit plan clients subject to ERISA or similar state laws (absent the availability of specified exemptions) and provide monetary penalties for violations of these prohibitions.

Enacted on July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") was expansive in scope and led to the adoption of extensive regulations by the CFTC, the prudential regulators, the SEC and other governmental agencies. The current administration has suggested that it will seek to roll back some of this regulation, although it is not possible to predict whether changes will be made. Since its adoption, the Dodd-Frank Act has had an impact on the costs associated with derivatives trading by the Company and its clients, including as a result of requirements that transactions be margined, trade reported and, in some cases, centrally cleared.

The Dodd-Frank Act established the Financial Services Oversight Council (the "FSOC") to identify threats to the financial stability of the United States, promote market discipline, and respond to emerging risks to the stability of the United States financial system. The FSOC is empowered to determine whether the material financial distress or failure of a non-bank financial company would threaten the stability of the United States financial system, and such a determination can subject a non-banking finance company to supervision by the Board of Governors of the Federal Reserve and the imposition of standards and supervision including stress tests, liquidity requirements and enhanced public disclosures including the authority to require the supervision and regulation of systemically significant non-bank financial companies. We do not believe we are at risk of being considered a systemically significant non-bank financial company.

The regulation of swaps and derivatives under the Dodd-Frank Act directly affects the manner by which our investment management business utilizes and trades swaps and other derivatives, and has generally increased the costs of derivatives trading conducted on behalf of our clients. The European Union ("E.U.") (and some other countries) are now in the process of implementing similar requirements that will affect derivatives transactions with a counterparty organized in that country or otherwise subject to that country's derivatives regulation. The mandatory minimum margin requirements for bilateral derivatives adopted by the U.S. government and the E.U. came into effect in March 2017 in respect to variation margin and will be transitioned in through 2020 in respect to initial margin. Required margining of derivatives has affected our investment management business as these requirements generally increase costs associated with derivatives transactions and makes derivatives transactions more expensive.

Given our investment and insurance activities are carried out around the globe, we are subject to a variety of regulatory regimes that vary country by country. Our captive insurance and reinsurance companies are regulated by both the New York State Department of Finance and the Luxembourg Commissariat aux Assurances, respectively. E.U. financial reforms included a number of initiatives to be reflected in new or updated directives and regulations, the most significant of which is the amendment to the pan-European regulatory regime, the Markets in Financial Instruments Directive ("MiFID II"), which went

into effect in January 2018. MiFID II regulates the provision of investment services and activities throughout the European Economic Area. MiFID II requires that investment managers and investment advisers located in the E.U. “unbundle” research costs from commissions. As a result, investment firms subject to MiFID II may no longer pay for research using client commissions or “soft dollars.” Going forward, such costs must be paid directly by the investment firm or through a research payment account funded by clients and governed by a budget that is agreed by the client. In the U.S., our investment management business expects to continue to pay for research using soft dollars consistent with applicable law. The change in regulations has also impacted the provisions of research by our U.S. broker-dealers. Because the acceptance of hard dollar payments would, under U.S. law, require registration as an investment adviser, our broker-dealers are requiring clients to continue to pay for research on a soft dollar basis unless the client is subject to MiFID II and we can rely on SEC relief so as not to have to register as an investment adviser.

Our businesses have operated for many years within a legal framework that requires us to be able to monitor and comply with a broad range of legal and regulatory developments that affect our activities both in the United States and abroad. As noted above, certain of our businesses are subject to compliance with laws and regulations of United States federal and state governments, foreign governments, their respective agencies and/or various self-regulatory organizations or exchanges relating to the privacy of client information, and any failure to comply with these regulations could expose us to liability and/or reputational damage. Additional legislation, changes in rules promulgated by the SEC, our other regulators and self-regulatory organizations or changes in the interpretation or enforcement of existing laws and rules, either in the United States or elsewhere, may directly affect the mode of our operation and profitability. The United States and non-United States government agencies and self-regulatory organizations, as well as state securities commissions in the United States, are empowered to conduct administrative proceedings that can result in censure, fine, the issuance of cease-and-desist orders or the suspension or expulsion or deregulation of a broker-dealer, an investment advisor or its directors, officers or employees.

Investment Bank Business

Cowen and Company, LLC ("Cowen and Company") is a registered broker-dealer with the SEC and in all 50 states, the District of Columbia and Puerto Rico and is a member in good standing with FINRA. Self-regulatory organizations, including FINRA, adopt and enforce rules governing the conduct and activities of its member firms, including Cowen and Company, ATM Execution LLC ("ATM Execution"), Cowen Prime Services LLC ("Cowen Prime"), Cowen Execution Services LLC (formerly Convergenx Execution Solutions LLC) ("Cowen Execution") and Westminster Research Associates LLC ("Westminster"). In addition, state securities regulators have regulatory oversight authority over our broker-dealer entities. Accordingly, Cowen and Company, ATM Execution, Cowen Prime, Cowen Execution and Westminster are subject to regulation and oversight by the SEC and FINRA while Cowen Prime is also registered with and subject to oversight by the NFA and CFTC. The Company's U.S. broker-dealers are also members of, and subject to regulation by various exchanges, based on their lines of business. Additionally, Cowen International Ltd and Cowen Execution Ltd are primarily regulated in the U.K. by the FCA.

Broker-dealers are subject to regulations that cover all aspects of the securities business, including sales methods, trade practices among broker-dealers, use and safekeeping of customers' funds, conflicts of interest, securities and information, capital structure, research/banking interaction, record-keeping, the financing of customers' purchases and the conduct and qualifications of directors, officers and employees. In particular, as registered broker-dealers and members of various self-regulatory organizations, Cowen and Company, ATM Execution, Cowen Prime, Cowen Execution and Westminster are subject to the SEC's uniform net capital rule. Rule 15c3-1 specifies the minimum level of net capital a broker-dealer must maintain and also requires that a significant part of a broker-dealer's assets be kept in relatively liquid form. The SEC and various self-regulatory organizations impose rules that require notification when net capital falls below certain predefined criteria, limit the ratio of subordinated debt to equity in the regulatory capital composition of a broker-dealer and constrain the ability of a broker-dealer to expand its business under certain circumstances. Additionally, the SEC's uniform net capital rule requires us to give prior notice to the SEC for certain withdrawals of capital. As a result, our ability to withdraw capital from our broker-dealer subsidiaries may be limited.

The effort to combat money laundering and terrorist financing is a priority in governmental policy with respect to financial institutions. The Bank Secrecy Act ("BSA"), as amended by Title III of the USA PATRIOT Act of 2001 and its implementing regulations ("Patriot Act"), requires broker-dealers and other financial services companies to maintain an anti-money laundering compliance program that includes written policies and procedures, designated compliance officer(s), appropriate training, independent review of the program, standards for verifying client identity at account opening and obligations to report suspicious activities and certain other financial transactions. Through these and other provisions, the BSA and Patriot Act seek to promote the identification of parties that may be involved in financing terrorism or money laundering. We must also comply with sanctions programs administered by the U.S. Department of Treasury's Office of Foreign Asset Control, which may include prohibitions on transactions with designated individuals and entities and with individuals and entities from certain countries.

Anti-money laundering laws outside the United States contain similar diligence and verification provisions. The obligation of financial institutions, including ours, 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 that 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.

Available Information

We routinely file annual, quarterly and current reports, proxy statements and other information required by the Exchange Act with the SEC. Our SEC filings also are available to the public from the SEC's internet site at <http://www.sec.gov>.

We maintain a public internet site at <http://www.cowen.com> and make available free of charge through this site our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements and Forms 3, 4 and 5 filed on behalf of directors and executive officers, as well as any amendments to those reports filed or furnished pursuant to the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We also post on our website the charters for our Board of Directors' Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, as well as our Corporate Governance Guidelines, our Code of Business Conduct and Ethics governing our directors, officers and employees and other related materials. The information on our website is not incorporated by reference into this Annual Report.

Item 1A. Risk Factors

Risks Related to the Company's Businesses and Industry

For purposes of the following risk factors, references made to the Company's investment funds include the various investment management products advised by the Company's investment management business and the investment funds through which the Company invests its own capital. References to the Company's investment bank business include Cowen and Company, ATM Execution, Cowen Execution, Cowen Execution Services Limited, Cowen International Limited, Westminster and Cowen Prime.

The Company

The Company has incurred losses in prior periods and may incur losses in the future.

While the Company's business was profitable on an economic income basis for the year ended December 31, 2018, the Company's investment bank business and investment management business have incurred losses in prior periods. For example, the Company's investment bank business incurred losses in each of the years ended December 31, 2016, 2013 and 2012. In addition, the Company's investment management business incurred losses in each of the years ended December 31, 2017, 2016, 2009 and 2008. The Company may incur losses in any of its future periods. Future losses may have a significant effect on the Company's liquidity as well as our ability to operate.

In addition, we may incur significant expenses in connection with any expansion, strategic acquisition or investment with respect to our businesses. Specifically, we have invested, and will continue to invest, in our investment bank business as well as our hiring of a number of senior professionals to expand our research, investment banking and sales and trading product offerings. Accordingly, the Company will need to increase its revenues at a rate greater than its expenses to achieve and maintain profitability. If the Company's revenues do not increase sufficiently, or even if its revenues increase but it is unable to manage its expenses, the Company will not achieve and maintain profitability in future periods. As an alternative to increasing its revenues, the Company may seek additional capital through the sale of additional common stock or other forms of debt or equity financing. The Company cannot be certain that it would have access to such financing on acceptable terms.

The Company depends on its key senior personnel and the loss of their services would have a material adverse effect on the Company's businesses and results of operations, financial condition and prospects.

The Company depends on the efforts, skill, reputations and business contacts of its principals and other key senior personnel, the information and investment activity these individuals generate during the normal course of their activities and the synergies among the diverse fields of expertise and knowledge held by the Company's senior professionals. Accordingly, the Company's continued success will depend on the continued service of these individuals. Key senior personnel may leave the Company in the future, and we cannot predict the impact that the departure of any key senior personnel will have on our ability to achieve our investment and business objectives. The loss of the services of any of them could have a material adverse effect on the Company's revenues, net income and cash flows and could harm our ability to maintain or grow assets under management in existing investment funds or raise additional funds in the future. Our senior and other key personnel possess substantial experience and expertise and have strong business relationships with the investors in its investment funds, clients

and other members of the business community. As a result, the loss of such personnel could have a material adverse effect on the Company's businesses and results of operations, financial condition and prospects.

The Company's ability to retain its senior professionals is critical to the success of its businesses, and its failure to do so may materially affect the Company's reputation, business and results of operations.

Our people are our most valuable resource. Our success depends upon the reputation, judgment, business generation capabilities and project execution skills of our senior professionals. Our employees' reputations and relationships with our clients are critical elements in obtaining and executing client engagements. The Company may encounter intense competition for qualified employees from other companies inside and outside of their industries. From time to time, the Company has experienced departures of professionals. Losses of key personnel have occurred and may occur in the future. In addition, if any of our client-facing employees or executive officers were to join an existing competitor or form a competing company, some of our clients could choose to use the services of that competitor instead of the services of the Company.

The success of our businesses is based largely on the quality of our employees and we must continually monitor the market for their services and seek to offer competitive compensation. In challenging market conditions, which occurred in recent years, it may be difficult to pay competitive compensation without the ratio of our compensation and benefits expense to revenues becoming higher. In addition, a portion of the compensation of many of our employees takes the form of restricted stock or deferred cash that vest over a period of years, which is not as attractive to existing and potential employees as compensation consisting solely of cash or a lesser percentage of stock or other deferred compensation that may be offered by our competitors.

Difficult market conditions, market disruptions and volatility have adversely affected, and may in the future adversely affect, the Company's businesses, results of operations and financial condition.

The Company's businesses, by their nature, do not produce predictable earnings, and all of the Company's businesses may be materially affected by conditions in the global financial markets and by global economic conditions, such as interest rates, the availability of credit, inflation rates, economic uncertainty, changes in laws, commodity prices, asset prices (including real estate), currency exchange rates and controls and national and international political circumstances (including wars, terrorist acts, protests or security operations). Challenging market conditions could affect the level and volatility of securities prices and the liquidity and the value of investments in the Company's investment funds or other investments in which the Company has investments of its own capital, and the Company may not be able to effectively manage its investment management business's exposure to challenging market conditions. Challenging market conditions can also adversely affect the Company's investment bank business as increased volatility and lower stock prices can make companies less likely to conduct transactions.

Volatility in the value of the Company's investments and securities portfolios or other assets and liabilities, including investment funds, or negative returns from the investments made by the Company could adversely affect the Company's results of operations and statement of financial condition.

The Company invests a significant portion of its capital base to help drive results and facilitate growth of its investment management and investment bank businesses. As of December 31, 2018, the Company's invested capital amounted to a net value of \$786.7 million (supporting a long market value of \$642.6 million), representing approximately 99% of Cowen's stockholders' equity presented in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). In accordance with US GAAP, we define fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. US GAAP also establishes a framework for measuring fair value and a valuation hierarchy based upon the transparency of inputs used in the valuation of an asset or liability. Changes in fair value are reflected in the statement of operations at each measurement period. Therefore, continued volatility in the value of the Company's investments and securities portfolios or other assets and liabilities, including investment funds, will result in volatility of the Company's results. In addition, the investments made by the Company may not generate positive returns. As a result, changes in value or negative returns from investments made by the Company may have an adverse effect on the Company's financial condition or operations in the future.

If the Company were deemed an investment company under the U.S. Investment Company Act, applicable restrictions could make it impractical for the Company to continue its respective businesses as contemplated and could have a material adverse effect on the Company's businesses and prospects.

We are primarily engaged in a non-investment company business and believe the nature of our assets and the sources of our income exclude us from the definition of an investment company under the Investment Company Act.

The Investment Company Act and the rules thereunder contain detailed requirements for the organization and operation of investment companies. Among other things, the Investment Company Act and the rules thereunder limit transactions with affiliates, impose limitations on the issuance of debt and equity securities, generally prohibit the issuance of options and impose certain governance requirements. The Company intends to conduct its operations so that the Company will not be deemed to be

an investment company under the Investment Company Act. If anything were to happen which would cause the Company to be deemed to be an investment company under the Investment Company Act, requirements imposed by the Investment Company Act, including limitations on its capital structure, ability to transact business with affiliates (including subsidiaries) and ability to compensate key employees, could make it impractical for the Company to continue its business as currently conducted, impair the agreements and arrangements between and among it, its subsidiaries and its senior personnel, or any combination thereof, and materially adversely affect its business, financial condition and results of operations. Accordingly, the Company may be required to limit the amount of investments that it makes as a principal or otherwise conduct its business in a manner that does not subject the Company to the registration and other requirements of the Investment Company Act.

Limitations on access to capital by the Company and its subsidiaries could impair its liquidity and its ability to conduct its businesses.

Liquidity, or ready access to funds, is essential to the operations of financial services firms. Failures of financial institutions have often been attributable in large part to insufficient liquidity. Liquidity is of particular importance to Cowen and Company's trading business and Cowen Execution's clearing business and perceived liquidity issues may affect the willingness of the Company's investment bank clients and counterparties to engage in brokerage transactions with Cowen and Company and Cowen Execution. Cowen and Company's and Cowen Execution's liquidity could be impaired due to circumstances that the Company may be unable to control, such as a general market disruption or an operational problem that affects Cowen and Company and Cowen Execution, its trading clients or third parties. Furthermore, the Company's ability to sell assets may be impaired if other market participants are seeking to sell similar assets at the same time.

The Company primarily depends on its subsidiaries to fund its operations. Cowen and Company, ATM Execution, Cowen Prime, Cowen Execution, and Westminster are subject to the net capital requirements of the SEC and various self-regulatory organizations of which they are members. These requirements typically specify the minimum level of net capital a broker-dealer must maintain and also mandate that a significant part of its assets be kept in relatively liquid form. Cowen International Ltd, Cowen Execution, Cowen Execution Ltd. Any failure to comply with these capital requirements could impair the Company's ability to conduct its investment bank business.

The Company's investment management and investment bank businesses' subsidiaries may become subject to additional regulations which could increase the costs and burdens of compliance or impose additional restrictions which could have a material adverse effect on the Company's businesses and the performance of the Company's investment funds.

Market disruptions like those experienced in 2008 have led to an increase in governmental as well as regulatory scrutiny from a variety of regulators, including the SEC, CFTC, FINRA, NFA, U.S. Treasury, the NYSE and state attorneys general. Penalties and fines sought by regulatory authorities have increased substantially over the last several years. In light of current conditions in the global financial markets and the global economy, regulators have increased their focus on the regulation of the financial services industry. The Company may be adversely affected by changes in the interpretation or enforcement of existing laws and rules by these governmental authorities and self-regulatory organizations. The Company also may be adversely affected as a result of new or revised legislation or regulations imposed by the SEC, other U.S. or foreign governmental regulatory authorities or self-regulatory organizations that supervise the financial markets. The Company could be fined, prohibited from engaging in some of its business activities or subjected to limitations or conditions on its business activities. In addition, the Company could incur significant expense associated with compliance with any such legislation or regulations or the regulatory and enforcement environment generally. Substantial legal liability or significant regulatory action against the Company could have a material adverse effect on the financial condition and results of operations of the Company or cause significant reputational harm to the Company, which could seriously affect its business prospects.

The activities of certain of the Company's subsidiaries and affiliates are regulated primarily within the U.S. by the SEC, FINRA, the NFA, the CFTC and other self-regulatory organizations, as well as various state agencies, and are also subject to regulation by other agencies in the various jurisdictions in which they operate and are offered, including the FCA and the European Securities and Markets Authority. Certain legislation proposing greater regulation of the industry is regularly considered by the U.S. Congress - as well as by the governing bodies of non-U.S. jurisdictions - and from time to time adopted as in the case of the Dodd-Frank Act in the U.S. and MiFID II in the E.U.

The investment advisers responsible for the Company's investment management business are all registered as investment advisers with the SEC or rely upon the registration of an affiliated adviser. Certain investment advisers and/or the investment funds they advise are also subject to regulation by various regulatory authorities outside the U.S., including the U.K. FCA, the Swedish FCA and the European Securities and Markets Authority and may indirectly be subject to MiFID II regulations. Moreover, recent rulemaking by the SEC and certain non-U.S. regulatory bodies have imposed trading restrictions and reporting requirements on short selling, which have impacted certain of the investment strategies implemented on behalf of the investment funds it manages, and continued restrictions on or further regulations of short sales could also negatively impact their performance.

These and other regulators in these jurisdictions have broad regulatory powers dealing with all aspects of financial services including, among other things, the authority to make inquiries of companies regarding compliance with applicable regulations, to grant permits and to regulate marketing and sales practices and the maintenance of adequate financial resources as well as significant reporting obligations to regulatory authorities. Under the E.U. Alternative Investment Fund Managers Directive, the Company will only be permitted to actively market its investment funds in the E.U. if certain disclosure and reporting obligations are met, and certain cooperation arrangements with the domicile of the investment vehicle are in place. As such, the Company may need to modify its strategies or operations, face increased constraints on its investment management business or incur additional costs in order to satisfy new regulatory requirements or to compete in a changed business environment. It is difficult to predict the impact of such legislative initiatives on the Company and the markets in which it operates and/or invests.

It is difficult to predict what other changes may be instituted in the future in the regulation of the Company or the markets in which they invest, or the counterparties with which it does business, in addition to those changes already proposed or adopted in the U.S. or other countries. Any such regulation could have a material adverse effect on the profit potential of the Company's operations.

Finally, financial services firms are subject to numerous perceived or actual conflicts of interest, which have drawn and which we expect will continue to draw scrutiny from the SEC and other federal and state regulators. For example, the research areas of investment banks have been and remain the subject of heightened regulatory scrutiny, which has led to increased restrictions on the interaction between equity research analysts and investment banking personnel at securities firms. Regulations have also been focusing on potential conflicts of interest or issues relating to impermissible disclosure of material nonpublic information. Appropriately dealing with conflicts of interest is complex and difficult, and our reputation could be damaged if it fails to do so. Such policies and procedures to address or limit actual or perceived conflicts may also result in increased costs, additional operational personnel and increased regulatory risk. Failure to adhere to these policies and procedures may result in regulatory sanctions or client litigation.

The Company is subject to third party litigation risk and regulatory risk which could result in significant liabilities and reputational harm which, in turn, could materially adversely affect its business, results of operations and financial condition.

The Company depends to a large extent on its reputation for integrity and high-caliber professional services to attract and retain clients. As a result, if a client is not satisfied with the Company's services, it may be more damaging in its business than in other businesses. Moreover, the Company's role as advisor to clients on underwriting or merger and acquisition transactions involves complex analysis and the exercise of professional judgment, including rendering "fairness opinions" in connection with mergers and other transactions. Such activities may subject the Company to the risk of significant legal liabilities, not covered by insurance, to clients and aggrieved third parties, including stockholders of clients who could commence litigation against the Company. Although the Company's investment banking engagements typically include broad indemnities from its clients and provisions to limit exposure to legal claims relating to such services, these provisions may not protect the Company, may not be enforceable, or may be with foreign companies requiring enforcement in foreign jurisdictions which may raise the costs and decrease the likelihood of enforcement. As a result, the Company may incur significant legal and other expenses in defending against litigation and may be required to pay substantial damages for settlements and/or adverse judgments. In addition, in some instances Cowen Prime serves as a registered investment advisor providing advice to retail investors and retaining discretion over some retail investment accounts. The Company could be exposed to potential litigation and liability if any of these clients are not satisfied with the investment advisory services being provided. Substantial legal liability or significant regulatory action against the Company could have a material adverse effect on our results of operations or cause significant reputational harm, which could seriously harm our business and prospects.

In general, the Company is exposed to risk of litigation by investors in its investment management business if the management of any of its investment funds is alleged to have been grossly negligent or fraudulent. Investors or beneficial owners of investment funds could sue to recover amounts lost due to any alleged misconduct, up to the entire amount of the loss. In addition, the Company faces the risk of litigation from investors and beneficial owners of any of its investment funds if applicable restrictions are violated. In addition, the Company is exposed to risks of litigation or investigation relating to transactions that presented conflicts of interest that were not properly addressed. In the majority of such actions the Company would be obligated to bear legal, settlement and other costs, which may be in excess of any available insurance coverage. In addition, although the Company is contractually entitled to indemnification from its investment funds, our rights to indemnification may be challenged. If the Company is required to incur all or a portion of the costs arising out of litigation or investigations as a result of inadequate insurance proceeds, if any, or is not wholly indemnified, our business, results of operations and financial condition could be materially adversely affected. In its investment management business, the Company is exposed to the risk of litigation if an investment fund suffers catastrophic losses due to the failure of a particular investment strategy or due to the trading activity of an employee who has violated market rules or regulations. Any litigation arising in

such circumstances is likely to be protracted, expensive and surrounded by circumstances which are materially damaging to the Company's reputation and businesses.

The potential for conflicts of interest within the Company, and a failure to appropriately identify and deal with conflicts of interest could adversely affect our businesses.

Due to the combination of our investment management and investment bank businesses, we face an increased potential for conflicts of interest, including situations where our services to a particular client or investor or our own interests in our investments conflict with the interests of another client. Such conflicts may also arise if our investment bank business has access to material non-public information that may not be shared with our investment management business or vice versa. Additionally, our regulators have the ability to scrutinize our activities for potential conflicts of interest, including through detailed examinations of specific transactions.

Appropriately identifying and dealing with conflicts of interest is complex and difficult, and the willingness of clients to enter into transactions or engagements in which such a conflict might arise may be affected if we fail to identify and appropriately address potential conflicts of interest. In addition, potential or perceived conflicts could give rise to litigation or enforcement actions.

Employee misconduct could harm the Company by, among other things, impairing the Company's ability to attract and retain investors and subjecting the Company to significant legal liability, reputational harm and the loss of revenue from its own invested capital.

It is not always possible to detect and deter employee misconduct. The precautions that the Company takes to detect and prevent this activity may not be effective in all cases, and we may suffer significant reputational harm and financial loss for any misconduct by our employees. The potential harm to the Company's reputation and to our business caused by such misconduct is impossible to quantify.

There is a risk that the Company's employees or partners could engage in misconduct that materially adversely affects the Company's business, including a decrease in returns on its own invested capital. The Company is subject to a number of obligations and standards arising from its businesses. The violation of these obligations and standards by any of the Company's employees could materially adversely affect the Company and its investors. For instance, the Company's businesses require that the Company properly deal with confidential information. If the Company's employees were to improperly use or disclose confidential information, we could suffer serious harm to our reputation, financial position and current and future business relationships. If one of the Company's employees were to engage in misconduct or were to be accused of such misconduct, the business and reputation of the Company could be materially adversely affected.

The Company may be unable to successfully identify, manage and execute future acquisitions, investments and strategic alliances, which could adversely affect our results of operations.

We intend to continually evaluate potential acquisitions, investments and strategic alliances to expand our investment management and investment bank businesses. In the future, we may seek additional acquisitions, investments, strategic alliances or similar arrangements, which may expose us to risks such as:

- the difficulty of identifying appropriate acquisitions, investments, strategic allies or opportunities on terms acceptable to us;
- the possibility that senior management may be required to spend considerable time negotiating agreements and monitoring these arrangements;
- potential regulatory issues applicable to the financial services business;
- the loss or reduction in value of the capital investment;
- our inability to capitalize on the opportunities presented by these arrangements; and
- the possibility of insolvency of a strategic ally.

Furthermore, any future acquisitions of businesses could entail a number of risks, including:

- problems with the effective integration of operations;
- inability to maintain key pre-acquisition business relationships;
- increased operating costs;
- exposure to unanticipated liabilities; and
- difficulties in realizing projected efficiencies, synergies and cost savings.

There can be no assurance that we would successfully overcome these risks or any other problems encountered with these acquisitions, investments, strategic alliances or similar arrangements.

The Company's future results will suffer if the Company does not effectively manage its expanded operations.

The Company may continue to expand its operations through new product and service offerings and through additional strategic investments, acquisitions or joint ventures, some of which may involve complex technical and operational challenges. The Company's future success depends, in part, upon its ability to manage its expansion opportunities, which pose numerous risks and uncertainties, including the need to integrate new operations into its existing business in an efficient and timely manner, to combine accounting and data processing systems and management controls and to integrate relationships with customers and business partners. In addition, future acquisitions or joint ventures may involve the issuance of additional shares of common stock of the Company, which may dilute the ownership of the Company's stockholders.

The Company's failure to maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on the Company's financial condition, results of operations and business and the price of our Class A common stock.

The Sarbanes-Oxley Act and the related rules require our management to conduct an annual assessment of the effectiveness of our internal control over financial reporting and require a report by our independent registered public accounting firm addressing our internal control over financial reporting. To comply with Section 404 of the Sarbanes-Oxley Act, we are required to document formal policies, processes and practices related to financial reporting that are necessary to comply with Section 404. Such policies, processes and practices are important to ensure the identification of key financial reporting risks, assessment of their potential impact and linkage of those risks to specific areas and activities within our organization.

If we fail for any reason to comply with the requirements of Section 404 in a timely manner, our independent registered public accounting firm may, at that time, issue an adverse report regarding the effectiveness of our internal control over financial reporting. Matters impacting our internal controls may cause us to be unable to report our financial information on a timely basis and thereby subject us to adverse regulatory consequences, including sanctions by the SEC or violations of applicable stock exchange listing rules. There could also be a negative reaction in the financial markets due to a loss of investor confidence in us and the reliability of our financial statements. Any such event could adversely affect our financial condition, results of operations and business, and result in a decline in the price of our Class A common stock.

Certain provisions of the Company's amended and restated certificate of incorporation and bylaws and Delaware law may have the effect of delaying or preventing an acquisition by a third party.

The Company's amended and restated certificate of incorporation and bylaws contain several provisions that may make it more difficult for a third party to acquire control of the Company, even if such acquisition would be financially beneficial to the Company's stockholders. These provisions also may delay, prevent or deter a merger, acquisition, tender offer, proxy contest or other transaction that might otherwise result in the Company's stockholders receiving a premium over the then-current trading price of our common stock. For example, the Company's amended and restated certificate of incorporation authorizes its board of directors to issue up to 10,000,000 shares of "blank check" preferred stock. Without stockholder approval, the board of directors has the authority to attach special rights, including voting and dividend rights, to this preferred stock. With these rights, preferred stockholders could make it more difficult for a third party to acquire the Company. In addition, the Company's amended and restated bylaws provide for an advance notice procedure with regard to the nomination of candidates for election as directors and with regard to business to be brought before a meeting of stockholders. The Company is also subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law. Under these provisions, if anyone becomes an "interested stockholder," the Company may not enter into a "business combination" with that person for three years without special approval, which could discourage a third party from making a takeover offer and could delay or prevent a change of control. For the purposes of Section 203, "interested stockholder" means, generally, someone owning 15% or more of the Company's outstanding voting stock or an affiliate of the Company that owned 15% or more of our outstanding voting stock during the past three years, subject to certain exceptions as described in Section 203.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 has adversely affected, and may continue to adversely affect, the Company's business.

Enacted on July 21, 2010, the Dodd-Frank Act was expansive in scope and led to the adoption of extensive regulations by the CFTC, the prudential regulators, the SEC and other governmental agencies. The current administration has suggested that it may seek to roll back some of this regulation, although the timing and scope of potential changes remains uncertain. Since its adoption, the Dodd-Frank Act has had an impact on the costs associated with derivatives trading by the Company and its clients, including as a result of requirements that transactions be margined, trade reported and, in some cases, centrally cleared.

Heightened cyber-security risks may disrupt our businesses, result in losses or limit our growth.

We may be subject to cyber-attacks on our critical data and we may not be able to anticipate or prevent all such attacks. We may not have the resources or technical sophistication to anticipate or prevent current or rapidly evolving types of cyber-

attacks. Attacks may be targeted at us, our clients or our vendors. We may incur increasing costs in an effort to minimize these risks and could be held liable for any security breach or loss. While we have policies and procedures designed to prevent or limit the effect of the possible failure, interruption or security breach of our information and communication systems, there can be no assurance that any such failure, interruption or security breach will not occur or, if they do occur, that they will be adequately addressed. In addition, advances in computer capabilities, or other technological developments may result in the technology and security measures used by us to protect our systems being breached or compromised. Breaches can also occur as a result of non-technical issues, including intentional or inadvertent breach by our employees or by persons with whom we have commercial relationships.

The occurrence of any failure, interruption or security breach of our information or communication systems could damage our reputation, result in a loss of business, subject us to additional regulatory scrutiny, or expose us to civil litigation and possible financial liability.

If securities analysts stop publishing research or reports about us or our business or if they downgrade our common stock, the market price of our common stock and, consequently, the trading price of our other securities could decline.

The market for our common stock relies in part on the research and reports that industry or financial analysts publish about us or our business. We do not control these analysts. If any analyst who covers us downgrades our stock or lowers its future stock price targets or estimates of our operating results, our stock price could decline rapidly. Furthermore, if any analyst ceases to cover us, we could lose visibility in the market, which in turn could cause the market price of our securities to decline.

Risks relating to the Company's financing transactions.

We are a holding company and rely upon our subsidiaries for cash flow to make payments of principal and interest on our outstanding indebtedness.

We are a holding company with no business operations or assets other than the capital stock of our direct and indirect subsidiaries. Consequently, we are dependent on dividends, distributions, loans and other payments from these subsidiaries to make payments of principal and interest on all of our indebtedness including our senior notes due 2027 (the "2027 Notes"), our senior notes due 2033 (the "2033 Notes"), our cash convertible notes due 2019 (the "2019 Convertible Notes") and our convertible notes due 2022 (the "2022 Convertible Notes" and together with the 2019 Convertible Notes, the "Convertible Notes")(the 2022 Convertible Notes, and together with the 2027 Notes, the 2033 Notes and the 2019 Convertible Notes, the "Notes"). The ability of our subsidiaries to pay dividends and make other payments to us will depend on their cash flows and earnings, which, in turn, will be affected by all of the factors discussed in this annual report. The ability of our direct and indirect subsidiaries to pay dividends and make distributions to us may be restricted by, among other things, applicable laws and regulations and by the terms of any debt agreements or other agreements into which they enter. If we are unable to obtain funds from our direct and indirect subsidiaries as a result of restrictions under their debt or other agreements, applicable laws and regulations or otherwise, we may not be able to pay cash interest or principal on the Notes when due.

Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal to pay interest on or to refinance our indebtedness, including the Notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Despite our current consolidated debt levels, we may still incur substantially more debt or take other actions which would intensify the risks discussed above.

Despite our current consolidated debt levels, we may be able to incur substantially more debt in the future, including secured debt. We are not restricted under the terms of the indentures governing the Notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of the indentures governing the Notes but that could diminish our ability to make payments on the Notes.

Future sales of our common stock in the public market could adversely impact the trading price of our securities.

In the future, we may sell additional shares of our common stock to raise capital. In addition, a substantial number of shares of our common stock are reserved for issuance upon vesting of restricted stock units and upon the conversion of the Convertible Notes. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock. The issuance and sale of substantial amounts of common stock, or the perception that such issuances

and sales may occur, could adversely affect the trading price of our securities and impair our ability to raise capital through the sale of additional equity securities.

The conditional conversion feature of the Convertible Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the Convertible Notes is triggered, holders of Convertible Notes will be entitled to convert the Convertible Notes at any time during specified periods at their option. If one or more holders elect to convert their Convertible Notes, we may be required to pay cash to settle any such conversion, which could adversely affect our liquidity.

The accounting method for convertible debt securities that may be settled in cash, such as the 2022 Convertible Notes, could have a material effect on our reported financial results.

Accounting Standards Codification ("The Accounting Standards") 470-20, Debt with Conversion and Other Options, or ASC 470-20 requires an entity to separately account for the liability and equity components of convertible debt instruments whose conversion may be settled entirely or partially in cash (such as the 2022 Convertible Notes) in a manner that reflects the issuer's economic interest cost for non-convertible debt. The equity component of the 2022 Convertible Notes is included in the additional paid-in capital section of our stockholders' equity on our consolidated balance sheet, and the value of the equity component is treated as original issue discount for purposes of accounting for the debt component. This original issue discount will be amortized to non-cash interest expense over the term of the 2022 Convertible Notes, and we will record a greater amount of non-cash interest expense as a result of this amortization. Accordingly, we will report lower net income in our financial results because ASC 470-20 will require the interest expense associated with the 2022 Convertible Notes to include both amortization of the original issue discount and the 2022 Convertible Notes' coupon interest, which could adversely affect our reported or future financial results and the trading price of our securities.

In addition, under certain circumstances, convertible debt instruments whose conversion may be settled entirely or partly in cash (such as the 2022 Convertible Notes) are currently accounted for using the treasury stock method. Under this method, the shares issuable upon conversion of the 2022 Convertible Notes are not included in the calculation of diluted earnings per share unless the conversion value of the 2022 Convertible Notes exceeds their principal amount at the end of the relevant reporting period. If the conversion value exceeds their principal amount, then, for diluted earnings per share purposes, the 2022 Convertible Notes are accounted for as if the number of shares of common stock that would be necessary to settle the excess, if we elected to settle the excess in shares, are issued. The Accounting Standards in the future may not continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares, if any, issuable upon conversion of the 2022 Convertible Notes, then our diluted earnings per share could be adversely affected.

As a result, we may experience related non-cash volatility to our net income (loss). In addition, as a result of the amortization of the debt discount, the interest expense associated with the 2022 Convertible Notes will be greater than the coupon rate on the 2022 Convertible Notes, which will result in lower reported net income.

Certain provisions in the indentures governing the Convertible Notes could delay or prevent an otherwise beneficial takeover or takeover attempt of us.

Certain provisions in the Convertible Notes and the indentures governing the Convertible Notes could make it more difficult or more expensive for a third party to acquire us. For example, if a takeover would constitute a fundamental change, holders of the Convertible Notes will have the right to require us to repurchase their Convertible Notes in cash. In addition, if a takeover constitutes a make-whole fundamental change, we may be required to increase the conversion rate for holders who convert their Convertible Notes in connection with such takeover. In either case, and in other cases, our obligations under the Convertible Notes and the indentures could increase the cost of acquiring us or otherwise discourage a third party from acquiring us or removing incumbent management.

The ability to use our tax net operating loss ("NOL") carryforwards could be limited.

As of December 31, 2018, we had NOL carryforwards of \$138.0 million available for use in future years. Section 382 of the IRC, as amended, provides that if a loss corporation undergoes an "ownership change" the use of its pre-change losses is limited, generally, to an amount each year equal to the product of the value of the Company's equity and the long-term tax-exempt rate for the month in which the ownership change occurs. An "ownership change" is defined as an increase in the ownership of the loss corporation by so-called 5% shareholders of more than 50% over a rolling three-year period. Cowen did not undergo an ownership change during 2018.

Based on the facts in existence on the date hereof, we do not believe any material portion of our losses is subject to limitation under Section 382, or that conversion of the Convertible Notes into our common stock would trigger an ownership change. There can be no assurance that purchases or other acquisitions of our shares will not in the future trigger an ownership change, thereby substantially limiting our ability to use our NOLs going forward.

We may not be able to realize the value of our deferred tax assets.

At December 31, 2018, we have significant deferred tax assets that we have recognized based on differences between the financial statement carrying amounts and the tax basis of assets and liabilities. We have recognized deferred tax assets because management believes, based on earnings and financial projections, that it is more likely than not that we will have sufficient future earnings to utilize these assets to offset future income tax liabilities. We regularly review our deferred tax assets for recoverability based on our history of earnings, expectations for future earnings and expected timing of reversals of temporary differences. Realization of deferred tax assets requires us to apply significant judgment and is inherently speculative because it requires the future occurrence of circumstances that cannot be predicted with certainty and ultimately depends on the existence of sufficient future taxable income. There can be no assurance that we will achieve sufficient future taxable income as the basis for the ultimate realization of our deferred tax assets. Changes in facts and circumstances or unforeseen negative economic developments could require us to establish a valuation allowance in the future, potentially causing a material adverse effect on our future operating results and financial condition. Our deferred tax assets may also be impacted by new legislation or regulation.

The terms of our Series A Convertible Preferred Stock contains certain restrictions on our operations.

The certificate of designations governing our Series A Convertible Preferred Stock contains certain restrictions on our and our subsidiaries' ability to, among other things, pay dividends on, redeem or repurchase our Class A common stock and, under certain circumstances, our Series A Convertible Preferred Stock, and to issue additional preferred stock. Additionally, if dividends on our Series A Convertible Preferred Stock are in arrears and unpaid for at least six or more quarterly periods, the holders (voting as a single class) of our outstanding Series A Convertible Preferred Stock will be entitled to elect two additional directors to our Board of Directors until paid in full.

Risks Related to the Company's Investment Management Business

The Company's profitability may be adversely affected by decreases in revenue relating to changes in market and economic conditions.

Market conditions have been and remain inherently unpredictable and outside of the Company's control, and may result in reductions in the Company's revenue and results of operations. Such reductions may be caused by a decline in assets under management, resulting in lower management fees and incentive income, an increase in the cost of financial instruments, lower investment returns or reduced demand for assets held by investment management products advised by the Company's investment management business, which would negatively affect its ability to realize value from such assets or continued investor redemptions, resulting in lower fees and increased difficulty in raising new capital.

These factors may reduce the Company's revenue, revenue growth and income and may slow the growth of the investment management business or may cause the contraction of the investment management business. In particular, negative performance reduces assets under management, which decreases the management fees and incentive income that the Company ultimately earns. Negative performance of the Company's investment funds or its own proprietary investments also decreases revenue derived from the Company's returns on investment of its own capital.

The Company's revenues and, in particular, its ability to earn incentive and investment income, would be adversely affected if its investment funds fall beneath their "high-water marks" as a result of negative performance.

Incentive income, which has historically comprised a substantial portion of the Company's investment management business annual revenues, is, in most cases, subject to "high-water marks" whereby incentive income is earned by the Company only to the extent that the net asset value of an investment advisory product at the end of a measurement period exceeds the highest net asset value as of the end of a preceding measurement period for which the Company earned incentive income. The Company recognizes incentive income charged to the Company's hedge funds based on the net profits of the hedge funds. The Company recognizes such incentive income when the fees are no longer subject to reversal or are crystallized. For a majority of the hedge funds, the incentive fee crystallizes annually when the high-water mark for such hedge funds is reset, which delays recognition of the incentive fee until year end. The Company's incentive allocations are also subject, in some cases, to performance hurdles or benchmarks. To the extent the Company's investment funds experience negative investment performance, the investors in or beneficial owners of these investment funds would need to recover cumulative losses before the Company can earn investment income at the end of the performance period with respect to the investments of those who previously suffered losses.

The Company's ability to increase revenues and improve profitability will depend on increasing assets under management in existing investment strategies and developing and marketing new investment products and strategies, including identifying and hiring or affiliating with new investment teams.

The Company's investment management business generates management and incentive fee income based on its assets under management. If the Company is unable to increase its assets under management in its existing products it may be difficult to increase its revenues. The Company may launch new investment management products and hire or affiliate with new investment teams focusing on new investment strategies. If these products or strategies are not successful, or if the Company is unable to hire or affiliate with new investment teams, or successfully manage its relationships with its affiliated investment teams, the Company's profitability could be adversely affected.

It may be difficult for the Company's investment management business to retain investment professionals during periods where market conditions make it more difficult to generate positive investment returns.

Certain of the Company's hedge funds face particular retention issues with respect to investment professionals whose compensation is tied, often in large part, to such performance thresholds. This retention risk is heightened during periods where market conditions make it more difficult to generate positive investment returns. For example, several investment professionals receive performance-based compensation at the end of each year based upon their annual investment performance, and this performance-based compensation represents substantially all of the compensation the professional is entitled to receive during the year. If the investment professional's annual performance is negative, the professional may not be entitled to receive any performance-based compensation for the year. If the Company's hedge funds produce investment results that are negative (or below the applicable hurdle or benchmark), the affected investment professionals may be incentivized to join a competitor because doing so would allow them to earn performance-based compensation without the requirement that they first satisfy the high-water mark.

Investors and beneficial owners in the Company's hedge funds can generally redeem investments with prior notice. The rate of redemptions could accelerate at any time. Historically, redemptions have created difficulties in managing the liquidity of certain of the Company's hedge funds, reduced assets under management and adversely affected the Company's revenues, and may do so in the future.

Investors and beneficial owners in the Company's hedge funds may generally redeem their investments with prior notice, subject to certain initial holding periods. Investors may reduce the aggregate amount of their investments, or transfer their investments to other hedge funds or asset managers with different fee rate arrangements, for any number of reasons, including investment performance, changes in prevailing interest rates and financial market performance. Furthermore, investors in the Company's hedge funds may be investors in products managed by other asset managers where redemptions have been restricted or suspended. Such investors may redeem capital from Company's hedge funds, even if the Company's hedge funds' performance is superior, due to an inability to redeem capital from other managers. Increased volatility in global markets could accelerate the pace of redemptions. Redemptions of investments in the Company's hedge funds could also take place more quickly than assets may be sold by those hedge funds to meet the price of such redemptions, which could result in the relevant hedge funds and/or the Company being in breach of applicable legal, regulatory and contractual requirements in relation to such redemptions, resulting in possible regulatory and investor actions against the Company and/or the Company's hedge funds. If the Company's hedge funds underperform, existing investors may decide to reduce or redeem their investments or transfer asset management responsibility to other asset managers and the Company may be unable to obtain new investment management business. Any such action could potentially cause further redemptions and/or make it more difficult to attract new investors.

The redemption of investments in the Company's hedge funds could also adversely affect the revenues of the Company's investment management business, which are substantially dependent upon its assets under management. If redemptions of investments cause revenues to decline, they would likely have a material adverse effect on our business, results of operations or financial condition. If market conditions, negative performance or other factors cause an increased level of redemption activity returns, it could become more difficult to manage the liquidity requirements of the Company's hedge funds, making it more difficult or more costly for the Company's hedge funds to liquidate positions rapidly to meet redemption requests or otherwise. This in turn may negatively impact the Company's returns on its own invested capital.

In addition to the impact on the market value of assets under management, illiquidity and volatility of the global financial markets could negatively affect the ability of the Company's investment management business to manage inflows and outflows from the Company's hedge funds. A number of asset management firms, including the Company's investment management business, have in the past exercised, and may in the future exercise, their rights to limit, and in some cases, suspend, redemptions from the investment management products they advise. The Company's investment management business has also negotiated, and may in the future negotiate, with investors or exercise such rights in an attempt to limit redemptions or create a variety of other investor structures to bring assets and liquidity requirements into a more manageable balance. To the extent that the Company's investment management business has negotiated with investors to limit redemptions, it may be likely that such investors will continue to seek further redemptions in the future. Such actions may have an adverse effect on the ability of the Company's hedge funds to attract new capital or to develop new investment platforms. Poor performance relative to other asset management firms may result in reduced investments in the Company's hedge funds and increased redemptions. As a result,

investment underperformance would likely have a material adverse effect on the Company's results of operations and financial condition.

Investments made by investment funds, including the investments of the Company's own capital in the Company's investment funds, are subject to other additional risks.

Investments by the Company's investment funds are subject to certain risks that may result in losses. Decreases to assets under management as a result of investment losses or client redemptions may have a material adverse effect on the Company's revenues, net income and cash flows and could harm our ability to maintain or grow assets under management in existing investment funds or raise additional funds in the future. Additional risks include the following:

- Generally, there are few limitations on investment funds' strategies, which are often subject to the sole discretion of the management company or the general partner of such funds.
- Investment funds may engage in short selling, which is subject to a theoretically unlimited risk of loss because there is no limit on how much the price of a security sold short may appreciate before the short position is closed out. An investment fund may be subject to losses if a security lender demands return of the lent securities and an alternative lending source cannot be found or if the investment fund is otherwise unable to borrow securities that are necessary to hedge its positions. Furthermore, the SEC and other regulatory authorities outside the United States have imposed trading restrictions and reporting requirements on short selling, which in certain circumstances may impair an investment fund's ability to use short selling effectively.
- The efficacy of investment and trading strategies depend largely on the ability to establish and maintain an overall market position through a combination of financial instruments. An investment fund's trading orders may not be executed in a timely and efficient manner due to various circumstances, including systems failures or human error. In such event, the investment fund might only be able to acquire some but not all of the components of the position, or if the overall position were in need of adjustment, the investment fund might not be able to make such an adjustment. As a result, an investment fund would not be able to achieve the market position selected by the management company or general partner of such fund, and might incur a loss in liquidating its position.
- Credit risk may arise through a default by one of several large institutions that are dependent on one another to meet their respective liquidity or operational needs, so that a default by one institution causes a series of defaults by the other institutions. This "systemic risk" may adversely affect the financial intermediaries (such as clearing agencies, clearing houses, banks, securities firms, other counterparties and exchanges) with which the investment funds interact on a daily basis.
- Investment funds are subject to risks due to the potential illiquidity of assets. Investment funds may make investments or hold trading positions in markets that are volatile and which may become illiquid. The timely sale of trading positions can be impaired by decreased trading volume, increased price volatility, concentrated trading positions, limitations on the ability to transfer positions in highly specialized or structured transactions to which they may be a party, and changes in industry and government regulations. It may be impossible or highly costly for investment funds to liquidate positions rapidly to meet margin calls, redemption requests or otherwise, particularly if there are other market participants seeking to dispose of similar assets at the same time, if the relevant market is otherwise moving against a position or in the event of trading halts or daily price movement limitations on the market. In addition, increased levels of redemptions may result in increased illiquidity as more liquid assets are sold to fund redemptions.
- Investment fund assets are subject to risks relating to investments in commodities, futures, options and other derivatives, the prices of which are highly volatile and may be subject to the theoretically unlimited risk of loss in certain circumstances. Price movements of commodities, futures and options contracts and payments pursuant to swap agreements are influenced by, among other things, interest rates, changing supply and demand relationships, trade, fiscal, monetary and exchange control programs and policies of governments and national and international political and economic events and policies. The value of futures, options and swap agreements also depends upon the price of the commodities underlying them. In addition, investment funds' assets are subject to the risk of the failure of any of the exchanges on which their positions trade.
- Investment fund assets that are not denominated in the U.S. dollar are subject to the risk that the value of a particular currency will change in relation to one or more other currencies. Among the factors that may affect currency values are trade balances, the level of short-term interest rates, differences in relative values of similar assets in different currencies, long-term opportunities for investment and capital appreciation and political developments. Officials in foreign countries may, from time to time, take actions in respect of their currencies that could significantly affect the value of an investment fund's assets denominated in those currencies or the liquidity of such investments. For example, a foreign government may unilaterally devalue its currency against other currencies, which would typically have the effect of reducing the U.S. dollar value of investments denominated in that currency. A foreign government

may also limit the convertibility or repatriation of its currency or assets denominated in that currency. While the Company generally expects to hedge its exposure to currencies other than the U.S. dollar, and may do so through foreign currency futures contracts and options thereon, forward foreign currency exchange contracts, swaps or any combination thereof, but there can be no assurance that such hedging strategies will be implemented, or if implemented, will be effective. While an investment fund may enter into currency hedging transactions to seek to reduce risk, such transactions may result in a poorer overall performance than if it had not engaged in such hedging transactions. For a variety of reasons, the Company may not seek to establish a perfect correlation between the hedging instruments utilized and the portfolio holdings being hedged. Such an imperfect correlation may prevent the Company from achieving the intended hedge or expose an investment fund to risk of loss.

- Investment funds are also subject to the risk that war, terrorism, and related geopolitical events may lead to increased short-term market volatility and have adverse long-term effects on the U.S. and world economies and markets generally, as well as adverse effects on issuers of securities and the value of investments. War, terrorism, and related geopolitical events have led, and in the future may lead, to increased short-term market volatility and may have adverse long-term effects on U.S. and non-U.S. economies and markets generally. Those events, as well as other changes in U.S. and non-U.S. economic and political conditions, also could adversely affect individual issuers or related groups of issuers, securities markets, interest rates, credit ratings, inflation, investor sentiment and other factors affecting the value of the investment fund's assets.

If the Company's investment fund's counterparty for any of its derivative or non-derivative contracts defaults on the performance of those contracts, the Company may not be able to cover its exposure under the relevant contract.

The Company's investment funds enter into numerous types of financing arrangements with a wide array of counterparties around the world, including loans, hedge contracts, swaps, repurchase agreements and other derivative and non-derivative contracts. The terms of these contracts are generally complex and often customized and generally are not subject to regulatory oversight. The Company is subject to the risk that the counterparty to one or more of these contracts may default, either voluntarily or involuntarily, on its performance under the contract. Any such default may occur at any time without notice. Additionally, the Company may not be able to take action to cover its exposure if a counterparty defaults under such a contract, either because of a lack of the contractual ability or because market conditions make it difficult to take effective action. The impact of market stress or counterparty financial condition may not be accurately foreseen or evaluated and, as a result, the Company may not take sufficient action to reduce its risks effectively.

Counterparty risk is accentuated where the investment management product has concentrated its transactions with a single or small group of counterparties. Generally, investment funds are not restricted from concentrating any or all of their transactions with one counterparty. Moreover, the Company's internal review of the creditworthiness of their counterparties may prove inaccurate. The absence of a regulated market to facilitate settlement and the evaluation of creditworthiness may increase the potential for losses.

In addition, these financing arrangements often contain provisions that give counterparties the ability to terminate the arrangements if any of a number of defaults occurs with respect to the Company's investment funds, including declines in performance or assets under management and losses of key management personnel, each of which may be beyond our control. In the event of any such termination, the Company's investment funds may not be able to enter into alternative arrangements with other counterparties and our business may be materially adversely affected.

The Company may suffer losses in connection with the insolvency of prime brokers, custodians, administrators and other agents whose services the Company uses and who may hold assets of the Company's investment funds.

Most of the Company's investment funds use the services of prime brokers, custodians, administrators or other agents to carry out certain securities transactions and to conduct certain business of the Company's investment funds. In the event of the insolvency of a prime broker and/or custodian, the Company's investment funds might not be able to recover equivalent assets in full as they may rank among the prime broker's and custodian's unsecured creditors in relation to assets which the prime broker or custodian borrows, lends or otherwise uses. In addition, the Company's investment funds' cash held with a prime broker or custodian (if any) may not be segregated from the prime broker's or custodian's own cash, and the investment funds will therefore rank as unsecured creditors in relation thereto.

Operational risks relating to the failure of data processing systems and other information systems and technology may disrupt our investment management business, result in losses and/or limit the business's operations and growth.

The Company's investment management business and its investment funds rely heavily on financial, accounting, trading and other data processing systems to, among other things, execute, confirm, settle and record transactions across markets and geographic locations in a time-sensitive, efficient and accurate manner. If any of these systems does not operate properly or are disabled, the Company could suffer financial loss, a disruption of its business, liability to the Company's investment funds,

regulatory intervention and/or reputational damage. In addition, the Company's investment management business is highly dependent on information systems and technology, and the cost of maintaining such systems may increase from its current level. Such a failure to accommodate the operational needs of the Company's investment management business, or an increase in costs related to such information systems, could have a material adverse effect on the Company, both with respect to a decrease in the operational performance of its investment management business and an increase in costs that may be necessary to improve such systems.

The Company depends on its presence in New York, New York, where most of the Company's investment management personnel are located, for the continued operation of its business. We have taken precautions to limit the impact that a disruption to operations at our New York headquarters could cause (for example, by ensuring that the Company can operate independently of offices in other geographic locations). Although these precautions have been taken, a disaster or a disruption in the infrastructure that supports our investment management business, including a disruption involving electronic communications or other services used by the third parties with whom the Company's investment management business conducts business or directly affecting the New York, New York, headquarters, could have a material adverse impact on the Company's ability to continue to operate its investment management business without interruption. The Company's disaster recovery programs may not be sufficient to mitigate the harm that may result from such a disaster or disruption. In addition, insurance might only partially reimburse us for our losses, if at all. Finally, the Company relies on third party service providers for certain aspects of its business, including for certain information systems and technology and administration of the Company's investment funds. Severe interruptions or deteriorations in the performance of these third parties or failures of their information systems and technology could impair the quality of the Company's investment management business operations and could impact the Company's reputation and materially adversely affect our investment management business.

Certain of the Company's investment funds may invest in relatively high-risk, illiquid assets, and the Company may fail to realize any profits from these activities for a considerable period of time or lose some or all of the principal amounts of these investments.

Certain of the Company's investment funds invest a portion of their assets in securities that are not publicly traded. In many cases, they may be prohibited by contract or by applicable securities laws from selling such securities for a period of time or there may not be a public market for such securities. Even if the securities are publicly traded, large holdings of securities can often be disposed of only over a substantial length of time, exposing the investment returns to risks of downward movement in market prices during the disposition period. Accordingly, under certain conditions, the Company's investment funds may be forced to either sell securities at lower prices than they had expected to realize or defer, potentially for a considerable period of time, sales that they had planned to make. Investing in these types of investments can involve a high degree of risk, and the Company's investment funds may lose some or all of the principal amount of such investments, including our own invested capital.

Risk management activities may materially adversely affect the return on the Company's investment funds' investments if such activities do not effectively limit exposure to decreases in investment values or if such exposure is overestimated.

When managing the Company's investment funds' exposure to market risks, the relevant investment management product may use forward contracts, options, swaps, caps, collars and floors or pursue other strategies or use other forms of derivative financial instruments to limit its exposure to changes in the relative values of investments that may result from market developments, including changes in interest rates, currency exchange rates and asset prices. The success of such derivative transactions generally will depend on the Company's ability to accurately predict market changes in a timely fashion, the degree of correlation between price movements of a derivative instrument, the position being hedged, the creditworthiness of the counterparty and other factors. As a result, these transactions may result in poorer overall investment performance than if they had not been executed. Such transactions may also limit the opportunity for gain if the value of a hedged position increases. A perfect correlation between the instruments used in a hedging or other derivative transaction and the position being hedged may not be attained. An imperfect correlation could give rise to a loss. Also, it may not be possible to fully or perfectly limit exposure against all changes in the value of an investment because the value of an investment is likely to fluctuate as a result of a number of factors, many of which will be beyond the Company's control or ability to hedge.

Fluctuations in currency exchange rates could materially affect the Company's investment management business and its results of operations and financial condition.

The Company uses U.S. dollars as its reporting currency. Investments in the Company's investment funds may be made in different currencies, including Euros, Pounds Sterling, Australian Dollar and Yen. In addition, the Company's investment funds may hold investments denominated in many foreign currencies. To the extent that the Company's revenues from its investment management business are based on assets under management denominated in such foreign currencies, our reported revenues may be significantly affected by the exchange rate of the U.S. dollar against these currencies. Typically, an increase in the exchange rate between U.S. dollars and these currencies will reduce the impact of revenues denominated in these currencies in the financial results of our investment management business. For example, management fee revenues derived from each Euro

and Australian Dollar of assets under management denominated in Euros and Australian Dollar will decline in U.S. dollar terms if the value of the U.S. dollar appreciates against the Euro and Australian Dollar. In addition, the calculation of the amount of assets under management is affected by exchange rate movements as assets under management denominated in foreign currencies are converted to U.S. dollars. The Company's investment management business also incurs a portion of its expenditures in currencies other than U.S. dollars. As a result, our investment management business is subject to the effects of exchange rate fluctuations with respect to any currency conversions and the Company's ability to hedge these risks and the cost of such hedging or the Company's decision not to hedge could impact the performance of the Company's investment funds and our investment management business and its results of operations and financial condition.

The due diligence process that the Company's investment management business undertakes in connection with investments by the Company's investment funds is inherently limited and may not reveal all facts that may be relevant in connection with making an investment.

Before making investments, particularly investments in securities that are not publicly traded, the Company endeavors to conduct a due diligence review of such investment that it deems reasonable and appropriate based on the facts and circumstances applicable to each investment. When conducting due diligence, the Company is often required to evaluate critical and complex business, financial, tax, accounting, environmental and legal issues. Outside consultants, legal advisors, accountants, investment bankers and financial analysts may be involved in the due diligence process in varying degrees depending on the type of investment. Nevertheless, when conducting due diligence and making an assessment regarding an investment, the Company is limited to the resources available, including information provided by the target of the investment and, in some circumstances, third party investigations. The due diligence investigation that the Company conducts with respect to any investment opportunity may not reveal or highlight all relevant facts that may be necessary or helpful in evaluating such investment opportunity. Moreover, such an investigation will not necessarily result in the investment being successful, which may adversely affect the performance of the Company's investment funds and the Company's ability to generate returns on its own invested capital from any such investment.

The Company's real estate business is subject to the risks inherent in the ownership and operation of real estate and the construction and development of real estate.

The Company's real estate business is subject to the risks inherent in the ownership and operation of real estate and real estate-related businesses and assets. These risks include those associated with general and local economic conditions, changes in supply of and demand for competing properties in an area, changes in environmental regulations and other laws, various uninsured or uninsurable risks, natural disasters, changes in real property tax rates, changes in interest rates, the reduced availability of mortgage financing which may render the sale or refinancing of properties difficult or impracticable, environmental liabilities, contingent liabilities on disposition of assets, terrorist attacks, war and other factors that are beyond our control. Further, the U.S. Environmental Protection Agency has found that global climate change could increase the severity and perhaps the frequency of extreme weather events, which could subject real property to increased weather-related risks in the coming years. There are also presently a number of current and proposed regulatory initiatives, both domestically and globally, that are geared towards limiting and scaling back the emission of greenhouse gases, which certain scientists have linked to global climate change. Although not known with certainty at this time, such regulation could adversely affect the costs to construct and operate real estate in the coming years, such as through increased energy costs.

The commercial real estate markets in the United States generally have experienced major disruptions in the past due to the lack of available capital, in the form of either debt or equity, and declines in value as a result of overall economic decline. If these conditions were to occur again transaction volume may drop precipitously, negatively impacting the valuation and performance of the Company's real estate investments significantly. Additionally, if the Company's real estate business acquires direct or indirect interests in undeveloped land or underdeveloped real property, which may often be non-income producing, they will be subject to the risks normally associated with such assets and development activities, including risks relating to the availability and timely receipt of zoning and other regulatory or environmental approvals, the cost, potential for cost overruns and timely completion of construction (including risks beyond the control of the investor, such as weather or labor conditions or material shortages) and the availability of both construction and permanent financing on favorable terms.

The investment management industry is intensely competitive, which may adversely affect the Company's ability to attract and retain investors and investment professionals.

The investment management industry is extremely competitive. Competition includes numerous international, national, regional and local asset management firms and broker-dealers, commercial bank and thrift institutions, and other financial institutions. Many of these institutions offer products and services that are similar to, or compete with, those offered by us and have substantially more personnel and greater financial resources than the Company does. The key areas for competition include historical investment performance, the ability to identify investment opportunities, the ability to attract and retain the best investment professionals and the quality of service provided to investors. The Company's ability to compete may be adversely affected if it underperforms in comparison to relevant benchmarks, peer groups or competing asset managers. The

competitive market environment may result in increased downward pressure on fees, for example, by reduced management fee and incentive allocation percentages. The future results of operations of the Company's investment management business are dependent in part on its ability to maintain appropriate fee levels for its products and services. In the current economic environment, many competing asset managers experienced substantial declines in investment performance, increased redemptions, or counterparty exposures which impaired their businesses. Some of these asset managers have reduced their fees in an attempt to avoid additional redemptions. Competition within the investment management industry could lead to pressure on the Company to reduce the fees that it charges its clients for investment management products and services. A failure to compete effectively may result in the loss of existing clients and business, and of opportunities to generate new business and grow assets under management, each of which could have a material adverse effect on the Company's investment management business and results of operations, financial condition and prospects. Furthermore, consolidation in the investment management industry may accelerate, as many asset managers are unable to withstand the substantial declines in investment performance, increased redemptions, and other pressures impacting their businesses, including increased regulatory, compliance and control requirements. Some competitors may acquire or combine with other competitors. The combined business may have greater resources than the Company does and may be able to compete more effectively against the Company and rapidly acquire significant market share.

Increased regulatory focus could result in regulation that may limit the manner in which the Company and its investment management business invest, materially impacting the Company's business.

The Company's investment management business may be adversely affected if new or revised legislation or regulations are enacted, or by changes in the interpretation or enforcement of existing rules and regulations imposed by the SEC, other U.S. or foreign governmental regulatory authorities or self-regulatory organizations that supervise the financial markets and their participants. Such changes could place limitations on the type of investor that can invest in the Company's investment funds or on the conditions under which such investors may invest. Further, such changes may limit the scope of investing activities that may be undertaken by the Company's investment funds. It is impossible to determine the extent of the impact of any new or recently enacted laws, including the Dodd-Frank Act and MiFID II, or any other regulations or initiatives that may be proposed, or whether any proposed regulations or initiatives will become law. Compliance with any new laws or regulations could be difficult and expensive and affect the manner in which the Company's investment management business conducts itself, which may adversely impact its results of operations, financial condition and prospects.

Additionally, as a result of highly publicized financial scandals, investors, regulators and the general public have exhibited concerns over the integrity of both the U.S. financial markets and the regulatory oversight of these markets. As a result, the business environment in which Company's investment management business operates is subject to heightened regulation. With respect to the Company's investment funds, in recent years, there has been debate in both U.S. and foreign governments about new rules or regulations, including increased oversight or taxation, in addition to the recently enacted legislation described above. As calls for additional regulation have increased, there may be a related increase in regulatory investigations of the trading and other investment activities of investment funds, including the Company's investment funds. Such investigations may impose additional expenses on the Company, may require the attention of senior management and may result in fines if any of the Company's investment funds are deemed to have violated any regulations.

The Company's investment management business may suffer as a result of loss of business from key investors.

The loss of all or a substantial portion of the business provided by key investors could have a material impact on income derived from management fees and incentive allocations and consequently have a material adverse effect on our investment management business and results of operations or financial condition.

Our third party reinsurance business could expose us to losses.

We provide third party reinsurance coverage through our Luxembourg subsidiary, Hollenfels Re S.A ("Hollenfels"). We have written policies relating to property and casualty, workers' compensation, general liability and construction performance bonds and may issue reinsurance policies relating to other types of insurance. Because we write reinsurance, the success of our underwriting efforts depends, in part, upon the policies, procedures and expertise of the ceding companies making the original underwriting decisions. We face the risk that these ceding companies may fail to accurately assess the risks that they assume initially, which, in turn, may lead us to inaccurately assess the risks we assume. If we fail to establish and receive appropriate premium rates or the claims we receive exceed the premiums and retrocession recoverables we are able to collect, we will suffer losses.

We may be unable to purchase retrocession reinsurance and our retrocession agreements subject us to third-party credit risk.

We may enter into retrocession agreements with third parties in order to limit our exposure to losses from the reinsurance coverage provided by Hollenfels. Changes in the availability and cost of retrocession reinsurance, which are subject to market

conditions that are outside of our control, may reduce to some extent our ability to use retrocession reinsurance to balance exposures across our reinsurance operations. Accordingly, we may not be able to obtain our desired amounts of retrocession reinsurance. In addition, even if we are able to obtain such reinsurance, we may not be able to negotiate terms that we deem appropriate or acceptable or obtain such reinsurance from entities with satisfactory creditworthiness. While we seek to do business with creditworthy counterparties, if the parties who provide us with retrocession are not able to meet their obligations to us or fail to make timely payments under the terms of our retrocession agreements, we could be materially and adversely affected because we may remain liable under the terms.

Risks Related to the Company's Investment Bank Business

The Company's investment bank business focuses principally on specific sectors of the economy, and deterioration in the business environment in these sectors or a decline in the market for securities of companies within these sectors could materially affect our investment bank business.

The Company focuses principally on the Target Sectors of the economy. Therefore, volatility in the business environment in these sectors or in the market for securities of companies within these sectors could substantially affect the Company's financial results. The business environment for companies in these sectors has been subject to substantial volatility, and the Company's financial results have consequently been subject to significant variations from year to year. The market for securities in each of the Company's target sectors may also be subject to industry-specific risks. For example, changes in policies of the United States Food and Drug Administration, along with changes to Medicare and government reimbursement policies, may affect the market for securities of healthcare companies, and changes to how the U.S. government reviews foreign acquisitions of U.S. based companies may make executing M&A transactions more difficult. In addition, revenue generated by the Company in its consumer sector could be adversely affected by changes in law or regulatory action with respect to companies that are in cannabis related businesses.

As an investment bank which focuses primarily on specific growth sectors of the economy, the Company also depends significantly on private company transactions for sources of revenues and potential business opportunities. To the extent the pace of these private company transactions slows or the average size declines due to a decrease in private equity financings, difficult market conditions in the Company's target sectors or other factors, the Company's business and results of operations may be adversely affected.

The financial results of the Company's investment bank business may fluctuate substantially from period to period.

The Company has experienced, and we expect to experience in the future, significant periodic variations in its revenues and results of operations. These variations may be attributed in part to the fact that its investment banking revenues are typically earned upon the successful completion of a transaction, the timing of which is uncertain and beyond the Company's control. In most cases, the Company receives little or no payment for investment banking engagements that do not result in the successful completion of a transaction. As a result, our investment bank business is highly dependent on market conditions as well as the decisions and actions of its clients and interested third parties. 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 the parties fail to complete a transaction on which the Company is advising or an offering in which the Company is participating, we will earn little or no revenue from the transaction, and we may incur significant expenses that may not be recouped. This risk may be intensified by the Company's focus on growth companies in the Target Sectors as the market for securities of these companies has experienced significant variations in the number and size of equity offerings. Many companies initiating the process of an IPO are simultaneously exploring other strategic alternatives, such as a merger and acquisition transaction. The Company's investment bank revenues would be adversely affected in the event that an IPO for which it is acting as an underwriter is preempted by the company's sale if the Company is not also engaged as a strategic advisor in such sale. As a result, our investment bank business is unlikely to achieve steady and predictable earnings on a quarterly basis.

Pricing and other competitive pressures may impair the revenues of the Company's brokerage business.

The Company's brokerage business accounted for approximately 56% of the investment bank segment's revenues during 2018. Along with other firms, the Company has experienced price competition in this business in recent years. In particular, the ability to execute trades electronically and through alternative trading systems has increased the pressure on trading commissions and spreads. We expect to continue to experience competitive pressures in these and other areas in the future as some of our competitors in the investment banking industry seek to obtain market share by competing on the basis of price or use their own capital to facilitate client trading activities. In addition, the Company faces pressure from larger competitors, who may be better able to offer a broader range of complementary products and services to clients in order to win their trading or prime brokerage business. We are committed to maintaining and improving the Company's comprehensive research coverage to

support its brokerage business and the Company may be required to make additional investments in the Company's research capabilities.

The Company faces strong competition from larger firms.

The research, brokerage and investment banking industries are intensely competitive, and the Company expects them to remain so. The Company competes on the basis of a number of factors, including client relationships, reputation, the abilities of the Company's professionals, market focus and the relative quality and price of the Company's services and products. The Company has experienced intense price competition in some of its businesses, including trading commissions and spreads in its brokerage business. In addition, pricing and other competitive pressures in investment banking, including the trends toward multiple book runners, co-managers and financial advisors, and a larger share of the underwriting fees and discounts being allocated to the book-runners, could adversely affect the Company's revenues from its investment bank business.

The Company is a relatively small investment bank. Many of the Company's competitors in the research, brokerage and investment banking industries have a broader range of products and services, greater financial resources, larger customer bases, greater name recognition and marketing resources, a larger number of senior professionals to serve their clients' needs, greater global reach and more established relationships with clients than the Company has. These larger competitors may be better able to respond to changes in the research, brokerage and investment banking industries, to compete for skilled professionals, to finance acquisitions, to fund internal growth and to compete for market share generally.

The scale of our competitors in the investment banking industry has increased in recent years as a result of substantial consolidation among companies in the research, brokerage and investment banking industries. In addition, a number of large commercial banks and other broad-based financial services firms have established or acquired underwriting or financial advisory practices and broker-dealers or have merged with other financial institutions. These firms have the ability to offer a wider range of products than the Company does which may enhance their competitive position. They also have the ability to support their investment banking and advisory groups with commercial banking and other financial services in an effort to gain market share, which has resulted, and could further result, in pricing pressure in the Company's businesses. If we are unable to compete effectively with our competitors in the investment banking industry, the Company's business and results of operations may be adversely affected.

The Company's capital markets and strategic advisory engagements are singular in nature and do not generally provide for subsequent engagements.

The Company's investment banking clients generally retain the Company on a short-term, engagement-by-engagement basis in connection with specific capital markets or mergers and acquisitions transactions, rather than on a recurring basis under long-term contracts. As these transactions are typically singular in nature and the Company's engagements with these clients may not recur, the Company must seek out new engagements when its current engagements are successfully completed or are terminated. As a result, high activity levels in any period are not necessarily indicative of continued high levels of activity in any subsequent period. If the Company is unable to generate a substantial number of new engagements that generate fees from new or existing clients, the Company's investment bank business and results of operations would likely be adversely affected.

Larger and more frequent capital commitments in the Company's trading and underwriting businesses increase the potential for significant losses.

There has been a trend toward larger and more frequent commitments of capital by financial services firms in many of their activities. For example, in order to compete for certain transactions, investment banks may commit to purchase large blocks of stock from publicly traded issuers or significant stockholders, instead of the more traditional marketed underwriting process in which marketing is completed before an investment bank commits to purchase securities for resale. To the extent the total net capital of the Company's broker-dealers allows it, the Company anticipates participating in this trend and, as a result, the Company will be subject to increased risk as it commits capital to facilitate business. Furthermore, the Company may suffer losses as a result of the positions taken in these transactions even when economic and market conditions are generally favorable for others in the industry.

The Company may enter into large transactions in which it commits its own capital as part of its trading business to facilitate client trading activities. The number and size of these large transactions may materially affect the Company's results of operations in a given period. Market fluctuations may also cause the Company to incur significant losses from its trading activities. To the extent that the Company owns assets (*i.e.*, has long positions), a downturn in the value of those assets or in the markets in which those assets are traded could result in losses. Conversely, to the extent that the Company has sold assets it does not own (*i.e.*, has short positions), in any of those markets, an upturn in the value of those assets or in markets in which those assets are traded could expose the Company's investment bank business to potentially large losses as it attempts to cover short positions by acquiring assets in a rising market.

Operational risks relating to the failure of data processing systems and other information systems and technology or other infrastructure may disrupt the Company's investment bank business and result in losses or limit our operations and growth in the industry.

The Company's investment bank business is highly dependent on its ability to process, on a daily basis, a large number of transactions across diverse markets, and the transactions that the Company processes have become increasingly complex. The inability of the Company's systems to accommodate an increasing volume of transactions could also constrain the Company's ability to expand its investment bank business. If any of these systems do not operate properly or are disabled, or if there are other shortcomings or failures in the Company's internal processes, people or systems, the Company could suffer impairments, financial loss, a disruption of its investment bank business, liability to clients, regulatory intervention or reputational damage.

The Company has outsourced certain aspects of its technology infrastructure including data centers and wide area networks, as well as some trading applications. The Company is dependent on its technology providers to manage and monitor those functions. A disruption of any of the outsourced services would be out of the Company's control and could negatively impact our investment bank business. The Company has experienced disruptions on occasion, none of which has been material to the Company's operations and results. However, there can be no guarantee that future material disruptions with these providers will not occur.

The Company also faces the risk of operational failure of or termination of relations with any of the clearing agents, exchanges, clearing houses or other financial intermediaries that the Company uses to facilitate its securities transactions. Any such failure or termination could adversely affect the Company's ability to effect transactions and to manage its exposure to risk.

In addition, the Company's ability to conduct its investment bank business may be adversely impacted by a disruption in the infrastructure that supports Company and the communities in which we are located. This may affect, among other things, the Company's financial, accounting or other data processing systems. This may include a disruption involving electrical, communications, transportation or other services used by us or third parties with which the Company conducts business, whether due to fire, other natural disaster, power or communications failure, act of terrorism or war or otherwise. Nearly all of our investment bank employees in our primary locations in New York, Boston, San Francisco and London work in close proximity to each other. Although the Company has a formal disaster recovery plan in place, if a disruption occurs in one location and our investment bank employees in that location are unable to communicate with or travel to other locations, the Company's ability to service and interact with its clients may suffer, and the Company may not be able to implement successfully contingency plans that depend on communication or travel.

Our investment bank business also relies on the secure processing, storage and transmission of confidential and other information in its computer systems and networks. The Company's computer systems, software and networks may be vulnerable to unauthorized access, computer viruses or other malicious code and other events that could have a security impact. If one or more of such events occur, this could jeopardize our or our investment bank clients' or counterparties' confidential and other information processed and stored in, and transmitted through, the Company's computer systems and networks, or otherwise cause interruptions or malfunctions in our investment bank business', its clients', its counterparties' or third parties' operations. The Company may be required to expend significant additional resources to modify its protective measures, to investigate and remediate vulnerabilities or other exposures or to make required notifications, and the Company may be subject to litigation and financial losses that are either not insured against or not fully covered through any insurance maintained by the Company.

Our business could be adversely affected by the recent implementation of MiFID II in Europe.

MiFID II, which went into effect in January 2018, regulates the provision of investment services and activities throughout the European Economic Area. MiFID II requires that investment managers and investment advisors located in the E.U. "unbundle" research costs from commissions. As a result, investment firms subject to MiFID II may no longer pay for research using client commissions or "soft dollars". Going forward, such costs must be paid directly by the investment firm or through a research payment account funded by clients and governed by a budget that is agreed by the client. Because the MiFID II requirements have been in place for a relatively short period of time, we cannot predict the effects that this new regulation will have on our research and sales and trading businesses. If investment managers and investment advisors decide to reduce their spending on research or decide to trade with other broker-dealers as a result of the new MiFID II regulations our business could be adversely affected.

The market structure in which our market-making business operates may make it difficult for this business to maintain profitability.

Market structure changes have had an adverse effect on the results of operations of our market-making business. These changes may make it difficult for us to maintain and/or predict levels of profitability of, or may cause us to generate losses in, our market-making business.

The growth of electronic trading and the introduction of new technology in the markets in which our market-making business operates may adversely affect this business and may increase competition.

The continued growth of electronic trading and the introduction of new technologies is changing our market-making business and presenting new challenges. Securities, futures and options transactions are increasingly occurring electronically, through alternative trading systems. It appears that the trend toward alternative trading systems will continue to accelerate. This acceleration could further increase program trading, increase the speed of transactions and decrease our ability to participate in transactions as principal, which would reduce the profitability of our market-making business. Some of these alternative trading systems compete with our market-making business and with our algorithmic trading platform, and we may experience continued competitive pressures in these and other areas. Significant resources have been invested in the development of our electronic trading systems, which includes our ATM business, but there is no assurance that the revenues generated by these systems will yield an adequate return on the investment, particularly given the increased program trading and increased percentage of stocks trading off of the historically manual trading markets.

We are subject to potential losses and default risks as a result of our clearing and execution activities.

As a clearing member firm providing services to certain of our brokerage customers, we are ultimately responsible for their financial performance in connection with various securities transactions. Our clearing operations require a commitment of our capital and involve risks of losses due to the potential failure of our customers to perform their obligations under these transactions. We are required to finance customers' unsettled positions from time to time, and we could be held responsible for the defaults of those customers. If customers default on their obligations, we remain financially liable for such obligations, and while some of these obligations may be collateralized, we are still subject to market risk in the liquidation of customer collateral to satisfy those obligations. While we have risk management procedures designed to mitigate certain risks, there can be no assurance that our risk management procedures will be adequate. Although we regularly review our credit exposure to customers, default risk may arise from events or circumstances that may be difficult to detect or foresee. Default by our customers may also give rise to the Company incurring penalties imposed by execution venues, regulatory authorities and clearing and settlement organizations. Any liability arising from clearing operations could have a material adverse effect on our business, financial condition and results of operations.

We are also exposed to credit risk from third parties that owe us money, securities or other obligations, including our trading counterparties. These parties may default on their obligations to us due to bankruptcy, lack of liquidity, operational failure or other reasons, and we could be held responsible for such defaults. In addition, customer trading errors may cause us to incur financial losses, which customers may be unable or unwilling to cover. Volatile securities markets, credit markets and regulatory changes may increase our exposure to our customers' and counterparties' credit profiles, which could adversely affect our financial condition and operating results. Our review of the credit risk of customers and trading counterparties may not be adequate to provide sufficient protection from these risks.

Our securities business and related clearing operations expose us to material liquidity risk.

We may be required to provide considerable additional funds with clearing and settlement organizations of which we are members, such as the National Securities Clearing Corporation or Depository Trust and Clearing Corporation in the U.S., especially during periods of high market volatility. In addition, regulatory agencies have recently required these clearing and settlement organizations to increase the level of margin deposit requirements, and they may continue to do so in the future. We rely on our excess cash, certain established credit facilities and the use of outsourced clearing arrangements to meet or reduce these demands. While we have historically met requests for additional margin deposits, there is no guarantee that our excess cash and our established credit facilities and clearing arrangements will be sufficient for future needs, particularly if there is an increase in requirements. There is also no guarantee that these established credit facilities will be extended beyond their expiration.

As a clearing member firm of securities clearing houses in the U.S., we are also exposed to clearing member credit risk. Securities clearing houses require member firms to deposit cash and/or government securities to a clearing fund. If a clearing member defaults in its obligations to the clearing house in an amount larger than its own margin and clearing fund deposits, the shortfall is absorbed pro rata from the deposits of the other clearing members. The clearing houses of which we are members also have the authority to assess their members for additional funds if the clearing fund is depleted. A large clearing member default could result in a substantial cost to us if we are required to pay such assessments.

In certain jurisdictions we are dependent on third-party clearing agents and any failures by such clearing agents could materially impact our business and operating results.

In certain jurisdictions we are dependent on agents for the clearing and settlement of securities transactions. If our agents fail to properly facilitate the clearing and settlement of our customer trades, we could be subject to financial, legal and regulatory risks and costs that may impact our business and operating results. In addition, it could cause our clients to reduce or cease their trading with us, which would adversely affect our revenues and financial results.

Moreover, certain of the clearing agreements provide our clearing agents with rights to increase our deposit requirements or to terminate the agreements upon short notice. There is no guarantee we will be able to satisfy any increased deposit requirements within the time frames demanded by our clearing agents, and if we fail to satisfy such demands on a timely basis, it could constitute a default under our clearing agreements. If our clearing agents terminate a clearing agreement on short notice, there is no guarantee that we could obtain alternative services in a timely manner and any interruption of the normal course of our trading and clearing operations could have a material impact on our business and results of operations.

Our clearing and execution operations are global and international market events could materially adversely impact our financial results.

Because we offer brokerage products and services on a global basis, our revenues derived from non-U.S. operations are subject to risk of loss from social or political instability, changes in government policies or policies of central banks, downgrades in the credit ratings of sovereign countries, expropriation, nationalization, confiscation of assets and unfavorable legislative and political developments in such non-U.S. jurisdictions. Revenues from the trading of non-U.S. securities may be subject to negative fluctuations as a result of the above factors. The impact of these fluctuations on our results could be magnified because generally non-U.S. trading markets, particularly in emerging market countries, are smaller, less liquid and more volatile than U.S. trading markets.

Decreases in equity trading activity by active fund managers and declining securities prices could harm our business and profitability.

Declines in the trading activity of active fund managers generally result in lower revenues from our brokerage products and services. In addition, securities' price declines adversely affect our trading commissions outside North America, which are based on the value of transactions. The demand for our brokerage products and services is directly affected by factors such as economic, regulatory and political conditions that may lead to decreased trading activity and prices in the securities markets in the U.S. and in all of the foreign markets we serve. Significant flows of investments out of actively-managed equity funds have curtailed their trading activity, which has weighed on our buy-side trading volumes and the use of some of our higher value services. Volatility levels also impact the amount of trading activity. Sustained periods of low volatility can result in lower levels of trading activity. In addition, trading activity tends to decline in periods following extreme levels of volatility.

The U.K. electorate voted in favor of a U.K. exit from the E.U. in a referendum, which could adversely impact our business, results of operations and financial condition.

The U.K. has voted in an advisory referendum to leave the European Union (commonly referred to as "Brexit") and at the end of March 2017 the U.K. provided formal notice of withdrawal to the E.U. Under the process for withdrawing from the E.U. contemplated in the Treaty on European Union, the U.K. will remain a member state until a withdrawal agreement is entered into or, if later (and no extension is agreed), March 29, 2019, which is two years following the date notification of the U.K.'s intention to withdraw was provided to the E.U. The effects of Brexit on us will depend on any agreements the U.K. makes to retain access to E.U. markets (including for financial services) either during a transitional period or more permanently. Brexit is expected to significantly affect the fiscal, monetary and regulatory landscape in the U.K., and could have a material impact on its economy and the future growth of its various industries, including the financial services industry in which we operate.

We conduct business in Europe primarily through our U.K. subsidiaries. Depending on the terms of Brexit, we could face new regulatory costs and challenges. For instance, our U.K. subsidiaries may not be able to rely on the existence of a "passporting" regime that allows immediate access to the single E.U. market. If this occurred, we may need to establish one or more new regulated subsidiaries in the E.U. in order to provide our trading platform and certain post-trade services to clients in the E.U.

Changes to U.K. immigration policy could likewise occur as a result of Brexit. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which E.U. laws to replace or replicate. Any such new laws and regulations in the U.K. may be difficult and/or costly to implement.

Although it is not possible at this point in time to predict the effects of an exit of the U.K. from the E.U., any of the foregoing factors could have a material adverse effect on our business, financial condition and results of operations. In addition, Brexit may impact our ability to comply with the extensive government regulation to which we are subject.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal offices, all of which are leased, are located in New York City, Boston, San Francisco and London. Our other offices, all of which are leased, are located in Atlanta, Chicago, Cleveland, Greenwich, Houston, Jersey City, Menlo Park, Orlando, Stamford, Washington D.C., Luxembourg, Belfast, and other various locations. Our corporate headquarters are located in New York, New York and comprise approximately 124,000 square feet of leased space pursuant to a lease agreement through 2024. Our additional New York locations are comprised of approximately 46,000 square feet pursuant to lease agreements through 2025. We lease approximately 23,000 square feet of space in Boston pursuant to lease agreements expiring through 2023. In San Francisco, we lease approximately 26,000 square feet of space, pursuant to lease agreements expiring through 2025. Our London offices are subject to lease agreements expiring through 2022.

Item 3. Legal Proceedings

In the ordinary course of business, the Company and its affiliates, subsidiaries and current and former officers, directors and employees (the "Company and Related Parties") are named as defendants in, or as parties to, various legal actions and proceedings. Certain of these actions and proceedings assert claims or seek relief in connection with alleged violations of securities, banking, anti-fraud, anti-money laundering, employment and other statutory and common laws. Certain of these actual or threatened legal actions and proceedings include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief.

In the ordinary course of business, the Company and Related Parties are also subject to governmental and regulatory examinations, information gathering requests (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. Certain of our affiliates and subsidiaries are registered broker-dealers, futures commission merchants, investment advisers or other regulated entities and, in those capacities, are subject to regulation by various U.S., state and foreign securities, commodity futures and other regulators. In connection with formal and informal inquiries by these regulators, we receive requests, and orders seeking documents and other information in connection with various aspects of our regulated activities.

Due to the global scope of our operations, and presence in countries around the world, the Company and Related Parties may be subject to litigation, governmental and regulatory examinations, information gathering requests, investigations and proceedings (both formal and informal), in multiple jurisdictions with legal and regulatory regimes that may differ substantially, and present substantially different risks, from those to which the Company and Related Parties are subject in the United States.

The Company seeks to resolve all litigation and regulatory matters in the manner management believes is in the best interests of the Company and its shareholders, and contests liability, allegations of wrongdoing and, where applicable, the amount of damages or scope of any penalties or other relief sought as appropriate in each pending matter.

In accordance with US GAAP, the Company establishes reserves for contingencies when the Company believes that it is probable that a loss has been incurred and the amount of loss can be reasonably estimated. The Company discloses a contingency if there is at least a reasonable possibility that a loss may have been incurred and there is no reserve for the loss because the conditions above are not met. The Company's disclosure includes an estimate of the reasonably possible loss or range of loss for those matters, for which an estimate can be made. Neither a reserve nor disclosure is required for losses that are deemed remote.

The Company appropriately reserves for certain matters where, in the opinion of management, the likelihood of liability is probable and the extent of such liability is reasonably estimable. Such amounts are included within accounts payable, accrued expenses and other liabilities in the accompanying consolidated statements of financial condition. Estimates, by their nature, are based on judgment and currently available information and involve a variety of factors, including, but not limited to, the type and nature of the litigation, claim or proceeding, the progress of the matter, the advice of legal counsel, the Company's defenses and its experience in similar cases or proceedings as well as its assessment of matters, including settlements, involving other defendants in similar or related cases or proceedings. The Company may increase or decrease its legal reserves in the future, on a matter-by-matter basis, to account for developments in such matters. The Company accrues legal fees as incurred.

The following information reflects developments with respect to the Company's legal proceedings that occurred during the quarter ended December 31, 2018.

On December 27, 2013, Landol Fletcher filed a putative class action lawsuit against Convergenx Holdings, LLC, Convergenx Group, LLC, Cowen Execution, Convergenx Global Markets Limited and G-Trade Services LLC (collectively, "Convergenx") in the United States District Court for the Southern District of New York (Landol Fletcher and all others similarly situated v. Convergenx Group LLC, Cowen Execution, Convergenx Global Markets Ltd., Convergenx Holdings LLC, G-Trade

Services LLC, & Does 1-10, No. 1:13-CV-09150-LLS). The suit alleges breaches of fiduciary duty and prohibited transactions under ERISA and seeks to maintain a class action on behalf of all ERISA plan participants, beneficiaries and named fiduciaries whose plans were impacted by net trading by Convergenx Global Markets Limited from October 2006 to December 2011. On April 11, 2014, Landol Fletcher and Frederick P. Potter Jr., filed an amended complaint raising materially similar allegations. This matter was assumed by the Company as a result of the Company's previously announced acquisition of Convergenx Group, which was completed on June 1, 2017. On February 17, 2016, the District Court granted Convergenx's motion to dismiss the amended complaint. Plaintiffs filed an appeal to the Second Circuit, and the AARP and Department of Labor filed amicus briefs on plaintiffs' behalf. The appeal was argued on December 12, 2016. On February 10, 2017, the Second Circuit Court of Appeals (1) reversed the District Court, finding that plaintiff has constitutional standing in a "representative" capacity to sue for damages to the ERISA defined benefit plan in which he is a participant, and (2) remanded to the District Court to reconsider, in light of the Circuit Court's decision, the issue whether plaintiff has standing to pursue claims on behalf of ERISA plans in which plaintiff is not a participant. Convergenx filed a petition for rehearing, and the Court of Appeals denied the petition. On June 30, 2017, the Company filed a notice of motion and memorandum of law in support of a motion to stay the proceedings in the District Court pending resolution of its petition for writ of certiorari, which the Company intended to file with the U.S. Supreme Court. On August 16, 2017, the District Court granted the Company's motion to stay the proceedings in the District Court pending resolution of the Company's petition for writ of certiorari. On September 1, 2017, the Company filed a petition with the United States Supreme Court for a writ of certiorari requesting review of the decision of the Court of Appeals. On January 8, 2018, the U.S. Supreme Court denied the Company's petition for a writ of certiorari. The previously granted stay of the proceedings in the District Court has been lifted, and the case is proceeding in the District Court. Status conferences were held on April 6, 2018, October 12, 2018, and December 4, 2018. We are indemnified against losses arising from this matter pursuant to, and subject to, the provisions of the purchase agreement relating to the acquisition of Convergenx Group. Because the case is in its preliminary stages, the Company cannot predict the outcome at this time, but it does not currently expect this case to have a material effect on its financial position or its results of operations.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Stock Price Information and Stockholders

Our Class A common stock is listed and trades on the NASDAQ Global Market under the symbol "COWN." As of March 5, 2019, there were approximately 44 holders of record of our Class A common stock. This number does not include stockholders for whom shares were held in "nominee" or "street" name.

Dividend Policy

We have never declared or paid any cash dividends on Class A common stock or any other class of common stock. Any payment of cash dividends on stock in the future will be at the discretion of our board of directors and will depend upon our results of operations, earnings, capital requirements, financial condition, future prospects, contractual restrictions and other factors deemed relevant by our board of directors. We currently intend to retain any future earnings to fund the operation, development and expansion of our business, and therefore we do not anticipate paying any cash dividends on common stock in the foreseeable future.

Issuer Purchases of Equity Securities: Sales of Unregistered Securities

As of December 31, 2018, the Company's Board of Directors has approved a share repurchase program that authorizes the Company to purchase up to \$178.6 million of Cowen Class A common stock from time to time through a variety of methods, including in the open market or through privately negotiated transactions, in accordance with applicable securities laws. During the year ended December 31, 2018, through the share repurchase program, the Company repurchased 2,164,186 shares of Cowen Class A common stock at an average price of \$14.68 per share.

The table below sets forth the information with respect to purchases made by or on the behalf of the Company or any "affiliated purchaser" (as defined in Rule 10b-18(a)(3) under the Exchange Act, as amended), of our common stock during the year ended December 31, 2018.

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 that May Yet Be Purchased Under the Plans or Programs
Month 1 (January 1, 2018 – January 31, 2018)				
Common stock repurchases(1)	—	\$ —	—	1,430,297
Employee transactions(2)	14,602	\$ 14.14	—	—
Total	14,602	14.14	—	
Month 2 (February 1, 2018 – February 28, 2018)				
Common stock repurchases(1)	539,800	\$ 14.05	539,800	17,415,810
Employee transactions(2)	4,400	\$ 13.18	—	—
Other (3)	112,239	14.03	—	—
Total	656,439	\$ 14.04	\$ —	
Month 3 (March 1, 2018 – March 31, 2018)				
Common stock repurchases(1)	—	\$ —	—	17,415,810
Employee transactions(2)	324,793	\$ 14.30	—	—
Total	324,793	\$ 14.30	\$ —	
Month 4 (April 1, 2018 – April 30, 2018)				
Common stock repurchases(1)	—	\$ —	—	17,415,810
Employee transactions(2)	27	\$ 13.20	—	—
Other (3)	24,578	14.25	—	—
Total	24,605	\$ 14.25		
Month 5 (May 1, 2018 – May 31, 2018)				
Common stock repurchases(1)	—	\$ —	—	17,415,810
Employee transactions(2)	131,674	\$ 15.69	—	—
Total	131,674	\$ 15.69		
Month 6 (June 1, 2018 – June 30, 2018)				
Common stock repurchases(1)	218,088	\$ 15.03	218,088	14,137,947
Employee transactions(2)	92,102	\$ 15.20	—	—
Total	310,190	\$ 15.08		
Month 7 (July 1, 2018 – July 31, 2018)				
Common stock repurchases(1)	—	\$ —	—	14,137,985
Employee transactions(2)	—	\$ —	—	—
Total	—	\$ —		
Month 8 (August 1, 2018 – August 31, 2018)				
Common stock repurchases(1)	402,420	\$ 14.66	402,420	8,237,985
Employee transactions(2)	132	\$ 14.90	—	—
Other (3)	25,155	14.73	—	—
Total	427,707	\$ 14.67		
Month 9 (September 1, 2018 – September 30, 2018)				
Common stock repurchases(1)	—	\$ —	—	8,237,985
Employee transactions(2)	10,943	\$ 15.20	—	—
Other (3)	58,503	14.96	—	—
Total	69,446	\$ 14.99		
Month 10 (October 1, 2018 – October 31, 2018)				
Common stock repurchases(1)	—	\$ —	—	8,237,985
Employee transactions(2)	837	\$ 15.35	—	—
Other (3)	3,476	\$ 15.41	—	—
Total	4,313	\$ 15.40	—	
Month 11 (November 1, 2018 – November 30, 2018)				
Common stock repurchases(1)	—	\$ —	—	25,000,000
Employee transactions(2)	1,065	\$ 15.20	—	—
Total	1,065	\$ 15.20		
Month 12 (December 1, 2018 – December 31, 2018)				
Common stock repurchases(1)	1,003,878	\$ 14.94	1,003,878	10,000,465
Employee transactions(2)	234,883	\$ 15.91	—	—
Total	1,238,761	\$ 15.13		

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 that May Yet Be Purchased Under the Plans or Programs
Total (January 1, 2018 – December 31, 2018)				
Common stock repurchases(1)	2,164,186	\$ 14.68	2,164,186	10,000,465
Employee transactions(2)	815,458	\$ 15.10	—	—
Other (3)	223,951	\$ 14.40	—	—
Total	3,203,595	\$ 14.76	\$ 2,164,186	

- (1) The Company's Board of Directors have authorized the repurchase, subject to market conditions, of up to \$178.6 million of the Company's outstanding common stock.
- (2) Represents shares of common stock withheld in satisfaction of tax withholding obligations upon the vesting of equity awards or other similar transactions.
- (3) Represents shares of common stock distributed to the Company from an escrow account established to satisfy the Company's indemnification claims arising under the terms of the purchase agreement entered into in connection with the Company's acquisition of Convergen Group, LLC.

Item 6. Selected Financial Data

The following table sets forth our selected consolidated financial and other data for the years ended December 31, 2018, 2017, 2016, 2015, and 2014. The selected consolidated statements of financial condition data and consolidated statements of operations data as of and for the years ended December 31, 2018, 2017, 2016, 2015, and 2014 have been derived from our audited consolidated financial statements. Our selected consolidated financial data are only a summary and should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and with our audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
(in thousands except per share data)					
Consolidated Statements of Operations Data:					
Revenues					
Investment banking	\$ 357,222	\$ 223,614	\$ 133,279	\$ 222,781	\$ 170,506
Brokerage	413,582	293,610	199,180	157,722	140,132
Management fees	29,658	33,245	40,612	41,906	40,627
Incentive income	3,117	5,383	8,334	1,466	2,785
Interest and dividends	108,009	49,440	14,732	13,796	48,870
Reimbursement from affiliates	1,038	2,860	10,504	21,557	12,495
Aircraft lease revenue	1,852	3,751	4,161	—	—
Reinsurance premiums	38,096	30,996	32,459	—	—
Other revenues	4,504	8,561	22,355	3,726	9,446
Consolidated Funds revenues	9,838	7,321	5,949	1,613	2,915
Total revenues	966,916	658,781	471,565	464,567	427,776
Interest and dividends expense	104,116	60,949	29,308	26,220	42,752
Total net revenues	862,800	597,832	442,257	438,347	385,024
Expenses					
Employee compensation and benefits	509,289	404,087	310,038	321,386	305,483
Non-compensation expense	328,616	249,550	168,804	154,458	137,988
Reinsurance claims, commissions and amortization of deferred acquisition costs	41,086	30,486	29,904	—	—
Goodwill impairment	—	—	—	—	2,334
Consolidated Funds expenses	8,615	12,526	9,064	2,310	1,634
Total expenses	887,606	696,649	517,810	478,154	447,439
Other income (loss)					
Net gains (losses) on securities, derivatives and other investments	68,043	76,179	23,381	36,789	104,928
Bargain purchase gain	—	6,914	—	—	—
Gain/(loss) on debt extinguishment	(556)	(16,039)	—	—	—
Consolidated Funds net gains (losses)	56,255	38,725	20,685	14,497	15,323
Total other income (loss)	123,742	105,779	44,066	51,286	120,251
Income (loss) before income taxes	98,936	6,962	(31,487)	11,479	57,836
Income tax expense (benefit)	15,719	44,053	(19,092)	(47,496)	(124,944)
Net income (loss)	83,217	(37,091)	(12,395)	58,975	182,780
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	40,398	23,791	6,882	15,246	15,564
Net income (loss) attributable to Cowen Inc.	42,819	(60,882)	(19,277)	43,729	167,216
Preferred stock dividends	6,792	6,792	6,792	4,075	—
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 36,027	\$ (67,674)	\$ (26,069)	\$ 39,654	\$ 167,216
Weighted average common shares outstanding:					
Basic (a)	29,545	29,492	26,857	27,522	28,731
Diluted (a)	30,735	29,492	26,857	29,043	29,871
Earnings (loss) per share:					
Basic (a)	\$ 1.22	\$ (2.29)	\$ (0.97)	\$ 1.44	\$ 5.82
Diluted (a)	\$ 1.17	\$ (2.29)	\$ (0.97)	\$ 1.37	\$ 5.60

(a) Share and per share amounts have been retroactively updated to reflect the one-for-four reverse stock split effective as of December 5, 2016.

	As of December 31,				
	2018	2017	2016	2015	2014
(dollars in thousands)					
Consolidated Statements of Financial Condition Data:					
Total assets	\$ 3,346,303	\$ 3,296,252	\$ 2,018,523	\$ 1,787,659	\$ 2,399,718
Total liabilities	2,267,116	2,107,629	866,668	810,755	1,635,967
Redeemable non-controlling interests	284,780	440,604	379,205	186,911	86,076
Total Stockholders' Equity	<u>\$ 794,407</u>	<u>\$ 748,019</u>	<u>\$ 772,650</u>	<u>\$ 789,993</u>	<u>\$ 677,675</u>

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with our audited consolidated financial statements and the related notes that appear elsewhere in this Annual Report. In addition to historical information, this discussion includes forward-looking information that involves risks and assumptions, which could cause actual results to differ materially from management's expectations. See "Special Note Regarding Forward-Looking Statements" included elsewhere in this Annual Report on Form 10-K

Overview

Cowen Inc., a Delaware corporation formed in 2009, is a diversified financial services firm and, together with its consolidated subsidiaries (collectively, "Cowen" or the "Company"), provides investment management, investment banking, research, sales and trading, prime brokerage, global clearing and commission management services through its two business segments: the investment management segment and the investment bank segment. The investment management segment includes advisers to investment funds (including privately placed hedge funds, real estate funds, and private equity structures), managed accounts, registered funds and a significant portion of the Company's proprietary capital. The investment bank segment offers industry focused investment banking for growth-oriented companies including advisory and global capital markets origination and domain knowledge-driven research, sales and trading platform for institutional investors, global clearing and commission management services and also a comprehensive suite of prime brokerage services.

The Company's investment management business, which operates primarily under the Cowen Investment Management name, offers innovative investment products and solutions across the liquidity spectrum to institutional and private clients. The predecessor to this business was founded in 1994 and, through one of its subsidiaries, has been registered with the SEC as an investment adviser under the Investment Advisers Act of 1940, as amended (the "Advisers Act") since 1997. The Company's investment management business offers investors access to a number of strategies to meet their specific needs including multi-sector long/short equity, merger arbitrage, activism, health care royalties, private healthcare investing, private sustainable investing, and real estate. The Company's investment management business focuses on attracting and retaining talented investment teams and providing seed capital and working capital, an institutional infrastructure, robust sales and marketing and industry knowledge. A significant portion of the Company's capital is invested alongside the Company's investment management clients. The Company has also invested some of its capital in its reinsurance businesses. Our investment management business had approximately \$10.4 billion of assets under management as of January 1, 2019. See the section titled "Assets Under Management and Fund Performance" for further analysis.

Our investment bank businesses include investment banking, research, sales and trading, prime brokerage, global clearing and commission management services to companies and primarily institutional investor clients. Our primary target sectors ("Target Sectors") are healthcare, technology, media and telecommunications, information and technology services, consumer, aerospace and defense, industrials, energy and transportation. We provide research and brokerage services to over 5,000 domestic and international clients seeking to trade securities and other financial instruments, principally in our target sectors. The investment bank business also offers a full-service suite of introduced prime brokerage services targeting emerging private fund managers. Historically, we have focused our investment banking efforts on small to mid-capitalization public companies as well as private companies. From time to time, the Company invests in private capital raising transactions of its investment banking clients.

On December 5, 2016, the Company effected a one-for-four reverse stock split of our common stock. Except where the context indicates otherwise, all share and per share information has been retroactively adjusted to reflect the reverse stock split.

Potential Change to Business Segments

The Company continually monitors and reviews its segment reporting structure in accordance with authoritative guidance to determine whether any changes have occurred that would impact its reportable segments. As a result of the recent change in the Chief Operating Decision Maker of the Company, the Company is experiencing a strategic shift to refocus the Company's investment management businesses on a set of differentiated products which are aligned to the content and insight within the Company's domain of expertise. As a result, the Company is currently evaluating the impact of these changes on the presentation of economic information that is used to assess the performance of the Company's operating results and make decisions about resource allocations which may impact the Company's determination of operating segments in the future.

Certain Factors Impacting Our Business

Our investment management business and results of operations are impacted by the following factors:

- *Assets under management.* Our revenues from management fees are directly linked to assets under management. As a result, the future performance of our investment management business will depend on, among other things, our ability

to retain assets under management and to grow assets under management from existing and new products. In addition, positive performance increases assets under management which results in higher management fees.

- *Investment performance.* Our revenues from incentive income are linked to the performance of the investment funds and accounts that we manage. Performance also affects assets under management because it influences investors' decisions to invest assets in, or withdraw assets from, the investment funds and accounts managed by us.
- *Fee and allocation rates.* Our management fee revenues are linked to the management fee rates we charge as a percentage of assets under management. Our incentive income revenues are linked to the incentive allocation rates we charge as a percentage of performance-driven asset growth. Our incentive allocations are generally subject to “high-water marks,” whereby incentive income is generally earned by us only to the extent that the net asset value of an investment fund at the end of a measurement period exceeds the highest net asset value as of the end of the earlier measurement period for which we earned incentive income. Our incentive allocations, in some cases, are subject to performance hurdles.
- *Investment performance of our own capital.* We invest our own capital and the performance of such invested capital affects our revenues.

Our investment bank business and results of operations are impacted by the following factors:

- *Underwriting, private placement and strategic/financial advisory fees.* Our revenues from investment banking are directly linked to the underwriting fees we earn in equity and debt securities offerings in which the Company acts as an underwriter, private placement fees earned in non-underwritten transactions, sales commissions earned in at-the-market offerings and success fees earned in connection with advising both buyers and sellers, principally in mergers and acquisitions. As a result, the future performance of our investment banking business will depend on, among other things, our ability to secure lead manager and co-manager roles in clients' capital raising transactions as well as our ability to secure mandates as a client's strategic financial advisor.
- *Commissions.* Our commission revenues depend for the most part on our customer trading volumes and on the notional value of the non-U.S. securities traded by our customers.
- *Principal transactions.* Principal transactions revenue includes net trading gains and losses from the Company's market-making activities and net trading gains and losses on inventory and other Company positions. Commissions associated with these transactions are also included herein. In certain cases, the Company provides liquidity to clients buying or selling blocks of shares of listed stocks without previously identifying the other side of the trade at execution, which subjects the Company to market risk.
- *Equity and credit research fees.* Equity and credit research fees are paid to the Company for providing equity and credit research. The Company also permits institutional customers to allocate a portion of their commissions to pay for research products and other services provided by third parties. Our ability to generate revenues relating to our equity and credit research depends on the quality of our research and its relevance to our institutional customers and other clients.
- *Investment performance of our own capital.* Investment income in the investment bank business includes gains and losses generated by the capital the Company invests in private capital raising transactions of its investment banking clients. Our revenues from investment income are linked to the performance of the underlying investments.
- *Liquidity.* As a clearing broker-dealer in the U.S., we are subject to cash deposit requirements with clearing organizations, brokers and banks that may be large in relation to our total liquid assets.

External Factors Impacting Our Business

Our financial performance is highly dependent on the environment in which our businesses operate. We believe a favorable business environment is characterized by many factors, including a stable geopolitical climate, transparent financial markets, low inflation, low interest rates, low unemployment, strong business profitability and high business and investor confidence. Unfavorable or uncertain economic or market conditions can be caused by declines in economic growth, business activity or investor or business confidence, limitations on the availability (or increases in the cost of) credit and capital, increases in inflation or interest rates, exchange rate volatility, unfavorable global asset allocation trends, outbreaks of hostilities or other geopolitical instability, corporate, political or other scandals that reduce investor confidence in the capital markets, or a combination of these or other factors. Our businesses and profitability have been and may continue to be adversely affected by market conditions in many ways, including the following:

- Our investment bank business has been, and may continue to be, adversely affected by market conditions. Increased competition continues to affect our investment banking and capital markets businesses. The same factors also affect trading volumes in secondary financial markets, which affect our brokerage business. Commission rates, market

volatility, increased competition from larger financial firms and other factors also affect our brokerage revenues and may cause these revenues to vary from period to period.

- Our investment bank business focuses primarily on small to mid-capitalization and private companies in specific industry sectors. These sectors may experience growth or downturns independent of general economic and market conditions, or may face market conditions that are disproportionately better or worse than those impacting the economy and markets generally. In addition, increased government regulation has had, and may continue to have, a disproportionate effect on capital formation by smaller companies. Therefore, our investment bank business could be affected differently than overall market trends.
- Our investment management business can be adversely affected by unanticipated levels of requested redemptions. We experienced significant levels of requested redemptions during the 2008 financial crisis and, while the environment for investing in investment management products has since improved, it is possible that we could intermittently experience redemptions above historical levels, regardless of investment fund performance.

Our businesses, by their nature, do not produce predictable earnings. Our results in any period can be materially affected by conditions in global financial markets and economic conditions generally. We are also subject to various legal and regulatory actions that impact our business and financial results.

Recent Developments

On January 2, 2019, the Company, together with its indirect wholly owned subsidiaries, Cowen International Ltd and Cowen QN Acquisition LLC, completed its previously announced acquisition of Quarton International AG through the acquisition of all of the outstanding equity interest of Quarton International AG's affiliated combining companies, Quarton Management AG, Quarton International Europe AG, Quarton Partners, LLC and Quarton Securities GP, LLC (which owns a U.S. Securities Exchange Commission ("SEC") registered broker-dealer that was subsequently renamed to Cowen Securities LP), comprising the U.S. and European operations of the acquired combining companies (collectively "Quarton"). Quarton is a group of leading global financial advisory companies serving the middle market.

Basis of presentation

The consolidated financial statements of the Company in this Form 10-K are prepared in accordance with US GAAP as promulgated by the Financial Accounting Standards Board ("FASB") through Accounting Standards Codification as the source of authoritative accounting principles in the preparation of financial statements and include the accounts of the Company, its subsidiaries, and entities in which the Company has a controlling financial interest or a substantive, controlling general partner interest. All material intercompany transactions and balances have been eliminated in consolidation. Certain investment funds that are consolidated in the consolidated financial statements, are not subject to these consolidation provisions with respect to their own investments pursuant to their specialized accounting.

The Company serves as the managing member/general partner and/or investment manager to affiliated investment funds which it sponsors and manages. Certain of these investment funds in which the Company has a substantive, controlling general partner interest are consolidated with the Company pursuant to US GAAP as described below (each a "Consolidated Fund" and collectively, the "Consolidated Funds"). Consequently, the Company's consolidated financial statements reflect the assets, liabilities, income and expenses of the Consolidated Funds on a gross basis. The ownership interests in the Consolidated Funds which are not owned by the Company are reflected as redeemable non-controlling interests in consolidated subsidiaries in the consolidated financial statements appearing elsewhere in this Form 10-K. The management fees and incentive income earned by the Company from the Consolidated Funds are eliminated in consolidation.

Acquisition

On January 2, 2019, the Company, together with its indirect wholly owned subsidiaries, Cowen International Ltd and Cowen QN Acquisition LLC, completed its previously announced acquisition of Quarton International AG through the acquisition of all of the outstanding equity interest of Quarton International AG's affiliated combining companies, Quarton Management AG, Quarton International Europe AG, Quarton Partners, LLC and Quarton Securities GP, LLC (which owns a U.S. Securities Exchange Commission ("SEC") registered broker-dealer that was subsequently renamed to Cowen Securities LP), comprising the U.S. and European operations of the acquired combining companies (collectively "Quarton"). Quarton is a group of leading global financial advisory companies serving the middle market.

On June 1, 2017, the Company, through its wholly owned subsidiary Cowen CV Acquisition LLC, entered into a securities purchase agreement with, among others, Convergenx Holdings LLC to acquire all the outstanding interests in Convergenx Group, LLC ("Convergenx Group") (subsequently renamed to Cowen Execution Holdco LLC). This acquisition was accounted for under the acquisition method of accounting in accordance with US GAAP. As such, results of operations for

Convergenx Group are included in the accompanying consolidated statements of operations since the date of acquisition, and the assets acquired and liabilities assumed were recorded at their fair value as of the acquisition date.

Divestitures

Effective as of August 2017, Cowen and the relevant sub-adviser, Archview Investment Group LP, elected to close the Ramius Archview Credit & Distressed Fund, to which Cowen had been a sponsor and held a significant minority interest.

Effective as of the beginning of the fourth quarter of 2017, Cowen withdrew from its partnership with Caerus Investors, LLC, an equity long short strategy in which Cowen had a significant minority interest.

Effective as of January 31, 2018, Cowen withdrew from its partnership with Quadratic Capital Management LLC, an options-based discretionary macro strategy in which Cowen had a significant minority interest.

Expenses

The Company's expenses consist of compensation and benefits, reinsurance costs, general, administrative and other, and Consolidated Funds expenses.

- *Compensation and Benefits.* Compensation and benefits is comprised of salaries, benefits, discretionary cash bonuses and equity-based compensation. Annual incentive compensation is variable, and the amount paid is generally based on a combination of employees' performance, their contribution to their business segment, and the Company's performance. Generally, compensation and benefits comprise a significant portion of total expenses, with annual incentive compensation comprising a significant portion of total compensation and benefits expenses.
- *Reinsurance claims, commissions and amortization of deferred acquisition costs.* Reinsurance related expenses reflect loss and claim reserves, acquisition costs and other expenses incurred with respect to our insurance and reinsurance operations.
- *General, Administrative and Other.* General, administrative and other expenses are primarily related to professional services, occupancy and equipment, business development expenses, communications, expenses associated with our reinsurance business and other miscellaneous expenses. These expenses may also include certain one-time charges and non-cash expenses.
- *Consolidated Funds Expenses.* The Company's consolidated financial statements reflect the expenses of the Consolidated Funds and the portion attributable to other investors is allocated to a redeemable non-controlling interest.

Income Taxes

The taxable results of the Company's U.S. operations are subject to U.S. federal, state and city taxation as a corporation. The Company is also subject to foreign taxation on income it generates in certain countries.

The Company records deferred tax assets and liabilities for the future tax benefit or expense that will result from differences between the carrying value of its assets for income tax purposes and for financial reporting purposes, as well as for operating or capital loss and tax credit carryovers. A valuation allowance is recorded to bring the net deferred tax assets to a level that, in management's view, is more likely than not to be realized in the foreseeable future. This level will be estimated based on a number of factors, especially the amount of net deferred tax assets of the Company that are actually expected to be realized, for tax purposes, in the foreseeable future. Deferred tax liabilities that cannot be realized in a similar future time period and thus that cannot offset the Company's deferred tax assets are not taken into account when calculating the Company's net deferred tax assets.

The Company continues to monitor the financial statement impact of the Tax Cuts and Jobs Act ("TCJA") enacted in 2017 as regulations and formal guidance continue to issue.

Redeemable Non-controlling Interests

Redeemable non-controlling interests represent the pro rata share of the income or loss of the non-wholly owned consolidated entities attributable to the other owners of such entities. Due to the fact that the non-controlling interests are redeemable at the option of the holder they have been classified as temporary equity.

Assets Under Management and Investment Fund Performance

Assets Under Management

Assets under management refer to all of the Company's investment management products, solutions and services including our advisers to investment funds (including privately placed hedge funds, real estate funds and private equity structures), managed accounts, commodity pools, and registered funds. The Company's investment management business

includes such strategies as multi-sector long/short equity, merger arbitrage, activism, health care royalties, private healthcare investing, private sustainable investing, and real estate.

Assets under management also include the fair value of assets the Company manages pursuant to separately managed accounts, collateralized debt obligations for which the Company is the collateral manager, and, as indicated in the footnotes to the table below, proprietary assets which the Company has invested in these products. Also, as indicated, assets under management for certain products may represent committed capital or committed funding that may not be under our control but forms part of the investment management product's trading level.

As of January 1, 2019, the Company had assets under management of \$10.4 billion, a 5.0% decrease as compared to assets under management of \$11.0 billion as of January 1, 2018. The \$0.6 billion decrease in assets under management during the year ended December 31, 2018 primarily resulted from redemptions offset partially by subscriptions in the investment funds.

The following table is a breakout of total assets under management by platform as of January 1, 2019 (which excludes cross investments from other Cowen Investment Management platforms):

	Platform							Total
	Investment Funds (a) (b) (g)	Alternative Solutions (a)	Cowen Trading Strategies (h)	Real Estate (a) (d) (i)	Healthcare Royalty Partners (c) (d) (i)	Private Healthcare (d) (i) (k)	Other (j)	
	(dollars in millions)							
January 1, 2016	\$ 5,590	\$ 3,552	\$ 95	\$ 1,642	\$ 2,409	\$ —	\$ 34	\$ 13,322
Subscriptions	1,537	—	—	—	—	—	—	1,537
Redemptions	(714)	(3,641)	(40)	(220)	(137)	—	(21)	(4,773)
Performance (e)	362	89	(3)	—	10	—	—	458
Net Return (e) (f)	6.48 %	2.51%	(3.16)%	—%	0.42 %	—%	—%	3.44%
January 1, 2017	6,775	—	52	1,422	2,282	—	13	10,544
Subscriptions	823	—	163	583	—	179	51	1,799
Redemptions	(1,168)	—	(59)	—	(521)	(12)	—	(1,760)
Performance (e)	430	—	1	—	(26)	15	—	420
Net Return (e) (f)	6.35 %	—%	1.92 %	—%	(1.14)%	—%	—%	3.98%
January 1, 2018	6,860	—	157	2,005	1,735	182	64	11,003
Subscriptions	1,426	—	—	—	3	127	99	1,655
Redemptions	(1,973)	—	(3)	(222)	—	(58)	—	(2,256)
Performance (e)	(86)	—	—	—	88	44	—	46
Net Return (e) (f)	(1.25)%	—%	— %	—%	5.07 %	24.18%	—%	0.42%
January 1, 2019	\$ 6,227	\$ —	\$ 154	\$ 1,783	\$ 1,826	\$ 295	\$ 163	\$ 10,448

- The Company owns between 13% and 55% of the general partners, investment managers or managing members of the real estate funds, the activist business, and the equity long/short business. The Company does not possess unilateral control over any of the foregoing businesses. The Company owns 100% of the investment manager of the event-driven equity business. On September 23, 2016, the Company completed the sale of its interest in the alternative solutions business, thereby reducing the Company's estimated assets under management by approximately \$2.5 billion.
- These amounts include the Company's invested capital of approximately \$175.5 million, \$160.9 million and \$176.6 million as of January 1, 2019, 2018, and 2017, respectively (including interests in both a registered investment company and an Undertakings for Collective Investment Trust (UCITS), each of which pursues a merger arbitrage strategy). Assets under management amounts are as of January 1, 2019 and include approximately \$589.1 million of committed but undrawn capital that will be charged fees when invested.
- These amounts include the Company's invested capital of approximately \$5.0 million, \$5.6 million and \$10.5 million as of January 1, 2019, 2018, and 2017, respectively.
- This amount includes unfunded capital commitments.

- (e) Performance and net returns are net of all management and incentive fees and includes the effect of any foreign exchange translation adjustments and leverage in certain investment funds.
- (f) Performance net returns are calculated for the investment management business as a whole. Net return of individual investment funds will vary.
- (g) The Company's actively marketed hedge funds and registered fund products have varying liquidity terms typically ranging from daily to quarterly liquidity with less liquidity applying to certain co-investment vehicles. In 2010, the Company suspended redemption rights with respect to certain multi-strategy hedge funds that are being wound down. The multi-strategy hedge funds that have suspended redemption rights represent approximately 3.92% of the total investment fund assets under management.
- (h) The Company advised a managed futures mutual fund that was fully liquidated as of April 30, 2017. On May 4, 2017, the Company began managing the assets of a collateralized debt obligation fund ("CDO Fund"), which is an amortizing pool of assets with cash returned to investors in periodic distributions as it becomes available. Assets under management reflects the outstanding face amount of such CDO Fund. The Company owns 100% of Cowen Trading Strategies LLC, the investment manager of the collateral management advisory business.
- (i) The real estate, healthcare royalty and private healthcare funds do not provide investors with redemption rights. Investors receive distributions upon dispositions of the investment funds' underlying investments.
- (j) Includes the assets of separately managed accounts for non-institutional clients and the assets of private-equity style co-investment vehicles that had been managed by the Company prior to July 1, 2017 but were not previously included in the Company's calculation of its total investment fund assets under management. Prior to June 1, 2017, CDO Funds managed by the Company were included in "Other" assets under management.
- (k) The Company began managing a private healthcare fund in September 2015. This amount includes the Company's investment of \$36.4 million and \$36.9 million as of January 1, 2019 and 2018, respectively. The Company owns 100% of Cowen Advisors LLC, the investment manager of the private healthcare business.

Investment Fund Performance

For the quarter ended December 31, 2018, Cowen's public equity investment strategies had mixed results during a volatile quarter with significant negative returns for both the Russell 2000 and the S&P 500. Cowen's private fund investment capabilities are all in their investment periods.

The Company's activist strategy had negative performance for the quarter, but substantially outperformed relative to the Russell 2000 Index, which was down approximately 20.2% for the quarter.

The Company's merger arbitrage strategy had strong positive returns for the quarter, outperforming the HFRX Merger Arbitrage Index. The merger arbitrage focused UCITS fund also had strong performance.

The Company's equity long/short affiliate, which follows a multi-sector approach with a focus on technology and consumer companies, finished the quarter with negative results and slightly underperformed the HFRX Equity Hedge Index, but substantially outperformed the S&P 500.

The Company's healthcare royalty strategy's third investment fund remains in its investment period. Ongoing opportunities in the pharmaceutical and healthcare sectors remain robust and the investment fund was 75% invested at quarter end.

Our most recent private healthcare fund remains in its investment period, ending the quarter with ten holdings and a pipeline of opportunities ahead.

Our real estate affiliate's third private-equity style real estate fund and its sixth debt fund are both in their investment periods.

The liquidation of certain multi-strategy hedge funds advised by the Company also continues.

Invested Capital

The Company invests a significant portion of its capital base to help drive results and facilitate the growth of its investment management and investment bank businesses. Management allocates capital to three primary investment categories: (i) trading strategies; (ii) merchant banking investments; and (iii) real estate investments. The Company seeks to make strategic and opportunistic investments in varying capital structures across a diverse array of businesses, private investment funds and

registered funds. Much of the Company's trading strategy portfolio is invested alongside the Company's investment management clients and includes liquid investment strategies such as merger arbitrage, activist and multi-sector long/short equity. Within its merchant banking investments, management generally takes a long-term view that typically involves investing directly in public and private companies globally, private equity funds and alongside its investment management clients. In addition, from time to time the Company makes investments in private capital raising transactions of its investment banking clients. The Company's real estate investment strategy focuses on making investments alongside the investment management clients invested in the real estate funds managed by RCG Longview, as well as in direct investments in commercial real estate projects.

As of December 31, 2018, the Company's invested capital amounted to a net value of \$786.7 million (supporting a long market value of \$642.6 million), representing approximately 99% of Cowen's stockholders' equity presented in accordance with US GAAP. The table below presents the Company's invested equity capital by strategy and as a percentage of Cowen's stockholders' equity as of December 31, 2018. The net values presented in the table below do not tie to Cowen's consolidated statement of financial condition as of December 31, 2018 because they are included in various line items of the accompanying consolidated statement of financial condition, including "securities owned, at fair value", "other investments", "cash and cash equivalents", and "consolidated funds-securities owned, at fair value".

<u>Strategy</u>	<u>Net Value</u>	<u>% of Stockholders' Equity</u>
	<u>(dollars in millions)</u>	
Trading	\$ 584.5	74%
Merchant Banking	180.8	23%
Real Estate	21.4	3%
Total	786.7	99%
Stockholders' Equity	\$ 794.4	100%

The allocations shown in the table above will change over time.

Results of Operations

To provide comparative information of the Company's operating results for the periods presented, a discussion of Economic Income (Loss) (which is a non-GAAP measure) of our investment management and investment bank segments follows the discussion of our total consolidated US GAAP results. Economic Income (Loss) reflects, on a consistent basis for all periods presented in the Company's consolidated financial statements, income earned from the Company's investment funds and managed accounts and from its own invested capital. Economic Income (Loss) excludes certain adjustments required under US GAAP. See the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations of the Company-Segment Analysis and Economic Income (Loss)," and Note 27 to the accompanying Company's consolidated financial statements, appearing elsewhere in this Form 10-K, for a reconciliation of Economic Income (Loss) to total Company US GAAP net income (loss).

Year Ended December 31, 2018 Compared with Year Ended December 31, 2017

	Consolidated Statements of Operations			
	Year Ended December 31,		Period to Period	
	2018	2017	\$ Change	% Change
	(dollars in thousands)			
Revenues				
Investment banking	\$ 357,222	\$ 223,614	\$ 133,608	60 %
Brokerage	413,582	293,610	119,972	41 %
Management fees	29,658	33,245	(3,587)	(11) %
Incentive income	3,117	5,383	(2,266)	(42) %
Interest and dividends	108,009	49,440	58,569	118 %
Reimbursement from affiliates	1,038	2,860	(1,822)	(64) %
Aircraft lease revenue	1,852	3,751	(1,899)	(51) %
Reinsurance premiums	38,096	30,996	7,100	23 %
Other revenues	4,504	8,561	(4,057)	(47) %
Consolidated Funds revenues	9,838	7,321	2,517	34 %
Total revenues	966,916	658,781	308,135	47 %
Interest and dividends expense	104,116	60,949	43,167	71 %
Total net revenues	862,800	597,832	264,968	44 %
Expenses				
Employee compensation and benefits	509,289	404,087	105,202	26 %
Reinsurance claims, commissions and amortization of deferred acquisition costs	41,086	30,486	10,600	35 %
Operating, general, administrative and other expenses	316,180	227,709	88,471	39 %
Depreciation and amortization expense	12,436	13,078	(642)	(5) %
Restructuring costs	—	8,763	(8,763)	(100) %
Consolidated Funds expenses	8,615	12,526	(3,911)	(31) %
Total expenses	887,606	696,649	190,957	27 %
Other income (loss)				
Net gains (losses) on securities, derivatives and other investments	68,043	76,179	(8,136)	(11) %
Bargain purchase gain, net of tax	—	6,914	(6,914)	(100) %
Gain/(loss) on debt extinguishment	(556)	(16,039)	15,483	(97) %
Consolidated Funds net gains (losses)	56,255	38,725	17,530	45 %
Total other income (loss)	123,742	105,779	17,963	17 %
Income (loss) before income taxes	98,936	6,962	91,974	1,321 %
Income tax expense (benefit)	15,719	44,053	(28,334)	(64) %
Net income (loss)	83,217	(37,091)	120,308	(324) %
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	40,398	23,791	16,607	70 %
Net income (loss) attributable to Cowen Inc.	42,819	(60,882)	103,701	(170) %
Preferred stock dividends	6,792	6,792	—	— %
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 36,027	\$ (67,674)	\$ 103,701	(153) %

Revenues

Investment Banking

Investment banking revenues increased \$133.6 million to \$357.2 million for the year ended December 31, 2018 compared with \$223.6 million in the prior year period. During the year ended December 31, 2018, the Company completed 114 underwriting transactions, 30 strategic advisory transactions and seven debt capital market transactions. During the year ended December 31, 2017, the Company completed 103 underwriting transactions, 16 strategic advisory transactions and two debt capital market transactions. The implied average underwriting fee per transaction was 21.1% greater for the year ended December 31, 2018 as compared to the prior year period. The increase is also related to adoption of the new revenue recognition standard, effective January 1, 2018, which a) requires underwriting expenses to be shown within expenses rather than net of associated investment banking revenues and b) expenses reimbursed from client to be shown gross in investment banking revenues rather than net in their respective expense category.

Brokerage

Brokerage revenues increased \$120.0 million to \$413.6 million for the year ended December 31, 2018 compared with \$293.6 million in the prior year period. This was attributable to an increase in revenues due to the acquisition of Convergenx Group in June 2017 and increased revenue in our options and electronic trading businesses. Customer trading volumes across the industry (according to Bloomberg) increased 12% for the year ended December 31, 2018 compared to the prior year period.

Management Fees

Management fees decreased \$3.5 million to \$29.7 million for the year ended December 31, 2018 compared with \$33.2 million in the prior year period. This decrease in management fees was primarily related to a decrease in management fees from the healthcare royalty business and as a result of the company's exit of two investment management strategies, one in the fourth quarter of 2017 and the other in the first quarter of 2018.

Incentive Income

Incentive income decreased \$2.3 million to \$3.1 million for the year ended December 31, 2018, compared with \$5.4 million in the prior year period. This decrease was related to the new revenue recognition standards, effective January 1, 2018, for which the Company now recognizes the majority of incentive income allocated to the Company as net gains (losses) on securities, derivatives and other investments.

Interest and Dividends

Interest and dividends increased \$58.6 million to \$108.0 million for the year ended December 31, 2018 compared with \$49.4 million in the prior year period. This was primarily attributable to securities financing activities related to the June 2017 acquisition of Convergenx Group.

Reimbursements from Affiliates

Reimbursements from affiliates decreased \$1.9 million to \$1.0 million for the year ended December 31, 2018 compared with \$2.9 million in the prior year period. The decrease is primarily related to a decrease in reimbursements from the activist business.

Aircraft Lease Revenues

Aircraft lease revenues decreased \$1.9 million to \$1.9 million for the year ended December 31, 2018 compared to \$3.8 million in the prior year period. This decrease was related to the sale of one plane during the third quarter of 2017 and several more planes sold during the fourth quarter of 2018.

Reinsurance Premiums

Reinsurance premiums increased \$7.1 million to \$38.1 million for the year ended December 31, 2018 compared with \$31.0 million in the prior year period. This increase reflects premiums earned in 2018 from additional reinsurance policies in force compared to 2017 as well as the change in unearned premiums during 2018 from policies that were in force at the end of 2017.

Other Revenues

Other revenues decreased \$4.1 million to \$4.5 million for the year ended December 31, 2018 compared with \$8.6 million in the prior year period. This decrease is primarily related to a gain on the sale of one of the Company's planes in the third quarter of 2017.

Consolidated Funds Revenues

Consolidated Funds revenues increased \$2.5 million to \$9.8 million for the year ended December 31, 2018 compared with \$7.3 million in the prior year period. The increase is due to interest and dividends income from the Consolidated Funds.

Interest and Dividends Expenses

Interest and dividends expenses increased \$43.2 million to \$104.1 million for the year ended December 31, 2018 compared with \$60.9 million in the prior year period. This was primarily attributable to securities finance activities related to the June 2017 acquisition of Convergenx Group.

Expenses

Employee Compensation and Benefits

Employee compensation and benefits expenses increased \$105.2 million to \$509.3 million for the year ended December 31, 2018 compared with \$404.1 million in the prior year period. The increase is primarily due to \$308.1 million

higher total revenues and \$17.9 million higher other income (loss) during 2018 as compared to 2017 resulting in a higher compensation and benefits accrual. The compensation to revenue ratio, including other income (loss), was 47% for the year ended December 31, 2018, compared with 53% in the prior year period.

Reinsurance Claims, Commissions and Amortization of Deferred Acquisition Costs

Reinsurance related expenses increased \$10.6 million to \$41.1 million for the year ended December 31, 2018 compared with \$30.5 million in the prior year period. This increase reflects reinsurance-related expenses incurred from additional policies in force compared to 2017 as well as the occurrence of several highly unlikely events that led to higher claims in 2018 such as widespread wildfires in California, extreme flash floods in Australia and devastating floods in Germany.

Operating, General, Administrative and Other Expenses

Operating, general, administrative and other expenses increased \$88.5 million to \$316.2 million for the year ended December 31, 2018 compared with \$227.7 million in the prior year period. The increase is primarily related to higher brokerage and trade execution costs, due to higher brokerage revenue, increased marketing and business development expenses and increased occupancy costs, which are mostly related to the acquisition of Convergenx Group in June 2017. The increase is also related to adoption of the new revenue recognition standard, effective January 1, 2018, which a) requires underwriting expenses to be shown within expenses rather than net of associated investment banking revenues and b) expenses reimbursed from client to be shown gross in investment banking revenues rather than net in their respective expense category.

Depreciation and Amortization Expenses

Depreciation and amortization expenses decreased \$0.7 million to \$12.4 million for the year ended December 31, 2018 compared with \$13.1 million in the prior year period. There was a decrease in amortization from certain intangibles which have been fully amortized partially offset by an increase in depreciable fixed assets related to the acquisition of Convergenx Group in June 2017.

Restructuring Costs

Restructuring costs expenses were \$8.8 million for the year ended December 31, 2017 and there were none in the current period. In conjunction with the integration of the acquired businesses of Convergenx Group, the Company evaluated the combined investment bank businesses and operations and incurred integration and restructuring costs, which primarily related to exit and disposal costs, discontinuation of redundant technology services and severance costs.

Consolidated Funds Expenses

Consolidated Funds expenses decreased \$3.9 million to \$8.6 million for the year ended December 31, 2018 compared with \$12.5 million in the prior year period. The decrease is due to decreased interest and dividends expense in the Consolidated Funds.

Other Income (Loss)

Other income (loss) increased \$17.9 million to \$123.7 million for the year ended December 31, 2018 compared with \$105.8 million in the prior year period. The increase primarily relates to an increase in performance in the Company's own invested capital offset only partially by the bargain purchase gain related to the acquisition of Convergenx Group in June 2017. The gains and losses shown under Consolidated Funds reflect the consolidated total performance for such investment funds, and the portion of those gains or losses that are attributable to other investors is allocated to redeemable non-controlling interests.

Income Taxes

Income tax expense decreased \$28.4 million to \$15.7 million for the year ended December 31, 2018 compared with an income tax expense of \$44.1 million in the prior year period. This decrease in expense is primarily attributable to the re-measurement in 2017 of the Company's deferred tax assets using the reduced statutory Federal tax rate of the federal tax reform enacted in 2017.

Net Income (Loss) Attributable to Redeemable Non-controlling Interests

Net income (loss) attributable to redeemable non-controlling interests increased \$16.6 million to \$40.4 million for the year ended December 31, 2018 compared with \$23.8 million in the prior year period. The increase was primarily the result of an increase in income earned by the merger arbitrage Consolidated Fund in the current year period. Non-controlling interests represent the pro rata share of the income or loss of the non-wholly owned consolidated entities attributable to the other owners of such entities.

Preferred Stock Dividends

On May 19, 2015, the Company completed its offering of 120,750 shares of the Company's 5.625% Series A cumulative perpetual convertible preferred stock. Each share of the Series A Convertible Preferred Stock is entitled to dividends at a rate of 5.625% per annum. The Company may, at its option, pay dividends in cash, common stock or a combination thereof.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

	Consolidated Statements of Operations			
	Year Ended December 31,		Period to Period	
	2017	2016	\$ Change	% Change
	(dollars in thousands)			
Revenues				
Investment banking	\$ 223,614	\$ 133,279	\$ 90,335	68 %
Brokerage	293,610	199,180	94,430	47 %
Management fees	33,245	40,612	(7,367)	(18)%
Incentive income	5,383	8,334	(2,951)	(35)%
Interest and dividends	49,440	14,732	34,708	236 %
Reimbursement from affiliates	2,860	10,504	(7,644)	(73)%
Aircraft lease revenue	3,751	4,161	(410)	(10)%
Reinsurance premiums	30,996	32,459	(1,463)	(5)%
Other revenues	8,561	22,355	(13,794)	(62)%
Consolidated Funds revenues	7,321	5,949	1,372	23 %
Total revenues	658,781	471,565	187,216	40 %
Interest and dividends expense	60,949	29,308	31,641	108 %
Total net revenues	597,832	442,257	155,575	35 %
Expenses				
Employee compensation and benefits	404,087	310,038	94,049	30 %
Reinsurance claims, commissions and amortization of deferred acquisition costs	30,486	29,904	582	2 %
Depreciation and amortization	13,078	12,713	365	3 %
General, administrative and other expenses	227,709	156,091	71,618	46 %
Restructuring costs	8,763	—	8,763	NM
Consolidated Funds expenses	12,526	9,064	3,462	38 %
Total expenses	696,649	517,810	178,839	35 %
Other income (loss)				
Net gain (loss) on securities, derivatives and other investments	76,179	23,381	52,798	226 %
Bargain purchase gain, net of tax	6,914	—	6,914	NM
Gain/(loss) on debt extinguishment	(16,039)	—	(16,039)	NM
Consolidated Funds net gains (losses)	38,725	20,685	18,040	87 %
Total other income (loss)	105,779	44,066	61,713	140 %
Income (loss) before income taxes	6,962	(31,487)	38,449	122 %
Income tax expense (benefit)	44,053	(19,092)	63,145	331 %
Net income (loss)	(37,091)	(12,395)	(24,696)	(199)%
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	23,791	6,882	16,909	246 %
Net income (loss) attributable to Cowen Inc.	(60,882)	(19,277)	(41,605)	(216)%
Preferred stock dividends	6,792	6,792	—	— %
Net income (loss) attributable to Cowen Inc. common stockholders	\$ (67,674)	\$ (26,069)	\$ (41,605)	(160)%

Revenues

Investment Banking

Investment banking revenues increased \$90.3 million to \$223.6 million for the year ended December 31, 2017 compared with \$133.3 million in the prior year period. During the year ended December 31, 2017, the Company completed 103 underwriting transactions, 16 strategic advisory transactions and two debt capital market transactions. During the year ended December 31, 2016, the Company completed 76 underwriting transactions, 15 strategic advisory transactions and seven debt

capital market transactions. The average underwriting fee per transaction was 33.8% greater for the year ended December 31, 2017 as compared to the prior year period.

Brokerage

Brokerage revenues increased \$94.4 million to \$293.6 million for the year ended December 31, 2017 compared with \$199.2 million in the prior year period. This was attributable to an increase in revenues due to the initiation of the credit trading business in May 2016 and the acquisition of Convergenx Group in June 2017. Customer trading volumes across the industry (according to Bloomberg) decreased 11% for the year ended December 31, 2017 compared to the prior year period.

Management Fees

Management fees decreased \$7.4 million to \$33.2 million for the year ended December 31, 2017 compared with \$40.6 million in the prior year period. This decrease in management fees was primarily related to the sale of our interest in the alternative solutions business during the third quarter of 2016 and a decrease in management fees from the real estate business.

Incentive Income

Incentive income decreased \$2.9 million to \$5.4 million for the year ended December 31, 2017, compared with \$8.3 million in the prior year period. This decrease was primarily related to a decrease in performance fees from the multi-strategy business.

Interest and Dividends

Interest and dividends increased \$34.7 million to \$49.4 million for the year ended December 31, 2017 compared with \$14.7 million in the prior year period. This was primarily attributable to securities financing activities during the second half of the year from the June 2017 acquisition of Convergenx Group.

Reimbursements from Affiliates

Reimbursements from affiliates decreased \$7.6 million to \$2.9 million for the year ended December 31, 2017 compared with \$10.5 million in the prior year period. The decrease is primarily related to a decrease in reimbursements from the activist business.

Aircraft Lease Revenues

Aircraft lease revenues decreased to \$3.8 million for the year ended December 31, 2017 compared to \$4.2 million in the prior year period. This decrease was related to the sale of one plane during the third quarter of 2017.

Reinsurance Premiums

Reinsurance premiums decreased \$1.5 million to \$31.0 million for the year ended December 31, 2017 compared with \$32.5 million in the prior year period. This decrease reflects the reduction, in 2017, of our quota share participation in one of the reinsurance policies.

Other Revenues

Other revenues decreased \$13.8 million to \$8.6 million for the year ended December 31, 2017 compared with \$22.4 million in the prior year period. The decrease primarily relates to the sale of our interest in the alternative solutions business and the principal owners of Starboard Value exercising their right to acquire a portion of the Company's ownership interest in the activist business in the prior year.

Consolidated Funds Revenues

Consolidated Funds revenues increased \$1.4 million to \$7.3 million for the year ended December 31, 2017 compared with \$5.9 million in the prior year period. The increase is due to interest and dividends income from the Consolidated Funds.

Interest and Dividends Expenses

Interest and dividends expenses increased \$31.6 million to \$60.9 million for the year ended December 31, 2017 compared with \$29.3 million in the prior year period. This was primarily attributable to securities finance activities during the second half of the year from the June 2017 acquisition of Convergenx Group, an increase in debt, an increase in the number of investments sold short and an increase in margin balances during 2017 as compared to 2016.

Expenses

Employee Compensation and Benefits

Employee compensation and benefits expenses increased \$94.0 million to \$404.1 million for the year ended December 31, 2017 compared with \$310.0 million in the prior year period. The increase is primarily due to \$187.2 million

higher total revenues and \$61.7 million more other income (loss) during 2017 as compared to 2016 resulting in a higher compensation and benefits accrual. The compensation to revenue ratio, including other income (loss), was 53% for the year ended December 31, 2017, compared with 60% in the prior year period.

Reinsurance Claims Commissions

Reinsurance related expenses increased \$0.6 million to \$30.5 million for the year ended December 31, 2017 compared with \$29.9 million in the prior year period. This increase was predominantly due to higher than expected claims that resulted from severe weather events in the US in the third and fourth quarters of 2017.

Depreciation and Amortization Expenses

Depreciation and amortization expenses increased \$0.4 million to \$13.1 million for the year ended December 31, 2017 compared with \$12.7 million in the prior year period. The increase is primarily related to an increase in amortization of intangible assets related to recent acquisitions.

Operating, General, Administrative and Other Expenses

Operating, general, administrative and other expenses increased \$71.6 million to \$227.7 million for the year ended December 31, 2017 compared with \$156.1 million in the prior year period. The increase is primarily related to higher brokerage and trade execution costs, due to higher brokerage revenue, and increased marketing and business development expenses, legal and other professional fees and increased occupancy costs, which are mostly related to the acquisition of Convergenx Group during June 2017.

Restructuring Costs

Restructuring costs expenses were \$8.8 million for the year ended December 31, 2017. In conjunction with the integration of the acquired businesses of Convergenx Group, the Company evaluated the combined investment bank businesses and operations and incurred integration and restructuring costs which primarily related to exit and disposal costs, discontinuation of redundant technology services and severance costs.

Consolidated Funds Expenses

Consolidated Funds expenses increased \$3.4 million to \$12.5 million for the year ended December 31, 2017 compared with \$9.1 million in the prior year period. The increase is due to increased interest and dividends expense in one of the Consolidated Funds.

Other Income (Loss)

Other income (loss) increased \$61.7 million to \$105.8 million for the year ended December 31, 2017 compared with \$44.1 million in the prior year period. The increase primarily relates to an increase in performance of the Company's own invested capital and the bargain purchase gain related to the acquisition of Convergenx Group during June 2017 partially offset by costs associated with extinguishing debt. The gains and losses shown under Consolidated Funds reflect the consolidated total performance for such funds, and the portion of those gains or losses that are attributable to other investors is allocated to redeemable non-controlling interests.

Income Taxes

Income tax expense increased \$63.0 million to \$44.1 million for the year ended December 31, 2017 compared with an income tax benefit of \$19.1 million in the prior year period. This increase in expense is primarily attributable to the impact of the federal tax reform enacted in 2017 and higher non-deductible expenses.

Net Income (Loss) Attributable to Redeemable Non-controlling Interests

Net income (loss) attributable to redeemable non-controlling interests increased \$16.9 million to \$23.8 million for the year ended December 31, 2017 compared with \$6.9 million in the prior year period. The increase was primarily the result of losses incurred by one of the Consolidated Funds in the prior year period. Non-controlling interests represent the pro rata share of the income or loss of the non-wholly owned consolidated entities attributable to the other owners of such entities.

Preferred Stock Dividends

On May 19, 2015, the Company completed its offering of 120,750 shares of the Company's 5.625% Series A cumulative perpetual convertible preferred stock. Each share of the Series A Convertible Preferred Stock is entitled to dividends at a rate of 5.625% per annum. The Company may, at its option, pay dividends in cash, common stock or a combination thereof.

Segment Analysis and Economic Income (Loss)

Segments

The Company conducts its operations through two segments: the investment management segment and the investment bank segment.

For the years ended December 31, 2018, 2017, and 2016, the Company's investment management business includes advisers to investment funds (including privately placed hedge funds, real estate funds and private equity structures), managed accounts, commodity pools, and registered funds operating results and other investment platforms operating results.

For the years ended December 31, 2018, 2017, and 2016, the Company's investment bank segment includes investment banking, research, sales and trading, prime brokerage, global clearing and commission management services businesses' operating results.

Economic Income (Loss)

The performance measure used by the Company for each segment is Economic Income (Loss), which management uses to evaluate the financial performance of and to make operating decisions for the Company as a whole and each segment. Accordingly, management assesses its business by analyzing the performance of each segment and believes that investors should review the same performance measure that it uses to analyze its segment and business performance. In addition, management believes that Economic Income (Loss) is helpful to gain an understanding of its segment results of operations because it reflects such results on a consistent basis for all periods presented.

Our Economic Income (Loss) may not be comparable to similarly titled measures used by other companies. We use Economic Income (Loss) as a measure of each segment's operating performance, not as a measure of liquidity. Economic Income (Loss) should not be considered in isolation or as a substitute for operating income, net income, operating cash flows, investing and financing activities, or other income or cash flow statement data prepared in accordance with US GAAP. As a result of the adjustments made to arrive at Economic Income (Loss), Economic Income (Loss) has limitations in that it does not take into account certain items included or excluded under US GAAP, including our Consolidated Funds. Economic Income (Loss) is considered by management as a supplemental measure to the US GAAP results to provide a more complete understanding of each segment's performance as measured by management. For a reconciliation of Economic Income (Loss) to US GAAP net income (loss) for the periods presented and additional information regarding the reconciling adjustments discussed above, see Note 27 to the Company's consolidated financial statements included elsewhere in this Form 10-K.

In general, Economic Income (Loss) (which is attributable to Cowen Inc.) is a pre-tax measure that (i) eliminates the impact of consolidation for Consolidated Funds and excludes (ii) goodwill and intangible impairment (iii) certain other transaction-related adjustments and/or reorganization expenses (iv) certain costs associated with debt and (v) preferred stock dividends. Economic Operating Income (Loss) represents Economic Income (Loss) before depreciation and amortization expenses. In addition, Economic Income (Loss) revenues include investment income that represents the income the Company has earned in investing its own capital, including realized and unrealized gains and losses, interest and dividends, net of associated investment related expenses. For US GAAP purposes, these items are included in each of their respective line items. Economic Income (Loss) revenues also include management fees, incentive income and investment income earned through the Company's investment as a general partner in certain real estate entities and the Company's investment in the activist business and certain investment funds. For US GAAP purposes, all of these items, are recorded in other income (loss). Economic Income (Loss) recognizes incentive fees during periods when the fees are not yet crystallized for US GAAP reporting. In addition, Economic Income (Loss) expenses are reduced by reimbursement from affiliates, which for US GAAP purposes is presented gross as part of revenue.

In this Form 10-K, preferred stock dividends has been included as a charge to Economic Income (Loss). The Company believes that this presentation provides a better comparison to the Company's GAAP operating results and earnings per share calculations. The change to Economic Income (Loss) has been applied consistently to prior periods presented.

Economic Income (Loss) Revenues

The Company's principal sources of Economic Income (Loss) revenues are derived from activities in two business segments.

Our investment management business generates Economic Income (Loss) revenues through three principal sources: management fees, incentive income and investment income from our own capital. Management fees are directly impacted by any increase or decrease in assets under management, while incentive income is impacted by our investment funds' performance and resulting increase or decrease in assets under management. Investment income from the Company's own capital is impacted by the performance of the investment funds and other securities in which our capital is invested.

Our investment bank segment generates Economic Income (Loss) revenues through two principal sources: investment banking and brokerage. The Company earns investment banking revenue primarily from fees associated with public and private capital raising transactions and providing strategic advisory services. Investment banking revenues are derived primarily from small- and mid-capitalization companies within the Company's Target Sectors: healthcare, technology, media and telecommunications, information and technology services, consumer, aerospace and defense, industrials, energy and transportation. The Company's brokerage revenues consist of commissions, principal transactions and fees paid for equity and credit research, trade conversion and commissions generated from prime brokerage services. Management reviews brokerage revenue on a combined basis as the vast majority of the revenue is derived from the same group of clients. The Company derives its brokerage revenue primarily from trading equity and equity-linked securities on behalf of institutional investors. The majority of the Company's trading gains and losses are a result of activities that support the facilitation of client orders in both listed and over-the-counter securities, although all trading gains and losses are recorded in brokerage revenue in the accompanying consolidated statement of operations.

Economic Income (Loss) Expenses

The Company's Economic Income (Loss) expenses consist of non-interest expenses and interest expense. Non-interest expenses consist of compensation and benefits and non-compensation expenses (fixed and variable), and depreciation and amortization less reimbursement from affiliates.

Non-controlling Interests

Non-controlling interests represent the pro rata share of the income or loss of the non-wholly owned consolidated entities attributable to the partners of such entities.

Year Ended December 31, 2018 Compared with Year Ended December 31, 2017

	Year Ended December 31,						Total	
	2018			2017			Period-to-Period	
	Investment Management	Investment Bank	Total	Investment Management	Investment Bank	Total	\$ Change	% Change
(dollars in thousands)								
Economic Income Revenues								
Investment banking	\$ —	\$ 329,061	\$ 329,061	\$ —	\$ 223,614	\$ 223,614	\$105,447	47 %
Brokerage	—	452,299	452,299	38	312,742	312,780	139,519	45 %
Management fees	46,017	3,158	49,175	52,239	3,148	55,387	(6,212)	(11) %
Incentive income (loss)	23,747	—	23,747	26,028	—	26,028	(2,281)	(9) %
Investment income (loss)	37,642	18,704	56,346	31,447	13,695	45,142	11,204	25 %
Other income (loss)	(2,143)	975	(1,168)	1,575	1,656	3,231	(4,399)	(136) %
Total economic income revenues	105,263	804,197	909,460	111,327	554,855	666,182	243,278	37 %
Interest expense	11,396	11,617	23,013	14,268	4,620	18,888	4,125	22 %
Total net revenues	\$ 93,867	\$ 792,580	\$ 886,447	\$ 97,059	\$ 550,235	\$ 647,294	\$239,153	37 %

Economic Income (Loss)

Total Economic Operating Income (Loss) (which is Economic Income (Loss) before depreciation and amortization) was \$80.9 million for the year ended December 31, 2018, an increase of \$60.3 million compared to Economic Operating Income (Loss) of \$20.6 million in the prior year period. Total Economic Income (Loss) was \$76.1 million for the year ended December 31, 2018, an increase of \$60.3 million compared to Economic Income (Loss) of \$15.8 million in the prior year period.

Total Economic Income (Loss) revenues were \$909.5 million for the year ended December 31, 2018, an increase of \$243.3 million compared to Economic Income (Loss) revenues of \$666.2 million in the prior year period. This was primarily related to an increase in investment banking and brokerage activity.

Investment Management Segment Revenues

Investment Management Segment Economic Income (Loss) revenues were \$105.3 million for the year ended December 31, 2018, a decrease of \$6.0 million compared to Economic Income (Loss) revenues of \$111.3 million in the prior year period.

Management Fees. Management fees for the segment decreased \$6.2 million to \$46.0 million for the year ended December 31, 2018 compared with \$52.2 million in the prior year period. This decrease in management fees was primarily related to a decrease in management fees from the healthcare royalty business and as a result of the company's exit of two investment management strategies, one in the fourth quarter of 2017 and the other in the first quarter of 2018.

Incentive Income (Loss). Incentive income for the segment decreased \$2.3 million to \$23.7 million for the year ended December 31, 2018 compared with \$26.0 million in the prior year period. This decrease was related to a decrease in performance fees from the activist and multi-strategy businesses offset partially by an increase in performance fees from the private healthcare and merger arbitrage businesses.

Investment Income (Loss). Investment income for the segment increased \$6.2 million to \$37.6 million for the year ended December 31, 2018 compared with \$31.4 million in the prior year period. The increase primarily relates to an increase in performance of the Company's own invested capital.

Other Income (Loss). Other income (loss) for the segment decreased \$3.7 million to a loss of \$2.1 million for the year ended December 31, 2018 compared with income of \$1.6 million in the prior year period. The decrease primarily relates to a decrease in income from the Company's reinsurance business.

Investment Bank Segment Revenues

Investment bank segment Economic Income (Loss) revenues were \$804.2 million for the year ended December 31, 2018, an increase of \$249.3 million compared with Economic Income (Loss) revenues of \$554.9 million in the prior year.

Investment Banking. Investment banking revenues increased \$105.4 million to \$329.1 million for the year ended December 31, 2018 compared with \$223.6 million in the prior year period. During the year ended December 31, 2018, the Company completed 114 underwriting transactions, 30 strategic advisory transactions and seven debt capital market transactions. During the year ended December 31, 2017, the Company completed 103 underwriting transactions, 16 strategic advisory transactions and two debt capital market transactions. The implied average underwriting fee per transaction was 21.1% greater for the year ended December 31, 2018 as compared to the prior year period.

Brokerage. Brokerage revenues increased \$139.6 million to \$452.3 million for the year ended December 31, 2018, compared with \$312.7 million in the prior year period. This was attributable to an increase in revenues due to the acquisition of Convergenx Group in June 2017 and increased revenue in our options and electronic trading businesses. Customer trading volumes across the industry (according to Bloomberg) increased 12% for the year ended December 31, 2018 compared to the prior year period.

Investment Income (Loss). Investment income for the segment increased \$5.0 million to \$18.7 million for the year ended December 31, 2018, compared with \$13.7 million in the prior year period. The increase primarily relates to an increase in performance of the Company's own invested capital.

Other Income (Loss). Other income (loss) for the segment decreased \$0.7 million to \$1.0 million for the year ended December 31, 2018, compared with \$1.7 million in the prior year period.

Interest expense

Interest expense increased \$4.1 million to \$23.0 million for the year ended December 31, 2018 compared with \$18.9 million in the prior year period. Interest expense primarily relates to debt issued. The increase is primarily related to new debt issued in June of 2018.

Non-Interest Expenses

Non-interest expenses. Total non-interest expenses increased \$176.6 million to \$802.0 million for the year ended December 31, 2018, compared with \$625.4 million in the prior year period.

Compensation and benefits expenses. Compensation and benefits expenses, included within non-interest expenses, increased \$118.3 million to \$506.3 million for the year ended December 31, 2018 compared with \$388.0 million in the prior year period. The increase is due to \$243.3 million higher revenues during 2018 as compared to 2017 which resulted in a higher compensation and benefits accrual. The compensation to revenue ratio was 56% for the year ended December 31, 2018 compared with 58% in the prior year period.

Non-compensation Expenses—Fixed. Fixed non-compensation expenses, included within non-interest expenses, increased \$19.7 million to \$141.8 million for the year ended December 31, 2018 compared with \$122.1 million in the prior year period. The increase is primarily related to the acquisition of Convergenx Group in June 2017.

The following table shows the components of the non-compensation expenses—fixed, for the year ended December 31, 2018 and 2017:

	Year Ended December 31,		Period-to-Period	
	2018	2017	\$ Change	% Change
	(dollars in thousands)			
Non-compensation expenses—fixed:				
Communications	\$ 29,217	\$ 23,378	\$ 5,839	25 %
Professional, advisory and other fees	22,755	20,944	1,811	9 %
Occupancy and equipment	39,560	33,928	5,632	17 %
Service fees	20,034	14,896	5,138	34 %
Expenses from equity investments	12,002	11,156	846	8 %
Other	18,248	17,819	429	2 %
Total	\$ 141,816	\$ 122,121	\$ 19,695	16 %

Depreciation and amortization expenses. Depreciation and amortization expenses remained flat at \$11.6 million for the year ended December 31, 2018 compared with \$11.6 million in the prior year period. This is due to an increase in depreciable fixed assets related to the acquisition of Convergenx Group in June 2017, offset by a decrease in amortization from certain intangibles which have been fully amortized.

Non-compensation Expenses—Variable. Variable non-compensation expenses, included within non-interest expenses, which primarily are comprised of expenses that are incurred as a direct result of the processing and soliciting of revenue generating activities, increased \$37.8 million to \$143.6 million for the year ended December 31, 2018 compared with \$105.8 million in the prior year period. The increase is primarily related to higher brokerage and trade execution costs, related to the acquisition of Convergenx Group in June 2017.

The following table shows the components of the non-compensation expenses—variable, for the year ended December 31, 2018 and 2017:

	Year Ended December 31,		Period-to-Period	
	2018	2017	\$ Change	% Change
	(dollars in thousands)			
Non-compensation expenses—Variable:				
Brokerage and trade execution costs	\$ 106,115	\$ 73,133	\$ 32,982	45 %
HealthCare Royalty Partners syndication costs	529	528	1	— %
Expenses related to Luxembourg companies	3,831	3,279	552	17 %
Marketing and business development	31,255	27,336	3,919	14 %
Other	1,919	1,510	409	27 %
Total	\$ 143,649	\$ 105,786	\$ 37,863	36 %

Reimbursement from Affiliates. Reimbursements from affiliates, included within non-interest expenses, which relate to the investment management segment decreased \$0.7 million to \$1.3 million for the year ended December 31, 2018 compared to \$2.0 million in the prior year period.

Non-Controlling Interests

Net income (loss) attributable to redeemable non-controlling interests increased by \$2.2 million to \$8.3 million for the year ended December 31, 2018 compared with \$6.1 million in the prior year period. Non-Controlling interest represents the portion of the net income or loss attributable to certain non-wholly owned subsidiaries that is allocated to our partners in those subsidiaries.

Preferred Stock Dividends

On May 19, 2015, the Company completed its offering of 120,750 shares of the Company's 5.625% Series A cumulative perpetual convertible preferred stock. Each share of the Series A Convertible Preferred Stock is entitled to dividends at a rate of 5.625% per annum. The Company may, at its option, pay dividends in cash, common stock or a combination thereof.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

	Year Ended December 31,							Total Period-to-Period	
	2017			2016					
	Investment Management	Investment Bank	Total	Investment Management	Investment Bank	Total	\$ Change	% Change	
	(dollars in thousands)								
Economic Income Revenues									
Investment banking	\$ —	\$ 223,614	\$ 223,614	\$ —	\$ 133,279	\$ 133,279	\$ 90,335	68 %	
Brokerage	38	312,742	312,780	—	207,040	207,040	105,740	51 %	
Management fees	52,239	3,148	55,387	64,086	3,162	67,248	(11,861)	(18) %	
Incentive income (loss)	26,028	—	26,028	26,274	—	26,274	(246)	1 %	
Investment income (loss)	31,447	13,695	45,142	3,015	1,008	4,023	41,119	NM	
Other income (loss)	1,575	1,656	3,231	29,202	565	29,767	(26,536)	(89) %	
Total economic income revenues	111,327	554,855	666,182	122,577	345,054	467,631	198,551	42 %	
Interest Expense	14,268	4,620	18,888	12,827	4,363	17,190	1,698	10 %	
Total net revenues	\$ 97,059	\$ 550,235	\$ 647,294	\$ 109,750	\$ 340,691	\$ 450,441	\$ 196,853	44 %	

Economic Income (Loss)

Total Economic Operating Income (Loss) (which is Economic Income (Loss) before depreciation and amortization) was \$20.6 million for the year ended December 31, 2017, an increase of \$45.1 million compared to Economic Operating Income (Loss) which was a loss of \$24.5 million in the prior year period. Total Economic Income (Loss) was \$15.8 million for the year ended December 31, 2017, an increase of \$44.6 million compared to Economic Income (Loss) which was a loss of \$28.7 million in the prior year period.

Total Economic Income (Loss) revenues were \$666.2 million for the year ended December 31, 2017, an increase of \$198.6 million compared to Economic Income (Loss) revenues of \$467.6 million in the prior year period. This was related to an increase in investment banking and brokerage activity and an increase in performance in investment income.

Investment Management Segment Revenues

Investment Management Segment Economic Income (Loss) revenues were \$111.3 million for the year ended December 31, 2017, a decrease of \$11.3 million compared to Economic Income (Loss) revenues of \$122.6 million in the prior year period.

Management Fees. Management fees for the segment decreased \$11.9 million to \$52.2 million for the year ended December 31, 2017 compared with \$64.1 million in the prior year period. This decrease in management fees was primarily related to the sale of our interest in the alternative solutions business during the third quarter of 2016 and a decrease in management fees from the real estate business.

Incentive Income (Loss). Incentive income for the segment decreased \$0.3 million to \$26.0 million for the year ended December 31, 2017 compared with \$26.3 million in the prior year period. This decrease was related to a decrease in performance fees from the multi-strategy business offset partially by an increase in performance from the activist business.

Investment Income (Loss). Investment income for the segment increased \$28.4 million to income of \$31.4 million for the year ended December 31, 2017 compared with \$3.0 million in the prior year period. The increase primarily relates to an increase in performance of the Company's own invested capital.

Other Income (Loss). Other income (loss) for the segment decreased \$27.6 million to \$1.6 million for the year ended December 31, 2017 compared with \$29.2 million in the prior year period. The decrease primarily relates to the sale of our interest in the alternative solutions business and the principal owners of Starboard Value exercising their right to acquire a portion of the Company's ownership interest in the activist business in the prior year.

Investment Bank Segment Revenues

Investment Bank Segment Economic Income (Loss) revenues were \$554.9 million for the year ended December 31, 2017, an increase of \$209.8 million compared with Economic Income (Loss) revenues of \$345.1 million in the prior year.

Investment Banking. Investment banking revenues increased \$90.3 million to \$223.6 million for the year ended December 31, 2017 compared with \$133.3 million in the prior year period. During the year ended December 31, 2017, the Company completed 103 underwriting transactions, 16 strategic advisory transactions and two debt capital market transactions.

During the year ended December 31, 2016, the Company completed 76 underwriting transactions, 15 strategic advisory transactions and seven debt capital market transactions. The average underwriting fee per transaction was 33.8% greater for the year ended December 31, 2017 as compared to the prior year period.

Brokerage. Brokerage revenues increased \$105.7 million to \$312.7 million for the year ended December 31, 2017, compared with \$207.0 million in the prior year period. This was attributable to an increase in revenues due to the initiation of the credit trading business in May 2016 and the acquisition of Convergenx Group in June 2017. Customer trading volumes across the industry (according to Bloomberg) decreased 11% for the year ended December 31, 2017 compared to the prior year period.

Investment Income (Loss). Investment income for the segment increased \$12.7 million to \$13.7 million for the year ended December 31, 2017, compared with \$1.0 million in the prior year period.

Other Income (Loss). Other income (loss) for the segment increased \$1.1 million to \$1.7 million for the year ended December 31, 2017, compared with \$0.6 million in the prior year period.

Interest expense

Interest expense increased \$1.7 million to \$18.9 million for the year ended December 31, 2017 compared with \$17.2 million in the prior year period. Interest expense primarily relates to debt issued during 2014 and 2017.

Non-Interest Expenses

Non-interest expenses. Total non-interest expenses increased \$154.0 million to \$625.4 million for the year ended December 31, 2017, compared with \$471.4 million in the prior year period.

Compensation and benefits expenses. Compensation and benefits expenses, included within non-interest expenses, increased \$87.6 million to \$388.0 million for the year ended December 31, 2017 compared with \$300.4 million in the prior year period. The increase is due to \$198.6 million higher revenues during 2017 as compared to 2016 which resulted in a higher compensation and benefits accrual. The compensation to revenue ratio was 58% for the year ended December 31, 2017 compared with 64% in the prior year period.

Non-compensation Expenses—Fixed. Fixed non-compensation expenses, included within non-interest expenses, increased \$21.1 million to \$122.1 million for the year ended December 31, 2017 compared with \$101.0 million in the prior year period. The increase is primarily related to the acquisition of Convergenx Group during June 2017.

The following table shows the components of the non-compensation expenses—fixed, for the year ended December 31, 2017 and 2016:

	Year Ended December 31,		Period-to-Period	
	2017	2016	\$ Change	% Change
	(dollars in thousands)			
Non-compensation expenses—fixed:				
Communications	\$ 23,378	\$ 17,752	\$ 5,626	32 %
Professional, advisory and other fees	20,944	17,280	3,664	21 %
Occupancy and equipment	33,928	29,975	3,953	13 %
Service fees	14,896	7,831	7,065	90 %
Expenses from equity investments	11,156	15,844	(4,688)	(30)%
Other	17,819	12,297	5,522	45 %
Total	\$ 122,121	\$ 100,979	\$ 21,142	21 %

Depreciation and amortization expenses. Depreciation and amortization expenses increased \$0.6 million to \$11.6 million for the year ended December 31, 2017 compared with \$11.0 million in the prior year period.

Non-compensation Expenses—Variable. Variable non-compensation expenses, included within non-interest expenses, which primarily are comprised of expenses which are incurred as a direct result of the processing and soliciting of revenue generating activities, increased \$44.6 million to \$105.8 million for the year ended December 31, 2017 compared with \$61.2 million in the prior year period. The increase is primarily related to higher brokerage and trade execution costs, related to the acquisition of Convergenx Group during June 2017.

The following table shows the components of the non-compensation expenses—variable, for the year ended December 31, 2017 and 2016:

	Year Ended December 31,		Period-to-Period	
	2017	2016	\$ Change	% Change
	(dollars in thousands)			
Non-compensation expenses—Variable:				
Brokerage and trade execution costs	\$ 73,133	\$ 29,432	\$ 43,701	148 %
HealthCare Royalty Partners syndication costs	528	528	—	— %
Expenses related to Luxembourg companies	3,279	2,406	873	36 %
Marketing and business development	27,336	26,163	1,173	4 %
Other	1,510	2,649	(1,139)	(43)%
Total	\$ 105,786	\$ 61,178	\$ 44,608	73 %

Reimbursement from Affiliates. Reimbursements from affiliates, included within non-interest expenses, which relate to the investment management segment decreased \$0.3 million to \$2.0 million for the year ended December 31, 2017 compared to \$2.3 million in the prior year period.

Non-Controlling Interests

Net income (loss) attributable to redeemable non-controlling interests decreased by \$1.7 million to \$6.1 million for the year ended December 31, 2017 compared with \$7.8 million in the prior year period. Non-Controlling interest represents the portion of the net income or loss attributable to certain non-wholly owned subsidiaries that is allocated to our partners in those subsidiaries.

Preferred Stock Dividends

On May 19, 2015, the Company completed its offering of 120,750 shares of the Company's 5.625% Series A cumulative perpetual convertible preferred stock. Each share of the Series A Convertible Preferred Stock is entitled to dividends at a rate of 5.625% per annum. The Company may, at its option, pay dividends in cash, common stock or a combination thereof.

Liquidity and Capital Resources

We continually monitor our liquidity position. The working capital needs of the Company's business have been met through current levels of equity capital, current cash and cash equivalents, and anticipated cash generated from our operating activities, including management fees, incentive income, returns on the Company's own capital, investment banking fees and brokerage commissions. The Company expects that its primary working capital liquidity needs over the next twelve months will be:

- pay our operating expenses, primarily consisting of compensation and benefits, interest on debt and other general and administrative expenses; and
- provide capital to facilitate the growth of our existing business.

Based on our historical results, management's experience, our current business strategy and current assets under management, the Company believes that its existing cash resources will be sufficient to meet its anticipated working capital and capital expenditure requirements for at least the next twelve months. Our cash reserves include cash, cash equivalents and assets readily convertible into cash such as our securities held in inventory. Securities inventories are stated at fair value and are generally readily marketable. As of December 31, 2018, we had cash and cash equivalents of \$259.1 million and net liquid investment assets of \$506.3 million, which includes cash and cash equivalents and short-term investments held by foreign subsidiaries as of December 31, 2018 of \$32.6 million. The Company continues to permanently reinvest the capital and accumulated earnings of its United Kingdom, Canadian and Hong Kong subsidiaries.

The timing of cash bonus payments to our employees may significantly affect our cash position and liquidity from period to period. While our employees are generally paid salaries semi-monthly during the year, cash bonus payments, which can make up a significant portion of total compensation, are generally paid once a year by March 15th.

As a clearing member firm providing services to certain of our brokerage customers, we are subject to cash deposit requirements with clearing organizations, brokers and banks that may be large in relation to total liquid assets and may fluctuate significantly based upon the nature and size of customers' trading activity and market volatility. At December 31, 2018, we had security deposits totaling \$89.4 million with clearing organizations in the U.S. for the settlement of equity trades. In the normal course of our U.S. settlement activities, we may also need to temporarily finance customer securities positions from short settlements or delivery failures.

Unfunded commitments

The following table summarizes unfunded commitments as of December 31, 2018:

Entity	Unfunded Commitments (dollars in millions)	Commitment term
Real estate (a)	\$ 22.6	(a)
HealthCare Royalty Partners funds (b)	4.9	2 years
Eclipse Ventures Fund I, L.P. (formerly Formation8 Partners Hardware Fund I, L.P.)	0.2	6 years
Lagunita Biosciences, LLC	1.0	3 years
Eclipse Fund II, L.P.	0.8	7 years
Eclipse Continuity Fund I, L.P.	0.6	8 years
Cowen Healthcare Investments II LP	6.9	3 years

(a) The Company had unfunded commitments pertaining to capital commitments in five real estate investments held by the Company, all of which pertain to related party investments. Such commitments can be called at any time between two to four years, subject to advance notice.

(b) The Company is a limited partner of the HealthCare Royalty Partners funds (which are managed by Healthcare Royalty Management) and is a member of HealthCare Royalty Partners General Partners. The Company will make its pro-rata investment in the HealthCare Royalty Partners funds along with the other limited partners.

Due to the nature of the securities business and our role as a market-maker and execution agent, the amount of our cash and short-term investments, as well as operating cash flow, may vary considerably due to a number of factors, including the dollar value of our positions as principal, whether we are net buyers or sellers of securities, the dollar volume of executions by our customers and clearing house requirements, among others. Certain regulatory requirements constrain the use of a portion of our liquid assets for financing, investing or operating activities. Similarly, due to the nature of our business lines, the capital necessary to maintain current operations and our current funding needs subject our cash and cash equivalents to different requirements and uses.

Preferred Stock and Purchase of Capped Call Option

On May 19, 2015, the Company completed its offering of 120,750 shares of the Company's 5.625% Series A cumulative perpetual convertible preferred stock ("Series A Convertible Preferred Stock") that provided \$117.2 million of proceeds, net of underwriting fees and issuance costs of \$3.6 million. Each share of the Series A Convertible Preferred Stock is entitled to dividends at a rate of 5.625% per annum which will be payable, when and if declared by the board of directors of the Company, quarterly, in arrears, on February 15, May 15, August 15 and November 15 of each year. The Company may, at its option, pay dividends in cash, common stock or a combination thereof.

Each share of Series A Convertible Preferred Stock is non-voting and has a liquidity preference over the Company's Class A common stock and ranks senior to all classes or series of the Company's Class A common stock, but junior to all of the Company's existing and future indebtedness with respect to divided rights and rights upon the Company's involuntary liquidation, dissolution or winding down.

Each share of Series A Convertible Preferred Stock is convertible, at the option of the holder, into a number of shares of our Class A common stock equal to the liquidation preference of \$1,000 divided by the conversion rate. The initial conversion rate (subsequent to the December 5, 2016 reverse stock split) is 38.0619 shares (which equates to \$26.27 per share) of the Company's Class A common stock for each share of the Series A Convertible Preferred Stock. At any time on or after May 20, 2020, the Company may elect to convert all outstanding shares of the Series A Convertible Preferred Stock into shares of the Company's Class A common stock, cash or a combination thereof, at the Company's election, in each case, based on the then-applicable conversion rate, if the last reported sale price of the Company's Class A common stock equals or exceeds 150% of the then-current conversion price on at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days (including on the last trading day of such period) immediately prior to such election. At the time of conversion, the conversion rate may be adjusted based on certain events including but not limited to the issuance of cash dividends or Class A common stock as dividends to the Company's Class A common shareholders or a share split or combination.

In connection with the issuance and sale of the Series A Convertible Preferred Stock, the Company entered into a capped call option transaction (the "Capped Call Option Transaction") with Nomura Global Financial Products Inc. (the "option counterparty") for \$15.9 million. The Capped Call Option Transaction is expected generally to reduce the potential dilution to the Company's Class A common stock (if the Company elects to convert to common shares) and/or offset any cash payments that the Company is required to make upon conversion of any Series A Convertible Preferred Stock. The Capped Call Option Transaction has an initial effective strike price of \$26.27 per share, which matches the initial conversion price of the Series A

Convertible Preferred Stock, and a cap price of \$33.54 per share. However, to the extent that the market price of Class A common stock, as measured under the terms of the Capped Call Option Transaction, exceeds the cap price thereof, there would nevertheless be dilution and/or such cash payments would not be offset. As the Capped Call Option Transaction is a free standing derivative that is indexed to the Company's own stock price and the Company controls if it is settled in cash or stock it qualifies for equity classification as a reduction to additional paid in capital.

The Company may also incur additional indebtedness or raise additional capital under certain circumstances to respond to market opportunities and challenges. Current market conditions may make it more difficult or costly to borrow additional funds or raise additional capital.

Regulation

As registered broker-dealers, Cowen and Company, Cowen Execution, ATM Execution, Cowen Prime and Westminster are subject to the SEC's Uniform Net Capital Rule 15c3-1 ("SEC Rule 15c3-1"), which requires the maintenance of minimum net capital. Each registered broker-dealer has elected to compute net capital under the alternative method permitted by the Rule. Under the alternative method, Cowen and Company's minimum net capital requirement, as defined in (a)(4) of the Rule, is \$1.0 million. Cowen Execution, ATM Execution, Cowen Prime and Westminster are required to maintain minimum net capital, as defined in (a)(1)(ii) of the Rule, equal to the greater of \$250,000 or 2% of aggregate debits arising from customer transactions. Advances to affiliates, repayment of borrowings, distributions, dividend payments and other equity withdrawals are subject to certain notification and other requirements of the Rule and other regulatory bodies.

Cowen Prime is also subject to Commodity Futures Trading Commission Regulation 1.17 ("Regulation 1.17"). Regulation 1.17 requires net capital equal to or in excess of \$45,000 or the amount of net capital required by SEC Rule 15c3-1, whichever is greater. Cowen Execution is also subject to Options Clearing Corporation ("OCC") Rule 302. OCC Rule 302 requires maintenance of net capital equal to the greater of \$2,000,000 or 2% of aggregate debit items. At December 31, 2018, Cowen Execution had \$110.4 million of net capital in excess of this minimum requirement.

Cowen International Ltd and Cowen Execution Ltd are subject to the capital requirements of the FCA, as defined, must exceed the minimum capital requirement set forth by the FCA. Effective June 1, 2018, the FCA approved Ramius UK's application to cancel all of its FCA authorization permissions. Accordingly, Ramius UK is no longer an FCA regulated and authorized firm. Ramius UK sought the cancellation. Effective December 20, 2018, Cowen Execution Ltd was formally approved to trade in a principal capacity conditional upon the completion, and communication to the Wholesale Supervision, of the implementation of its order management system.

As of December 31, 2018, these regulated broker-dealers had regulatory net capital or financial resources, regulatory net capital requirements or minimum FCA requirement and excess as follows:

Subsidiary	Net Capital	Net Capital Requirement	Excess Net Capital
		(dollars in millions)	
Cowen and Company	\$ 91.9	\$ 1.0	\$ 90.9
Cowen Execution	\$ 112.7	\$ 2.3	\$ 110.4
ATM Execution	\$ 3.1	\$ 0.3	\$ 2.8
Cowen Prime	\$ 8.7	\$ 0.3	\$ 8.4
Westminster	\$ 14.5	\$ 0.3	\$ 14.2
Cowen International Ltd	\$ 12.9	\$ 9.9	\$ 3.0
Cowen Execution Ltd	\$ 4.9	\$ 3.2	\$ 1.7

The Company's U.S. broker-dealers must also comply with SEC's Customer Protection Rule ("SEC Rule 15c3-3") or claim an exemption pursuant to subparagraphs (k)(2)(i) (the "(k)(2)(i) exemption") or (k)(2)(ii) (the "(k)(2)(ii) exemption") of that rule. Firms can rely on more than one exemption. Cowen and Company, Cowen Prime, Cowen Execution and ATM Execution claim the (k)(2)(ii) exemption with regards to some or all of their customer accounts and transactions that are introduced on a fully-disclosed basis to their clearing agents for clearing, settlement and custody. Cowen and Company, Cowen Prime and Westminster claim the (k)(2)(i) exemption with regards to customer transactions and balances that are cleared, settled and custodied in bank accounts designated as Special Accounts for the Exclusive Benefit of Customers ("Special Bank Account").

In accordance with the requirements of SEC Rule 15c3-3, Cowen Execution may be required to deposit in a Special Reserve Account cash or acceptable qualified securities for the exclusive benefit of customers. As of December 31, 2018, Cowen Execution had segregated approximately \$16.1 million of cash, while its required deposit was \$6.8 million.

As a clearing broker-dealer, Cowen Execution is required to compute a reserve requirement for proprietary accounts of broker-dealers ("PAB accounts"), as defined in SEC Rule 15c3-3. Cowen Execution conducts PAB reserve computations in order

to determine the amount it is required to deposit in its PAB Reserve Bank Accounts pursuant to SEC Rule 15c3-3. This allows each correspondent firm that uses Cowen Execution as its clearing broker-dealer to classify its PAB account assets held at Cowen Execution as allowable assets in the correspondent's net capital calculation. At December 31, 2018, Cowen Execution had \$17.5 million of cash on deposit in PAB Reserve Bank Accounts, which was more than its required deposit of \$4.2 million.

Cowen and Company, ATM Execution, Cowen Prime and Cowen Execution also maintain certain assets in PAB accounts held at their respective clearing brokers. Each treats its assets held in those PAB accounts at the respective clearing brokers as allowable assets for net capital purposes.

Cowen's Luxembourg reinsurance companies, Vianden RCG Re SCA and Hollenfels, individually and their Luxembourg parent holding company, Ramius Enterprise Luxembourg Holdco S.à r.l., on a combined basis with the reinsurance companies, are required to maintain a solvency capital ratio as calculated by relevant European Commission directives and local regulatory rules in Luxembourg. Each reinsurance company's individual solvency capital ratio as well as the combined solvency capital ratio of the holding and reinsurance companies as of December 31, 2018 were in excess of this minimum requirement.

Based on minimum capital and surplus requirements pursuant to the laws of the state of New York that apply to captive insurance companies, RCG Insurance Company, Cowen's captive insurance company incorporated and licensed in the state of New York, was required to maintain capital and surplus of approximately \$0.3 million as of December 31, 2018. RCG Insurance Company's capital and surplus as of December 31, 2018 totaled approximately \$32.5 million.

Cash Flows Analysis

The Company's primary sources of cash are derived from its operating activities, fees and realized returns on its own invested capital. The Company's primary uses of cash include compensation and general and administrative expenses.

Operating Activities. Net cash provided by operating activities of \$324.5 million for the year ended December 31, 2018 was primarily related to the (i) proceeds from sales of other investments in consolidated funds (ii) proceeds from sales of securities owned, at fair value, (iii) increase in payable to customers offset by decrease in receivable from brokers, dealers and clearing organizations and purchases of securities owned, at fair value. Net cash provided by operating activities of \$3.4 million for the year ended December 31, 2017 was primarily related to purchases of securities owned, at fair value and decrease in securities borrowed partially offset by proceeds from sales of securities owned, at fair value. Net cash used in operating activities of \$351.5 million for the year ended December 31, 2016 was primarily related to purchases of other investments and cash used to pay for year end bonuses.

Investing Activities. Net cash used in investing activities of \$17.9 million for the year ended December 31, 2018 was primarily related to purchases of other investments partially offset by proceeds from sales of other investments. Net cash used in investing activities of \$2.4 million for the year ended December 31, 2017 was primarily related to the purchase of Convergenx Group, loans issued and purchases of other investments offset partially by sales of other investments and fixed assets. Net cash provided by investing activities of \$58.5 million for the year ended December 31, 2016 was primarily related to repayment of certain loans made for investing purposes and sales of other investments offset partially by the purchases of other investments and fixed assets.

Financing Activities. Net cash provided by financing activities for the year ended December 31, 2018 of \$128.7 million was primarily related to capital withdrawal to non-controlling interests in Consolidating Funds offset partially contributions from noncontrolling interests in Consolidated Funds. Net cash provided by financing activities for the year ended December 31, 2017 of \$137.9 million was primarily related to proceeds from the issuance of convertible debt, borrowings on notes and other debt and contributions from non-controlling interests in Consolidated Funds offset partially by repayments on convertible debt, notes and other debt, withdrawals from non-controlling interests in Consolidated Funds and purchase of treasury stock. Net cash provided by financing activities for the year ended December 31, 2016 of \$249.8 million was primarily related to contributions from noncontrolling interests in Consolidated Funds.

Debt

Convertible Debt

2022 Convertible Notes

The Company, on December 14, 2017, issued \$135.0 million aggregate principal amount of 3.00% convertible senior notes due 2022 (the "2022 Convertible Notes"). The 2022 Convertible Notes are due on December 15, 2022 unless earlier repurchased by the Company or converted by the holder in accordance with their terms prior to such date. The interest on the 2022 Convertible Notes is payable semi-annually on December 15 and June 15 of each year. The 2022 Convertible Notes are senior unsecured obligations of Cowen. The 2022 Convertible Notes may be converted into cash or shares of Class A common stock at the Company's election based on the current conversion price. The 2022 Convertible Notes were issued with an initial conversion price of \$17.375 per share of Cowen's Class A common stock.

The Company used the net proceeds, together with cash on hand, from the offering for general corporate purposes, including the repurchase or repayment of \$115.1 million of the Company's outstanding 3.0% cash convertible senior notes due 2019 (the "2019 Convertible Notes") and the repurchase of approximately \$19.5 million of the Company's shares of its Class A common stock, which were consummated substantially concurrently with the closing of the offering. As of December 31, 2018, the outstanding principal amount of the 2022 Convertible Notes was \$135 million. On June 26, 2018, the Company received shareholder approval for the Company to settle the 2022 Convertible Note entirely in class A common shares. Upon receiving shareholder approval, the Company reclassified the separately recognized conversion option from a derivative liability to equity.

The Company recorded interest expense of \$4.1 million and \$0.2 million for the years ended December 31, 2018 and 2017, respectively. The Company recognized the embedded cash conversion option at issuance date fair value, which also represents the initial unamortized discount on the 2022 Convertible Notes of \$23.4 million and is shown net in convertible debt in the accompanying consolidated statements of financial condition. Amortization on the discount, included within interest and dividends expense in the accompanying consolidated statements of operations is \$4.0 million and \$0.2 million for the years ended December 31, 2018 and 2017, respectively, based on an effective interest rate of 7.57%. The Company capitalized the debt issuance costs in the amount of \$2.2 million, which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2022 Convertible Notes.

2019 Convertible Notes

On March 10, 2014, the Company issued \$149.5 million of 3.0% cash convertible senior notes (the "2019 Convertible Notes"). The 2019 Convertible Notes are due on March 15, 2019 unless earlier repurchased by the Company or converted by the holder into cash in accordance with their terms prior to such date. The interest on the 2019 Convertible Notes is payable semi-annually on March 15 and September 15 of each year. The 2019 Convertible Notes are senior unsecured obligations of the Company. The 2019 Convertible Notes may be converted into cash, upon the occurrence of certain events, whereby a holder will receive, per \$1,000 principal amount of notes being converted, an amount equal to the sum of principal amount outstanding and the conversion amount based on the current conversion price (the "Conversion Option"). The 2019 Convertible Notes were issued with an initial conversion price of \$21.32 per share (per share amounts have been retroactively updated to reflect the one-for-four reverse stock split effective as of December 5, 2016). During December 2017, the Company repurchased and extinguished \$115.1 million of the outstanding principal amount of the 2019 Convertible Notes. During June 2018, the Company repurchased and extinguished an additional \$13.5 million of the outstanding principal amount of the 2019 Convertible Notes. As of December 31, 2018, the outstanding principal amount of the 2019 Convertible Notes was \$20.8 million.

The Company recorded interest expense of \$1.1 million, \$4.3 million, and \$4.5 million for the years ended December 31, 2018, 2017, and 2016, respectively. The initial unamortized discount on the 2019 Convertible Notes was \$35.7 million and is shown net in convertible debt in the accompanying consolidated statements of financial condition. Amortization on the discount, included within interest and dividends expense in the accompanying consolidated statements of operations is \$1.5 million, \$7.3 million, and \$6.9 million for the years ended December 31, 2018, 2017, and 2016, respectively, based on an effective interest rate of 8.89%. Upon issuance of the 2019 Convertible Notes, the Company capitalized the debt issuance costs in the amount of \$3.7 million, which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2019 Convertible Notes. In conjunction with the partial extinguishment of the 2019 Convertible Notes, the Company accelerated the pro-rata unamortized discount and capitalized debt issuance costs. During the years ended December 31, 2018 and 2017, the Company recognized \$0.6 million and \$10.5 million, respectively, of loss on debt extinguishment.

Of the net proceeds from the sale of the 2019 Convertible Notes, approximately \$20.5 million was applied to pay the net cost of a cash convertible note economic hedge and warrant transaction, which increased the effective conversion price to \$28.72 (see Note 6) (per share amounts have been retroactively updated to reflect the one-for-four reverse stock split effective as of December 5, 2016), and approximately \$0.3 million was applied to repurchase shares of Cowen Class A common stock. The remainder of the net proceeds is being used for general corporate purposes.

Notes Payable

2033 Notes

On June 11, 2018, the Company completed its public offering of \$90.0 million of 7.75% senior notes due 2033 (the "2033 Notes") and subsequently the underwriters exercised in full their option to purchase an additional \$10.0 million principal amount of the 2033 Notes. Interest on the 2033 Notes is payable quarterly in arrears on March 15, June 15, September 15 and December 15. The Company recorded interest expense of \$4.3 million for the years ended December 31, 2018. The Company capitalized debt issuance costs of approximately \$3.6 million which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2033 Notes.

2027 Notes

On December 8, 2017, the Company completed its public offering of \$120.0 million of 7.35% senior notes due 2027 (the "2027 Notes") and subsequently the underwriters exercised in full their option to purchase an additional \$18.0 million principal amount of the 2027 Notes. Interest on the 2027 Notes is payable quarterly in arrears on March 15, June 15, September 15 and December 15. The Company recorded interest expense of \$10.1 million and \$0.6 million for the years ended December 31, 2018 and 2017, respectively. The Company capitalized debt issuance costs of approximately \$5.0 million which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2027 Notes. The net proceeds of the offering, after deducting the underwriting discount and estimated offering expenses payable by the Company were used to redeem all of its 8.25% senior notes due 2021 (the "2021 Notes") and for general corporate purposes.

2021 Notes

The Company redeemed the Company's outstanding \$63.25 million principal amount of the 2021 Notes, following which the 2021 Notes were delisted from NASDAQ. The redemption was made pursuant to the terms of the 2021 Notes and the indenture governing the 2021 Notes. The redemption price for the 2021 Notes was equal to 106.188% of the principal amount of the 2021 Notes plus accrued and unpaid interest. The Company recorded interest expense of \$5.3 million and \$5.2 million for the years ended December 31, 2017 and 2016, respectively. In conjunction with the extinguishment of the 2021 Notes, the Company expensed the unamortized capitalized debt issuance costs. For the period ended December 31, 2017, the Company recognized \$5.6 million of loss on debt extinguishment, which was recorded in gain/(loss) on debt extinguishment in the accompanying consolidated statements of operation.

Term Loan

On June 30, 2017, the Company borrowed \$28.2 million to fund general corporate purposes. This term loan has an effective interest rate of LIBOR plus 3.75% with a lump sum payment of the entire principal amount due on June 28, 2019. The loan is secured by the value of the Company's limited partnership interests in two affiliated investment funds. The Company has provided a guarantee for this loan. The Company recorded interest expense of \$1.6 million and \$0.7 million for the years ended December 31, 2018 and 2017, respectively.

Other Notes Payable

During January 2018, the Company borrowed \$2.0 million to fund insurance premium payments. This note had an effective interest rate of 2.01% and was due on December 31, 2018, with monthly payment requirements of \$0.2 million. As of December 31, 2018, the note was fully repaid. Interest expense for the year ended December 31, 2018 was insignificant.

During January 2017, the Company borrowed \$2.1 million to fund insurance premium payments. This note had an effective interest rate of 1.50% and was due on December 31, 2017, with monthly payment requirements of \$0.2 million. As of December 31, 2017, the note was fully repaid. Interest expense for the year ended December 31, 2017 was insignificant.

In 2016, the Company entered into various financing for its aircraft. The aircraft financing, net of debt costs, was recorded in notes payable and other debt in the accompanying consolidated statements of financial condition. The debt maturities ranged from January 2019 to April 2021 and interest rates ranged from 4.21% to 7.25%. As of December 31, 2018 the financing for all the aircraft was fully repaid. As of December 31, 2017, the remaining balance on the aircraft financing agreements was \$8.2 million. Interest expense was \$0.4 million, \$0.7 million, and \$0.8 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Capital Lease Obligations

The Company has entered into various capital leases for computer equipment, which amounted to \$10.1 million and is recorded in fixed assets as capital lease obligations. These capital lease obligations are included in notes payable and other debt in the accompanying consolidated statements of financial condition, and have lease terms that range from 55 to 60 months and interest rates that range from 3.70% to 5.69%. As of December 31, 2018, the remaining balance on these capital leases was \$5.0 million. Interest expense was \$0.2 million, \$0.1 million, and \$0.1 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Letters of Credit

As of December 31, 2018, the Company has the following seven irrevocable letters of credit, related to leased office space, for which there is cash collateral pledged, which the Company pays a fee on the stated amount of the letter of credit. The Company also has pledged collateral for reinsurance agreements which amounted to \$1.0 million, as of December 31, 2018, and \$11.8 million, as of December 31, 2017, which is anticipated to be due March 2021.

Location	Amount	Maturity
(dollars in thousands)		
Boston	\$ 388	March 2019
New York	\$ 357	April 2019
New York	\$ 71	May 2019
New York	\$ 497	October 2019
New York	\$ 1,687	October 2019
New York	\$ 1,605	November 2019
San Francisco	\$ 717	January 2020

To the extent any letter of credit is drawn upon, interest will be assessed at the prime commercial lending rate. As of December 31, 2018 and 2017, there were no amounts due related to these letters of credit.

Contractual Obligations

The following tables summarize the Company's contractual cash obligations as of December 31, 2018:

	Total	< 1 Year	1-3 Years	3-5 Years	More Than 5 Years
(dollars in thousands)					
Equipment, Aircraft, Service and Facility Leases					
Real Estate and Other Facility Rental	\$ 126,361	\$ 24,584	\$ 44,929	\$ 35,370	\$ 21,478
Service Payments	33,991	21,758	9,391	2,107	735
Equipment Leases	6,070	1,699	2,874	1,497	—
Aircraft Lease	735	735	—	—	—
Total	167,157	48,776	57,194	38,974	22,213
Debt					
Convertible Debt	172,242	25,092	8,100	139,050	—
Notes Payable	441,662	17,893	35,786	35,786	352,197
Term Loan	29,089	29,089	—	—	—
Total	\$ 642,993	\$ 72,074	\$ 43,886	\$ 174,836	\$ 352,197

Clawback obligations

For financial reporting purposes, the general partners of a real estate fund have recorded a liability for potential clawback obligations to the limited partners, due to changes in the unrealized value of the real estate fund's remaining investments and where the real estate fund's general partner has previously received carried interest distributions.

The clawback liability, however, is not realized until the end of the real estate fund's life. The real estate fund is currently in a winding-up phase whereby the remaining assets of the real estate fund are being liquidated as promptly as possible so as to maximize value. However a final date for liquidation has not been set.

The clawback obligations for the real estate fund were \$6.5 million and \$6.2 million at December 31, 2018 and 2017 (see Note 6 to the Company's consolidated financial statements).

Minimum payments for all debt outstanding

Annual scheduled maturities of debt and minimum payments for all debt outstanding as of December 31, 2018, are as follows:

	Convertible Debt	Notes Payable	Term Loan	Capital Lease Obligation
	(dollars in thousands)			
2019	\$ 25,092	\$ 17,893	\$ 29,089	\$ 1,355
2020	4,050	17,893	—	1,358
2021	4,050	17,893	—	1,358
2022	139,050	17,893	—	1,127
2023	—	17,893	—	374
Thereafter	—	352,197	—	—
Subtotal	172,242	441,662	29,089	5,572
Less (a)	(37,753)	(211,922)	(889)	(547)
Total	<u>\$ 134,489</u>	<u>\$ 229,740</u>	<u>\$ 28,200</u>	<u>\$ 5,025</u>

- (a) Amount necessary to reduce net minimum payments to present value calculated at the Company's implicit rate at inception. This amount also includes capitalized debt costs and the unamortized discount on the convertible debt.

Off-Balance Sheet Arrangements

We have no material off-balance sheet arrangements as of December 31, 2018. However, through indemnification provisions in our clearing agreements, customer activities may expose us to off-balance-sheet credit risk. Pursuant to the clearing agreements, we are required to reimburse our clearing broker, without limit, for any losses incurred due to a counterparty's failure to satisfy its contractual obligations. However, these transactions are collateralized by the underlying security, thereby reducing the associated risk to changes in the market value of the security through the settlement date.

Cowen and Company, Cowen Prime, Cowen Execution and ATM Execution are members of various securities exchanges and clearing organizations. Under the standard membership agreement, members are required to guarantee the performance of other members and, accordingly, if another member becomes unable to satisfy its obligations to the various securities exchanges and clearing organizations, all other members would be required to meet the shortfall. The Company's liability under these arrangements is not quantifiable. Accordingly, no contingent liability is carried in the accompanying consolidated statements of financial condition for these arrangements.

Critical Accounting Policies and Estimates

Critical accounting policies are those that require the Company to make significant judgments, estimates or assumptions that affect amounts reported in its consolidated financial statements or the notes thereto. The Company bases its judgments, estimates and assumptions on current facts, historical experience and various other factors that the Company believes to be reasonable and prudent. Actual results may differ materially from these estimates.

The following is a summary of what the Company believes to be its most critical accounting policies and estimates.

Consolidation

These consolidated financial statements include the accounts of the Company, its subsidiaries, and entities in which the Company has a controlling financial interest, including the Consolidated Funds, in which the Company has a controlling general partner interest. All material intercompany transactions and balances have been eliminated in consolidation. The Company's investment funds are not subject to these consolidation provisions with respect to their investments pursuant to their specialized accounting.

The Company's consolidated financial statements reflect the assets, liabilities, revenues, expenses and cash flows of the Consolidated Funds on a gross basis. The management fees and incentive income earned by the Company from the Consolidated Funds were eliminated in consolidation; however, the Company's allocated share of net income from these investment funds was increased by the amount of this eliminated income. Hence, the consolidation of these investment funds had no net effect on the Company's net earnings.

The Company consolidates all entities that it controls through a majority voting interest or otherwise, including those investment funds in which the Company either directly or indirectly has a controlling financial interest. In addition, the Company consolidates all variable interest entities for which it is the primary beneficiary.

In accordance with these standards, the Company consolidates four investment funds for which it acts as the general partner and investment manager. As of December 31, 2018, the Company consolidated the following investment funds: Ramius Enterprise LP ("Enterprise LP"), Ramius Merger Fund LLC (the "Merger Fund"), Cowen Private Investments LP ("Cowen

Private"), and Ramius Merger Arbitrage UCITS Fund ("UCITS Fund") (each a "Consolidated Fund" and collectively the "Consolidated Funds").

The Company determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting operating entity ("VOE") or a variable interest entity ("VIE") under US GAAP.

Voting Operating Entities—VOEs are entities in which (i) the total equity investment at risk is sufficient to enable the entity to finance its activities independently and (ii) the equity holders at risk have the obligation to absorb losses, the right to receive residual returns and the right to direct the activities of the entity that most significantly impact the entity's economic performance.

Under US GAAP, the usual condition for a controlling financial interest in a VOE is ownership of a majority voting interest. Accordingly, the Company consolidates all VOEs in which it owns a majority of the entity's voting shares or units.

Variable Interest Entities—VIEs are entities that lack one or more of the characteristics of a VOE. In accordance with US GAAP, an enterprise must consolidate all VIEs of which it is the primary beneficiary. Under the US GAAP consolidation model for VIEs, an enterprise that (1) has the power to direct the activities of a VIE that most significantly impacts the VIE's economic performance, and (2) has an obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE, is considered to be the primary beneficiary of the VIE and thus is required to consolidate it.

The Company reconsiders whether it is the primary beneficiary of a VIE by performing a periodic qualitative and/or quantitative analysis of the VIE that includes a review of, among other things, its capital structure, contractual agreements between the Company and the VIE, the economic interests that create or absorb variability, related party relationships and the design of the VIE.

In the ordinary course of business, the Company also sponsors various other entities that it has determined to be VIEs. These VIEs are primarily investment funds for which the Company serves as the general partner, managing member and/or investment manager with decision-making rights.

The Company does not consolidate certain funds that are VIEs as it has concluded that it is not the primary beneficiary in each instance. Investment fund investors are entitled to all of their economics of these VIEs with the exception of the management fee and incentive income, if any, earned by the Company. The company has equity interests in the funds as both GP and Limited partner. In these instances the Company has concluded that the variable interests are not potentially significant to the VIE. Although the Company may advance amounts and pay certain expenses on behalf of the investment funds that it considers to be VIEs, it does not provide, nor is it required to provide, any type of substantive financial support to these entities outside of regular investment management services.

Equity Method Investments—For operating entities over which the Company exercises significant influence but which do not meet the requirements for consolidation as outlined above, the Company uses the equity method of accounting. The Company's investments in equity method investees are recorded in other investments in the accompanying consolidated statements of financial condition. The Company's share of earnings or losses from equity method investees is included in net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations.

The Company evaluates its equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable. The difference between the carrying value of the equity method investment and its estimated fair value is recognized as an impairment charge when the loss in value is deemed other than temporary.

Other—If the Company does not consolidate an entity or apply the equity method of accounting, the Company accounts for such entities (primarily, all securities of such entity which are bought and held principally for the purpose of selling them in the near term as trading securities) in accordance with US GAAP, at fair value with unrealized gains (losses) resulting from changes in fair value reflected within net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations.

Retention of Specialized Accounting—The Consolidated Funds and certain other consolidated companies are investment companies and apply specialized industry accounting for investment companies. The Company has retained this specialized accounting for these investment funds pursuant to US GAAP. The Company reports its investments on the consolidated statements of financial condition at their estimated fair value, with unrealized gains (losses) resulting from changes in fair value reflected within net realized and unrealized gains (losses) on investments and other transactions. Accordingly, the accompanying consolidated financial statements reflect different accounting policies for investments depending on whether or not they are held through a consolidated investment company. In addition, the Company's broker-dealer subsidiaries apply the specialized industry accounting for brokers and dealers in securities also prescribed under US GAAP. The Company also retains specialized accounting upon consolidation.

Valuation of investments and derivative contracts

US GAAP 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 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy are as follows:

- Level 1 Inputs that reflect unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date;
- Level 2 Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly, including inputs in markets that are not considered to be active; and
- Level 3 Fair value is determined based on pricing inputs that are unobservable and includes situations where there is little, if any, market activity for the asset or liability. The determination of fair value for assets and liabilities in this category requires significant management judgment or estimation.

Inputs are used in applying the various valuation techniques and broadly refer to the assumptions that market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, specific and broad credit data, liquidity statistics, and other factors. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. However, the determination of what constitutes "observable" requires significant judgment by the Company. The Company considers observable data to be that market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant market. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of the instrument and does not necessarily correspond to the Company's perceived risk of that instrument. For additional information regarding the use of unobservable inputs to fair value assets and liabilities see Note 7 in the accompanying consolidated Financial Statement in Part 1 Item 1.

The Company and its operating subsidiaries act as the manager for the Consolidated Funds. Both the Company and the Consolidated Funds hold certain investments which are valued by the Company, acting as the investment manager. The fair value of these investments is generally estimated based on proprietary models developed by the Company, which include discounted cash flow analysis, public market comparables, and other techniques and may be based, at least in part, on independently sourced market information. The material estimates and assumptions used in these models include the timing and expected amount of cash flows, the appropriateness of discount rates used, and, in some cases, the ability to execute, timing of, and estimated proceeds from expected financings. Significant judgment and estimation goes into the selection of an appropriate valuation methodology as well as the assumptions used in these models, and the timing and actual values realized with respect to investments could be materially different from values derived based on the use of those estimates. The valuation methodologies applied impact the reported value of the Company's investments and the investments held by the Consolidated Funds in the consolidated financial statements. Certain of the Company's investments are relatively illiquid or thinly traded and may not be immediately liquidated on demand if needed. Fair values assigned to these investments may differ significantly from the fair values that would have been used had a ready market for the investments existed and such differences could be material.

The Company primarily uses the "market approach" to value its financial instruments measured at fair value. In determining an instrument's level within the hierarchy, the Company categorizes the Company's financial instruments into three categories: securities, derivative contracts and other investments. To the extent applicable, each of these categories can further be divided between those held long or sold short.

The Company has the option to measure certain financial assets and financial liabilities at fair value with changes in fair value recognized in earnings each period. The election is made 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 Company has elected the fair value option for certain of its investments held by its operating companies. This option has been elected because the Company believes that it is consistent with the manner in which the business is managed, as well as the way that financial instruments in other parts of the business are recorded.

Securities— Securities with values based on quoted market prices in active markets for identical assets are classified within level 1 of the fair value hierarchy. These securities include active listed equities, certain U.S. government and sovereign obligations, Exchange Traded Funds ("ETFs"), mutual funds and certain money market securities. The Company does not adjust the quoted price for such instruments, even in situations where the Company holds a large position and a sale could reasonably impact the quoted price.

Certain positions for which trading activity may not be readily visible, consisting primarily of convertible debt, corporate debt and loans and restricted equities, are stated at fair value and classified within level 2 of the fair value hierarchy. The

estimated fair values assigned by management are determined in good faith and are based on available information considering trading activity, broker quotes, quotations provided by published pricing services, counterparties and other market participants, and pricing models using quoted inputs, and do not necessarily represent the amounts which might ultimately be realized. As level 2 investments include positions that are not always traded in active markets and/or are subject to transfer restrictions, valuations may be adjusted to reflect illiquidity and/or non-transferability.

Derivative contracts—Derivative contracts can be exchange-traded or privately negotiated over-the-counter (“OTC”). Exchange-traded derivatives, such as futures contracts and exchange-traded option contracts, are typically classified within level 1 or level 2 of the fair value hierarchy depending on whether or not they are deemed to be actively traded. OTC derivatives, such as generic forwards, swaps and options, have inputs which can generally be corroborated by market data and are therefore classified within level 2. OTC derivatives, such as swaps and options where market data is not readily available or observable are classified as level 3.

Other investments—Other investments consist primarily of investment funds, real estate investments and equity method investments, which are valued as follows:

- i. **Portfolio funds**—Portfolio funds (“Portfolio Funds”) include interests in private investment partnerships, foreign investment companies and other collective investment vehicles which may be managed by the Company or its affiliates. The Company follows US GAAP regarding fair value measurements and disclosures relating to investments in certain entities that calculate net asset value (“NAV”) per share (or its equivalent). The guidance permits, as a practical expedient, an entity holding investments in certain entities that either are investment companies as defined by the American Institute of Certified Public Accountants (“AICPA”) Audit and Accounting Guide, Investment Companies, or have attributes similar to an investment company, and calculate net asset value per share or its equivalent for which the fair value is not readily determinable, to measure the fair value of such investments on the basis of that NAV per share, or its equivalent, without adjustment. In accordance with US GAAP, investments which are valued using NAV per share as a practical expedient are not categorized within the fair value hierarchy.
- ii. **Real estate investments**—Real estate debt and equity investments are valued at fair value. The fair value of real estate investments are estimated based on the price that would be received to sell an asset in an orderly transaction between marketplace participants at the measurement date. Real estate investments without a public market are valued based on assumptions and valuation techniques used by the Company. Such valuation techniques may include discounted cash flow analysis, prevailing market capitalization rates or earnings multiples applied to earnings from the investment, analysis of recent comparable sales transactions, actual sale negotiations and bona fide purchase offers received from third parties, consideration of the amount that currently would be required to replace the asset, as adjusted for obsolescence, as well as independent external appraisals. In general, the Company considers several valuation techniques when measuring the fair value of a real estate investment. However, in certain circumstances, a single valuation technique may be appropriate. Real estate investments are reviewed on a quarterly basis by the Company for significant changes at the property level or a significant change in the overall market which would impact the value of the real estate investment resulting in unrealized appreciation or depreciation.

Real estate and capital markets are cyclical in nature. Property and investment values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. In addition, the Company invests in real estate and real estate related investments for which no liquid market exists. The market prices for such investments may be volatile and may not be readily ascertainable. Amounts ultimately realized by the Company from investments sold may differ from the fair values presented, and the differences could be material.

The Company's real estate investments are typically categorized as level 3 investments within the fair value hierarchy as management uses significant unobservable inputs in determining their estimated fair value.

Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price consideration of acquired companies over the estimated fair value assigned to the individual assets acquired and liabilities assumed. Goodwill is allocated to the Company's reporting units at the date the goodwill is initially recorded. Once goodwill has been allocated to the reporting units, it generally no longer retains its identification with a particular acquisition, but instead becomes identifiable with the reporting unit. As a result, all of the fair value of each reporting unit is available to support the value of goodwill allocated to the unit.

In accordance with US GAAP, the Company tests goodwill for impairment on an annual basis or at an interim period if events or changed circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. In testing for goodwill impairment, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances led to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events and circumstances, the Company concludes that fair value

exceeds its carrying amount, then performing the two-step impairment test is not necessary. If the Company concludes otherwise, the Company is required to perform the two-step quantitative impairment test. The first step requires a comparison of the fair value of the reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit exceeds its carrying value, the related goodwill is not considered impaired and no further analysis is required. If the carrying value of the reporting unit exceeds the fair value, there is an indication that the related goodwill might be impaired and the second step is performed to measure the amount of impairment, if any.

The second step of the goodwill impairment test compares the implied fair value of the reporting unit's goodwill with its carrying amount to measure the amount of impairment, if any. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. In other words, the estimated fair value of the reporting unit is allocated to all of its assets and liabilities (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit was the purchase price paid. If the carrying amount of the reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment is recognized in an amount equal to that excess. Goodwill impairment tests involve 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 (earning and or transactions multiples) and/or 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.

Intangible assets with finite lives are amortized over their estimated average useful lives. The Company does not have any intangible assets deemed to have indefinite lives. Intangible assets are tested for potential impairment whenever events or changes in circumstances suggest that an asset or asset group's carrying value may not be fully recoverable. An impairment loss, calculated as the difference between the estimated fair value and the carrying value of an asset or asset group, is recognized in the consolidated statements of operations if the sum of the estimated discounted cash flows relating to the asset or asset group is less than the corresponding carrying value.

Income taxes

The Company accounts for income taxes in accordance with US GAAP which requires the recognition of tax benefits or expenses based on the estimated future tax effects of temporary differences between the financial statement and tax basis of its assets and liabilities. The effect on deferred taxes of a change in tax rates is recognized as income or loss in the period that includes the enactment date. Valuation allowances are established to reduce deferred tax assets to an amount that is more likely than not to be realized. We evaluate our deferred tax assets for recoverability considering negative and positive evidence, including our historical financial performance, projections of future taxable income, future reversals of existing taxable temporary differences, and tax planning strategies. We record a valuation allowance against our deferred tax assets to bring them to a level that it is more likely than not to be utilized. In evaluating the need for a valuation allowance, we estimate future taxable income based on management approved business plans. This process involves significant management judgment about assumptions that are subject to change from period to period. Because the recognition of deferred tax assets requires management to make significant judgments about future earnings, the periods in which items will impact taxable income and the application of inherently complex tax laws, we have identified the assessment of deferred tax assets and the need for any related valuation allowance as a critical accounting estimate.

Legal Reserves

The Company estimates potential losses that may arise out of legal and regulatory proceedings and records a reserve and takes a charge to income when losses with respect to such matters are deemed probable and can be reasonably estimated, in accordance with US GAAP. These amounts are reported in other expenses, net of recoveries, in the consolidated statements of operations. See Note 22 "Commitments and Contingencies" in our accompanying consolidated financial statements for the year ended December 31, 2018 for further discussion.

Recently adopted and future adoption of accounting pronouncements

For a detailed discussion, see Note 3 "Recently issued accounting pronouncements" in our accompanying consolidated financial statements for the year ended December 31, 2018.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The Company's primary exposure to market risk is a function of our role as investment manager for our funds and managed accounts, our role as a financial intermediary in customer trading and market making activities, as well as the fact that a significant portion of our own capital is invested in securities. Adverse movements in the prices of securities that are either owned or sold short may negatively impact the Company's management fees and incentive income, as well as the value of our own invested capital.

The market value of the assets and liabilities in our investment funds and managed accounts, as well as the Company's own securities, may fluctuate in response to changes in equity prices, interest rates, credit spreads, currency exchange rates, commodity prices, implied volatility, dividends, prepayments, recovery rates and the passage of time. The net effect of market value changes caused by fluctuations in these risk factors will result in gains (losses) for our investment funds and managed accounts which will impact our management fees and incentive income and for the Company's securities which will impact the value of our own invested capital as well as the capital utilized in facilitating customer trades.

The Company's risk measurement and risk management processes are an integral part of our proprietary investment process as well as market making and customer facilitation trading activities. These processes are implemented at the individual position, strategy and total portfolio levels and are designed to provide a complete picture of the risks of the Company's balance sheet. The key elements of our risk reporting include sensitivities, exposures, stress testing and profit and loss attribution. As a result of our views of levels of risk being taken, the Company may undertake to hedge out some or all of any or all risks at either the individual position, strategy or total portfolio levels.

Impact on Management Fees

The Company's management fees are generally based on the net asset value of the Company's investment funds and managed accounts. Accordingly, management fees will change in proportion to changes in the market value of investments held by the Company's investment funds and managed accounts.

Impact on Incentive Income

The Company's incentive income is generally based on a percentage of the profits of the Company's various investment funds and managed accounts, which is impacted by global economies and market conditions as well as other factors. Consequently, incentive income cannot be readily predicted or estimated.

Custody and prime brokerage risks

There are risks involved in dealing with the custodians or prime brokers who settle trades. Under certain circumstances, including certain transactions where the Company's assets are pledged as collateral for leverage from a non-broker-dealer custodian or a non-broker-dealer affiliate of the prime broker, or where the Company's assets are held at a non-U.S. prime broker, the securities and other assets deposited with the custodian or broker may be exposed to credit risk with regard to such parties. In addition, there may be practical or timing problems associated with enforcing the Company's rights to its assets in the case of an insolvency of any such party.

Market risk

Market risk represents the risk of loss that may result from the change in value of a financial instrument due to fluctuations in its market price. Market risk may be exacerbated in times of trading illiquidity when market participants refrain from transacting in normal quantities and/or at normal bid-offer spreads. Our exposure to market risk is primarily related to the fluctuation in the fair values of securities owned and sold, but not yet purchased in the Company's investment funds and our role as a financial intermediary in customer trading and to our market making and investment activities. Market risk is inherent in financial instruments and risks arise in options, warrants and derivative contracts from changes in the fair values of their underlying financial instruments. Securities sold, but not yet purchased, represent obligations of the Company's investment funds to deliver specified securities at contracted prices and thereby create a liability to repurchase the securities at prevailing future market prices. We trade in equity securities as an active participant in both listed and over the counter markets. We typically maintain securities in inventory to facilitate our market making activities and customer order flow. We may use a variety of risk management techniques and hedging strategies in the ordinary course of our trading business to manage our exposures. In connection with our trading business, management also reviews reports appropriate to the risk profile of specific trading activities. Typically, market conditions are evaluated and transaction details and securities positions are reviewed. These activities are intended to ensure that our trading strategies are conducted within acceptable risk tolerance parameters, particularly when we commit our own capital to facilitate client trading. Activities include price verification procedures, position reconciliations and reviews of transaction booking. We believe these procedures, which stress timely communications between traders, trading management and senior management, are important elements of the risk management process.

A 10% change in the fair value of the investments held by the Company's investment funds as of December 31, 2018 would result in a change of approximately \$1.1 billion in our assets under management and would impact management fees by approximately \$4.4 million on an annual basis. This number is an estimate. The amount would be dependent on the fee structure of the particular investment fund or funds that experienced such a change.

Currency risk

The Company is also exposed to foreign currency fluctuations. Currency risk arises from the possibility that fluctuations in foreign currency exchange rates will affect the value of such financial instruments, including direct or indirect investments in securities of non-U.S. companies. A 10% weakening or strengthening of the U.S. dollar against all or any combination of

currencies to which the Company's investments or the Company's investment funds have exposure to exchange rates would not have a material effect on the Company's revenues, net loss or Economic Income.

Inflation risk

Because our assets are, to a large extent, liquid in nature, they are not significantly affected by inflation. However, the rate of inflation affects such expenses as employee compensation and communications charges, which may not be readily recoverable in the prices of services we offer. To the extent inflation results in rising interest rates and has other adverse effects on the securities markets, it may adversely affect our financial condition and results of operations in certain businesses.

Leverage and interest rate risk

There is no guarantee that the Company's borrowing arrangements or other arrangements for obtaining leverage will continue to be available, or if available, will be available on terms and conditions acceptable to the Company. Unfavorable economic conditions also could increase funding costs, limit access to the capital markets or result in a decision by lenders not to extend credit to the Company. In addition, a decline in market value of the Company's assets may have particular adverse consequences in instances where we have borrowed money based on the market value of those assets. A decrease in market value of those assets may result in the lender (including derivative counterparties) requiring the Company to post additional collateral or otherwise sell assets at a time when it may not be in the Company's best interest to do so.

Credit risk

The Company clears all of its securities transactions through clearing brokers on a fully disclosed basis. Pursuant to the terms of the agreements between the Company and the clearing brokers, the clearing brokers have the right to charge the Company for losses that result from a counterparty's failure to fulfill its contractual obligations. As the right to charge the Company has no maximum amount and applies to all trades executed through the clearing brokers, we believe there is no maximum amount assignable to this right. Accordingly, at December 31, 2018, the Company had recorded no liability.

Credit risk is the potential loss the Company may incur as a result of the failure of a counterparty or an issuer to make payments according to the terms of a contract. The Company's exposure to credit risk at any point in time is represented by the fair value of the amounts reported as assets at such time.

In the normal course of business, our activities may include trade execution for our clients as well as agreements to borrow or lend securities. These activities may expose us to risk arising from price volatility which can reduce clients' ability to meet their obligations. To the extent investors are unable to meet their commitments to us, we may be required to purchase or sell financial instruments at prevailing market prices to fulfill clients' obligations.

In accordance with industry practice, client trades are settled generally two business days after trade date. Should either the client or the counterparty fail to perform, we may be required to complete the transaction at prevailing market prices.

We manage credit risk by monitoring the credit exposure to and the standing of each counterparty, requiring additional collateral where appropriate, and using master netting agreements whenever possible.

Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. We outsource all or a portion of certain critical business functions, such as clearing. Accordingly, we negotiate our agreements with these firms with attention focused not only on the delivery of core services but also on the safeguards afforded by back-up systems and disaster recovery capabilities. We make specific inquiries on any relevant exceptions noted in a service provider's System and Organization Controls (SOC) report on the state of its internal controls, when available.

Our service offerings in electronic and algorithmic trading require us to maintain consistent levels of speed and accuracy in the management of orders generated by our models. We monitor these activities on a continuous basis and do not believe that they comprise a material risk.

Our Internal Audit department oversees, monitors, measures, analyzes and reports on operational risk across the Company. The scope of Internal Audit encompasses the examination and evaluation of the adequacy and effectiveness of the Company's system of internal controls and is sufficiently broad to help determine whether the Company's network of risk management, control and governance processes, as designed by management, is adequate and functioning as intended. Internal Audit works with the senior management to help ensure a transparent, consistent and comprehensive framework exists for managing operational risk within each area, across the Company and globally.

We are focused on maintaining our overall operational risk management framework and minimizing or mitigating these risks through a formalized control assessment process to ensure awareness and adherence to key policies and control procedures. Primary responsibility for management of operational risk is with the businesses and the business managers therein. The business managers, generally, maintain processes and controls designed to identify, assess, manage, mitigate and report

operational risk. As new products and business activities are developed and processes are designed and modified, operational risks are considered.

Legal risk

Legal risk includes the risk of non-compliance with applicable legal and regulatory requirements and standards. Legal risk also includes contractual and commercial risk such as the risk that a counterparty's performance obligations will be unenforceable. The Company has established procedures based on legal and regulatory requirements that are designed to achieve compliance with applicable statutory and regulatory requirements. The Company, principally through the Legal and Compliance Division, also has established procedures that are designed to require that the Company's policies relating to conduct, ethics and business practices are followed. In connection with its businesses, the Company has and continuously develops various procedures addressing issues such as regulatory capital requirements, sales and trading practices, new products, potential conflicts of interest, use and safekeeping of customer funds and securities, money laundering, privacy and recordkeeping. In addition, the Company has established procedures to mitigate the risk that a counterparty's performance obligations will be unenforceable, including consideration of counterparty legal authority and capacity, adequacy of legal documentation, the permissibility of a transaction under applicable law and whether applicable bankruptcy or insolvency laws limit or alter contractual remedies. The legal and regulatory focus on the financial services industry presents a continuing business challenge for the Company.

Item 8. Financial Statements and Supplementary Data

The financial statements and supplementary data required by this item are listed in Item 15—"Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

We maintain disclosure controls and procedures, as defined in Rule 13a-15(e) of the Exchange Act, that are designed to provide reasonable assurance that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As of December 31, 2018, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective and were operating at the reasonable assurance level.

For Management's report on internal control over financial reporting see page F-2, and attestation report of our independent registered public accounting firm see page F-3.

In addition, there were no changes in our internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act, that occurred in the fourth quarter.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information in the definitive proxy statement for our 2019 annual meeting of stockholders under the captions "Executive Officers," "Board 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—Director Nomination Process," "Information Regarding the Board of Directors and Corporate Governance—Procedures for Nominating Director Candidates," "Information Regarding the Board of Directors and Corporate Governance—Code of Business Conduct and Ethics" 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 2019 annual meeting of stockholders under the captions "Executive Compensation—Compensation and Benefits Committee Report," "Certain Relationships and Related Transactions—Compensation and Benefits Committee Interlocks and Insider Participation" and "Information Regarding the Board of Directors and Corporate Governance—Compensation Program for Non-Employee Directors" is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information in the definitive proxy statement for our 2019 annual meeting of stockholders 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 "Securities Authorized for Issuance Under Equity Compensation Plans" are incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions

The information in the definitive proxy statement for our 2019 annual meeting of stockholders 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 2019 annual meeting of stockholders 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) Documents filed as part of this Annual Report on Form 10-K:

1. Consolidated Financial Statements

The consolidated financial statements required to be filed in the Annual Report on Form 10-K are listed on page F-1 hereof. The required financial statements appear on pages F-1 through F-78 hereof.

2. Financial Statement Schedules

Separate financial statement schedules have been omitted either because they are not applicable or because the required information is included in the consolidated financial statements.

3. Exhibits

Exhibit No.	Description
<u>2.1</u>	<u>Securities Purchase Agreement, dated as of April 2, 2017, by and among Convergenx Holdings LLC, Convergenx Group, LLC, GTCR Convergenx Holdings LLC, Cowen CV Acquisition LLC and Cowen Inc. (previously filed as Exhibit 2.1 to the Form 8-K filed on April 6, 2017)</u>
<u>2.2</u>	<u>Purchase Agreement, dated as of November 20, 2018, by and among Cowen Inc., Cowen International Limited, Cowen QN Acquisition LLC, the Sellers signatory thereto, the Beneficial Owners signatory thereto and the Seller Representatives signatory thereto (previously filed as Exhibit 2.1 to the Form 8-K filed on November 21, 2018).</u>
<u>3.1</u>	<u>Amended and Restated Certificate of Incorporation of Cowen Inc. (previously filed as Exhibit 3.1 to the Form 10-Q filed November 25, 2009).</u>
<u>3.2</u>	<u>Amended and Restated By-Laws of Cowen Inc. (previously filed as Exhibit 3.1 to the Form 8-K filed on August 3, 2017).</u>
<u>3.3</u>	<u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Cowen Inc. (previously filed as Exhibit 3.3 to the Form 10-Q filed November 25, 2009).</u>
<u>3.4</u>	<u>Certificate of Designations of the Company for its Series A Cumulative Perpetual Preferred Stock (previously filed as Exhibit 3.1 to Form 8-K filed May 20, 2015).</u>

Exhibit No.	Description
<u>3.5</u>	<u>Amendment to the Amended and Restated Certificate of Incorporation of Cowen Inc. (previously filed as Exhibit 3.1 to the Form 8-K filed December 5, 2016).</u>
<u>3.6</u>	<u>Certificate of Amendment of Amended and Restated Certificate of Incorporation of Cowen Inc. (previously filed as Exhibit 3.1 to the Form 8-K filed on May 16, 2017)</u>
<u>4.1</u>	<u>Form of Class A Common Stock Certificate (previously filed as Exhibit 4.1 to Amendment No. 2 to Form S-1 filed on December 14, 2009).</u>
<u>4.2</u>	<u>Indenture, dated March 10, 2014 by and between Cowen Inc., as Issuer and The Bank of New York Mellon, as Trustee (previously filed as Exhibit 4.1 to Form 8-K filed on March 11, 2014).</u>
<u>4.3</u>	<u>First Supplemental Indenture by and between Cowen Inc., as Issuer and The Bank of New York Mellon, as Trustee (previously filed as Exhibit 4.1 to the Form 10-Q filed May 8, 2014).</u>
<u>4.4</u>	<u>Senior Notes Indenture dated October 10, 2014, by and between Cowen Inc. and The Bank of New York Mellon (previously filed as Exhibit 4.1 to Form 8-K filed on October 10, 2014).</u>
<u>4.5</u>	<u>First Supplemental Indenture dated October 10, 2014, by and between Cowen Inc. and The Bank of New York Mellon (previously filed as Exhibit 4.2 to Form 8-K filed on October 10, 2014).</u>
<u>4.6</u>	<u>Certificate of Designations of the Company for its Series A Cumulative Perpetual Preferred Stock (previously filed as Exhibit 3.1 to Form 8-K filed May 20, 2015).</u>
<u>4.7</u>	<u>Indenture, dated as of December 14, 2017 between Cowen Inc. and The Bank of New York Mellon (previously filed as Exhibit 4.1 to Form 8-K filed on December 14, 2017).</u>
<u>4.8</u>	<u>Second Supplemental Indenture, dated as of December 8, 2017, by and between Cowen Inc. and The Bank of New York Mellon, as Trustee. (previously filed as Exhibit 4.2 to Form 8-K filed on December 8, 2017).</u>
<u>4.9</u>	<u>Third Supplemental Indenture, dated June 11, 2018, by and between Cowen Inc. and The Bank of New York Mellon (previously filed as Exhibit 4.2 to the Form 8-K filed June 11, 2018).</u>
<u>10.1</u>	<u>Lease, dated as of June 22, 2007 by and between 599 Lexington Avenue LLC and Cowen Investment Management LLC (as successor in interest to RCG Holdings LLC (f/k/a Ramius Capital Group, LLC)), as amended by the First Amendment to Lease, dated as of June 9, 2008, by and between BP 599 Lexington Avenue LLC and Cowen Investment Management LLC (as successor in interest to RCG Holdings LLC (f/k/a Ramius LLC)) (previously filed as Exhibit 10.14 to Amendment No. 2 to Form S-1 filed on December 14, 2009).</u>
<u>10.2</u>	<u>Cowen Inc. 2006 Equity and Incentive Plan (previously filed as Exhibit 10.20 to Amendment No. 2 to Form S-1 filed on December 14, 2009).*</u>
<u>10.3</u>	<u>Cowen Inc. 2007 Equity and Incentive plan (previously filed as Exhibit 10.21 to Amendment No. 2 to Form S-1 filed on December 14, 2009).*</u>
<u>10.4</u>	<u>Form of RSU Award Agreement. (previously filed as Exhibit 10.24 to the Form 10-K filed on March 25, 2010).*</u>
<u>10.5</u>	<u>Cowen Inc. 2010 Equity and Incentive Plan (incorporated by reference to Appendix A to the Definitive Proxy Statement of Cowen Inc., on Schedule 14A for the year ended December 31, 2009, as filed on April 30, 2010).*</u>
<u>10.6</u>	<u>Form of Equity Award Agreement (previously filed as Exhibit 10.2 to the Form 8-K filed on June 10, 2010).*</u>
<u>10.7</u>	<u>Second Amendment to Lease dated August 20, 2010 between BP 599 Lexington Avenue and the Company, amending that certain Lease dated as of June 22, 2007 by and between 599 Lexington Avenue LLC and Cowen Investment Management LLC (as successor in interest to RCG Holdings LLC (f/k/a Ramius Capital Group, LLC)), as amended by the First Amendment to Lease, dated as of June 9, 2008, by and between BP 599 Lexington Avenue LLC and Ramius LLC (previously filed as Exhibit 10.2 to Form 8-K filed August 24, 2010).</u>
<u>10.8</u>	<u>Form of Restricted Stock Unit and Deferred Cash Award Agreement (previously filed as Exhibit 10.18 to the Form 10-K filed on March 9, 2012).*</u>
<u>10.9</u>	<u>Employment Agreement, dated as of May 31, 2012, by and between Cowen Inc. and Jeffrey Solomon (previously filed as Exhibit 10.1 to the Form 8-K filed June 1, 2012).*</u>
<u>10.10</u>	<u>Employment Agreement, dated as of August 2, 2012, by and between Cowen Inc. and Stephen Lasota (previously filed as Exhibit 10.1 to the Form 8-K filed August 3, 2012).*</u>
<u>10.11</u>	<u>Employment Agreement, dated as of August 2, 2012, by and between Cowen Inc. and Owen Littman (previously filed as Exhibit 10.2 to the Form 8-K filed August 3, 2012).*</u>
<u>10.12</u>	<u>Amendment to the Employment Agreement between the Company and Stephen Lasota dated April 24, 2015 (previously filed as Exhibit 10.1 to Form 8-K filed April 27, 2015).*</u>
<u>10.13</u>	<u>Amendment to the Employment Agreement between the Company and John Holmes dated April 24, 2015 (previously filed as Exhibit 10.2 to Form 8-K filed April 27, 2015).*</u>
<u>10.14</u>	<u>Amendment to the Employment Agreement between the Company and Owen Littman dated April 24, 2015 (previously filed as Exhibit 10.3 to Form 8-K filed April 27, 2015).*</u>

Exhibit No.	Description
<u>10.15</u>	<u>Initial capped call confirmation, dated as of May 13, 2015, by and between Nomura Global Financial Products Inc. and the Company (previously filed as Exhibit 10.1 to Form 8-K filed May 20, 2015).</u>
<u>10.16</u>	<u>Additional capped call confirmation, dated as of May 19, 2015, by and between Nomura Global Financial Products Inc. and the Company (previously filed as Exhibit 10.2 to Form 8-K filed May 20, 2015).</u>
<u>10.17</u>	<u>Form of Performance Shares Award Agreement (previously filed as Exhibit 10.1 to the Form 10-Q filed May 2, 2016).*</u>
<u>10.18</u>	<u>Underwriting Agreement, dated as of December 5, 2017, by and between Cowen Inc. and with Morgan Stanley & Co. LLC and UBS Securities LLC, as representatives of the several Underwriters named therein. (previously filed as Exhibit 1.1 to the Form 8-K filed December 8, 2017).</u>
<u>10.19</u>	<u>Letter Amendment between the Company and Mr. Solomon dated November 30, 2017 (previously filed as Exhibit 10.1 to the Form 8-K filed December 1, 2017).*</u>
<u>10.20</u>	<u>Transition Agreement between the Company and Mr. Cohen dated November 30, 2017 (previously filed as Exhibit 10.2 to the Form 8-K filed December 1, 2017).*</u>
<u>10.21</u>	<u>Supplemental Agreement between the Company and Mr. Cohen dated May 14, 2018 (previously filed as Exhibit 10.1 to the Form 8-K filed May 14, 2018).*</u>
<u>10.22</u>	<u>Underwriting Agreement, dated as of June 6, 2018, by and between Cowen Inc. and with Morgan Stanley & Co. LLC and UBS Securities LLC, as representatives of the several Underwriters named therein (previously filed as Exhibit 1.1 to the Form 8-K filed June 11, 2018).</u>
<u>21.1</u>	<u>Subsidiaries of Cowen Inc. (filed herewith).</u>
<u>23.1</u>	<u>Consent of Independent Registered Public Accounting Firm (filed herewith).</u>
<u>23.2</u>	<u>Consent of Independent Registered Public Accounting Firm (filed herewith).</u>
<u>31.1</u>	<u>Certification of CEO Pursuant to Section 302 of Sarbanes-Oxley Act of 2002 (filed herewith).</u>
<u>31.2</u>	<u>Certification of CFO Pursuant to Section 302 of Sarbanes-Oxley Act of 2002 (filed herewith).</u>
<u>32</u>	<u>Certification of CEO and CFO Pursuant to Section 906 of Sarbanes-Oxley Act of 2002 (furnished herewith).</u>
101.INS	XBRL INSTANCE DOCUMENT
101.SCH	XBRL TAXONOMY EXTENSION SCHEMA DOCUMENT
101.CAL	XBRL TAXONOMY EXTENSION CALCULATION LINKBASE DOCUMENT
101.DEF	XBRL TAXONOMY EXTENSION DEFINITION LINKBASE DOCUMENT
101.LAB	XBRL TAXONOMY EXTENSION LABEL LINKBASE DOCUMENT
101.PRE	XBRL TAXONOMY EXTENSION PRESENTATION LINKBASE DOCUMENT

* Signifies management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

Not Applicable.

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Management's Report on Internal Control over Financial Reporting

Management of Cowen Inc. (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed under the supervision of the Company's principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

As of the end of the Company's 2018 fiscal year, management conducted an assessment of the Company's internal control over financial reporting based on the framework established in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has determined that the Company's internal control over financial reporting as of December 31, 2018 was effective.

Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of management and the directors of the Company; and 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 our financial statements.

The Company's internal control over financial reporting as of December 31, 2018 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report included herein, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of Cowen Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated statements of financial condition of Cowen Inc. and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for the years then ended, and the related notes (collectively, the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, 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 consolidated financial statements and an opinion on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk.

Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ KPMG LLP

We have served as the Company's auditor since 2017.

New York, New York

March 6, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Member of Cowen Inc.:

In our opinion, the consolidated statement of operations, comprehensive income (loss), changes in equity and cash flows for the year ended December 31, 2016 present fairly, in all material respects, the results of operations and cash flows of Cowen Inc. and its subsidiaries for the year ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America. 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 audit. We conducted our audit of these financial statements 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
New York, New York
February 27, 2017

Cowen Inc.
Consolidated Statements of Financial Condition
(dollars in thousands, except share and per share data)

Assets	As of December 31, 2018	As of December 31, 2017
Cash and cash equivalents	\$ 259,148	\$ 130,052
Cash collateral pledged	6,318	17,888
Segregated cash	176,647	116,268
Securities owned, at fair value	520,888	673,221
Receivable on derivative contracts, at fair value	25,125	69,177
Securities borrowed	407,795	443,148
Other investments (\$141,236 and \$100,449, at fair value, respectively)	181,407	141,548
Deposits with clearing organizations, brokers and banks	89,423	93,996
Receivable from brokers, dealers and clearing organizations, net of allowance of \$472 and \$0, respectively	786,113	508,178
Receivable from customers, net of allowance of \$516 and \$1,550, respectively	37,858	49,891
Fees receivable, net of allowance of \$1,569 and \$1,736, respectively	111,946	111,784
Due from related parties	33,870	34,814
Fixed assets, net of accumulated depreciation and amortization of \$31,630 and \$28,355, respectively	26,443	40,496
Goodwill	60,678	60,678
Intangible assets, net of accumulated amortization of \$38,093 and \$33,081, respectively	24,943	29,955
Deferred tax asset, net	93,057	116,323
Other assets	79,014	88,268
<i>Consolidated Funds</i>		
Cash and cash equivalents	38,118	21,988
Securities owned, at fair value	187,633	165,916
Receivable on derivative contracts, at fair value	4,416	2,520
Other investments	186,395	374,111
Receivable from brokers	8,328	5,644
Other assets	740	388
Total Assets	\$ 3,346,303	\$ 3,296,252
Liabilities and Stockholders' Equity		
Liabilities		
Securities sold, not yet purchased, at fair value	\$ 195,307	\$ 342,527
Payable for derivative contracts, at fair value	16,082	42,750
Securities loaned	414,852	456,831
Payables to brokers, dealers and clearing organizations	228,731	252,153
Payable to customers	525,153	352,467
Commission management payable	95,270	70,451
Compensation payable	223,994	150,206
Notes payable and other debt	262,965	173,458
Convertible debt	134,489	141,502
Fees payable	22,565	8,047
Due to related parties	571	570
Accounts payable, accrued expenses and other liabilities	110,423	96,533
<i>Consolidated Funds</i>		
Payable for derivative contracts, at fair value	1,663	7,130
Payable to brokers	23,521	751
Capital withdrawals payable	11,106	11,931
Accounts payable, accrued expenses and other liabilities	424	322
Total Liabilities	\$ 2,267,116	\$ 2,107,629

Cowen Inc.
Consolidated Statements of Financial Condition
(dollars in thousands, except share and per share data)

	<u>As of December 31, 2018</u>	<u>As of December 31, 2017</u>
<i>(continued)</i>		
Commitments and Contingencies (Note 22)		
Redeemable non-controlling interests	\$ 284,780	\$ 440,604
Stockholders' equity		
Preferred stock, par value \$0.01 per share: 10,000,000 shares authorized, 120,750 shares issued and outstanding as of December 31, 2018 (aggregate liquidation preference of \$120,750,000) and 10,000,000 shares authorized, 120,750 shares issued and outstanding as of as of December 31, 2017 (aggregate liquidation preference of \$120,750,000), respectively	\$ 1	\$ 1
Class A common stock, par value \$0.01 per share: 62,500,000 shares authorized, 43,774,731 shares issued and 28,437,860 outstanding as of December 31, 2018 and 62,500,000 shares authorized, 41,765,296 shares issued and 29,632,020 outstanding as of December 31, 2017, respectively (including 253,772 and 191,962 restricted shares, respectively)	324	324
Class B common stock, par value \$0.01 per share: 62,500,000 authorized, no shares issued and outstanding as of December 31, 2018 and 2017, respectively	—	—
Additional paid-in capital	1,062,877	1,004,664
(Accumulated deficit) retained earnings	(34,648)	(70,116)
Accumulated other comprehensive income (loss)	(5)	(8)
Less: Class A common stock held in treasury, at cost, 15,336,871 and 12,133,276 shares as of December 31, 2018 and 2017, respectively	(234,142)	(186,846)
Total Stockholders' Equity	\$ 794,407	\$ 748,019
Total Liabilities and Stockholders' Equity	\$ 3,346,303	\$ 3,296,252

The accompanying notes are an integral part of these consolidated financial statements.

Cowen Inc.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended December 31,		
	2018	2017	2016
Revenues			
Investment banking	\$ 357,222	\$ 223,614	\$ 133,279
Brokerage	413,582	293,610	199,180
Management fees	29,658	33,245	40,612
Incentive income	3,117	5,383	8,334
Interest and dividends	108,009	49,440	14,732
Reimbursement from affiliates	1,038	2,860	10,504
Aircraft lease revenue	1,852	3,751	4,161
Reinsurance premiums	38,096	30,996	32,459
Other revenues	4,504	8,561	22,355
<i>Consolidated Funds</i>			
Interest and dividends	9,816	5,870	4,792
Other revenues	22	1,451	1,157
Total revenues	966,916	658,781	471,565
Interest and dividends expense	104,116	60,949	29,308
Total net revenues	862,800	597,832	442,257
Expenses			
Employee compensation and benefits	509,289	404,087	310,038
Brokerage and trade execution costs	109,399	75,601	32,286
Underwriting expenses	15,282	—	—
Professional, advisory and other fees	40,957	31,942	23,190
Service fees	20,198	14,999	7,918
Communications	30,801	23,460	17,768
Occupancy and equipment	41,602	35,184	32,286
Depreciation and amortization	12,436	13,078	12,713
Client services and business development	35,927	28,327	27,828
Reinsurance claims, commissions and amortization of deferred acquisition costs	41,086	30,486	29,904
Restructuring costs	—	8,763	—
Other expenses	22,014	18,196	14,815
<i>Consolidated Funds</i>			
Interest and dividends	6,534	9,836	6,434
Professional, advisory and other fees	938	1,145	1,148
Brokerage and trade execution costs	256	318	431
Other expenses	887	1,227	1,051
Total expenses	887,606	696,649	517,810
Other income (loss)			
Net gains (losses) on securities, derivatives and other investments	68,043	76,179	23,381
Bargain purchase gain, net of tax	—	6,914	—
Gain/(loss) on debt extinguishment	(556)	(16,039)	—
<i>Consolidated Funds</i>			
Net realized and unrealized gains (losses) on investments and other transactions	46,656	19,660	7,085
Net realized and unrealized gains (losses) on derivatives	9,408	19,476	13,503
Net gains (losses) on foreign currency transactions	191	(411)	97
Total other income (loss)	123,742	105,779	44,066
Income (loss) before income taxes	98,936	6,962	(31,487)
Income tax expense (benefit)	15,719	44,053	(19,092)
Net income (loss)	83,217	(37,091)	(12,395)

Cowen Inc.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended December 31,		
	2018	2017	2016
<i>(continued)</i>			
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	40,398	23,791	6,882
Net income (loss) attributable to Cowen Inc.	42,819	(60,882)	(19,277)
Preferred stock dividends	6,792	6,792	6,792
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 36,027	\$ (67,674)	\$ (26,069)
Weighted average common shares outstanding:			
Basic	29,545	29,492	26,857
Diluted	30,735	29,492	26,857
Earnings (loss) per share:			
Basic	\$ 1.22	\$ (2.29)	\$ (0.97)
Diluted	\$ 1.17	\$ (2.29)	\$ (0.97)

The accompanying notes are an integral part of these consolidated financial statements.

Cowen Inc.
Consolidated Statements of Comprehensive Income (Loss)
(dollars in thousands)

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Net income (loss)	83,217	\$ (37,091)	\$ (12,395)
Other comprehensive income (loss), net of tax:			
Foreign currency translation	3	(6)	(2)
Total other comprehensive income (loss), net of tax	3	(6)	(2)
Comprehensive income (loss)	83,220	(37,097)	(12,397)

The accompanying notes are an integral part of these consolidated financial statements.

Cowen Inc.
Consolidated Statements of Changes in Equity
(dollars in thousands, except share data)

	Common Shares Outstanding	Common Stock	Preferred Shares Outstanding	Preferred Stock	Treasury Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings/ (Accumulated deficit)	Total Stockholders' Equity	Redeemable Non-controlling Interest
Balance, December 31, 2015	26,401,163	\$ 292	120,750	\$ 1	\$(137,356)	\$ 903,429	\$	23,627	\$ 789,993	\$ 186,911
Net income (loss) attributable to Cowen Inc.	—	—	—	—	—	—	—	(19,277)	(19,277)	—
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	—	—	—	—	—	—	—	—	—	6,882
Foreign currency translation	—	—	—	—	—	—	(2)	—	(2)	—
Capital contributions	—	—	—	—	—	—	—	—	—	276,923
Capital withdrawals	—	—	—	—	—	—	—	—	—	(18,469)
Deconsolidation of investment funds	—	—	—	—	—	—	—	—	—	(73,042)
Restricted stock awards issued	1,511,995	—	—	—	—	—	—	—	—	—
Purchase of treasury stock, at cost	(1,181,869)	—	—	—	(16,489)	—	—	—	(16,489)	—
Preferred stock dividends (See Note 24)	—	—	—	—	—	—	—	(6,792)	(6,792)	—
Income tax effect from share based compensation	—	—	—	—	—	(822)	—	—	(822)	—
Amortization of share based compensation	—	—	—	—	—	26,039	—	—	26,039	—
Balance, December 31, 2016	26,731,289	\$ 292	120,750	\$ 1	\$(153,845)	\$ 928,646	\$ (2)	\$ (2,442)	\$ 772,650	\$ 379,205
Net income (loss) attributable to Cowen Inc.	—	—	—	—	—	—	—	(60,882)	(60,882)	—
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	—	—	—	—	—	—	—	—	—	23,791
Foreign currency translation	—	—	—	—	—	—	(6)	—	(6)	—
Capital contributions	—	—	—	—	—	—	—	—	—	119,112
Capital withdrawals	—	—	—	—	—	—	—	—	—	(81,504)
Restricted stock awards issued	2,060,927	—	—	—	—	—	—	—	—	—
Purchase of treasury stock, at cost	(2,322,474)	—	—	—	(33,001)	—	—	—	(33,001)	—
Common stock issuance upon acquisition (See Note 2)	3,162,278	32	—	—	—	47,575	—	—	47,607	—
Preferred stock dividends (See Note 24)	—	—	—	—	—	—	—	(6,792)	(6,792)	—
Amortization of share based compensation	—	—	—	—	—	28,443	—	—	28,443	—
Balance, December 31, 2017	29,632,020	\$ 324	120,750	\$ 1	\$(186,846)	\$ 1,004,664	\$ (8)	\$ (70,116)	\$ 748,019	\$ 440,604
Cumulative effect of the adoption of the new revenue recognition standard (See Note 3)	—	—	—	—	—	—	—	(559)	(559)	—
Net income (loss) attributable to Cowen Inc.	—	—	—	—	—	—	—	42,819	42,819	—
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	—	—	—	—	—	—	—	—	—	40,398
Foreign currency translation	—	—	—	—	—	—	3	—	3	—
Capital contributions	—	—	—	—	—	—	—	—	—	114,644
Capital withdrawals	—	—	—	—	—	—	—	—	—	(278,307)
Deconsolidation of entity	—	—	—	—	—	—	—	—	—	(32,559)
Restricted stock awards issued	2,009,435	—	—	—	—	—	—	—	—	—
Purchase of treasury stock, at cost	(3,203,595)	—	—	—	(47,296)	—	—	—	(47,296)	—
Preferred stock dividends (See Note 24)	—	—	—	—	—	—	—	(6,792)	(6,792)	—
Embedded cash conversion option, net of tax (See Note 24)	—	—	—	—	—	21,195	—	—	21,195	—
Amortization of share based compensation	—	—	—	—	—	37,018	—	—	37,018	—
Balance, December 31, 2018	28,437,860	\$ 324	120,750	\$ 1	\$(234,142)	\$ 1,062,877	\$ (5)	\$ (34,648)	\$ 794,407	\$ 284,780

The accompanying notes are an integral part of these consolidated financial statements.

Cowen Inc.
Consolidated Statements of Cash Flows
(dollars in thousands)

	Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income (loss)	\$ 83,217	\$ (37,091)	\$ (12,395)
Adjustments to reconcile net income (loss) to net cash provided by / (used in) operating activities:			
Bargain purchase gain, net of tax	—	(6,914)	—
Depreciation and amortization	12,436	13,078	12,713
Net gain on sale of divested business	—	—	(15,638)
Amortization of debt issuance costs	1,153	1,261	1,208
Amortization of debt discount	5,473	7,435	6,885
Gain / (loss) on extinguishment of debt	652	10,551	—
Tax benefits from share-based payment arrangements	—	—	(822)
Share-based compensation	37,018	28,443	26,039
Change in deferred taxes	15,486	45,856	(21,274)
Deferred rent obligations	(3,036)	(2,192)	(880)
Net loss (gain) on disposal of fixed assets	15,343	(2,346)	—
Contingent liability adjustment	—	—	2,139
Purchases of securities owned, at fair value	(3,830,757)	(4,943,394)	(4,483,975)
Proceeds from sales of securities owned, at fair value	4,032,937	5,131,938	4,447,094
Proceeds from sales of securities sold, not yet purchased, at fair value	2,794,434	2,455,876	3,016,934
Payments to cover securities sold, not yet purchased, at fair value	(2,927,916)	(2,444,010)	(3,054,869)
Proceeds from the sale of other investments	10,157	—	—
Net (gains) losses on securities, derivatives and other investments	(54,032)	(78,303)	(28,878)
<i>Consolidated Funds</i>			
Purchases of securities owned, at fair value	(887,728)	(385,544)	(113,653)
Proceeds from sales of securities owned, at fair value	835,002	338,268	73,011
Proceeds from sales of securities sold, not yet purchased, at fair value	—	217	2,226
Payments to cover securities sold, not yet purchased, at fair value	—	(899)	(1,799)
Purchases of other investments	(2,835)	(26,206)	(221,897)
Proceeds from sales of other investments	231,559	64,867	17,116
Net realized and unrealized (gains) losses on investments and other transactions	(52,807)	(28,267)	(17,402)
(Increase) decrease in operating assets:			
Cash acquired through acquisition	—	159,587	—
Securities owned, at fair value, held at broker-dealer	(57,732)	(102,137)	(17,005)
Receivable on derivative contracts, at fair value	44,053	(46,277)	16,717
Securities borrowed	35,353	(184,827)	—
Deposits with clearing organizations, brokers and banks	4,573	(32,460)	(1,874)
Receivable from brokers, dealers and clearing organizations	(277,935)	(366,297)	31,795
Receivable from customers, net of allowance	12,033	(6,422)	—
Fees receivable, net of allowance	(6,401)	(29,669)	(12,632)
Due from related parties	1,405	4,815	(176)
Other assets	6,017	(33,454)	(10,048)
<i>Consolidated Funds</i>			
Cash and cash equivalents	(19,501)	(4,227)	(3,827)
Receivable on derivative contracts, at fair value	(1,896)	(1,627)	(893)
Receivable from brokers	(2,684)	334	(5,978)
Other assets	(538)	123	152
Increase (decrease) in operating liabilities:			
Securities sold, not yet purchased, at fair value, held at broker-dealer	26,232	19,226	7,160
Payable for derivative contracts, at fair value	2,305	(1,399)	(421)
Securities loaned	(41,979)	170,472	—
Payable to brokers, dealers and clearing organizations	(23,422)	(32,440)	78,520
Payable to customers	172,686	340,666	—
Commission management payable	24,819	(15,857)	242
Compensation payable	61,478	9,150	(60,279)
Fees payable	14,518	(639)	(2,366)
Due to related parties	1	(3)	244
Accounts payable, accrued expenses and other liabilities	17,723	13,046	(9,133)

Cowen Inc.
Consolidated Statements of Cash Flows
(dollars in thousands)

	Year Ended December 31,		
	2018	2017	2016
<i>(continued)</i>			
<i>Consolidated Funds</i>			
Contributions received in advance	\$ —	\$ (2,000)	1,150
Payable to brokers	22,770	(2,949)	3,699
Payable for derivative contracts, at fair value	(5,467)	6,558	572
Due to related parties	—	(189)	453
Accounts payable, accrued expenses and other liabilities	369	(330)	528
Net cash provided by / (used in) operating activities	324,536	3,398	(351,517)
Cash flows from investing activities:			
Purchases of other investments	(28,092)	(10,419)	(33,786)
Purchase of business (See Note 2)	—	(55,049)	(6,258)
Proceeds from sales of other investments	18,782	71,749	54,068
Loans issued	—	(13,745)	—
Proceeds from loans held for investment	14	3,203	42,800
Proceeds from divested business, net of cash divested	—	—	17,303
Purchase of fixed assets	(8,586)	(5,986)	(15,613)
Sale of fixed assets	—	7,850	—
Net cash provided by / (used in) investing activities	(17,882)	(2,397)	58,514
Cash flows from financing activities:			
Proceeds from issuance of convertible debt	—	135,000	—
Repayments on convertible debt	(13,500)	(115,140)	—
Deferred debt issuance cost	(3,985)	(7,176)	—
Borrowings on notes and other debt	102,382	171,148	30,638
Repayments on notes and other debt	(16,601)	(72,757)	(29,800)
Income tax effect from share-based payment arrangements	—	—	(822)
Purchase of treasury stock	(31,762)	(19,662)	(7,654)
Contingent liability payment	(797)	(393)	(2,358)
Capital contributions by redeemable non-controlling interests in operating entities	581	—	10
Capital withdrawals to redeemable non-controlling interests in operating entities	(2,774)	(5,178)	(6,995)
<i>Consolidated Funds</i>			
Capital contributions by redeemable non-controlling interests in Consolidated Funds	114,064	117,812	276,914
Capital withdrawals to redeemable non-controlling interests in Consolidated Funds	(276,357)	(65,803)	(10,144)
Net cash provided by / (used in) financing activities	(128,749)	137,851	249,789
Change in cash and cash equivalents	177,905	138,852	(43,214)
Cash and cash equivalents, including cash collateral pledged and segregated cash, beginning of period	264,208	125,356	168,570
Cash and equivalents at end of period:			
Cash and cash equivalents	259,148	130,052	110,990
Cash collateral pledged	6,318	17,888	13,342
Segregated cash	176,647	116,268	1,024
Cash and cash equivalents, including cash collateral pledged and segregated cash, end of period	\$ 442,113	\$ 264,208	\$ 125,356
Supplemental information			
Cash paid during the year for interest	\$ 90,843	\$ 26,632	\$ 17,540
Cash paid during the year for taxes	\$ 3,881	\$ 2,172	\$ 5,085
Supplemental non-cash information			
Conversion option value on 2022 Convertible Notes	\$ —	\$ 23,387	\$ —
Purchase of treasury stock, at cost, through net settlement (See Note 24)	\$ 12,310	\$ 11,889	\$ 8,835
Net assets (liabilities) acquired upon acquisition (net of cash)	\$ —	\$ 77,790	\$ —
Transfer of investment from Consolidated Funds, securities owned, fair value to securities owned, fair value	\$ 8,820	\$ —	\$ —
Net decrease in redeemable non-controlling interests in Consolidated Funds due to deconsolidation of a Consolidated Fund (See Note 3)	\$ 32,559	\$ —	\$ 73,042
Separately recognized conversion option reclassification from a derivative liability to equity (Note 23)	\$ 21,195	\$ —	\$ —
Common stock issuance upon close of acquisition (see Note 2)	\$ —	\$ 47,607	\$ —
Notes payable increase through asset acquisition	\$ —	\$ —	\$ 7,164
Conversion of redeemable non-controlling interest to loan receivable	\$ —	\$ 1,299	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

Cowen Inc.

Notes to Consolidated Financial Statements

1. Organization and Business

Cowen Inc., a Delaware corporation formed in 2009, is a diversified financial services firm which, together with its consolidated subsidiaries (collectively, "Cowen," or the "Company"), operates through its two business segments: an investment management segment and an investment bank segment. The Company's investment management business includes advisers to investment funds (including privately placed hedge funds, real estate funds and private equity structures), managed accounts, commodity pools, and registered funds. The Company's investment bank segment offers investment banking, research, sales and trading, prime brokerage, global clearing and commission management services to companies and primarily institutional investor clients. The investment bank segment's primary target sectors ("Target Sectors") are healthcare, technology, media and telecommunications, information and technology services, consumer, aerospace and defense, industrials, energy and transportation.

2. Acquisition

On April 2, 2017, the Company, through its wholly owned subsidiary Cowen CV Acquisition LLC, entered into a securities purchase agreement with, among others, Convergenx Holdings LLC to acquire all the outstanding interests in Convergenx Group, LLC ("Convergenx Group") (subsequently renamed to Cowen Execution Holdco LLC), a provider of agency based execution services and trading technology to middle market institutional investors and broker-dealers. Convergenx Group's operations were primarily conducted through two U.S. Securities Exchange Commission ("SEC") registered broker-dealers, Convergenx Execution Solutions LLC (subsequently renamed to Cowen Execution Services LLC) ("Cowen Execution") and Westminster Research Associates LLC ("Westminster") and also Convergenx Limited (subsequently renamed to Cowen Execution Services Limited) ("Cowen Execution Ltd"), which is based in the United Kingdom and regulated by the Financial Conduct Authority ("FCA"). The purchase price was paid approximately 50% in cash and 50% in Cowen Inc. Class A common stock.

The acquisition was accounted for under the acquisition method of accounting in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). As such, results of operations for Convergenx Group are included in the accompanying consolidated statements of operations since the date of acquisition, and the assets acquired and liabilities assumed were recorded at their fair value as of the acquisition date. Subsequent to the acquisition, the operations of Convergenx Group were integrated within the Company's existing businesses.

The acquisition was consummated effective as of June 1, 2017. The adjusted aggregate estimated purchase price was \$98.0 million, which was determined based on closing date tangible book value of Convergenx Group, less certain closing adjustments. Based on the closing date purchase price allocation, the fair value of the net identifiable assets acquired and liabilities assumed of \$109.6 million exceeded the estimated purchase price of \$98.0 million. As a result, the Company recognized a bargain purchase gain of \$11.6 million during 2017 related to the acquisition. The bargain purchase gain was shown net of \$4.7 million of associated tax in the accompanying consolidated statements of operations.

The table below summarizes the preliminary purchase price allocation of net tangible and intangible assets acquired and liabilities assumed as of June 1, 2017:

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

	(dollars in thousands)
Cash and cash equivalents	\$ 30,562
Segregated cash	129,025
Securities owned, at fair value	3,417
Securities borrowed	258,321
Deposits from clearing organizations	52,596
Receivable from brokers	62,983
Receivable from customers	43,469
Fees receivable	36,232
Fixed assets, net	1,325
Intangible assets	10,270
Other assets	7,528
Securities sold, not yet purchased, at fair value	(71)
Securities loaned	(286,359)
Payable to brokers	(74,284)
Payable to customers	(11,801)
Commission management payable	(82,718)
Compensation payable	(31,083)
Notes payable and other debt	(857)
Fees payable	(5,414)
Accounts payable, accrued expenses and other liabilities	(33,570)
Total identifiable net assets acquired and liabilities assumed	109,571
Goodwill/(Bargain purchase gain)	(11,609)
Total estimated purchase price	\$ 97,962

The Company believes that all of the acquired receivables and contractual amounts receivable as reflected above in the allocation of the purchase price are recorded at fair value. See Note 22 for further information on legal matters relating to the acquisition.

As of the acquisition date, the estimated fair value of the Company's intangible assets, as acquired through the acquisition, was \$10.3 million. The allocation of the intangible assets is shown within the following table.

	Estimated intangible assets acquired	Estimated average remaining useful lives
	(dollars in thousands)	(in years)
Intangible asset class		
Trade name	\$ 760	0.6 - 2.6
Intellectual property	1,790	5
Customer relationships	7,720	9
Total intangible assets	\$ 10,270	

Amortization expense for the year ended December 31, 2018 and 2017 was \$1.3 million and \$1.4 million, respectively, and is included in depreciation and amortization in the accompanying consolidated statements of operations. The estimated amortization expense related to these intangible assets in future periods is as follows:

	(dollars in thousands)
2019	\$ 1,239
2020	1,216
2021	1,216
2022	1,007
2023	858
Thereafter	2,073
	\$ 7,609

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

In addition to the purchase price consideration, for the year ended December 31, 2017, the Company has incurred acquisition related expenses of \$6.0 million including financial advisory, legal and valuation services, which are included in professional, advisory and other fees in the consolidated statements of operations.

Subsequent to the acquisition, certain of Convergenx Group's businesses were integrated within the investment bank businesses of the Company and therefore they are included within their respective line items in the accompanying consolidated statements of operations. The following table provides supplemental pro forma financial information for the year ended December 31, 2017, as if the acquisition were completed as of January 1, 2017. This unaudited supplemental pro forma information has been prepared for comparative purposes only and is not intended to be indicative of what the Company's financial results would have been had the acquisition been completed on January 1, 2017, nor does it purport to be indicative of any future results.

	Year Ended December 31, 2017	
	(dollars in thousands, except per share data)	
Revenues	\$	733,744
Net income (loss) attributable to Cowen Inc. stockholders		(84,671)
Net income (loss) per common share:		
Basic	\$	(2.75)
Diluted		(2.75)

In conjunction with the integration of the acquired businesses of Convergenx Group, the Company evaluated the combined investment bank businesses and operations and, during 2017, incurred approximately \$8.8 million of integration and restructuring costs which primarily related to exit and disposal costs, discontinuation of redundant technology services and severance costs. During the year ended December 31, 2018, the Company continued to integrate the businesses acquired through Convergenx Group and consolidated certain similar businesses.

3. Significant Accounting Policies

a. Basis of Presentation

These financial statements are prepared in accordance with US GAAP as promulgated by the Financial Accounting Standards Board ("FASB") through Accounting Standards Codification ("The Accounting Standards") as the source of authoritative accounting principles in the preparation of financial statements, and include the accounts of the Company, its operating and other subsidiaries, and entities in which the Company has a controlling financial interest or a general partner interest. All material intercompany transactions and balances have been eliminated on consolidation. Certain investment funds that are consolidated in these accompanying consolidated financial statements, as further discussed below, are not subject to the consolidation provisions with respect to their own controlled investments pursuant to specialized industry accounting.

The Company serves as the managing member/general partner and/or investment manager to investment funds which it sponsors and manages. Investment funds in which the Company has a controlling financial interest are consolidated with the Company pursuant to US GAAP as described below. Consequently, the Company's consolidated financial statements reflect the assets, liabilities, income and expenses of these investment funds on a gross basis. The ownership interests in these investment funds that are not owned by the Company are reflected as redeemable non-controlling interests in consolidated subsidiaries in the accompanying consolidated financial statements. The management fees and incentive income earned by the Company from these investment funds are eliminated in consolidation.

In this Form 10-K, interest and dividends expense has been reclassified to be presented net of revenues on the consolidated statement of operations. The Company believes that this presentation provides a better representation of the Company's operating results as it is used by management to monitor the Company's financial performance and is consistent with industry practice. The change to the presentation of interest and dividend expense has no impact on net income.

b. Principles of consolidation

The Company consolidates all entities that it controls through a majority voting interest or otherwise, including those investment funds in which the Company either directly or indirectly has a controlling financial interest. In addition, the Company consolidates all variable interest entities for which it is the primary beneficiary.

In accordance with these standards, the Company consolidates four investment funds for which it acts as the general partner and investment manager. As of December 31, 2018, the Company consolidated the following investment funds: Ramius Enterprise LP ("Enterprise LP"), Ramius Merger Fund LLC (the "Merger Fund"), Cowen Private Investments LP ("Cowen

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Private"), and Ramius Merger Arbitrage UCITS Fund ("UCITS Fund") (each a "Consolidated Fund" and collectively the "Consolidated Funds").

The Company determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting operating entity ("VOE") or a variable interest entity ("VIE") under US GAAP.

Voting Operating Entities—VOEs are entities in which (i) the total equity investment at risk is sufficient to enable the entity to finance its activities independently and (ii) the equity holders at risk have the obligation to absorb losses, the right to receive residual returns and the right to direct the activities of the entity that most significantly impact the entity's economic performance.

Under US GAAP, the usual condition for a controlling financial interest in a VOE is ownership of a majority voting interest. Accordingly, the Company consolidates all VOEs in which it owns a majority of the entity's voting shares or units.

Variable Interest Entities—VIEs are entities that lack one or more of the characteristics of a VOE. In accordance with US GAAP, an enterprise must consolidate all VIEs of which it is the primary beneficiary. Under the US GAAP consolidation model for VIEs, an enterprise that (1) has the power to direct the activities of a VIE that most significantly impacts the VIE's economic performance, and (2) has an obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE, is considered to be the primary beneficiary of the VIE and thus is required to consolidate it.

The Company reconsiders whether it is the primary beneficiary of a VIE by performing a periodic qualitative and/or quantitative analysis of the VIE that includes a review of, among other things, its capital structure, contractual agreements between the Company and the VIE, the economic interests that create or absorb variability, related party relationships and the design of the VIE. As of December 31, 2018 and 2017, the total net assets of the consolidated VIEs were \$427.5 million and \$482.8 million, respectively. The decrease is primarily related to other investors' redemptions which reduced overall VIEs net assets. The VIEs act as investment managers and/or investment companies that may be managed by the Company or the Company may have equity interest in those investment companies. The VIEs are financed through their operations and/or loan agreements with the Company.

As of December 31, 2018, the Company held variable interests in Ramius Enterprise Master Fund Ltd ("Enterprise Master") and Ramius Merger Master Fund Ltd ("Merger Master") (collectively the "Unconsolidated Master Funds") through the Consolidated Funds. Investment companies, which account for their investments under the specialized industry accounting guidance for investment companies prescribed under US GAAP, are not subject to the consolidation provisions for their investments. Therefore, the Company has not consolidated the Unconsolidated Master Funds.

In the ordinary course of business, the Company also sponsors various other entities that it has determined to be VIEs. These VIEs are primarily investment funds for which the Company serves as the general partner, managing member and/or investment manager with decision-making rights.

The Company does not consolidate the Unconsolidated Master Funds or real estate funds that are VIEs as it has concluded that it is not the primary beneficiary in each instance. Investment fund investors are entitled to all of their economics of these VIEs with the exception of the management fee and incentive income, if any, earned by the Company. The company has equity interests in the funds as both GP and Limited partner. In these instances the Company has concluded that the variable interests are not potentially significant to the VIE. Although the Company may advance amounts and pay certain expenses on behalf of the investment funds that it considers to be VIEs, it does not provide, nor is it required to provide, any type of substantive financial support to these entities outside of regular investment management services (see Note 6 for additional disclosures on VIEs).

Equity Method Investments—For operating entities over which the Company exercises significant influence but which do not meet the requirements for consolidation as outlined above, the Company uses the equity method of accounting. The Company's investments in equity method investees are recorded in other investments in the accompanying consolidated statements of financial condition. The Company's share of earnings or losses from equity method investees is included in net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations.

The Company evaluates its equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable. The difference between the carrying value of the equity method investment and its estimated fair value is recognized as an impairment charge when the loss in value is deemed other than temporary.

Other—If the Company does not consolidate an entity or apply the equity method of accounting, the Company accounts for such entities (primarily, all securities of such entity which are bought and held principally for the purpose of selling them in

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

the near term as trading securities) in accordance with US GAAP, at fair value with unrealized gains (losses) resulting from changes in fair value reflected within net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations.

Retention of Specialized Accounting—The Consolidated Funds and certain other consolidated companies are investment companies and apply specialized industry accounting for investment companies. The Company has retained this specialized accounting for these investment funds pursuant to US GAAP. The Company reports its investments on the consolidated statements of financial condition at their estimated fair value, with unrealized gains (losses) resulting from changes in fair value reflected within net realized and unrealized gains (losses) on investments and other transactions. Accordingly, the accompanying consolidated financial statements reflect different accounting policies for investments depending on whether or not they are held through a consolidated investment company. In addition, the Company's broker-dealer subsidiaries, Cowen and Company, LLC ("Cowen and Company"), Cowen Execution, Westminster, Cowen Execution Ltd, ATM Execution LLC ("ATM Execution"), Cowen International Limited ("Cowen International Ltd"), Cowen Prime Services LLC ("Cowen Prime") apply the specialized industry accounting for brokers and dealers in securities also prescribed under US GAAP. The Company also retains specialized accounting upon consolidation.

c. Use of estimates

The preparation of the accompanying consolidated financial statements in conformity with US GAAP requires the management of the Company to make estimates and assumptions that affect the fair value of securities and other investments, the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the accompanying consolidated financial statements, the accounting for goodwill and identifiable intangible assets and the reported amounts of revenues and expenses during the reporting period. Actual results could materially differ from those estimates.

d. Cash and cash equivalents

The Company considers investments in money market funds and other highly liquid investments with original maturities of three months or less which are deposited with a bank or prime broker to be cash equivalents. Cash and cash equivalents held at Consolidated Funds, although not legally restricted, are not available to fund the general liquidity needs of the Company. The Company may also be exposed to credit risk as a result of cash being held at several banks.

e. Allowance for credit losses

The allowance for credit losses is based on the Company's assessment of the collectability of receivables related to securities transactions, prepaid research and other receivables. The Company considers factors such as historical experience, credit quality, age of balances and current economic conditions that may affect collectability in determining the allowance for credit losses. Specifically for prepaid research, the Company reviews clients' historical, current and forecasted trading activity in determining the allowance for credit losses. The credit loss expense related to the allowance for credit losses as well as any recoveries of amounts previously charged is reflected in other expenses in the accompanying consolidated statements of operations.

f. Valuation of investments and derivative contracts

US GAAP 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 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy are as follows:

- | | |
|---------|---|
| Level 1 | Inputs that reflect unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date; |
| Level 2 | Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly, including inputs in markets that are not considered to be active; and |
| Level 3 | Fair value is determined based on pricing inputs that are unobservable and includes situations where there is little, if any, market activity for the asset or liability. The determination of fair value for assets and liabilities in this category requires significant management judgment or estimation. |

Inputs are used in applying the various valuation techniques and broadly refer to the assumptions that market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, specific and broad credit data, liquidity statistics, and other factors. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. However, the determination of what

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Notes to Consolidated Financial Statements (Continued)

constitutes “observable” requires significant judgment by the Company. The Company considers observable data to be that market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant market. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of the instrument and does not necessarily correspond to the Company's perceived risk of that instrument.

The Company and its operating subsidiaries act as the manager for the Consolidated Funds. Both the Company and the Consolidated Funds hold certain investments which are valued by the Company, acting as the investment manager. The fair value of these investments is generally estimated based on proprietary models developed by the Company, which include discounted cash flow analysis, public market comparables, and other techniques and may be based, at least in part, on independently sourced market information. The material estimates and assumptions used in these models include the timing and expected amount of cash flows, the appropriateness of discount rates used, and, in some cases, the ability to execute, timing of, and estimated proceeds from expected financings. Significant judgment and estimation goes into the selection of an appropriate valuation methodology as well as the assumptions used in these models, and the timing and actual values realized with respect to investments could be materially different from values derived based on the use of those estimates. The valuation methodologies applied impact the reported value of the Company's investments and the investments held by the Consolidated Funds in the consolidated financial statements. Certain of the Company's investments are relatively illiquid or thinly traded and may not be immediately liquidated on demand if needed. Fair values assigned to these investments may differ significantly from the fair values that would have been used had a ready market for the investments existed and such differences could be material.

The Company primarily uses the “market approach” to value its financial instruments measured at fair value. In determining an instrument's level within the hierarchy, the Company categorizes the Company's financial instruments into three categories: securities, derivative contracts and other investments. To the extent applicable, each of these categories can further be divided between those held long or sold short.

The Company has the option to measure certain financial assets and financial liabilities at fair value with changes in fair value recognized in earnings each period. The election is made 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 Company has elected the fair value option for certain of its investments held by its operating companies. This option has been elected because the Company believes that it is consistent with the manner in which the business is managed, as well as the way that financial instruments in other parts of the business are recorded.

Securities—Securities with values based on quoted market prices in active markets for identical assets are classified within level 1 of the fair value hierarchy. These securities primarily include active listed equities, certain U.S. government and sovereign obligations, Exchange Traded Funds (“ETFs”), mutual funds and certain money market securities. The Company does not adjust the quoted price for such instruments, even in situations where the Company holds a large position and a sale could reasonably impact the quoted price.

Certain positions for which trading activity may not be readily visible, consisting primarily of convertible debt, corporate debt and loans and restricted equities, are stated at fair value and classified within level 2 of the fair value hierarchy. The estimated fair values assigned by management are determined in good faith and are based on available information considering, trading activity, broker quotes, quotations provided by published pricing services, counterparties and other market participants, and pricing models using quoted inputs, and do not necessarily represent the amounts which might ultimately be realized. As level 2 investments include positions that are not always traded in active markets and/or are subject to transfer restrictions, valuations may be adjusted to reflect illiquidity and/or non-transferability.

Derivative contracts—Derivative contracts can be exchange-traded or privately negotiated over-the-counter (“OTC”). Exchange-traded derivatives, such as futures contracts and exchange-traded option contracts, are typically classified within level 1 or level 2 of the fair value hierarchy depending on whether or not they are deemed to be actively traded. OTC derivatives, such as generic forwards, swaps and options, have inputs which can generally be corroborated by market data and are therefore classified within level 2. OTC derivatives, such as swaps and options where market data is not readily available or observable are classified as level 3.

Other investments—Other investments consist primarily of investment funds, real estate investments and equity method investments, which are valued as follows:

- i. **Portfolio funds**—Portfolio funds (“Portfolio Funds”) include interests in private investment partnerships, foreign investment companies and other collective investment vehicles which may be managed by the Company or its affiliates. The Company follows US GAAP regarding fair value measurements and disclosures relating to investments

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Notes to Consolidated Financial Statements (Continued)

in certain entities that calculate net asset value ("NAV") per share (or its equivalent). The guidance permits, as a practical expedient, an entity holding investments in certain entities that either are investment companies as defined by the American Institute of Certified Public Accountants ("AICPA") Audit and Accounting Guide, Investment Companies, or have attributes similar to an investment company, and calculate net asset value per share or its equivalent for which the fair value is not readily determinable, to measure the fair value of such investments on the basis of that NAV per share, or its equivalent, without adjustment. In accordance with US GAAP, investments which are valued using NAV per share as a practical expedient are not categorized within the fair value hierarchy.

- ii. Real estate investments**—Real estate debt and equity investments are valued at fair value. The fair value of real estate investments are estimated based on the price that would be received to sell an asset in an orderly transaction between marketplace participants at the measurement date. Real estate investments without a public market are valued based on assumptions and valuation techniques used by the Company. Such valuation techniques may include discounted cash flow analysis, prevailing market capitalization rates or earnings multiples applied to earnings from the investment, analysis of recent comparable sales transactions, actual sale negotiations and bona fide purchase offers received from third parties, consideration of the amount that currently would be required to replace the asset, as adjusted for obsolescence, as well as independent external appraisals. In general, the Company considers several valuation techniques when measuring the fair value of a real estate investment. However, in certain circumstances, a single valuation technique may be appropriate. Real estate investments are reviewed on a quarterly basis by the Company for significant changes at the property level or a significant change in the overall market which would impact the value of the real estate investment resulting in unrealized appreciation or depreciation.

Real estate and capital markets are cyclical in nature. Property and investment values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. In addition, the Company invests in real estate and real estate related investments for which no liquid market exists. The market prices for such investments may be volatile and may not be readily ascertainable. Amounts ultimately realized by the Company from investments sold may differ from the fair values presented, and the differences could be material.

The Company's real estate investments are typically categorized as level 3 investments within the fair value hierarchy as management uses significant unobservable inputs in determining their estimated fair value.

See Notes 6 and 7 for further information regarding the Company's investments, including equity method investments and fair value measurements.

g. Due from/due to related parties

The Company may advance amounts and pay certain expenses on behalf of employees of the Company or other affiliates of the Company. These amounts settle in the ordinary course of business. Such amounts are included in due from and due to related parties, respectively, on the accompanying consolidated statements of financial condition.

h. Receivable from and payable to brokers

Receivable from and payable to brokers, includes cash held at clearing brokers, amounts receivable or payable for unsettled transactions, monies borrowed and proceeds from short sales equal to the fair value of securities sold, but not yet purchased. Pursuant to the Company's prime broker agreements, these balances are presented net (assets less liabilities) across balances with the same broker.

i. Fees receivable

Fees related to security transactions are reported net of an allowance for credit losses. An allowance for credit losses is assessed on any commission receivables aged over 180 days.

Corporate finance and syndicate receivables, include receivables relating to the Company's investment banking and advisory engagements net of allowance for credit losses. The Company records this allowance for credit losses on these receivables on a specific identification basis. The future collectability of the receivables is reviewed on a monthly basis based on the following factors: aging (usually if outstanding greater than 90 days), known financial stability of the paying company, as well as any other factors that might impact the collection of the outstanding fees.

Management and incentive fees are earned as the managing member, general partner and/or investment manager to the Company's investment funds and are recognized in accordance with the new revenue recognition guidance (see Note 3t).

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Notes to Consolidated Financial Statements (Continued)

j. Securities borrowed and securities loaned

Securities borrowed and securities loaned are carried at the amounts of cash collateral advanced or received on a gross basis. The related rebates are recorded in the accompanying consolidated statements of operations as interest and dividends income and interest and dividends expense. Securities borrowed transactions require the Company to deposit cash collateral with the lender. With respect to securities loaned, the Company receives cash collateral from the borrower. The initial collateral advanced or received approximates or is greater than the market value of securities borrowed or loaned. The Company monitors the market value of securities borrowed and loaned on a daily basis, with additional collateral obtained or returned, as necessary. Securities borrowed and loaned may also result in credit exposures for the Company in an event that the counterparties are unable to fulfill their contractual obligations. The Company minimizes its credit risk by continuously monitoring its credit exposure and collateral values by demanding additional or returning excess collateral in accordance with the netting provisions available in the master securities lending contracts in place with the counterparties.

Fees and interest received or paid are recorded in interest and dividends income and interest and dividends expense, respectively, on an accrual basis in the accompanying consolidated statements of operations. In cases where the fair value basis of accounting is elected, any resulting change in fair value would be reported in net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations. Accrued interest income and expense are recorded in receivable from brokers, dealers and clearing organizations and payable to brokers, dealers and clearing organizations, respectively, on an accrual basis in the accompanying consolidated statements of financial condition. At December 31, 2018, the Company did not have any securities lending transactions for which fair value basis of accounting was elected.

k. Fixed Assets

Fixed assets are stated at cost less accumulated depreciation or amortization. Leasehold improvements are amortized on a straight-line basis over the lesser of their useful life or lease term. When the Company commits to a plan to abandon fixed assets or leasehold improvements before the end of its original useful life, the estimated depreciation or amortization period is revised to reflect the shortened useful life of the asset. Other fixed assets are depreciated on a straight-line basis over their estimated useful lives.

Aircraft and related equipment, which are leased out under operating leases, are carried at cost less accumulated depreciation and are depreciated to estimated residual value using the straight-line method over the lease term or estimated useful life of the asset. Any assets received at the end of the lease are marked to the lower of cost or fair value with the adjustment recorded in other income.

Asset	Depreciable Lives	Depreciation and/or Amortization Method
Telephone and computer equipment	3-5 years	Straight-line
Computer software	3-8 years	Straight-line
Furniture and fixtures	5 years	Straight-line
Leasehold improvements	Term of Lease	Straight-line
Capitalized lease asset	5 years	Straight-line
Aircraft and related equipment	10-20 years	Straight-line
Modifications to aircraft	4-10 years	Straight-line

l. Goodwill and intangible assets

Goodwill represents the excess of the purchase price consideration of acquired companies over the estimated fair value assigned to the individual assets acquired and liabilities assumed. Goodwill is allocated to the Company's reporting units at the date the goodwill is initially recorded. Once goodwill has been allocated to the reporting units, it generally no longer retains its identification with a particular acquisition, but instead becomes identifiable with the reporting unit. As a result, all of the fair value of each reporting unit is available to support the value of goodwill allocated to the unit.

In accordance with US GAAP, the Company tests goodwill for impairment on an annual basis or at an interim period if events or changed circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. In testing for goodwill impairment, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances led to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events and circumstances, the Company concludes that fair value exceeds its carrying amount, then performing the two-step impairment test is not necessary. If the Company concludes otherwise, the Company is required to perform the two-step quantitative impairment test. The first step requires a comparison

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Notes to Consolidated Financial Statements (Continued)

of the fair value of the reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit exceeds its carrying value, the related goodwill is not considered impaired and no further analysis is required. If the carrying value of the reporting unit exceeds the fair value, there is an indication that the related goodwill might be impaired and the second step is performed to measure the amount of impairment, if any.

The second step of the goodwill impairment test compares the implied fair value of the reporting unit's goodwill with its carrying amount to measure the amount of impairment, if any. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. In other words, the estimated fair value of the reporting unit is allocated to all of its assets and liabilities (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit was the purchase price paid. If the carrying amount of the reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment is recognized in an amount equal to that excess. Goodwill impairment tests involve 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 (earning and/or transactions multiples) and/or 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. See Note 12 for further discussion.

Intangible assets with finite lives are amortized over their estimated average useful lives. The Company does not have any intangible assets deemed to have indefinite lives. Intangible assets are tested for potential impairment whenever events or changes in circumstances suggest that an asset or asset group's carrying value may not be fully recoverable. Similar to goodwill impairment test, an impairment loss, calculated as the difference between the estimated fair value and the carrying value of an asset or asset group, is recognized in the accompanying consolidated statements of operations if the sum of the estimated undiscounted cash flows relating to the asset or asset group is less than the corresponding carrying value.

m. Debt

Long-term debt is carried at the principal amount borrowed net of any unamortized discount/premium. The discount is accreted to interest expense using the effective interest method over the remaining life of the underlying debt obligations. Accrued but unpaid coupon interest is included in accounts payable, accrued expenses and other liabilities in the accompanying consolidated statements of financial condition.

n. Deferred rent

Deferred rent primarily consists of step rent, allowances from landlords and valuing the Company's lease properties acquired through business combinations in accordance with US GAAP. Step rent represents the difference between actual operating lease payments due and straight-line rent expense, which is recorded by the Company over the term of the lease, including the build-out period. This amount is recorded as deferred rent in the early years of the lease, when cash payments are generally lower than straight-line rent expense, and reduced in the later years of the lease when payments begin to exceed the straight-line expense. Landlord allowances are generally comprised of amounts received and/or promised to the Company by landlords and may be received in the form of cash or free rent. These allowances are part of the negotiated terms of the lease. The Company records a receivable from the landlord and a deferred rent liability when the allowances are earned. This deferred rent is amortized into income (through lower rent expense) over the term (including the pre-opening build-out period) of the applicable lease, and the receivable is reduced as amounts are received from the landlord. Liabilities resulting from valuing the Company's leased properties acquired through business combinations are quantified by comparing the current fair value of the leased space to the current rental payments on the date of acquisition. Deferred rent, included in accounts payable, accrued expenses and other liabilities in the accompanying consolidated statements of financial condition, as of December 31, 2018 and 2017 is \$8.2 million and \$12.8 million, respectively.

o. Legal reserves

In accordance with US GAAP, the Company establishes reserves for contingencies when the Company believes that it is probable that a loss has been incurred and the amount of loss can be reasonably estimated. The Company discloses a contingency if there is at least a reasonable possibility that a loss may have been incurred and there is no reserve for the loss because the conditions above are not met. The Company's disclosure includes an estimate of the reasonably possible loss or range of loss for those matters, for which an estimate can be made. Neither reserve nor disclosure is required for losses that are deemed remote.

p. Capital withdrawals payable

Capital withdrawals from the Consolidated Funds are recognized as liabilities, net of any incentive income, when the amount requested in the withdrawal notice represents an unconditional obligation at a specified or determined date (or dates) or

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Notes to Consolidated Financial Statements (Continued)

upon an event certain to occur. This generally may occur either at the time of the receipt of the notice, or on the last day of a reporting period, depending on the nature of the request. As a result, withdrawals paid after the end of the year, but based upon year-end capital balances are reflected as liabilities at the balance sheet date.

q. Redeemable non-controlling interests in consolidated subsidiaries

Redeemable non-controlling interests represent the pro rata share of the book value of the financial positions and results of operations attributable to the other owners of the consolidated subsidiaries. Redeemable non-controlling interests related to Consolidated Funds are generally subject to annual, semi-annual or quarterly withdrawals or redemptions by investors in these funds, sometimes following the expiration of a specified period of time (generally one year), or may only be withdrawn subject to a redemption fee (generally ranging from 1% to 5%). Likewise, non-controlling interests related to certain other consolidated entities are generally subject to withdrawal, redemption, transfer or put/call rights that permit such non-controlling investors to withdraw from the entities on varying terms and conditions. Because these non-controlling interests are redeemable at the option of the non-controlling interests, they have been classified as temporary equity in the accompanying consolidated statements of financial condition. When redeemed amounts become legally payable to investors on a current basis, they are reclassified as a liability.

r. Treasury stock

In accordance with US GAAP relating to repurchases of an entity's own outstanding common stock, the Company records the purchases of stock held in treasury at cost and reports them separately as a deduction from total stockholders' equity on the accompanying consolidated statements of financial condition and changes in equity.

s. Comprehensive income (loss)

Comprehensive income (loss) consists of net income and other comprehensive income (loss). The Company's other comprehensive income (loss) is comprised of foreign currency cumulative translation adjustments.

t. Revenue recognition

Effective January 1, 2018, the Company adopted ASC Topic 606, Revenue from Contracts with Customers ("ASC Topic 606"). The new revenue recognition guidance requires that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance requires an entity to follow a five step model to (a) identify the contract(s) with a customer, (b) identify the performance obligations in the contract, (c) determine the transaction price, (d) allocate the transaction price to the performance obligations in the contract, and (e) recognize revenue when (or as) the entity satisfies a performance obligation. In determining the transaction price, an entity may include variable consideration only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized would not occur when the uncertainty associated with the variable consideration is resolved. Significant judgments are required in the application of the five step model when determining whether performance obligations are satisfied at a point in time or over time; how to allocate transaction prices where multiple performance obligations are identified; when to recognize revenue based on the appropriate measure of the Company's progress under the contract; and whether constraints on variable consideration should be applied due to uncertain future events.

The Company applied the modified retrospective method of adoption which resulted in a cumulative adjustment of \$0.6 million to retained earnings as of January 1, 2018. Reported financial results for historic periods were not restated and are reported under the accounting standards in effect during the historic period. Refer to the Company's Annual Report on Form 10-K for the year ended December 31, 2018 for discussions related to the Company's previous revenue recognition policies.

Our principle sources of revenue are derived from two segments: an investment management segment and an investment bank segment, as more fully described below. Revenue from contracts with customers includes management fees, incentive, investment banking revenue, brokerage services revenue excluding principal transactions from investment management and investment banking services. The new revenue recognition guidance does not apply to revenue associated with financial instruments, interest income and expense, leasing and insurance contracts. The following is a description of principal activities, separated by reportable segments, from which the Company generates its revenue. For more detailed information about reportable segments, see Note 27.

Investment Management

Our investment management segment generates revenue through three principle sources: management fees, incentive income and investment income from the Company's own capital. The investment income was excluded from the new revenue recognition guidance, therefore there were no changes associated with the adoption of the new guidance.

Management fees

The Company earns management fees from investment funds and certain managed accounts for which it serves as the investment manager; such fees earned are typically based on assets under management. The management fees are earned as the investment management services are provided and are not subject to reversals. The performance obligation related to the transfer of these services is satisfied over time because the customer is receiving and consuming the benefits as they are provided by the Company.

Several investment managers and/or general partners of the investment funds are owned jointly by the Company and third parties. Accordingly, the management fees generated by these funds are split between the Company and these third parties based on the proportionate ownership of the management company. Pursuant to US GAAP, these fees received by the management companies are accounted for under the equity method of accounting and are reflected under net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations.

Management fees are generally paid on a quarterly basis and are prorated for capital inflows (or commitments) and redemptions (or distributions) and are recognized as revenue at that time as they relate specifically to the services provided in that period, which are distinct from the services provided in other periods. While some investors may have separately negotiated fees, in general the management fees are as follows:

- **Hedge Funds.** Management fees for the Company's hedge funds are generally charged at an annual rate of up to 2% of assets under management or notional trading level. Management fees are generally calculated monthly based on assets under management at the end of each month.
- **Real Estate.** Management fees from the Company's real estate business are generally charged at an annual rate from 0.25% to 1.50% of total capital commitments during the investment period and of invested capital or net asset value of the applicable real estate fund after the investment period has ended. Management fees are typically paid to the general partners on a quarterly basis, at the beginning of the quarter in arrears.
- **Private Equity Funds.** Management fees for the Company's private equity or debt funds are generally charged at an annual rate of 1% to 2% of committed capital during the investment period (as defined in the relevant partnership agreements). After the investment period, management fees for these private equity funds are generally charged at an annual rate of 0.5% to 2% of the net asset value or the aggregate cost basis of the unrealized investments held by the private equity funds. For certain other private equity funds (and managed accounts), the management fees range from 0.2% to 1% and there is no adjustment based on the investment period. Management fees for the Company's private equity funds are generally paid on a quarterly basis.
- **Cowen Trading Strategies.** Advisory fees for the Company's collateral management advisory business are typically paid quarterly based on assets under management, generally subject to a minimum fee.

Incentive income

The Company earns incentive income based on net profits (as defined in the respective investment management or partnership agreements) with respect to certain of the Company's investment funds and managed accounts. The incentive income is either allocated to the Company or is charged to the investment funds in accordance with their respective investment management or partnership agreements. For the hedge funds the Company offers, incentive income earned is typically up to 20% (in certain cases on performance in excess of a benchmark) of the net profits earned for the full year that are attributable to each fee-paying investor. For the private equity and debt fund products the Company offers, the carried interest earned is typically up to 20% of the distributions made to investors after return of their contributed capital and generally a preferred return.

With the adoption of ASC Topic 606, the Company applied an accounting policy election to recognize incentive income allocated to the Company under an equity ownership model as net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations. The Company previously recognized these amounts as incentive income. Under the equity method of accounting the Company recognizes its allocations of incentive income or carried interest within net gains (losses) along with the allocations proportionate to the Company's ownership interests in the investment funds.

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Notes to Consolidated Financial Statements (Continued)

The Company recognizes incentive income charged to the Company's hedge funds based on the net profits of the hedge funds. The Company recognizes such incentive income when the fees are no longer subject to reversal or are crystallized. For a majority of the hedge funds, the incentive fee crystallizes annually when the high-water mark for such hedge funds is reset, which delays recognition of the incentive fee until year end.

In periods following a period of a net loss attributable to an investor, the Company generally does not earn incentive income on any future profits attributable to such investor until the accumulated net loss from prior periods is recovered, an arrangement commonly referred to as a "high-water mark."

The management companies and general partners of the Company's private equity structures (including the real estate funds, the private healthcare investing funds and HealthCare Royalty Partners funds) are private companies and therefore have not adopted the new revenue recognition guidance. Generally, incentive income or carried interest is earned after the investor has received a full return of their invested capital, plus a preferred return. However, for certain private equity structures, the Company is entitled to receive incentive fees earlier, provided that the investors have received their preferred return on a current basis or on an investor by investor basis. These private equity structures are generally subject to a potential clawback of these incentive fees upon the liquidation of the private equity structure if the investor has not received a full return of its invested capital plus the preferred return thereon. Incentive income or carried interest in the HealthCare Royalty Partners and the Company's private healthcare investment funds is generally earned only after investors receive a full return of their capital plus a preferred return. With the adoption of ASC Topic 606, the Company recognizes incentive income at the end of the performance period.

Several investment managers and/or general partners of the Company's investment funds are jointly owned by the Company and third parties. Accordingly, the incentive fees generated by these investment funds are split between the Company and these third parties. Pursuant to US GAAP, incentive income received by the general partners that are accounted for under the equity method of accounting are reflected under net gains (losses) on securities, derivatives and other investments in the accompanying consolidated statements of operations.

Investment Bank

Investment Banking

The Company earns investment banking revenue primarily from fees associated with public and private capital raising transactions and providing strategic advisory services. Investment banking revenues are derived primarily from small- and mid-capitalization companies within the Company's Target Sectors.

Investment banking revenue consists of underwriting fees, strategic/financial advisory fees, expenses reimbursed from clients and placement and sales agent fees.

- **Underwriting fees.** The Company earns underwriting fees in securities offerings in which the Company acts as an underwriter, such as initial public offerings, follow-on equity offerings, debt offerings, and convertible security offerings. Fee revenue relating to underwriting commitments is recorded at the point in time when all significant items relating to the underwriting process have been completed and the amount of the underwriting revenue has been determined. This generally is the point at which all of the following have occurred: (i) the issuer's registration statement has become effective with the SEC or the other offering documents are finalized; (ii) the Company has made a firm commitment for the purchase of securities from the issuer; (iii) the Company has been informed of the number of securities that it has been allotted; and (iv) the issuer obtains control and benefits if the offering; which generally occurs on trade date.

Underwriting fees are recognized gross of transaction-related expenses, such amounts are adjusted to reflect actual expenses in the period in which the Company receives the final settlement, typically within 90 days following the closing of the transaction.

- **Strategic/financial advisory fees.** The Company's strategic advisory revenues include success fees earned in connection with advising companies, principally in mergers, acquisitions and restructuring transactions. The Company also earns fees for related advisory work such as providing fairness opinions. A significant portion of the Company's advisory revenue (i.e., success related advisory fees) is considered variable consideration and recognized when it is probable that the variable consideration will not be reversed in a future period. The variable consideration is constrained until satisfaction of the performance obligation. The Company records strategic advisory revenues at the point in time, gross of related expenses, when the services for the transactions are completed or the contract is canceled under the terms of each assignment or engagement.

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Notes to Consolidated Financial Statements (Continued)

- **Placement and sales agent fees.** The Company earns agency placement fees and sales agent commissions in non-underwritten transactions, such as private placements of loans and debt and equity securities, including, private investment in public equity transactions (“PIPEs”), and as sales agent in at-the-market offerings of equity securities. The Company records placement revenues (which may be in cash and/or securities) at the point in time when the services for the transactions are completed under the terms of each assignment or engagement. The Company records sales agent commissions on a trade-date basis.
- **Expense reimbursements from clients.** Investment banking revenue includes expense reimbursements for transaction-related expenses, primarily consisting of legal, travel and other costs directly associated with the transaction. Expense reimbursements associated with investment banking engagements are recognized in revenue at the point in time when the Company is contractually entitled to reimbursement. The related expenses are presented gross within their respective expense category in the accompanying consolidated statements of operations.

Brokerage

Brokerage revenue consists of commissions, principal transactions, equity and credit research fees and trade conversion revenue.

- **Commissions.** Commission revenue includes fees from executing and clearing client transactions and commission sharing arrangements. Trade execution and clearing services, when provided together, represent a single performance obligation as the services are not separately identifiable in the context of the contract. Commission revenues associated with combined trade execution and clearing services on a standalone basis, are recognized at a point in time on trade-date. Commissions revenues are generally paid on settlement date and the Company records a receivable between trade-date and payment on settlement date. The Company permits institutional customers to allocate a portion of their 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”. The Company also offers institutional clients the ability to allocate a portion of their gross commissions incurred on trades executed with various clearing brokers to pay for research products and other services provided by third parties by entering into commission sharing arrangements. The Company acts as an agent in the soft dollar and commission sharing arrangements as the customer controls the use of the soft dollars and directs payments to third-party service providers on its behalf. Accordingly, amounts allocated to soft dollar arrangements are netted against commission revenues and recorded on trade date. Commissions on soft dollar brokerage are recorded net of the related expenditures. The costs of commission sharing arrangements are recorded for each eligible trade and shown net of commission revenue.
- **Principal transactions.** Principal transactions revenue includes net trading gains and losses from the Company's market-making activities in over-the-counter equity and fixed income securities, trading of convertible securities, and trading gains and losses on inventory and other Company positions, which include warrants previously received as part of investment banking transactions. In certain cases, the Company provides liquidity to clients by buying or selling blocks of shares of listed stocks without previously identifying the other side of the trade at execution, which subjects the Company to market risk. These positions are typically held for a very short duration.
- **Equity and credit research fees.** Equity and credit research fees are paid to the Company for providing equity and credit research. Revenue is recognized once an arrangement exists, access to research has been provided and the customer has benefited from the research.
- **Trade conversion revenue.** Trade conversion revenue includes fees earned from converting foreign securities into an American Depositary Receipt (“ADR”) and fees earned from converting an ADR into foreign securities on behalf of customers, and margins earned from facilitating customer foreign exchange transactions. Trade conversion revenue is recognized on a trade-date basis.

Investment Income

Investment income earned by the investment management and investment bank segments are earned from investing the Company's capital in various strategies and from investments in private capital raising transactions of its investment banking clients.

Interest and dividends

Interest and dividends are earned by the Company from various sources. The Company receives interest and dividends primarily from securities finance activities and securities held by the Company for purposes of investing capital, investments held by its Consolidated Funds and its brokerage balances. Interest is recognized on an accrual basis and interest income is

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Notes to Consolidated Financial Statements (Continued)

recognized on the debt of those issuers that is deemed collectible. Interest income and expense includes premiums and discounts amortized and accreted on debt investments based on criteria determined by the Company using the effective yield method, which assumes the reinvestment of all interest payments. Dividends are recognized on the ex-dividend date.

Reimbursement from affiliates

The Company allocates, at its discretion, certain expenses incurred on behalf of its investment management business. These expenses relate to the administration of such subsidiaries and assets that the Company manages for its investment funds. In addition, pursuant to the investment funds' offering documents, the Company charges certain allowable expenses to the investment funds, including charges and personnel costs for legal, compliance, accounting, tax compliance, risk and technology expenses that directly relate to administering the assets of the investment funds. Such expenses that have been reimbursed at their actual costs are included in the accompanying consolidated statements of operations as employee compensation and benefits, professional, advisory and other fees, communications, occupancy and equipment, client services and business development and other expenses.

Aircraft lease revenue

Aircraft lease revenue associated with the Company's aircraft leasing business is recorded on a straight-line basis over the term of the lease, net of deferred rent and/or prepaid initial direct costs.

Reinsurance-related contracts

Premiums for reinsurance-related contracts are earned over the coverage period. In most cases, premiums are recognized as revenues ratably over the term of the contract with unearned premiums computed on a monthly basis. For each of its contracts, the Company determines if the contract provides indemnification against loss or liability relating to insurance risk, in accordance with US GAAP. If the Company determines that a contract does not expose it to a reasonable possibility of a significant loss from insurance risk, the Company records the contract under the deposit method of accounting with any net amount receivable reflected as an asset in other assets, and any net amount payable reflected as a liability within accounts payable, accrued expenses and other liabilities on the consolidated statements of financial condition.

The liabilities for losses and loss adjustment expenses are recorded at the estimated ultimate payment amounts, including reported losses. Estimated ultimate payment amounts are based upon (1) reports of losses from policyholders, (2) individual case estimates and (3) estimates of incurred but unreported losses.

Provisions for losses and loss adjustment expenses are charged to earnings after deducting amounts recovered and estimates of recoverable amounts and are included in other expenses on the consolidated statements of operations.

Costs of acquiring new policies, which vary with and are directly related to the production of new policies, have been deferred to the extent that such costs are deemed recoverable from future premiums or gross profits. Such costs include commissions and allowances as well as certain costs of policy issuance and underwriting and are included within other assets in the consolidated statements of financial condition.

The following tables summarize the impacts of adopting ASC Topic 606 on the Company's consolidated financial statements.

Consolidated Statements of Financial Condition

	As of December 31, 2018		
	As reported	ASC 606 Impact	Adjusted (a)
	(dollars in thousands)		
Assets			
Fees receivable, net of allowance	\$ 111,946	\$ 17,995	\$ 129,941
Other investments	181,407	(17,995)	163,412
Stockholders' equity	\$ 794,407	\$ 1,002	\$ 795,409

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Consolidated Statements of Operations

Consolidated Statements of Operations	Year Ended December 31, 2018		
	As reported	ASC 606 Impact	Adjusted (a)
	(dollars in thousands)		
Revenues			
Investment banking	\$ 357,222	\$ (28,160)	\$ 329,062
Incentive income	3,117	15,911	19,028
Total revenues	966,916	(12,249)	954,667
Expenses			
Underwriting expenses	15,282	(15,282)	—
Professional, advisory and other fees	40,957	(7,861)	33,096
Service fees	20,198	(42)	20,156
Communications	30,801	(1,449)	29,352
Occupancy and equipment	41,602	(14)	41,588
Client services and business development	35,927	(3,373)	32,554
Other expenses	22,014	(139)	21,875
Total expenses	887,606	(28,160)	859,446
Net gains (losses) on securities, derivatives and other investments	68,043	15,469	83,512
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 36,027	\$ 442	\$ 36,469

Consolidated Statements of Cash Flows

Consolidated Statements of Cash Flows	Year Ended December 31, 2018					
	As reported		ASC 606 Impact		Adjusted (a)	
	(dollars in thousands)					
Cash flows from operating activities:						
Net income (loss)	\$	83,217	\$	442	\$	83,659
Adjustments to reconcile net income (loss) to net cash provided by / (used in) operating activities:						
Net (gains) losses on securities, derivatives, and other investments		(54,032)		12,331		(41,701)
(Increase) decrease in operating assets:						
Fees receivable, net of allowance		(6,401)		(11,962)		(18,363)
Net cash provided by / (used in) operating activities		324,536		811		325,347
Cash flows from investing activities:						
Purchase of other investments		(28,092)		(812)		(28,904)
Net cash provided by / (used in) investing activities	\$	(17,882)	\$	(812)	\$	(18,694)

(a) The amounts reflected above represent items as they would have been reported prior to adoption of the new revenue standard.

For the year ended December 31, 2018, the following table presents revenues from contracts with customers disaggregated by fee type.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Revenue from contracts with Customers

Investment Banking	
Underwriting fees	\$ 215,724
Strategic/financial advisory fees	81,733
Placement and sales agent fees	46,887
Expense reimbursements from clients	12,878
<i>Total Investment Banking Revenue</i>	<u>357,222</u>
Brokerage	
Commissions	366,090
Trade conversion revenue	17,061
Equity and credit research fees	20,184
<i>Total Brokerage Revenue from Customers</i>	<u>403,335</u>
Management Fees	29,658
Incentive Income	3,117
Total revenue from contracts with customers	<u><u>\$ 793,332</u></u>

Interest and dividends expense

Interest and dividends expense relates primarily to securities finance activities, trading activity with respect to the Company's investments and interest expense on debt.

u. Investments transactions and related income/expenses

Purchases and sales of securities, net of commissions, and derivative contracts, and the related revenues and expenses are recorded on a trade date basis with net trading gains and losses included as a component of net gains (losses) on securities, derivatives and other investments, and with respect to the Consolidated Funds and other real estate entities as a component of net realized and unrealized gains (losses) on investments and other transactions and net realized and unrealized gains (losses) on derivatives, respectively, in the accompanying consolidated statements of operations.

v. Share-based compensation

The Company accounts for its share-based awards granted to individuals as payment for employee services in accordance with US GAAP and values such awards based on grant date fair value. Unearned compensation associated with share-based awards is amortized over the vesting period of the option or award. The Company estimates forfeiture for equity-based awards that are not expected to vest. See Note 19 for further information regarding the Company's share-based compensation plans.

w. Leases

The Company leases certain facilities and equipment used in its operations. The Company evaluates and classifies its leases as operating or capital leases for financial reporting purposes. Assets held under capital leases are included in fixed assets. Operating lease expense is recorded on a straight-line basis over the lease term. Landlord incentives are recorded as deferred rent and amortized, as reductions to lease expense, on a straight-line basis over the life of the applicable lease.

x. Income taxes

The Company accounts for income taxes in accordance with US GAAP which requires the recognition of tax benefits or expenses based on the estimated future tax effects of temporary differences between the financial statement and tax basis of its assets and liabilities. The effect on deferred taxes of a change in tax rates is recognized as income or loss in the period that includes the enactment date. Valuation allowances are established to reduce deferred tax assets to an amount that is more likely than not to be realized. We evaluate our deferred tax assets for recoverability considering negative and positive evidence, including our historical financial performance, projections of future taxable income, future reversals of existing taxable temporary differences, and tax planning strategies. We record a valuation allowance against our deferred tax assets to bring them to a level that it is more likely than not to be utilized. In evaluating the need for a valuation allowance, we estimate future taxable income based on management approved business plans. This process involves significant management judgment about assumptions that are subject to change from period to period. Because the recognition of deferred tax assets requires management to make significant judgments about future earnings, the periods in which items will impact taxable income and the application of inherently complex tax laws, we have identified the assessment of deferred tax assets and the need for any related valuation allowance as a critical accounting estimate.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

US GAAP clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements, requiring the Company to determine whether a tax position is more likely than not to be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. For tax positions meeting the more likely than not threshold, the tax amount recognized in the financial statements is reduced by the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant taxing authority. The Company recognizes accrued interest and penalties related to its uncertain tax positions as a component of income tax expense.

In accordance with federal and state tax laws, the Company and its subsidiaries file consolidated federal, state, and local income tax returns as well as stand-alone state and local tax returns. The Company also has subsidiaries that are resident in foreign countries where tax filings have to be submitted on a stand-alone or combined basis. These subsidiaries are subject to tax in their respective countries and the Company is responsible for and, thus, reports all taxes incurred by these subsidiaries in the consolidated statement of operations. The countries where the Company owns subsidiaries and has tax filing obligations are the United Kingdom, Luxembourg, Canada and Hong Kong.

y. Foreign currency transactions

The Company consolidates certain foreign subsidiaries that have designated a foreign currency as their functional currency. For entities that have designated a foreign currency as their functional currency, assets and liabilities are translated into U.S. dollars based on current rates, which are the spot rates prevailing at the end of each statement of financial condition date, and revenues and expenses are translated at historical rates, which are the average rates for the relevant periods. The resulting translation gains and losses, and the tax effects of such gains and losses, are recorded in accumulated other comprehensive income (loss), a separate component of stockholders' equity.

For subsidiaries that have designated the U.S. Dollar as their functional currency, securities and other assets and liabilities denominated in foreign currencies are translated into U.S. Dollar amounts at the date of valuation. Purchases and sales of securities and other assets and liabilities and the related income and expenses denominated in foreign currencies are translated into U.S. Dollar amounts on the respective dates of the transactions. The Company does not isolate that portion of the results of operations resulting from changes in foreign exchange rates on these balances from fluctuations arising from changes in market prices of securities and other assets/liabilities held or sold. Such fluctuations are included in the accompanying consolidated statements of operations as a component of net gains (losses) on securities, derivatives and other investments. Gains and losses primarily relating to foreign currency broker balances are included in Other income (loss) in the accompanying consolidated statements of operations.

z. Recently issued accounting pronouncements

In October 2018, the FASB issued guidance that made targeted changes to the related party consolidation guidance. The new guidance changes how entities evaluate decision-making fees under the variable interest entity guidance. To determine whether decision-making fees represent a variable interest, an entity will consider indirect interests held through related parties under common control on a proportionate basis under the new guidance, rather than in their entirety, as has been the case under current guidance. The guidance is effective in annual periods beginning after December 15, 2019 and interim periods within those fiscal years with early adoption permitted. The Company is currently evaluating the impact of the new guidance.

In August 2018, the FASB issued guidance for accounting for upfront costs and fees paid by a customer in a cloud computing arrangement. The guidance requires capitalization of implementation costs incurred in connection with a hosting arrangement or the development or obtainment of internal use software. The guidance is effective for public business entities for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years for any implementation costs incurred after adoption. The Company is currently evaluating the impact of this guidance on the Company's consolidated financial statements and does not expect this guidance to have a material impact on its consolidated statements of financial condition or its consolidated statements of operations.

In August 2018, as part of its disclosure framework project, the FASB amended the disclosure requirements for fair value measurement. The amendments update and eliminate various disclosure requirements that improve the overall usefulness of the disclosure requirement for financial statement users and reduce costs by eliminating disclosures that may not be useful. The guidance is effective for public business entities for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. Since the guidance only relates to disclosure requirements, the Company does not expect this guidance to have a material impact on its consolidated statements of financial condition or its consolidated statements of operations.

In February 2018, the FASB issued guidance to permit entities to reclassify certain tax effects from accumulated comprehensive income as a result of recent tax reforms. The amendments in this guidance are effective for public business entities for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The Company is

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

currently evaluating the impact of this guidance on the Company's consolidated financial statements and does not expect this guidance to have a material impact as the Company does not hold any material components of deferred taxes in accumulated other comprehensive income (loss).

In March 2017, the FASB issued guidance to amend the amortization period for certain purchased callable debt securities held at a premium. Under current guidance, entities generally amortize the premium as an adjustment of yield over the contractual life of the instrument. The new guidance shortened the amortization period for the premium to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. The amendments in this guidance are effective for public business entities for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The Company is currently evaluating the impact of this guidance on the Company's consolidated financial statements and does not expect this guidance to have a material impact on its consolidated statement of financial condition or its statement of operations as the Company does not hold any material callable debt securities.

In January 2017, the FASB issued guidance that simplifies the subsequent measurement of goodwill. The new guidance eliminated Step 2 from the goodwill impairment test which was required in computing the implied fair value of goodwill. Instead, under the new amendments, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. If applicable, an entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss. The amendments in this guidance are effective for public business entities for annual and interim goodwill impairment tests performed in fiscal years beginning after December 15, 2019 with early adoption permitted after January 1, 2017. The Company is currently evaluating the impact of this guidance on the Company's consolidated financial statements. The Company expects this guidance to simplify its goodwill impairment analysis.

In February 2016, the FASB issued guidance that amends and supersedes its previous guidance regarding leases. The new guidance requires the lessee to recognize the right to use lease assets and lease liabilities that arise from leases greater than one year, and present them in its statement of financial condition. The recognition of these lease assets and lease liabilities represents a change from previous US GAAP requirements, which did not require lease assets and lease liabilities to be recognized for most leases. The recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee, have not significantly changed from previous US GAAP requirements. For public business entities, the guidance is effective for reporting periods beginning after December 15, 2018. As of December 31, 2018, the Company has identified its arrangements that are within the scope of the new guidance and has evaluated its portfolio of leases, which is primarily comprised of operating real estate leases for its respective offices. The new standard provides a number of optional practical expedients in transition. The Company will elect the package of practical expedients and, upon adoption, will recognize the right to use lease assets and related lease liabilities as of the adoption date using the modified retrospective approach. Prior period information will not be restated. While the Company is still finalizing the quantitative effect of adoption, the Company believes, based upon the current population of leases, the right of use asset and corresponding lease liability will be 2% - 4% of the Company's total assets.

In June 2016, the FASB issued guidance that impacts the impairment model for certain financial assets measured at amortized cost by requiring a current expected credit loss ("CECL") methodology to estimate expected credit losses over the entire life of the financial asset, recorded at inception or purchase. CECL will replace the loss model currently applicable to loans, held to maturity securities and other receivables carried at amortized cost. The guidance also eliminates the concept of other-than-temporary impairment for available-for-sale securities. Impairments on available-for-sale securities will be required to be recognized in earnings through an allowance, when the fair value is less than amortized cost and a credit loss exists or the securities are expected to be sold before recovery of amortized cost. Under the accounting update, there may be an ability to determine there are no expected credit losses in certain circumstances, e.g., based on collateral arrangements for lending and financing transactions or based on the credit quality of the borrower or issuer. For public business entities, the guidance is effective for reporting periods beginning after December 15, 2019. The Company is currently evaluating the impact of this guidance on the Company's consolidated financial statements and does not expect this guidance to have a material impact.

4. Cash Collateral Pledged

As of December 31, 2018 and 2017, the Company pledged cash collateral in the amount of \$5.3 million and \$6.1 million, respectively, which relates to letters of credit issued to the landlords of the Company's premises in New York City, Boston, Stamford and San Francisco. The Company also has pledged collateral for reinsurance agreements which amounted to \$1.0

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

million, as of December 31, 2018, and \$11.8 million, as of December 31, 2017, which is anticipated to be due March 2021. (see Note 23).

5. Segregated Cash

As of December 31, 2018 and 2017, cash segregated in compliance with federal regulations and other restricted deposits of \$176.6 million and \$116.3 million, respectively, consisted of cash deposited in Special Reserve Accounts for the exclusive benefit of customers under SEC Rule 15c3-3 and cash held in accounts designated as Special Reserve Bank Accounts for Proprietary Accounts of Broker-Dealers ("PAB").

6. Investments of Operating Entities and Consolidated Funds

a. Operating Entities

Securities owned, at fair value

Securities owned, at fair value are held by the Company and are considered held for trading. Substantially all equity securities, which are not part of the Company's self clearing securities finance activities, are pledged to external clearing brokers under terms which permit the external clearing broker to sell or re-pledge the securities to others subject to certain limitations.

As of December 31, 2018 and 2017, securities owned, at fair value consisted of the following:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Common stock (b)	\$ 472,299	\$ 640,065
Preferred stock (b)	5,617	9,604
Warrants and rights (b)	7,990	9,604
U.S. Government securities (a)	13,398	2,807
Corporate bonds (d)	13,041	4,909
Convertible bonds (c)	3,000	282
Trade claims	5,543	5,950
	<u>\$ 520,888</u>	<u>\$ 673,221</u>

- (a) As of December 31, 2018, maturities ranged from April 2019 to August 2019 with an interest rate of 0%. As of December 31, 2017, maturities ranged from February 2018 to June 2018 with an interest rate of 0%.
- (b) The Company has elected the fair value option for investments in securities of preferred and common stock with a fair value of \$2.9 million and \$7.1 million, respectively, at December 31, 2018 and \$6.0 million and \$5.2 million, respectively, at December 31, 2017. At December 31, 2018 and 2017, the Company elected the fair value option for investments in warrants and rights with a fair value of \$1.1 million and \$2.4 million.
- (c) As of December 31, 2018, the maturity was June 2020 with an interest rate of 8%. As of December 31, 2017, maturities ranged from February 2018 to March 2018 and interest rates ranged from 5% to 12%.
- (d) As of December 31, 2018, maturities ranged from April 2019 to April 2049 and interest rates ranged from 2% to 15.5%. As of December 31, 2017, maturities ranged from October 2018 to May 2040 and interest rates ranged from 0% to 10.75%.

Receivable on and Payable for derivative contracts, at fair value

The Company's direct involvement with derivative financial instruments includes total return swaps, futures, currency forwards, equity swaps, credit default swaps and options. The Company's derivatives trading activities exposes the Company to certain risks, such as price and interest rate fluctuations, volatility risk, credit risk, counterparty risk, foreign currency movements and changes in the liquidity of markets.

Upon issuance of the Company's 3% cash convertible senior notes due 2019 in March 2014 ("2019 Convertible Notes") (see Note 23), the Company recognized the embedded cash conversion option at fair value of \$35.7 million which is valued at an immaterial amount as of December 31, 2018. The Company has partially repurchased and extinguished most of the 2019 Convertible Notes (See Note 23).

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Also, on the date of issuance of the 2019 Convertible Notes, the Company entered into a separate cash convertible note economic hedge transaction (the "Hedge Transaction") with a counterparty (the "Option Counterparty") whereby, the Company purchased a cash settled option contract with terms identical to the conversion option embedded in the 2019 Convertible Notes and simultaneously sold an equity settled warrant with a higher strike price. The Hedge Transaction was expected to reduce the Company's exposure to potential cash payments in excess of the principal amount of converted notes that the Company may be required to make upon conversion of the 2019 Convertible Notes. The Company paid a premium of \$35.7 million for the option under the Hedge Transaction and received a premium of \$15.2 million for the equity settled warrant transaction, for a net cost of \$20.5 million. During January 2018, the Company terminated the Hedge Transaction for a loss of \$0.6 million.

The Company's long and short exposure to derivatives is as follows:

Receivable on derivative contracts

	As of December 31,			
	2018		2017	
	Number of contracts / Notional Value	Fair value	Number of contracts / Notional Value	Fair value
	(dollars in thousands)			
Futures	\$ 42,288	\$ 334	\$ 3,819	\$ 58
Currency forwards	\$ 395	1	233	5
Swaps	\$ 13,702	917	\$ 164,664	10,942
Options other (a)	654,506	23,130	283,112	58,172
Pay to hold	\$ —	743	\$ —	—
		<u>\$ 25,125</u>		<u>\$ 69,177</u>

(a) Includes index, equity, commodity future and cash conversion options.

Payable for derivative contracts

	As of December 31,			
	2018		2017	
	Number of contracts / Notional Value	Fair value	Number of contracts / Notional Value	Fair value
	(dollars in thousands)			
Futures	\$ —	\$ —	\$ 16,796	\$ 242
Currency forwards	\$ 96,406	709	\$ 62,439	874
Swaps	\$ 52,905	2,162	\$ 11,595	71
Options other (a)	90,730	13,211	57,043	41,563
		<u>\$ 16,082</u>		<u>\$ 42,750</u>

(a) Includes index, equity, commodity future and cash conversion options.

The following tables present the gross and net derivative positions and the related offsetting amount, as of December 31, 2018 and 2017. This table does not include the impact of over collateralization.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

			Gross amounts not offset in the Consolidated Statement of Financial Condition			
	Gross amounts recognized	Gross amounts offset on the Consolidated Statements of Financial Condition (a)	Net amounts included on the Consolidated Statements of Financial Condition	Financial instruments	Cash Collateral pledged (b)	Net amounts
(dollars in thousands)						
As of December 31, 2018						
Receivable on derivative contracts, at fair value	\$ 25,125	\$ —	\$ 25,125	\$ —	\$ 1,662	\$ 23,463
Payable for derivative contracts, at fair value	16,082	—	16,082	—	2,871	13,211
As of December 31, 2017						
Receivable on derivative contracts, at fair value	\$ 69,177	\$ —	\$ 69,177	\$ —	\$ 10,948	\$ 58,229
Payable for derivative contracts, at fair value	42,750	—	42,750	—	1,031	41,719

(a) Includes financial instruments subject to enforceable master netting provisions that are permitted to be offset to the extent an event of default has occurred.

(b) Includes the amount of collateral held or posted.

The realized and unrealized gains/(losses) related to derivatives trading activities were \$14.3 million, \$3.9 million, and \$(11.2) million for the years ended December 31, 2018, 2017, and 2016, respectively, and are included in other income in the accompanying consolidated statements of operations.

Pursuant to the various derivatives transactions discussed above, except for the cash convertible note hedge (see Note 23), exchange traded derivatives, and certain options, the Company is required to post/receive collateral. As of December 31, 2018 and 2017, collateral consisting of \$11.2 million and \$13.5 million of cash is included in receivable from brokers, dealers and clearing organizations and payable to brokers, dealers and clearing organizations, respectively, on the accompanying consolidated statements of financial condition. As of December 31, 2018 and 2017, all derivative contracts were with multiple major financial institutions.

Other investments

As of December 31, 2018 and 2017, other investments included the following:

	As of December 31,	
	2018	2017
(dollars in thousands)		
Portfolio Funds, at fair value (1)	\$ 141,236	\$ 100,148
Equity method investments (2)	40,171	41,099
Lehman claims, at fair value	—	301
	<u>\$ 181,407</u>	<u>\$ 141,548</u>

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

(1) Portfolio Funds, at fair value

The Portfolio Funds, at fair value as of December 31, 2018 and 2017, included the following:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Starboard Value and Opportunity Fund LP (c)(*)	\$ 32,579	\$ 32,079
Formation8 Partners Fund I, L.P. (f)	34,099	28,243
RCG Longview Debt Fund V, L.P. (g)(*)	4,394	8,892
RCG Longview II LP (g) (*)	4,400	131
Cowen Healthcare Investments II LP (j) (*)	21,717	—
Eclipse Ventures Fund I, L.P. (b)	4,412	3,428
HealthCare Royalty Partners LP (a)(*)	1,833	3,452
Lagunita Biosciences, LLC (d)	3,833	2,400
RCG IO Renegys Sarl (j) (*)	6,369	—
Starboard Leaders Fund LP (e)(*)	1,230	1,276
Eclipse SPV I, LP (k)(*)	1,447	—
RCG Longview Equity Fund, LP (g) (*)	802	—
RCG Longview Debt Fund VI, LP (g) (*)	1,586	1,022
RCG Park Liberty GP Member LLC (g) (*)	1,023	750
HealthCare Royalty Partners II LP (a)(*)	1,037	873
RCGL PE MPA, LLC (g)(*)	618	—
RCG LPP2 PNW5 Co-Invest, L.P. (h)(*)	296	3,493
Quadratic Fund LLC (i)(*)	—	906
Other private investment (l)(*)	15,898	10,133
Other affiliated funds (m)(*)	3,663	3,070
	\$ 141,236	\$ 100,148

* These Portfolio Funds are affiliates of the Company.

The Company has no unfunded commitments regarding the Portfolio Funds held by the Company except as noted in Note 22.

- (a) HealthCare Royalty Partners, L.P. and HealthCare Royalty Partners II, L.P. are private equity funds and therefore distributions will be made when cash flows are received from the underlying investments, typically on a quarterly basis.
- (b) Eclipse Ventures Fund I, L.P. is a private equity fund which invests in early stage and growth hardware companies. Distributions will be made when the underlying investments are liquidated.
- (c) Starboard Value and Opportunity Fund LP permits quarterly withdrawals upon 90 days' notice.
- (d) Lagunita Biosciences, LLC, is a healthcare investment company that creates and grows early stage companies to commercialize impactful translational science that addresses significant clinical needs, is a private equity structure and therefore distributions will be made when the underlying investments are liquidated.
- (e) Starboard Leaders Fund LP does not permit withdrawals, but instead allows terminations with respect to capital commitments upon 30 days' prior written notice at any time following the first anniversary of an investors' initial capital contribution.
- (f) Formation8 Partners Fund I, L.P. is a private equity fund which invests in early stage and growth transformational information and energy technology companies. Distributions will be made when the underlying investments are liquidated.
- (g) RCG Longview Debt Fund V, L.P., RCG Longview II LP, RCG Park Liberty GP Member LLC, RCG Longview Equity Fund, LP, RCGL PE MPA, LLC and RCG Longview Debt Fund VI, LP are real estate private equity structures. The timing of distributions depend on the nature of the underlying investments and therefore will be made either quarterly or when the underlying investments are liquidated.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

- (h) RCG LPP2 PNW5 Co-Invest, L.P. is a single purpose entity formed to participate in a joint venture which acquired five multi-unit residential rental properties located in the Pacific Northwest. RCG LPP2 PNW5 Co-Invest, L.P. is a private equity structure and therefore distributions will be made when the underlying investments are liquidated.
- (i) Effective January 31, 2018, the Company is no longer affiliated with Quadratic Capital Management LLC.
- (j) Cowen Healthcare Investments II LP and RCG IO Renegys Sarl are private equity funds. Distributions are made from these funds when cash flows or securities are received from the underlying investments. Investors do not have redemption rights.
- (k) Eclipse SPV I, L.P. is a co-investment vehicle organized to invest in a private company focused on software-driven automation projects. Distributions will be made when the underlying investments are liquidated.
- (l) Other private investment represents the Company's closed end investment in a Portfolio Fund that invests in a wireless broadband communication provider in Italy.
- (m) The majority of these investment funds are affiliates of the Company or are managed by the Company and the investors can redeem from these funds as investments are liquidated.

(2) Equity method investments

Equity method investments include investments held by the Company in several operating companies whose operations primarily include the day to day management of a number of real estate funds, including the portfolio management and administrative services related to the acquisition, disposition, and active monitoring of the real estate funds' underlying debt and equity investments. The Company's ownership interests in these equity method investments range from 15% to 56%. The Company holds a majority of the outstanding ownership interest (i.e., more than 50%) in RCG Longview Partners II, LLC and 40% in Surf House Ocean Views Holdings, LLC (which is a joint venture in a real estate development project). The operating agreement that governs the management of day-to-day operations and affairs of these entities stipulates that certain decisions require support and approval from other members in addition to the support and approval of the Company. As a result, all operating decisions made in these entities requires the support of both the Company and an affirmative vote of a majority of the other managing members who are not affiliates of the Company. As the Company does not possess control over any of these entities, the presumption of consolidation has been overcome pursuant to current accounting standards and the Company accounts for these investments under the equity method of accounting. Also included in equity method investments are the investments in (a) HealthCare Royalty Partners General Partners and (b) Starboard Value (and certain related parties) which serves as an operating company whose operations primarily include the day to day management (including portfolio management) of several activist investment funds and related managed accounts. As part of its equity method investment in operating companies, the Company incurs certain expenses on behalf of its equity method investees. These expenses reflect direct and indirect costs associated with the respective business and are included in their respective line items in the accompanying consolidated statements of operations. For the years ended December 31, 2018, 2017, and 2016, the Company incurred \$4.2 million, \$7.1 million, and \$8.5 million of these costs, respectively. During the third quarter of 2018, the Company completed an assessment of the recoverability of the Company's equity method investments and determined that the carrying value of the investment in Surf House Ocean View Holdings, LLC exceeded the estimated fair value of the Company's interest, which was other than temporary. Accordingly, an impairment charge of \$7.1 million was recognized to reduce the carrying value of the investment to fair value for the year ended December 31, 2018. The Company recorded no other impairment charges in relation to its equity method investments for the years ended December 31, 2018, 2017 and 2016.

The Company elected to use the cumulative earnings approach for the distributions it receives from its equity method investments. Under the cumulative earnings approach, any distributions received up to the amount of cumulative earnings are treated as return on investment and classified in operating activities within the cash flows. Any excess distributions would be considered as return of investments and classified in investing activities.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

The following table summarizes equity method investments held by the Company:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Surf House Ocean Views Holdings, LLC	\$ 7,589	\$ 14,179
Starboard Value LP	12,699	13,202
RCG Longview Debt Fund V Partners, LLC	11,000	9,284
RCG Longview Management, LLC	1,167	1,149
RCG Longview Debt Fund VI Partners LLC	1,254	—
HealthCare Royalty GP, LLC	149	281
HealthCare Royalty GP II, LLC	176	148
RCG Longview Debt Fund IV Management, LLC	331	331
HealthCare Royalty GP III, LLC	1,573	764
Triartisan ES Partners LLC	1,500	—
RCG Kennedy House, LLC	131	154
RCG Longview Equity Management, LLC	114	114
RCG LPP II GP, LLC	272	487
RCG Park Liberty GP Member Manager, LLC	1,248	428
Other	968	578
	<u>\$ 40,171</u>	<u>\$ 41,099</u>

For the period ended December 31, 2018, equity method investments held by the Company in aggregate have met the significance criteria as defined under SEC guidance. As such, the Company is required to present summarized financial information for these significant investees for the years ended December 31, 2018, 2017, and 2016, and such information is as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Assets	\$ 137,419	\$ 159,077
Liabilities	22,019	74,393
Equity	<u>\$ 115,400</u>	<u>\$ 84,684</u>

	Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Revenues	\$ 79,870	\$ 136,459	\$ 87,707
Expenses	(35,835)	(32,425)	(34,490)
Net realized and unrealized gains (losses)	26,029	12,002	(6,305)
Net Income	<u>\$ 70,064</u>	<u>\$ 116,036</u>	<u>\$ 46,912</u>

As of December 31, 2018 and 2017, the Company's share of losses in its equity method investment in RCG Longview Partners II, LLC has exceeded the carrying amount recorded in this investee. These amounts are included in accounts payable, accrued expenses and other liabilities in the accompanying consolidated statements of financial condition. RCG Longview Partners II, LLC, as general partner to a real estate fund, has reversed previously recorded incentive income allocations and has recorded a current clawback obligation to the limited partners in such fund. This obligation is due to a change in unrealized value of the real estate fund on which there have previously been distributed carried interest realizations; however, the settlement of a potential obligation is not due until the end of the life of the respective real estate fund. As the Company is obligated to return previous distributions it received from RCG Longview Partners II, LLC, it has continued to record its share of gains/losses in the investee including reflecting its share of the clawback obligation in the amount of \$6.5 million and \$6.2 million as of December 31, 2018 and 2017, respectively.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

The Company's income (loss) from equity method investments was \$6.4 million, \$21.3 million, and \$14.4 million for the years ended December 31, 2018, 2017, and 2016, respectively, and is included in net gains (losses) on securities, derivatives and other investments on the accompanying consolidated statements of operations.

Securities sold, not yet purchased, at fair value

Securities sold, not yet purchased, at fair value represent obligations of the Company to deliver a specified security at a contracted price and, thereby, create a liability to purchase that security at prevailing prices. The Company's liability for securities to be delivered is measured at their fair value as of the date of the consolidated financial statements. However, these transactions result in off-balance sheet risk, as the Company's ultimate cost to satisfy the delivery of securities sold, not yet purchased, at fair value may exceed the amount reflected in the accompanying consolidated statements of financial condition. Substantially all equity securities and options are pledged to the clearing broker under terms which permit the clearing broker to sell or re-pledge the securities to others subject to certain limitations. As of December 31, 2018 and 2017, securities sold, not yet purchased, at fair value consisted of the following:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Common stock	\$ 194,305	\$ 342,328
Corporate bonds (a)	750	122
Preferred stock	199	77
Warrants and rights	53	—
	<u>\$ 195,307</u>	<u>\$ 342,527</u>

- (a) As of December 31, 2018, the maturities ranged from October 2022 to January 2034 with interest rates ranged from 2.25% to 9.38%. As of December 31, 2017, the maturities ranged from July 2025 to January 2026 with interest rates ranged from 3.78% to 5.55%.

Securities lending and borrowing transactions

The following tables present the contractual gross and net securities borrowing and lending agreements and the related offsetting amount as of December 31, 2018 and 2017.

	Gross amounts recognized	Gross amounts offset on the Consolidated Statements of Financial Condition (a)	Net amounts included on the Consolidated Statements of Financial Condition	Gross amounts not offset on the Consolidated Statement of Financial Condition			
				Additional Amounts Available	Financial instruments	Cash Collateral pledged (b)	Net amounts
(dollars in thousands)							
As of December 31, 2018							
Securities borrowed	\$ 407,795	\$ —	\$ 407,795	\$ —	\$ 383,593	\$ —	\$ 24,202
Securities loaned	414,852	—	414,852	—	391,310	—	23,542
As of December 31, 2017							
Securities borrowed	\$ 443,148	\$ —	\$ 443,148	\$ —	\$ 414,778	\$ —	\$ 28,370
Securities loaned	456,831	—	456,831	—	439,228	—	17,603

- (a) Includes financial instruments subject to enforceable master netting provisions that are permitted to be offset to the extent an event of default has occurred.
- (b) Includes the amount of cash collateral held/posted.

The following tables present gross obligations for securities loaned transactions by remaining contractual maturity and class of collateral pledged as of December 31, 2018 and 2017:

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

	Open and Overnight	Up to 30 days	31 - 90 days	Greater than 90 days	Total
(dollars in thousands)					
As of December 31, 2018					
Common stock	\$ 414,852	\$ —	\$ —	\$ —	\$ 414,852
As of December 31, 2017					
Common stock	\$ 456,831	\$ —	\$ —	\$ —	\$ 456,831

Variable Interest Entities

The total assets and liabilities of the variable interest entities for which the Company has concluded that it holds a variable interest, but for which it is not the primary beneficiary, are \$5.1 billion and \$157.6 million as of December 31, 2018 and \$5.2 billion and \$445.6 million as of December 31, 2017, respectively. The carrying value of the Company's exposure to loss for these variable interest entities as of December 31, 2018 was \$301.4 million, and as of December 31, 2017 was \$471.3 million, all of which is included in other investments, at fair value in the accompanying consolidated statements of financial condition. The exposure to loss primarily relates to the Consolidated Funds' investment in their Unconsolidated Master Funds and the Company's investment in unconsolidated investment companies. Additionally, the Company's maximum exposure to loss for the variable interest entities noted above as of December 31, 2018 and 2017, was \$332.4 million and \$491.9 million, respectively. The maximum exposure to loss often differs from the carrying value of exposure to loss of the variable interests. The maximum exposure to loss is dependent on the nature of the variable interests in the VIEs and is limited to the notional amounts of certain commitments and guarantees.

b. Consolidated Funds

Securities owned, at fair value

As of December 31, 2018 and 2017, securities owned, at fair value, held by the Consolidated Funds consisted of the following:

	As of December 31,	
	2018	2017
(dollars in thousands)		
Preferred stock	\$ 24,314	\$ 50,445
Common stock	95,565	77,702
U.S. Government securities (a)	38,377	34,201
Corporate bonds (b)	24,098	—
Warrants and rights	5,279	3,568
	\$ 187,633	\$ 165,916

- (a) As of December 31, 2018, maturities ranged from January 2019 to April 2019 and interest rates were 0%. As of December 31, 2017, maturities ranged from January 2018 to April 2022 and interest rates ranged from 0% to 5.75%.
- (b) As of December 31, 2018, maturities ranged from August 2020 to March 2026 and interest rates ranged from 5.88% to 7.63%.

Receivable on derivative contracts

As of December 31, 2018 and 2017, receivable on derivative contracts, at fair value, held by the Consolidated Funds are comprised of:

	As of December 31,	
	2018	2017
(dollars in thousands)		
Currency forwards	\$ 186	\$ 524
Equity swaps	2,477	1,754
Options	1,753	242
	\$ 4,416	\$ 2,520

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Payable for derivative contracts

As of December 31, 2018 and 2017, payable for derivative contracts, at fair value, held by the Consolidated Funds are comprised of:

	As of December 31, 2018	As of December 31, 2017
	(dollars in thousands)	(dollars in thousands)
Currency forwards	\$ 96	\$ 11
Equity swaps	713	7,042
Options	854	77
	<u>\$ 1,663</u>	<u>\$ 7,130</u>

Other investments, at fair value

Investments in Portfolio Funds, at fair value

As of December 31, 2018 and 2017, investments in Portfolio Funds, at fair value, included the following:

	As of December 31,	
	2018	2017
	(dollars in thousands)	(dollars in thousands)
Investments of Enterprise LP	\$ 97,656	\$ 87,221
Investments of Merger Fund	88,739	286,890
	<u>\$ 186,395</u>	<u>\$ 374,111</u>

Consolidated portfolio fund investments of Enterprise LP

Enterprise LP operates under a “master-feeder” structure, whereby Enterprise Master's shareholders are Enterprise LP and RCG II Intermediate Fund, L.P. The consolidated investments in Portfolio Funds include Enterprise LP's investment of \$97.7 million and \$87.2 million in Enterprise Master as of December 31, 2018 and 2017, respectively. On May 12, 2010, the Company announced its intention to close Enterprise Master. Prior to this announcement, strategies utilized by Enterprise Master included merger arbitrage and activist investing, investments in distressed securities, convertible hedging, capital structure arbitrage, equity market neutral, investments in private placements of convertible securities, proprietary mortgages, structured credit investments, investments in mortgage backed securities and other structured finance products, investments in real estate and real property interests, structured private placements and other relative value strategies. Enterprise Master had broad investment powers and maximum flexibility in seeking to achieve its investment objective. Enterprise Master was permitted to invest in equity securities, debt instruments, options, futures, swaps, credit default swaps and other derivatives. As Enterprise Master winds down its positions, it will return capital to its investors. There are no unfunded commitments at Enterprise LP.

Consolidated portfolio fund investments of Merger Fund

The Merger Fund operates under a “master-feeder” structure, whereby Ramius Merger Master Ltd.'s ("Merger Master") shareholders are Merger Fund and Ramius Merger Fund Ltd. The consolidated investments in Portfolio Funds include Merger Fund's investment of \$88.7 million and \$286.9 million in Merger Master as of December 31, 2018 and 2017, respectively. The Merger Master's investment objective is to achieve consistent absolute returns while emphasizing the preservation of investor capital. The Merger Master seeks to achieve these objectives by taking a fundamental, research-driven approach to investing, primarily in the securities of issuers engaged in, or subject to, announced (or unannounced but otherwise anticipated) extraordinary corporate transactions, which may include, but are not limited to, mergers, acquisitions, leveraged buyouts, tender offers, hostile takeover bids, sale processes, exchange offers, and recapitalizations. Merger Master invests in the securities of one or more issuers engaged in or subject to such extraordinary corporate transactions. Merger Master typically seeks to derive a profit by realizing the price differential, or “spread,” between the market price of securities purchased or sold short and the market price or value of securities realized in connection with the completion or termination of the extraordinary corporate transaction, or in connection with the adjustment of market prices in anticipation thereof, while seeking to minimize the market risk associated with the aforementioned investment activities. Merger Master will, depending on market conditions, generally focus the majority of its investment program on announced transactions. If the investment manager of Merger Master considers it necessary, it may either alone or as part of a group, also initiate shareholder actions seeking to maximize value. Such shareholder actions may include, but are not limited to, re-orienting management's focus or initiating the sale of the company (or one or more of its divisions) to a third party. There are no unfunded commitments at Merger Fund.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Indirect Concentration of the Underlying Investments Held by Consolidated Funds

From time to time, either directly or indirectly through its investments in the Consolidated Funds, the Company may maintain exposure to a particular issue or issuer (both long and/or short) which may account for 5% or more of the Company's equity. Based on information that is available to the Company as of December 31, 2018 and 2017, the Company assessed whether or not its interests in an issuer for which the Company's pro-rata share exceeds 5% of the Company's equity. There was one indirect concentration that exceeded 5% of the Company's equity as of December 31, 2018 and one at December 31, 2017.

Through its investments in a Consolidated Fund and combined with direct Company investments, the Company maintained exposure to a particular investment which accounted for 5% or more of the Company's equity.

Investment's percentage of the Company's equity						
	Issuer	Security Type	Country	Industry	Percentage of Equity	Market Value
	(dollars in thousands)					
As of December 31, 2018	Linkem	Equity	Italy	Wireless Broadband	8.36%	\$ 66,439
As of December 31, 2017	Linkem	Equity	Italy	Wireless Broadband	7.52%	\$ 56,271

Underlying Investments of Unconsolidated Funds Held by Consolidated Funds

Enterprise Master and Merger Master

Enterprise LP's investment in Enterprise Master represents Enterprise LP's proportionate share of Enterprise Master's net assets; as a result, the investment balances of Enterprise Master reflected below may exceed the net investment which Enterprise LP has recorded. Merger Fund's investment in Merger Master represents Merger Fund's proportionate share of Merger Master's net assets; as a result, the investment balances of Merger Master reflected below may exceed the net investment which Merger Fund has recorded. The following tables present summarized investment information for the underlying investments and derivatives held by Enterprise Master and Merger Master as of December 31, 2018 and 2017:

Securities owned by Enterprise Master, at fair value

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Common stock	\$ 469	\$ 608
	\$ 469	\$ 608

Portfolio Funds, owned by Enterprise Master, at fair value

	Strategy	As of December 31,	
		2018	2017
		(dollars in thousands)	
RCG Special Opportunities Fund, Ltd*	Multi-Strategy	\$ 111,548	\$ 97,345
RCG Longview Equity Fund, LP*	Real Estate	—	1,266
RCG Longview Debt Fund IV, LP*	Real Estate	—	99
RCG Longview II, LP*	Real Estate	—	229
Other Private Investments	Various	846	937
		\$ 112,394	\$ 99,876

* Affiliates of the Company.

Merger Master

As of December 31, 2018, Merger Master held common stock and corporate bonds of \$162.8 million and \$116.5 million, respectively, and common stock, sold not yet purchased, of \$9.6 million. As of December 31, 2017, Merger Master held common stock, securities owned, of \$483.2 million and common stock, sold not yet purchased, of \$171.2 million, respectively.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Receivable on derivative contracts, at fair value, owned by Merger Master

Description	As of December 31,	
	2018	2017
	(dollars in thousands)	
Options	\$ 3,450	\$ 108,063
Equity swaps	5,320	14,488
	<u>\$ 8,770</u>	<u>\$ 122,551</u>

Payable for derivative contracts, at fair value, owned by Merger Master

Description	As of December 31,	
	2018	2017
	(dollars in thousands)	
Options	\$ 1,430	\$ 1,256
Currency forwards	270	213
Equity swaps	28	1,249
	<u>\$ 1,728</u>	<u>\$ 2,718</u>

7. Fair Value Measurements for Operating Entities and Consolidated Funds

The following table presents the assets and liabilities that are measured at fair value on a recurring basis on the accompanying consolidated statements of financial condition by caption and by level within the valuation hierarchy as of December 31, 2018 and 2017:

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Assets at Fair Value as of December 31, 2018				
	Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Operating Entities				
Securities owned, at fair value				
US Government securities	\$ 13,398	\$ —	\$ —	\$ 13,398
Preferred stock	449	—	5,168	5,617
Common stock	459,601	2,848	9,850	472,299
Convertible bonds	—	—	3,000	3,000
Corporate bonds	—	13,041	—	13,041
Trade claims	—	—	5,543	5,543
Warrants and rights	6,324	—	1,666	7,990
Receivable on derivative contracts, at fair value				
Futures	334	—	—	334
Currency forwards	—	1	—	1
Swaps	—	917	—	917
Options	23,130	—	—	23,130
Pay to hold	—	743	—	743
Consolidated Funds				
Securities owned, at fair value				
US Government securities	38,377	—	—	38,377
Preferred stock	—	—	24,314	24,314
Common stock	95,471	—	94	95,565
Corporate bonds	—	24,098	—	24,098
Warrants and rights	—	—	5,279	5,279
Receivable on derivative contracts, at fair value				
Currency forwards	—	186	—	186
Equity swaps	—	2,477	—	2,477
Options	1,753	—	—	1,753
	<u>\$ 638,837</u>	<u>\$ 44,311</u>	<u>\$ 54,914</u>	<u>\$ 738,062</u>
Percentage of total assets measured at fair value on a recurring basis	86.6%	6.0%	7.4%	
Portfolio Funds measured at net asset value (a)				141,236
Consolidated Funds' Portfolio Funds measured at net asset value (a)				186,395
Equity method investments				40,171
Total investments				<u>\$ 1,105,864</u>

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Liabilities at Fair Value as of December 31, 2018				
	Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Operating Entities				
Securities sold, not yet purchased, at fair value				
Common stock	\$ 194,305	\$ —	\$ —	\$ 194,305
Corporate bonds	—	750	—	750
Preferred stock	199	—	—	199
Warrants and rights	53	—	—	53
Payable for derivative contracts, at fair value				
Futures	—	—	—	—
Currency forwards	—	709	—	709
Swaps	—	2,162	—	2,162
Options	11,115	—	2,096	13,211
Accounts payable, accrued expenses and other liabilities				
Contingent consideration liability (b)	—	—	3,070	3,070
Consolidated Funds				
Payable for derivative contracts, at fair value				
Currency forwards	—	96	—	96
Options	854	—	—	854
Equity swaps	—	713	—	713
	\$ 206,526	\$ 4,430	\$ 5,166	\$ 216,122
Percentage of total liabilities measured at fair value	95.6%	2.0%	2.4%	

(a) In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated statement of financial condition.

(b) In accordance with the terms of the purchase agreements for acquisitions that closed during the third and fourth quarter of 2015 and the second quarter of 2016, the Company is required to pay to the sellers a portion of future net income and/or revenues of the acquired businesses, if certain targets are achieved through the periods ended December 2018, December 2020, and June 2018, respectively. The Company estimated the contingent consideration liability using the income approach (discounted cash flow method) which requires the Company to make estimates and assumptions regarding the future cash flows and profits. Changes in these estimates and assumptions could have a significant impact on the amounts recognized. The undiscounted amounts as of December 31, 2018 can range from \$2.8 million to \$3.4 million.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

	Assets at Fair Value as of December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Operating Entities				
Securities owned, at fair value				
US Government securities	\$ 2,807	\$ —	\$ —	\$ 2,807
Preferred stock	571	918	8,115	9,604
Common stock	627,011	5,484	7,570	640,065
Convertible bonds	—	—	282	282
Corporate bonds	—	4,909	—	4,909
Trade claims	—	—	5,950	5,950
Warrants and rights	7,087	—	2,517	9,604
Receivable on derivative contracts, at fair value				
Futures	58	—	—	58
Currency forwards	—	5	—	5
Swaps	—	10,942	—	10,942
Options	56,717	—	1,455	58,172
Other investments				
Lehman claim	—	—	301	301
Consolidated Funds				
Securities owned, at fair value				
US Government securities	30,552	3,649	—	34,201
Preferred stock	—	—	50,445	50,445
Common stock	77,652	—	50	77,702
Warrants and rights	—	—	3,568	3,568
Receivable on derivative contracts, at fair value				
Currency forwards	—	524	—	524
Equity swaps	—	1,754	—	1,754
Options	242	—	—	242
	\$ 802,697	\$ 28,185	\$ 80,253	\$ 911,135
Percentage of total assets measured at fair value on a recurring basis	88.1%	3.1%	8.8%	
Portfolio Funds measured at net asset value (a)				100,148
Consolidated Funds' Portfolio Funds measured at net asset value (a)				374,111
Equity method investments				41,099
Total investments				\$ 1,426,493

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

	Liabilities at Fair Value as of December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Operating Entities				
Securities sold, not yet purchased, at fair value				
Common stock	\$ 342,328	\$ —	\$ —	\$ 342,328
Corporate bonds	—	122	—	122
Preferred stock	77	—	—	77
Payable for derivative contracts, at fair value				
Futures	242	—	—	242
Currency forwards	—	874	—	874
Swaps	—	71	—	71
Options	19,162	—	22,401	41,563
Accounts payable, accrued expenses and other liabilities				
Contingent consideration liability (b)	—	—	3,440	3,440
Consolidated Funds				
Payable for derivative contracts, at fair value				
Currency forwards	—	11	—	11
Options	77	—	—	77
Equity swaps	—	7,042	—	7,042
	\$ 361,886	\$ 8,120	\$ 25,841	\$ 395,847
Percentage of total liabilities measured at fair value	91.4%	2.1%	6.5%	

(a) In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated statement of financial condition.

(b) In accordance with the terms of the purchase agreements for acquisitions that closed during the third and fourth quarter of 2015 and the second quarter of 2016, the Company is required to pay to the sellers a portion of future net income and/or revenues of the acquired businesses, if certain targets are achieved through the periods ended December 2018 and December 2020, respectively. The Company estimated the contingent consideration liability using the income approach (discounted cash flow method) which requires the Company to make estimates and assumptions regarding the future cash flows and profits. Changes in these estimates and assumptions could have a significant impact on the amounts recognized. The undiscounted amounts as of December 31, 2017 can range from \$0.1 million to \$15.0 million.

The following table includes a roll forward of the amounts for the years ended December 31, 2018 and 2017 for financial instruments classified within level 3. The classification of a financial instrument within level 3 is based upon the significance of the unobservable inputs to the overall fair value measurement.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Year Ended December 31, 2018							
Balance at December 31, 2017	Transfers in	Transfers out	Purchases/ (covers)	(Sales)/ shorts	Realized and Unrealized gains/losses	Balance at December 31, 2018	Change in unrealized gains /losses relating to instruments still held (1)
(dollars in thousands)							

Operating Entities																
Preferred stock	\$	8,115	\$	—	\$	(1,141) (c)	\$	1,415	\$	(695)	\$	(2,526)	\$	5,168	\$	860
Common stock		7,570		—		(569)		3,324		(1,416)		941		9,850		1,797
Convertible bonds		282		—		—		3,000		(307)		25		3,000		—
Options, asset		1,455		—		—		—		(1,455)		—		—		—
Options, liability		22,401		—		(28,973) (e)		—		(259)		8,927		2,096		8,927
Warrants and rights		2,517		—		—		—		(143)		(708)		1,666		(850)
Trade claims		5,950		—		—		44		(536)		85		5,543		—
Lehman claim		301		—		—		—		(234)		(67)		—		—
Contingent consideration liability		3,440		—		—		427		(797)		—		3,070		—
Consolidated Funds																
Preferred stock		50,445		—		(38,552) (a)		3,066		—		9,355		24,314		9,355
Common stock		50		—		—		—		—		44		94		44
Warrants and rights		3,568		—		(20) (a)		(1,340)		—		3,071		5,279		1,730

Year Ended December 31, 2017							
Balance at December 31, 2016	Transfers in	Transfers out	Purchases/ (covers)	(Sales)/ shorts	Realized and Unrealized gains/losses	Balance at December 31, 2017	Change in unrealized gains /losses relating to instruments still held (1)
(dollars in thousands)							

Operating Entities																
Preferred stock	\$	15,811	\$	—	\$ (25,098)	(c) (f)	\$	25,785	\$ (2,956)	\$	(5,427)	\$	8,115	\$	486	
Common stock		10,121		—		—		2,670	(2,688)		(2,533)		7,570		(412)	
Convertible bonds		250		—		—		282			(250)		282		—	
Options, asset		14,753		—		—		—			(13,298)		1,455		(13,298)	
Options, liability		14,753		—		—		—			7,648		22,401		7,648	
Warrants and rights		3,719		2,173	(b) (d)	—		—		(4,118)		743		2,517		510
Trade claim		562		—		—		5,865		(611)		134		5,950		202
Lehman claim		265		—		—		—		—		36		301		36
Contingent consideration liability		5,997		—		—		—		(392)		(2,165)		3,440		(2,165)
Consolidated Funds																
Preferred stock		36,928		22,644	(f)	(13,668)	(c)	8,437		(11,903)		8,007		50,445		3,896
Common stock		295		—		—		526		(848)		77		50		—
Warrants and rights		3		—		—		—		—		3,565		3,568		3,565
Term Loan		657		—		—		202		(1,021)		162		—		—

(1) Unrealized gains/losses are reported in other income (loss) in the accompanying consolidated statements of operations.

(a) The Company deconsolidated an investment fund (See note 3)

(b) The Company received warrants as consideration as part of an investment banking transaction.

(c) The investments were converted to common stock.

(d) As part of the preferred stock sale, the sellers received contingent value rights to be paid in the event certain milestones are reached.

(e) On June 26, 2018, the Company received shareholder approval which will allow the Company to settle its convertible note (see Note 23) entirely in class A common shares. Upon receiving shareholder approval, the Company reclassified the embedded conversion option, associated with the convertible debt, to equity. (See Note 24)

(f) The Company transferred investments to a Consolidated Fund.

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Notes to Consolidated Financial Statements (Continued)

All realized and unrealized gains (losses) in the table above are reflected in other income (loss) in the accompanying consolidated statements of operations.

Certain assets and liabilities are measured at fair value on a nonrecurring basis and therefore are not included in the tables above.

The Company recognizes all transfers and the related unrealized gain (loss) at the beginning of the reporting period.

Transfers between level 1 and 2 generally relate to whether the principal market for the security becomes active or inactive. Transfers between level 2 and 3 generally relate to whether significant relevant observable inputs are available for the fair value measurements or due to change in liquidity restrictions for the investments.

During the years ended December 31, 2018 and 2017, there were no transfers between level 1 and level 2 assets and liabilities.

The following table includes quantitative information as of December 31, 2018 and 2017 for financial instruments classified within level 3. The table below quantifies information about the significant unobservable inputs used in the fair value measurement of the Company's level 3 financial instruments.

Quantitative Information about Level 3 Fair Value Measurements				
	Fair Value at December 31, 2018 (dollars in thousands)	Valuation Techniques	Unobservable Inputs	Range
<i>Level 3 Assets</i>				
Common and preferred stocks	\$ 4,323	Guideline companies/ Discounted cash flows	Discount rate Market multiples	8%-14% 6.5x to 7x
Trade claims	25	Discounted cash flows	Discount rate	20%
Warrants and rights	1,666	Model based Discounted cash flows	Discount rate	7% to 9%
Other level 3 assets (a)	48,900			
Total level 3 assets	\$ 54,914			
<i>Level 3 Liabilities</i>				
Options	2,096	Option pricing models	Volatility	35% to 40%
Contingent consideration liability	3,070	Discounted cash flows	Projected cash flow and discount rate	23%
Total level 3 liabilities	\$ 5,166			

Quantitative Information about Level 3 Fair Value Measurements				
	Fair Value at December 31, 2017 (dollars in thousands)	Valuation Techniques	Unobservable Inputs	Range
<i>Level 3 Assets</i>				
Common and preferred stocks	\$ 5,642	Guideline companies/ transaction price	Market multiples	4.8x to 8.5x
Trade claims	70	Discounted cash flows	Discount rate	20%
Warrants and rights	2,516	Model based Discounted cash flows	Volatility Discount rate	61% 22%
Options	1,455	Option pricing models	Volatility	28%
Other level 3 assets (a)	70,570			
Total level 3 assets	\$ 80,253			
<i>Level 3 Liabilities</i>				
Options	22,401	Option pricing models	Volatility	28%
Contingent consideration liability	3,440	Discounted cash flows	Projected cash flow and discount rate	8% to 23% (weighted average 22%)
Total level 3 liabilities	\$ 25,841			

- (a) The quantitative disclosures exclude financial instruments for which the determination of fair value is based on prices from recent transactions.

The Company has established valuation policies and procedures and an internal control infrastructure over its fair value measurement of financial instruments which includes ongoing oversight by the valuation committee as well as periodic audits

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

performed by the Company's internal audit group. The valuation committee is comprised of senior management, including non-investment professionals, who are responsible for overseeing and monitoring the pricing of the Company's investments, including the review of the results of the independent price verification process, approval of new trading asset classes and use of applicable pricing models and approaches.

The US GAAP fair value leveling hierarchy is designated and monitored on an ongoing basis. In determining the designation, the Company takes into consideration a number of factors including the observability of inputs, liquidity of the investment and the significance of a particular input to the fair value measurement. Designations, models, pricing vendors, third party valuation providers and inputs used to derive fair market value are subject to review by the valuation committee and the internal audit group. The Company reviews its valuation policy guidelines on an ongoing basis and may adjust them in light of, improved valuation metrics and models, the availability of reliable inputs and information, and prevailing market conditions. The Company reviews a daily profit and loss report, as well as other periodic reports, and analyzes material changes from period-to-period in the valuation of its investments as part of its control procedures. The Company also performs back testing on a regular basis by comparing prices observed in executed transactions to previous valuations.

The fair market value for level 3 securities may be highly sensitive to the use of industry standard models, unobservable inputs and subjective assumptions. The degree of fair market value sensitivity is also contingent upon the subjective weight given to specific inputs and valuation metrics. The Company holds various equity and debt instruments where different weight may be applied to industry standard models representing standard valuation metrics such as: discounted cash flows, market multiples, comparative transactions, capital rates, recovery rates and timing, and bid levels. Generally, changes in the weights ascribed to the various valuation metrics and the significant unobservable inputs in isolation may result in significantly lower or higher fair value measurements. Volatility levels for warrants and options are not readily observable and subject to interpretation. Changes in capital rates, discount rates and replacement costs could significantly increase or decrease the valuation of the real estate investments. The interrelationship between unobservable inputs may vary significantly amongst level 3 securities as they are generally highly idiosyncratic. Significant increases (decreases) in any of those inputs in isolation can result in a significantly lower (higher) fair value measurement.

Other financial assets and liabilities

The following table presents the carrying values and fair values, at December 31, 2018 and 2017, of financial assets and liabilities and information on their classification within the fair value hierarchy which are not measured at fair value on a recurring basis. For additional information regarding the financial instruments within the scope of this disclosure, and the methods and significant assumptions used to estimate their fair value see Note 3.

	December 31, 2018			December 31, 2017						
	Carrying Amount		Fair Value	Carrying Amount		Fair Value	Fair Value Hierarchy			
	(dollars in thousands)									
Financial Assets										
Operating companies										
Cash and cash equivalents	\$	259,148	\$	259,148	\$	130,052	\$	130,052	Level 1	
Cash collateral pledged		6,318		6,318		17,888		17,888	Level 2	
Segregated cash		176,647		176,647		116,268		116,268	Level 1	
Securities borrowed		407,795	\$	383,593		443,148		414,763	Level 2	
Loans receivable		36,021		36,021	(d)	37,993		37,993	(d)	Level 3
Consolidated Funds										
Cash and cash equivalents		38,118		38,118		21,988		21,988	Level 1	
Financial Liabilities										
Securities loaned		414,852		391,310		456,831		440,162	Level 2	
Convertible debt		134,489	(a)	157,433	(b)	141,502	(a)	172,709	(b)	Level 2
Notes payable and other debt		262,965		258,546	(c)	173,458		182,352	(c)	Level 2

- (a) The carrying amount of the convertible debt includes an unamortized discount of \$24.9 million and \$25.6 million as of December 31, 2018 and 2017, respectively.
- (b) The convertible debt includes the conversion option and is based on the last broker quote available.
- (c) Notes payable and other debt are based on the last broker quote available.
- (d) The fair market value of level 3 loans is calculated using discounted cash flows.

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Notes to Consolidated Financial Statements (Continued)

8. Deposits with Clearing Organizations, Brokers and Banks

Under the terms of agreements between the Company and some of its clearing organizations, brokers and banks, balances owed are collateralized by certain of the Company's cash and securities balances. As of December 31, 2018 and 2017, the Company had a total of \$89.4 million and \$94.0 million, respectively, in deposit accounts with clearing organizations, brokers and banks that could be used as collateral to offset losses incurred by the clearing organizations, brokers and banks, on behalf of the Company's activities, if such losses were to occur.

9. Receivables From and Payables to Brokers, Dealers and Clearing Organizations

Receivables from and payable to brokers, dealers and clearing organizations includes cash held at the clearing brokers, amounts receivable or payable for unsettled transactions, monies borrowed and proceeds from short sales equal to the fair value of securities sold, not yet purchased, which are restricted until the Company purchases the securities sold short. Pursuant to the master netting agreements the Company entered into with its brokers, dealers and clearing organizations, these balances are presented net (assets less liabilities) across balances with the same counterparty. The Company's receivables from and payables to brokers, dealers and clearing organizations balances are held at multiple financial institutions.

As of December 31, 2018 and 2017, amounts receivable from brokers, dealers and clearing organizations include:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Broker-dealers	\$ 692,581	\$ 409,499
Securities failed to deliver	72,918	87,820
Clearing organizations	15,319	6,126
Securities borrowed interest receivable	5,295	4,733
	\$ 786,113	\$ 508,178

As of December 31, 2018 and 2017, amounts payable to brokers, dealers and clearing organizations include:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Broker-dealers	\$ 159,443	\$ 145,860
Securities failed to receive	28,826	53,540
Clearing organizations	36,338	48,257
Securities loaned interest payable	4,124	4,496
	\$ 228,731	\$ 252,153

10. Receivable From and Payable To Customers

As of December 31, 2018 and 2017, receivable from customers of \$37.9 million and \$49.9 million, respectively, consist of amounts owed by customers relating to securities transactions not completed on settlement date and receivables arising from the prepayment of Commission Sharing Agreements ("CSA"), net of an allowance for credit losses. A prepaid CSA is established for research-related disbursements in advance of anticipated customer commission volumes.

As of December 31, 2018 and 2017, payable to customers of \$525.2 million and \$352.5 million, respectively, include amounts due on cash and margin transactions to the Company's clients, some of which have their assets held by a Company omnibus account, which are included within receivables from brokers, dealers and clearing organizations in the accompanying consolidated statements of financial condition. In the omnibus structure, positions that are owned by Cowen International Ltd are fully cross collateralized by client funds, meaning that the Company, for all intents and purposes, has no market risk. Additionally, Cowen International Ltd has no obligation to settle any trade that it deems inappropriate from a risk perspective, adding an important market and counterparty risk mitigating factor.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

11. Fixed Assets

As of December 31, 2018 and 2017, fixed assets consisted of the following:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Telephone and computer equipment	\$ 3,301	\$ 3,465
Computer software	4,214	2,914
Furniture and fixtures	2,829	1,423
Leasehold improvements	37,652	36,702
Assets acquired under capital leases—equipment	10,077	6,920
Aircraft and related equipment	—	17,369
Other	—	58
	58,073	68,851
Less: Accumulated depreciation and amortization	(31,630)	(28,355)
	<u>\$ 26,443</u>	<u>\$ 40,496</u>

Depreciation and amortization expense related to fixed assets was \$7.4 million, \$7.0 million and \$7.7 million for the years ended December 31, 2018, 2017, and 2016, respectively and are included in depreciation and amortization expense in the accompanying consolidated statements of operations.

On April 22, 2016, the Company entered into a transaction whereby the Company acquired a portfolio of four specialized aircraft which were on lease. During the year ended December 31, 2016, the Company purchased two aircraft and entered into two additional lease agreements. As of December 31, 2017, aircraft and related equipment of \$17.4 million was held for leasing purposes. All of the remaining five planes were sold during the fourth quarter of 2018 for a loss of \$1.0 million, which is included in other expenses in the accompanying consolidated statement of operations. One of the planes were sold during the third quarter of 2017 for a gain of \$2.3 million. Depreciation expense related to leased assets was \$0.8 million, \$1.5 million and \$1.7 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Assets acquired under capital leases were \$10.1 million and \$6.9 million as of December 31, 2018 and 2017, respectively. If the assets acquired under capital leases transfer title at the end of the lease term or contain a bargain purchase option, the assets are amortized over their estimated useful lives; otherwise, the assets are amortized over the respective lease term. The depreciation of assets capitalized under capital leases is included in depreciation and amortization expenses and was \$1.6 million, \$1.0 million, and \$1.2 million for the years ended December 31, 2018, 2017, and 2016, respectively. As of December 31, 2018 and 2017, accumulated depreciation related to assets acquired under capital leases was \$5.0 million and \$3.4 million respectively.

12. Goodwill and Intangible Assets

Goodwill

In accordance with US GAAP, the Company tests goodwill for impairment on an annual basis or at an interim period if events or changed circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. Under US GAAP, the Company first assesses the qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amounts as a basis for determining if it is necessary to perform the two-step approach. Periodically estimating the fair value of a reporting unit requires significant judgment and often involves the use of significant estimates and assumptions. These estimates and assumptions could have a significant effect on whether or not an impairment charge is recorded and the magnitude of such a charge.

The Company assessed the qualitative factors to determine whether is more likely than not that the fair value of the reporting unit is less than its carrying amount. For one of the Company's reporting units, it was determined that it was not necessary to perform the two-step approach. For the remaining reporting unit, the Company estimated the fair value using the income and market approach which involves estimates of future cash flows, discount rates, economic forecast and other assumptions which are then used in the market approach (earnings and / or transactions multiples) and / or income approach (discounted cash flow method).

Based on the results of the impairment analysis as of December 31, 2018, the Company did not recognize any impairment relating to the investment management or investment bank reporting units. No impairment charges for goodwill were recognized during the years ended December 31, 2017 and 2016, respectively.

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Notes to Consolidated Financial Statements (Continued)

The following table presents the changes in the Company's goodwill balance, by reporting unit for the years ended December 31, 2018, 2017, and 2016:

	Investment Management	Investment Bank	Total
	(dollars in thousands)		
Beginning balance - December 31, 2016			
Goodwill	\$ 29,026	\$ 51,337	80,363
Accumulated impairment charges	(10,200)	(9,485)	(19,685)
Net	18,826	41,852	60,678
Activity: 2017			
Recognized goodwill	—	—	—
Goodwill allocated to disposal group	—	—	—
Goodwill impairment charges	—	—	—
Ending balance: December 31, 2017			
Goodwill	29,026	51,337	80,363
Accumulated impairment charges	(10,200)	(9,485)	(19,685)
Net	18,826	41,852	60,678
Activity: 2018			
Recognized goodwill	—	—	—
Goodwill allocated to disposal group	—	—	—
Goodwill impairment charges	—	—	—
Ending balance: December 31, 2018			
Goodwill	29,026	51,337	80,363
Accumulated impairment charges	(10,200)	(9,485)	(19,685)
Net	\$ 18,826	\$ 41,852	\$ 60,678

Intangible assets

Information for the Company's intangible assets that are subject to amortization is presented below as of December 31, 2018 and 2017.

		<u>December 31, 2018</u>			<u>December 31, 2017</u>		
		<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Amount</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Amount</u>
	<u>Amortization Period (in years)</u>	<u>(in thousands)</u>			<u>(in thousands)</u>		
Trade names	0.6 - 7.5	\$ 10,622	\$ (10,599)	\$ 23	\$ 10,622	\$ (10,555)	\$ 67
Customer relationships	3 - 14	41,134	(18,960)	22,174	41,134	(15,733)	25,401
Customer contracts	1.2	800	(800)	—	800	(800)	—
Non compete agreements and covenants with limiting conditions acquired	3 - 5	2,237	(2,055)	182	2,237	(1,479)	758
Intellectual property	3 - 10	8,243	(5,679)	2,564	8,243	(4,514)	3,729
		<u>\$ 63,036</u>	<u>\$ (38,093)</u>	<u>\$ 24,943</u>	<u>\$ 63,036</u>	<u>\$ (33,081)</u>	<u>\$ 29,955</u>

The Company tests intangible assets for impairment if events or circumstances suggest that the asset groups carrying value may not be fully recoverable. For the years ended December 31, 2018 and 2017, no impairment charge for intangible assets was recognized.

In connection with Convergenx acquisition (See Note 2), in June 2017, the Company recognized intangible assets (including customer relationships, trade name, and intellectual property) with an estimated fair value of \$10.3 million which are

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

included within intangible assets, net in the consolidation statements of financial condition with the expected useful lives ranging from 0.6 years to 9.0 years with a weighted average useful life of 7.7 years.

Amortization expense related to intangible assets was \$5.0 million, \$6.1 million, and \$5.0 million for the years ended December 31, 2018, 2017, and 2016, respectively, which is included in depreciation and amortization expense in the accompanying consolidated statements of operations. All of the Company's intangible assets have finite lives.

The estimated future amortization expense for the Company's intangible assets as of December 31, 2018 is as follows:

	(dollars in thousands)
2019	\$ 4,162
2020	3,950
2021	3,890
2022	3,108
2023	2,768
Thereafter	7,065
	<u>\$ 24,943</u>

13. Other Assets

Other assets in Operating Entities are as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Prepaid expenses	\$ 11,989	\$ 13,267
Deposits	889	877
Reinsurance receivables, net (b)	18,167	14,014
Tax receivables	7,029	1,457
Redemption receivable	212	19,565
Interest and dividends receivable	2,413	1,021
Deferred acquisition costs (b)	4,696	1,978
The Military Mutual loan (a)	21,504	19,851
Other	12,115	16,238
	<u>\$ 79,014</u>	<u>\$ 88,268</u>

(a) As of December 31, 2018 and 2017, the maturity was January 2024 with interest rate of 8% for the first five years and 8.5% for the remainder of the term, related to the Company's commercial reinsurance activities.

(b) Balances relate to the Company's reinsurance business entered into during 2016 (See Note 17).

14. Commission Management Payable

The Company receives a gross commission from various clearing brokers, which is then used to fund commission sharing and recapture arrangements, less the portion retained as income to the Company. Accrued commission sharing and commission recapture payable of \$95.3 million and \$70.5 million, as of December 31, 2018 and 2017, respectively, are classified as commission management payable in the accompanying consolidated statements of financial condition.

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Notes to Consolidated Financial Statements (Continued)

15. Accounts Payable, Accrued Expenses and Other Liabilities

Accounts payable, accrued expenses and other liabilities in Operating Entities are as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Deferred rent obligations (see Note 3(n))	\$ 8,242	\$ 12,822
Contingent consideration payable (see Note 2)	3,070	3,440
Equity in RCG Longview Partners II, LLC (see Note 6)	6,367	6,022
Interest and dividends payable	2,483	2,891
Loss reserves and claims incurred but not reported (a)	23,714	9,464
Professional fees payable	5,177	5,008
Unearned premiums (a)	12,483	6,116
Fees payable	594	798
Accrued tax liabilities	1,742	7,482
Litigation reserve	500	3,000
Accrued expenses and accounts payable (b)	46,051	39,490
	<u>\$ 110,423</u>	<u>\$ 96,533</u>

(a) Balances relate to the Company's reinsurance business entered into during 2016 (See Note 17).

(b) As of December 31, 2018 and 2017, the balance includes reinsurance premiums payable of \$15.7 million and \$18.0 million, respectively.

16. Redeemable Non-Controlling Interests in Consolidated Subsidiaries and Investment Funds

Redeemable non-controlling interests in consolidated subsidiaries and investment funds and the related net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds are comprised as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
<i>Redeemable non-controlling interests in consolidated subsidiaries and investment funds</i>		
Operating companies	\$ 10,434	\$ 6,113
Consolidated Funds	274,346	434,491
	<u>\$ 284,780</u>	<u>\$ 440,604</u>

	Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
<i>Income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds</i>			
Operating companies	\$ 6,515	\$ 2,353	\$ 3,717
Consolidated Funds	33,883	21,438	3,165
	\$ 40,398	\$ 23,791	\$ 6,882

17. Reinsurance

The Company's wholly-owned Luxembourg subsidiary, Hollenfels Re SA ("Hollenfels") provides reinsurance to third party insurance and reinsurance companies. As Hollenfels started its operations during 2016, all claims it experienced (reported or not reported) began in 2016. During the year ended December 31, 2018, Hollenfels's share of incurred and paid claims, as reported to it by the underlying insurance and reinsurance companies, amounted to \$14.8 million. During the same period, Hollenfels' share of claims incurred but not reported plus expected development on reported claims totaled \$11.8 million. Hollenfels generally employs an estimation methodology whereby historical average claims ratios over a period of up to 10 years are utilized, based on availability of data. Other methods may also be used that average claims ratios derived through different actuarial calculation methods in cases where current claims development contradicts historical results. In cases where

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

an event may have occurred that could give rise to claims in excess of the amount calculated using the above-mentioned methodologies, then actuarial methods are used to calculate the impact of such an event. During the year, Hollenfels calculated its claim liability or claim adjustment expenses using the above-mentioned methods consistent with prior years.

While Hollenfels typically settles its premiums and claim payments on a quarterly basis, the frequency of claims in the underlying policies is impractical for Hollenfels to obtain. This is because certain contracts Hollenfels has written are on a quota-share basis while the other policies provide aggregate loss protection, rendering the collection of information for all underlying contracts impracticable. Hollenfels did not discount any of its reserves and did not cede any portion of its exposures during the years ended December 31, 2018.

18. Other Revenues and Expenses

Other expenses, during the years ended December 31, 2018, 2017, and 2016, are primarily the general administrative expenses of the various operating company subsidiaries or the Consolidated Funds.

19. Share-Based and Deferred Compensation and Employee Ownership Plans

The Company issues share-based compensation under the 2006 Equity and Incentive Plan, the 2007 Equity and Incentive Plan (both established prior to the November 2009 transaction between Ramius Capital Group LLC and Cowen) and the 2010 Equity and Incentive Plan (collectively, the "Equity Plans"). The Equity Plans permit the grant of options, restricted shares, restricted stock units, stock appreciation rights ("SARs") and other equity-based awards to the Company's employees and directors. Stock options granted generally vest over two-to-five-year periods and expire seven years from the date of grant. Restricted shares and restricted share units issued may be immediately vested or may generally vest over a two-to-five-year period. SARs vest and expire after five years from grant date. Awards are subject to the risk of forfeiture. As of December 31, 2018, there were an immaterial amount of shares available for future issuance under the Equity Plans.

Under the 2010 Equity and Incentive Plan, the Company awarded \$39.2 million of deferred cash awards to its employees during the year ended December 31, 2018. These awards vest over a four year period and accrue interest at 0.70% per year. As of December 31, 2018, the Company had unrecognized compensation expense related to the 2010 Equity and Incentive Plan deferred cash awards of \$48.3 million.

Subsequent to the acquisition of Convergenx Group (see Note 2) the Company maintained the Convergenx Nonqualified Deferred Compensation Plan, which is a deferred cash award plan that is expensed over the 27 month service period. As of December 31, 2018, the Company had unrecognized compensation expense related to former Convergenx Group deferred cash awards of \$0.3 million.

The Company measures compensation cost for share-based awards according to the equity method. In accordance with the expense recognition provisions of those standards, the Company amortizes unearned compensation associated with share-based awards on a straight-line basis over the vesting period of the option or award, net of estimated forfeitures. In relation to awards under the Equity Plans, the Company recognized compensation expense of \$37.0 million, \$28.4 million, and \$26.0 million for the years ended December 31, 2018, 2017, and 2016, respectively. The income tax effect recognized for the Equity Plans was a benefit of \$9.7 million, \$7.7 million, and \$11.4 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Stock Appreciation Rights

The Company values SARs on grant date using the Black-Scholes valuation model which requires the Company to make assumptions regarding the expected term, volatility, risk-free rate and dividend yield:

Expected term. Expected term represents the period of time that awards granted are expected to be outstanding. The Company elected to use the "simplified" calculation method, as applicable to companies that lack extensive historical data. The mid-point between the vesting date and the contractual expiration date is used as the expected term under this method.

Expected volatility. The Company bases its expected volatility on its own stock price history.

Risk free rate. The risk-free rate for periods within the expected term of the award is based on the interest rate of a traded zero-coupon U.S. Treasury bond with a term equal to the awards' expected term on the date of grant.

Dividend yield. The Company has not paid and does not expect to pay dividends in the foreseeable future. Accordingly, the assumed dividend yield is zero.

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Notes to Consolidated Financial Statements (Continued)

The following table summarizes the Company's stock option activity for the years ended December 31, 2018 and 2017:

	Class A Common Shares Subject to Option	Weighted Average Exercise Price/Share	Weighted Average Remaining Term (in years)	Aggregate Intrinsic Value(1) (dollars in thousands)
Balance outstanding at December 31, 2016	4,167	19.56	0.10	—
Options granted	—	—	—	—
Options exercised	—	—	—	—
Options expired	(4,167)	19.56	—	—
Balance outstanding at December 31, 2017	—	—	0	—
Options granted	—	—	—	—
Options exercised	—	—	—	—
Options expired	—	—	—	—
Balance outstanding at December 31, 2018	—	—	0	—
Options exercisable at December 31, 2017	—	—	0	—
Options exercisable at December 31, 2018	—	—	0	—

(1) Based on the Company's closing stock price of \$13.34 on December 31, 2018 and \$13.65 on December 31, 2017.

As of December 31, 2018, the Company's stock options were fully expensed.

The following table summarizes the Company's SARs for the years ended December 31, 2018:

	Class A Common Shares Subject to Option	Weighted Average Exercise Price/Share	Weighted Average Remaining Term (in years)	Aggregate Intrinsic Value(1) (dollars in thousands)
Balance outstanding at December 31, 2016	100,000	\$ 11.60	1.21	\$ 435
SARs granted	—	—	—	—
SARs vested	(25,000)	11.60	—	—
SARs expired	—	—	—	—
Balance outstanding at December 31, 2017	75,000	\$ 11.60	0.21	\$ 173
SARs vested	(75,000)	14.21	—	—
Balance outstanding at December 31, 2018	—	\$ —	0	\$ —
SARs exercisable at December 31, 2017	—	\$ —	—	\$ —
SARs exercisable at December 31, 2018	—	\$ —	0	\$ —

(1) Based on the Company's closing stock price of \$13.34 on December 31, 2018 and \$13.65 on December 31, 2017.

As of December 31, 2018, the Company's SARs were fully expensed. As of December 31, 2017 the unrecognized compensation expense related to the Company's grant of SAR's was an immaterial amount.

Restricted Stock Units Granted to Employees

Restricted shares and restricted stock units are referred to collectively as restricted stock. The following table summarizes the Company's restricted share and restricted stock unit activity for the years ended December 31, 2018 and 2017:

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Notes to Consolidated Financial Statements (Continued)

	Nonvested Restricted Class A Common Shares and Class A Common Restricted Stock Units	Weighted-Average Grant Date Fair Value
Balance outstanding at December 31, 2016	5,717,932	\$ 16.23
Granted	2,255,441	14.98
Vested	(2,036,366)	14.64
Canceled	—	—
Forfeited	(357,714)	15.77
Balance outstanding at December 31, 2017	5,579,293	\$ 16.33
Granted	2,413,727	14.20
Vested	(1,961,824)	15.60
Canceled	—	—
Forfeited	(68,901)	14.21
Balance outstanding at December 31, 2018	5,962,295	\$ 15.73

Included in the restricted share and restricted stock unit activity are performance linked restricted stock units of 481,438 which were awarded to employees of the Company in December 2013 and January 2014. An additional 700,000 performance linked restricted stock units were awarded in March 2016. Of the awards granted, 117,188 have been forfeited through December 31, 2018. The remaining awards, included in the outstanding balance as of December 31, 2018, will vest between March 2019 and December 2020 and will be earned only to the extent that the Company attains specified market conditions relating to its volume-weighted average share price and total shareholder return in relation to certain benchmark indices and performance goals relating to aggregate net income and average return on shareholder equity. The actual number of RSUs ultimately earned could vary from zero, if performance goals are not met, to as much as 150% of the targeted award. Each RSU is equal to the one share of the Company's Class A common stock. Compensation expense is recognized to the extent that it is probable that the Company will attain the performance goals.

The fair value of restricted stock (excluding performance linked units which are valued using the Monte Carlo valuation model) is determined based on the number of shares granted and the quoted price of the Company's common stock on the date of grant.

As of December 31, 2018, there was \$56.1 million of unrecognized compensation expense related to the Company's grant of nonvested restricted shares and restricted stock units to employees. Unrecognized compensation expense related to nonvested restricted shares and restricted stock units granted to employees is expected to be recognized over a weighted-average period of 1.94 years.

Restricted Shares and Restricted Stock Units Granted to Non-employee Board Members

There were 88,504 restricted stock units awarded during the year ended December 31, 2018. As of December 31, 2018 there were 253,772 restricted stock units outstanding. There were 56,519 restricted stock units awarded during the year ended December 31, 2017. As of December 31, 2017 there were 191,962 restricted stock units outstanding.

20. Defined Contribution Plans

The Company sponsors a Retirement and Savings Plan which is a defined contribution plan pursuant to Section 401(k) of the Internal Revenue Code (the "401(k) Plans"). All full-time employees of the Company can contribute on a tax deferred basis and an after-tax basis to the 401(k) Plans up to federal contribution limits or up to 100% of their annual compensation, subject to certain limitations. The Company provides matching and profit sharing contributions to employees that are equal to a specified percentage of the eligible participant's contribution as defined by the 401(k) Plans. For the years ended December 31, 2018, 2017, and 2016, the Company's contributions to the Plans were \$1.0 million, \$0.7 million, and \$0.5 million, respectively.

21. Income Taxes

The taxable results of the Company's U.S. operations are included in the consolidated income tax returns of Cowen Inc. as well as stand-alone state and local tax returns. The Company has subsidiaries that are resident in foreign countries where tax filings have to be submitted on a stand-alone or combined basis. These subsidiaries are subject to tax in their respective countries and the Company is responsible for and, thus, reports all taxes incurred by these subsidiaries. The countries where the Company owns subsidiaries with tax filing obligations are the United Kingdom, Luxembourg, Canada and Hong Kong.

The Company has reflected the impact of the 2017 Tax Cuts and Jobs Act ("TCJA") in the financial statements, including

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

a policy election to account for taxes on Global Intangible Low Tax Income ("GILTI") as incurred on a current year basis and not included in deferred taxes. The Company continues to monitor the impact of the TCJA as additional regulations and formal guidance are provided.

The components of the Company's income tax expense for the years ended December 31, 2018, 2017 and 2016 are as follows:

	Year ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Current tax expense/(benefit)			
Federal	\$ (1,883)	\$ 421	\$ 1,268
State and local	(2,148)	2,034	1,972
Foreign	785	428	262
Total	\$ (3,246)	\$ 2,883	\$ 3,502
Deferred tax expense/(benefit)			
Federal	\$ 12,018	\$ 44,071	\$ (22,834)
State and local	6,956	(2,938)	(1,900)
Foreign	(9)	37	2,140
Total	18,965	41,170	(22,594)
Total Tax expense/(benefit)	<u>\$ 15,719</u>	<u>\$ 44,053</u>	<u>\$ (19,092)</u>

Consolidated U.S. income/(loss) before income taxes was \$93.0 million in 2018, \$3.9 million in 2017, and \$(29.5) million in 2016. The corresponding amounts for non-U.S.-based income/(loss) were \$6.0 million in 2018, \$3.1 million in 2017, and \$(2.0) million in 2016.

The reconciliations of the Company's federal statutory rate to the effective income tax rate for the years ended December 31, 2018, 2017, and 2016 are as follows:

	Year ended December 31,		
	2018	2017	2016
Pre-tax loss at U.S. statutory rate	21.0%	35.0%	35.0%
Dividend received deduction	—	(25.9)	—
Bargain purchase gain	—	(34.8)	—
Basis adjustment on investments	3.5	65.2	—
Nondeductible expenses	1.2	14.2	—
Unrecognized gains on foreign subsidiaries	—	—	38.7
Change in valuation allowance	7.1	—	(6.7)
Impact of tax law change	—	669.8	—
State and foreign tax	(10.0)	25.3	1.3
Reversal of income attributable to redeemable non-controlling interests	(8.6)	(119.6)	1.3
Other, net	1.7	3.7	(9.0)
Total	<u>15.9%</u>	<u>632.9%</u>	<u>60.6%</u>

As of December 31, 2018, the Company has net income taxes receivable of approximately \$6.2 million representing federal, state and foreign tax overpayments, which is included in other assets on the accompanying consolidated statements of financial condition.

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Notes to Consolidated Financial Statements (Continued)

The components of the Company's deferred tax assets and liabilities as of December 31, 2018 and 2017 are as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Deferred tax assets, net of valuation allowance		
Net operating loss	\$ 48,294	\$ 78,650
Deferred compensation	59,697	39,992
Goodwill	—	1,042
Option liability	—	5,776
Tax credits	9,036	4,419
Acquired lease liability	2,098	3,473
Other	2,444	2,696
Total deferred tax assets	121,569	136,048
Valuation allowance	(9,135)	(2,103)
Deferred tax assets, net of valuation allowance	112,434	133,945
Deferred tax liabilities		
Unrealized gains on investments	(13,092)	(7,523)
Amortization of bond discount	(4,643)	(6,402)
Other	(1,642)	(3,697)
Total deferred tax liabilities	(19,377)	(17,622)
Deferred tax assets/(liabilities), net	\$ 93,057	\$ 116,323

Deferred tax assets, net of valuation allowance, are reported in the accompanying consolidated statements of financial condition. In addition to the deferred tax balances in the table above, the Company records balances related to its operating losses in Luxembourg, which are discussed below.

The Company records deferred tax assets and liabilities for the future tax benefit or expense that will result from differences between the carrying value of its assets for income tax purposes and for financial reporting purposes, as well as for operating or capital loss and tax credit carryovers. A valuation allowance is recorded to bring the net deferred tax assets to a level that, in management's view, is more likely than not to be realized in the foreseeable future. This level will be estimated based on a number of factors, especially the amount of net deferred tax assets of the Company that are actually expected to be realized, for tax purposes, in the foreseeable future. The Company recorded approximately \$9.1 million valuation allowance against its deferred tax assets of \$121.6 million as of December 31, 2018 and recorded approximately \$2.1 million valuation allowance against its deferred tax assets of \$136.0 million as of December 31, 2017. Separately, the Company has deferred tax liabilities of \$19.4 million as of December 31, 2018, and \$17.6 million as of December 31, 2017.

For the year 2018, the Company's total deferred tax expense of \$19.0 million was derived by the basis difference realized from the disposal of assets and the reversal of timing differences in the normal course of business. The deferred tax expense of \$41.2 million in 2017 predominantly related to the impact of the TCJA, and the reversal of timing differences in the normal course of business. The deferred tax benefit of \$22.6 million in 2016 was derived by the release of deferred tax liabilities related to the previous acquisitions by a local subsidiary, and reversal of temporary items during the course of normal operations.

As of December 31, 2018, the Company has foreign tax credit carryforwards of \$7.0 million which expire between 2018 and 2026. A full valuation allowance was established against foreign tax credit carryforward as the Company determined that it is not more likely than not that the credits will be utilized.

The Company has the following net operating loss carryforwards at December 31, 2018:

	Federal	New York State	New York City	Hong Kong
Jurisdiction:				
Net operating loss (in millions)	\$138.0	\$58.0	\$98.2	\$12.7
Year of expiration	2037	2037	2037	Indefinite

In addition to the net operating loss carryforwards in the table above, the Company also has net operating loss carryforwards in Luxembourg. These loss carryforwards are only accessible to the extent of taxable income generated by the Luxembourg reinsurance companies, including any deferred income that will be generated in the future. Consequently, the

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Company recorded a deferred tax asset of \$189.1 million, net of deferred tax liabilities of \$323.1 million in connection with future taxable income, and an offsetting valuation allowance of \$189.1 million against its Luxembourg net operating loss carryforwards that are in excess of such taxable income.

The Company underwent a change of control under Section 382 of the Internal Revenue Code on November 2, 2009 (“Section 382”). Accordingly, a portion of the Company’s deferred tax assets, in particular a portion of its net operating loss, have been subject to an annual limitation. As of December 31, 2018, all of these losses were utilized. Further, as a result of an acquisition of a subsidiary with net operating loss carryovers in June 2011, a portion of the Company’s deferred tax assets, are subject to an annual limitation under Section 382. The deduction limitation is approximately \$6.7 million annually and applies to approximately \$37.1 million of net operating losses. The Company is not expected to lose any deferred tax assets as a result of these limitations.

The components of unrecognized tax benefits are as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Beginning balance at January 1	\$ 3,947	\$ —
Increases due to acquisition	—	2,847
Increases/(Decreases) due to current year positions	(3,648)	1,100
Ending balance at December 31	<u>\$ 299</u>	<u>\$ 3,947</u>

The amount of the unrecognized tax benefits that impacted the effective tax rate of the Company is \$(1.7) million. The total amount of income tax-related interest and penalties recognized in the consolidated statement of operations for the year ended December 31, 2018 is \$0.3 million. No income tax-related interest and penalties are recognized in the consolidated statement of financial condition at December 31, 2018.

The Company is subject to examination by the United States Internal Revenue Service as well as state, local and foreign tax authorities in jurisdictions where the Company has significant business operations, such as New York, United Kingdom, and Luxembourg. The open tax years are 2015-2017 for the United States, and 2016-2017 for United Kingdom and Luxembourg. In October, the Company concluded an IRS audit for tax year 2014 with no financial statement impact. In December, the Company concluded a New York City unincorporated business tax audit for tax years 2011 to 2013, which caused a release of unrecognized tax benefits of \$1.2 million.

The Company continues to permanently reinvest the capital and accumulated earnings of its United Kingdom, Canadian and Hong Kong subsidiaries.

22. Commitments and Contingencies

Lease Obligations

The Company has entered into leases for office space and equipment. These leases contain rent escalation clauses. The Company records rent expense on a straight-line basis over the lease term, including any rent holiday periods. Rent expense was \$26.0 million, \$22.6 million, and \$20.3 million for the years ended December 31, 2018, 2017, and 2016, respectively, and are included in occupancy and equipment expense in the accompanying consolidated statements of operations.

As of December 31, 2018, future minimum annual lease and service payments for the Company were as follows:

	Equipment Leases (a)	Service Payments	Real Estate and other Facility Rental (b)
	(dollars in thousands)		
2019	\$ 2,434	\$ 21,758	\$ 24,584
2020	1,492	7,514	22,608
2021	1,382	1,877	22,321
2022	1,123	1,372	19,166
2023	374	735	16,204
Thereafter	—	735	21,478
	<u>\$ 6,805</u>	<u>\$ 33,991</u>	<u>\$ 126,361</u>

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

- (a) Equipment Leases include the Company's commitments relating to operating and capital leases. See Note 23 for further information on the capital lease minimum payments which are included in the table.
- (b) The Company has entered into various agreements to sublease certain of its premises. The Company recorded sublease income related to these leases of \$1.4 million, \$1.1 million, and \$2.2 million for the years ended December 31, 2018, 2017, and 2016 respectively.

Clawback Obligations

For financial reporting purposes, the general partners of a real estate fund have recorded a liability for potential clawback obligations to the limited partners, due to changes in the unrealized value of the real estate fund's remaining investments and where the real estate fund's general partner has previously received carried interest distributions. The clawback liability, however, is not realized until the end of the real estate fund's life. The real estate fund is currently in a winding-up phase whereby the remaining assets of the real estate fund are being liquidated as promptly as possible so as to maximize value. However a final date for liquidation has not been set. The clawback obligations for the real estate fund were \$6.5 million and \$6.2 million at December 31, 2018 and 2017, which is included in accounts payable, accrued expenses and other liabilities in the accompanying consolidated statements of financial condition.

The Company serves as the general partner/managing member and/or investment manager to various affiliated and sponsored investment funds. As such, the Company is contingently liable for obligations for those entities. These amounts are not included above as the Company believes that the assets in these investment funds are sufficient to discharge any liabilities.

Unfunded Commitments

The following table summarizes unfunded commitments as of December 31, 2018:

Entity	Unfunded Commitments (dollars in millions)	Commitment term
Real estate (a)	\$ 22.6	(a)
HealthCare Royalty Partners funds (b)	4.9	2 years
Eclipse Ventures Fund I, L.P. (formerly Formation8 Partners Hardware Fund I, L.P.)	0.2	6 years
Lagunita Biosciences, LLC	1.0	3 years
Eclipse Fund II, L.P.	0.8	7 years
Eclipse Continuity Fund I, L.P.	0.6	8 years
Cowen Healthcare Investments II LP	6.9	3 years

(a) The Company had unfunded commitments pertaining to capital commitments in five real estate investments held by the Company, all of which pertain to related party investments. Such commitments can be called at any time between two to four years, subject to advance notice.

(b) The Company is a limited partner of the HealthCare Royalty Partners funds (which are managed by Healthcare Royalty Management) and is a member of HealthCare Royalty Partners General Partners. The Company will make its pro-rata investment in the HealthCare Royalty Partners funds along with the other limited partners.

Litigation

In the ordinary course of business, the Company and its affiliates, subsidiaries and current and former officers, directors and employees (the "Company and Related Parties") are named as defendants in, or as parties to, various legal actions and proceedings. Certain of these actions and proceedings assert claims or seek relief in connection with alleged violations of securities, banking, anti-fraud, anti-money laundering, employment and other statutory and common laws. Certain of these actual or threatened legal actions and proceedings include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief.

In the ordinary course of business, the Company and Related Parties are also subject to governmental and regulatory examinations, information gathering requests (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. Certain of our affiliates and subsidiaries are registered broker-dealers, futures commission merchants, investment advisers or other regulated entities and, in those capacities, are subject to regulation by various U.S., state and foreign securities, commodity futures and other regulators. In connection with formal and informal inquiries by these regulators, we receive requests, and orders seeking documents and other information in connection with various aspects of our regulated activities.

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Notes to Consolidated Financial Statements (Continued)

Due to the global scope of the Company's operations, and its presence in countries around the world, the Company and Related Parties may be subject to litigation, governmental and regulatory examinations, information gathering requests, investigations and proceedings (both formal and informal), in multiple jurisdictions with legal and regulatory regimes that may differ substantially, and present substantially different risks, from those to which the Company and Related Parties are subject in the United States.

The Company seeks to resolve all litigation and regulatory matters in the manner management believes is in the best interests of the Company and its shareholders, and contests liability, allegations of wrongdoing and, where applicable, the amount of damages or scope of any penalties or other relief sought as appropriate in each pending matter.

In accordance with US GAAP, the Company establishes reserves for contingencies when the Company believes that it is probable that a loss has been incurred and the amount of loss can be reasonably estimated. The Company discloses a contingency if there is at least a reasonable possibility that a loss may have been incurred and there is no reserve for the loss because the conditions above are not met. The Company's disclosure includes an estimate of the reasonably possible loss or range of loss for those matters, for which an estimate can be made. Neither a reserve nor disclosure is required for losses that are deemed remote.

The Company appropriately reserves for certain matters where, in the opinion of management, the likelihood of liability is probable and the extent of such liability is reasonably estimable. Such amounts are included within accounts payable, accrued expenses and other liabilities in the accompanying consolidated statements of financial condition. Estimates, by their nature, are based on judgment and currently available information and involve a variety of factors, including, but not limited to, the type and nature of the litigation, claim or proceeding, the progress of the matter, the advice of legal counsel, the Company's defenses and its experience in similar cases or proceedings as well as its assessment of matters, including settlements, involving other defendants in similar or related cases or proceedings. The Company may increase or decrease its legal reserves in the future, on a matter-by-matter basis, to account for developments in such matters. The Company accrues legal fees as incurred.

The following information reflects developments with respect to the Company's legal proceedings that occurred during the quarter ended December 31, 2018.

On December 27, 2013, Landol Fletcher filed a putative class action lawsuit against Convergenx Holdings, LLC, Convergenx Group, LLC, Cowen Execution, Convergenx Global Markets Limited and G-Trade Services LLC (collectively, "Convergenx") in the United States District Court for the Southern District of New York (Landol Fletcher and all others similarly situated v. Convergenx Group LLC, Cowen Execution, Convergenx Global Markets Ltd., Convergenx Holdings LLC, G-Trade Services LLC, & Does 1-10, No. 1:13-CV-09150-LLS). The suit alleges breaches of fiduciary duty and prohibited transactions under ERISA and seeks to maintain a class action on behalf of all ERISA plan participants, beneficiaries and named fiduciaries whose plans were impacted by net trading by Convergenx Global Markets Limited from October 2006 to December 2011. On April 11, 2014, Landol Fletcher and Frederick P. Potter Jr., filed an amended complaint raising materially similar allegations. This matter was assumed by the Company as a result of the Company's previously announced acquisition of Convergenx Group, which was completed on June 1, 2017. On February 17, 2016, the District Court granted Convergenx's motion to dismiss the amended complaint. Plaintiffs filed an appeal to the Second Circuit, and the AARP and Department of Labor filed amicus briefs on plaintiffs' behalf. The appeal was argued on December 12, 2016. On February 10, 2017, the Second Circuit Court of Appeals (1) reversed the District Court, finding that plaintiff has constitutional standing in a "representative" capacity to sue for damages to the ERISA defined benefit plan in which he is a participant, and (2) remanded to the District Court to reconsider, in light of the Circuit Court's decision, the issue whether plaintiff has standing to pursue claims on behalf of ERISA plans in which plaintiff is not a participant. Convergenx filed a petition for rehearing, and the Court of Appeals denied the petition. On June 30, 2017, the Company filed a notice of motion and memorandum of law in support of a motion to stay the proceedings in the District Court pending resolution of its petition for writ of certiorari, which the Company intended to file with the U.S. Supreme Court. On August 16, 2017, the District Court granted the Company's motion to stay the proceedings in the District Court pending resolution of the Company's petition for writ of certiorari. On September 1, 2017, the Company filed a petition with the United States Supreme Court for a writ of certiorari requesting review of the decision of the Court of Appeals. On January 8, 2018, the U.S. Supreme Court denied the Company's petition for a writ of certiorari. The previously granted stay of the proceedings in the District Court has been lifted, and the case is proceeding in the District Court. Status conferences were held on April 6, 2018, October 12, 2018, and December 4, 2018. We are indemnified against losses arising from this matter pursuant to, and subject to, the provisions of the purchase agreement relating to the acquisition of Convergenx Group. Because the case is in its preliminary stages, the Company cannot predict the outcome at this time, but it does not currently expect this case to have a material effect on its financial position or its results of operations.

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Notes to Consolidated Financial Statements (Continued)

23. Convertible Debt and Notes Payable

As of December 31, 2018 and 2017, the Company's outstanding debt was as follows:

	As of December 31,	
	2018	2017
	(dollars in thousands)	
Convertible debt	\$ 134,489	\$ 141,502
Notes payable	229,740	132,970
Term loan	28,200	28,121
Other notes payable	—	8,247
Capital lease obligations	5,025	4,120
	<u>\$ 397,454</u>	<u>\$ 314,960</u>

Convertible Debt

2022 Convertible Notes

The Company, on December 14, 2017, issued \$135.0 million aggregate principal amount of 3.00% convertible senior notes due 2022 (the "2022 Convertible Notes"). The 2022 Convertible Notes are due on December 15, 2022 unless earlier repurchased by the Company or converted by the holder in accordance with their terms prior to such date. The interest on the 2022 Convertible Notes is payable semi-annually on December 15 and June 15 of each year. The 2022 Convertible Notes are senior unsecured obligations of Cowen. The 2022 Convertible Notes may be converted into cash or shares of Class A common stock at the Company's election based on the current conversion price. The 2022 Convertible Notes were issued with an initial conversion price of \$17.375 per share of Cowen's Class A common stock.

The Company used the net proceeds, together with cash on hand, from the offering for general corporate purposes, including the repurchase or repayment of \$115.1 million of the Company's outstanding 3.0% cash convertible senior notes due 2019 (the "2019 Convertible Notes") and the repurchase of approximately \$19.5 million of the Company's shares of its Class A common stock, which were consummated substantially concurrently with the closing of the offering. As of December 31, 2018, the outstanding principal amount of the 2022 Convertible Notes was \$135.0 million. On June 26, 2018, the Company received shareholder approval for the Company to settle the 2022 Convertible Note entirely in class A common shares. Upon receiving shareholder approval, the Company reclassified the separately recognized conversion option from a derivative liability to equity.

The Company recorded interest expense of \$4.1 million and \$0.2 million for the years ended December 31, 2018 and 2017, respectively. The Company recognized the embedded cash conversion option at issuance date fair value, which also represents the initial unamortized discount on the 2022 Convertible Notes of \$23.4 million and is shown net in convertible debt in the accompanying consolidated statements of financial condition. Amortization on the discount, included within interest and dividends expense in the accompanying consolidated statements of operations is \$4.0 million and \$0.2 million for the years ended December 31, 2018 and 2017, respectively, based on an effective interest rate of 7.57%. The Company capitalized the debt issuance costs in the amount of \$2.2 million, which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2022 Convertible Notes.

2019 Convertible Notes

On March 10, 2014, the Company issued \$149.5 million of 3.0% cash convertible senior notes (the "2019 Convertible Notes"). The 2019 Convertible Notes are due on March 15, 2019 unless earlier repurchased by the Company or converted by the holder into cash in accordance with their terms prior to such date. The interest on the 2019 Convertible Notes is payable semi-annually on March 15 and September 15 of each year. The 2019 Convertible Notes are senior unsecured obligations of the Company. The 2019 Convertible Notes may be converted into cash, upon the occurrence of certain events, whereby a holder will receive, per \$1,000 principal amount of notes being converted, an amount equal to the sum of principal amount outstanding and the conversion amount based on the current conversion price (the "Conversion Option"). The 2019 Convertible Notes were issued with an initial conversion price of \$21.32 per share (per share amounts have been retroactively updated to reflect the one-for-four reverse stock split effective as of December 5, 2016). During December 2017, the Company repurchased and extinguished \$115.1 million of the outstanding principal amount of the 2019 Convertible Notes. During June 2018, the Company repurchased and extinguished an additional \$13.5 million of the outstanding principal amount of the 2019 Convertible Notes. As of December 31, 2018, the outstanding principal amount of the 2019 Convertible Notes was \$20.8 million.

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Notes to Consolidated Financial Statements (Continued)

The Company recorded interest expense of \$1.1 million, \$4.3 million, and \$4.5 million for the years ended December 31, 2018, 2017, and 2016, respectively. The initial unamortized discount on the 2019 Convertible Notes was \$35.7 million and is shown net in convertible debt in the accompanying consolidated statements of financial condition. Amortization on the discount, included within interest and dividends expense in the accompanying consolidated statements of operations is \$1.5 million, \$7.3 million, and \$6.9 million for the years ended December 31, 2018, 2017, and 2016, respectively, based on an effective interest rate of 8.89%. Upon issuance of the 2019 Convertible Notes, the Company capitalized the debt issuance costs in the amount of \$3.7 million, which is a direct deduction from the carrying value of the debt and is amortized over the life of the 2019 Convertible Notes. In conjunction with the partial extinguishment of the 2019 Convertible Notes, the Company accelerated the pro-rata unamortized discount and capitalized debt issuance costs. During the years ended December 31, 2018 and 2017, the Company recognized \$0.6 million and \$10.5 million, respectively, of loss on debt extinguishment.

Of the net proceeds from the sale of the 2019 Convertible Notes, approximately \$20.5 million was applied to pay the net cost of a cash convertible note economic hedge and warrant transaction, which increased the effective conversion price to \$28.72 (see Note 6) (per share amounts have been retroactively updated to reflect the one-for-four reverse stock split effective as of December 5, 2016), and approximately \$0.3 million was applied to repurchase shares of Cowen Class A common stock. The remainder of the net proceeds is being used for general corporate purposes.

Notes Payable

2033 Notes

On June 11, 2018, the Company completed its public offering of \$90.0 million of 7.75% senior notes due 2033 (the "2033 Notes") and subsequently the underwriters exercised in full their option to purchase an additional \$10.0 million principal amount of the 2033 Notes. Interest on the 2033 Notes is payable quarterly in arrears on March 15, June 15, September 15 and December 15. The Company recorded interest expense of \$4.3 million for the year ended December 31, 2018. The Company capitalized debt issuance costs of approximately \$3.6 million which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2033 Notes.

2027 Notes

On December 8, 2017, the Company completed its public offering of \$120.0 million of 7.35% senior notes due 2027 (the "2027 Notes") and subsequently the underwriters exercised in full their option to purchase an additional \$18.0 million principal amount of the 2027 Notes. Interest on the 2027 Notes is payable quarterly in arrears on March 15, June 15, September 15 and December 15. The Company recorded interest expense of \$10.1 million and \$0.6 million for the years ended December 31, 2018 and 2017, respectively. The Company capitalized debt issuance costs of approximately \$5.0 million which is a direct deduction from the carrying value of the debt and will be amortized over the life of the 2027 Notes. The net proceeds of the offering, after deducting the underwriting discount and estimated offering expenses payable by the Company were used to redeem all of its 8.25% senior notes due 2021 (the "2021 Notes") and for general corporate purposes.

2021 Notes

The Company redeemed the Company's outstanding \$63.3 million principal amount of the 2021 Notes, following which the 2021 Notes were delisted from NASDAQ. The redemption was made pursuant to the terms of the 2021 Notes and the indenture governing the 2021 Notes. The redemption price for the 2021 Notes was equal to 106.188% of the principal amount of the 2021 Notes plus accrued and unpaid interest. The Company recorded interest expense of \$5.3 million and \$5.2 million for the years ended December 31, 2017 and 2016, respectively. In conjunction with the extinguishment of the 2021 Notes, the Company expensed the unamortized capitalized debt issuance costs. For the period ended December 31, 2017, the Company recognized \$5.6 million of loss on debt extinguishment, which was recorded in gain/(loss) on debt extinguishment in the accompanying consolidated statements of operation.

Term Loan

On June 30, 2017, the Company borrowed \$28.2 million to fund general corporate purposes. This term loan has an effective interest rate of LIBOR plus 3.75% with a lump sum payment of the entire principal amount due on June 28, 2019. The loan is secured by the value of the Company's limited partnership interests in two affiliated investment funds. The Company has provided a guarantee for this loan. The Company recorded interest expense of \$1.6 million and \$0.7 million for the years ended December 31, 2018 and 2017, respectively.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Other Notes Payable

During January 2018, the Company borrowed \$2.0 million to fund insurance premium payments. This note had an effective interest rate of 2.01% and was due on December 31, 2018, with monthly payment requirements of \$0.2 million. As of December 31, 2018, the note was fully repaid. Interest expense for the year ended December 31, 2018 was insignificant.

During January 2017, the Company borrowed \$2.1 million to fund insurance premium payments. This note had an effective interest rate of 1.50% and was due on December 31, 2017, with monthly payment requirements of \$0.2 million. As of December 31, 2017, the note was fully repaid. Interest expense for the year ended December 31, 2017 was insignificant.

In 2016, the Company entered into various financing for its aircraft. The aircraft financing, net of debt costs, was recorded in notes payable and other debt in the accompanying consolidated statements of financial condition. The debt maturities ranged from January 2019 to April 2021 and interest rates ranged from 4.21% to 7.25%. As of December 31, 2018 the financing for all the aircraft was fully repaid. As of December 31, 2017, the remaining balance on the aircraft financing agreements was \$8.2 million. Interest expense was \$0.4 million, \$0.7 million, and \$0.8 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Capital Lease Obligations

The Company has entered into various capital leases for computer equipment, which amounted to \$10.1 million and is recorded in fixed assets as capital lease obligations. These capital lease obligations are included in notes payable and other debt in the accompanying consolidated statements of financial condition, and have lease terms that range from 55 to 60 months and interest rates that range from 3.70% to 5.69%. As of December 31, 2018, the remaining balance on these capital leases was \$5.0 million. Interest expense was \$0.2 million, \$0.1 million, and \$0.1 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Annual scheduled maturities of debt and minimum payments (of principal and interest) for all debt outstanding as of December 31, 2018, are as follows:

	Convertible Debt	Notes Payable	Term loan	Capital Lease Obligation
	(dollars in thousands)			
2019	\$ 25,092	\$ 17,893	\$ 29,089	\$ 1,355
2020	4,050	17,893	—	1,358
2021	4,050	17,893	—	1,358
2022	139,050	17,893	—	1,127
2023	—	17,893	—	374
Thereafter	—	352,197	—	—
Subtotal	172,242	441,662	29,089	5,572
Less (a)	(37,753)	(211,922)	(889)	(547)
Total	\$ 134,489	\$ 229,740	\$ 28,200	\$ 5,025

- (a) Amount necessary to reduce net minimum payments to present value calculated at the Company's implicit rate at inception. This amount also includes capitalized debt costs and the unamortized discount on the convertible debt.

Letters of Credit

As of December 31, 2018, the Company has the following seven irrevocable letters of credit, related to leased office space, for which there is cash collateral pledged, which the Company pays a fee on the stated amount of the letter of credit. The Company also has pledged collateral for reinsurance agreements which amounted to \$1.0 million, as of December 31, 2018, and \$11.8 million, as of December 31, 2017, which is anticipated to be due March 2021.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Location	Amount	Maturity
	(dollars in thousands)	
Boston	\$ 388	March 2019
New York	\$ 357	April 2019
New York	\$ 71	May 2019
New York	\$ 497	October 2019
New York	\$ 1,687	October 2019
New York	\$ 1,605	November 2019
San Francisco	\$ 717	January 2020

To the extent any letter of credit is drawn upon, interest will be assessed at the prime commercial lending rate. As of December 31, 2018 and 2017, there were no amounts due related to these letters of credit.

24. Stockholder's Equity

On December 5, 2016, the Company effected a one-for-four reverse stock split of the Company's class A and class B common stock. All share and per share information has been retroactively adjusted to reflect the reverse stock split. In addition, there was a reclassification of \$0.9 million from the par value of our class A common stock to additional paid-in capital to reflect the impact of the reverse stock split.

The Company is authorized to issue 125,000,000 shares of common stock, which shall consist of 62,500,000 shares of Class A common stock, par value \$0.01 per share, and 62,500,000 shares of Class B common stock, par value \$0.01 per share. The Company is also authorized to issue 10,000,000 shares of preferred stock, par value \$0.01 per share. Subject to the rights of holders of any outstanding preferred stock, the number of authorized shares of common stock or preferred stock may be increased or decreased by the affirmative vote of the holders of a majority of the shares entitled to vote on such matters, but in no instance can the number of authorized shares be reduced below the number of shares then outstanding.

Common stock

The certificate of incorporation of the Company provides for two classes of common stock, and for the conversion of each class into the other, to provide a mechanism by which holders of Class A common stock of the Company who may be limited in the amount of voting common stock of the Company they can hold pursuant to federal, state or foreign bank laws, to convert their shares into non-voting Class B common stock to prevent being in violation of such laws. Each holder of Class A common stock is entitled to one vote per share in connection with the election of directors and on all other matters submitted to a stockholder vote, provided, however, that, except as otherwise required by law, holders of Class A common stock are not entitled to vote on any amendment to the Company's amended and restated certificate of incorporation that relates solely to the terms of one or more outstanding series of the Company's preferred stock, if holders of the preferred stock series are entitled to vote on the amendment under the Company's certificate of incorporation or Delaware law. No holder of Class A common stock may accumulate votes in voting for directors of the Company.

Each holder of Class B common stock is not entitled to vote except as otherwise provided by law, provided however that the Company must obtain the consent of a majority of the holders of Class B common stock to effect any amendment, alteration or repeal of any provision of the Company's amended and restated certificate of incorporation or amended and restated by-laws that would adversely affect the voting powers, preferences or rights of holders of Class B common stock. Except as otherwise provided by law, Class B common stock shares will not be counted as shares held by stockholders for purposes of determining whether a vote or consent has been approved or given by the requisite percentage of shares.

Each share of Class A common stock is convertible at the option of the holder and at no cost into one share of Class B common stock, and each share of Class B common stock is convertible at the option of the holder and at no cost into one share of Class A common stock. The conversion ratios will be adjusted proportionally to reflect any stock split, stock dividend, merger, reorganization, recapitalization or other change in the Class A common stock and Class B common stock. Upon conversion, converted shares resume the status of authorized and unissued shares.

Subject to the preferences of the holders of any of the Company's preferred stock that may be outstanding from time to time, each share of Class A common stock and Class B common stock will have an equal and ratable right to receive dividends and other distributions in cash, property or shares of stock as may be declared by the Company's board of directors out of assets or funds legally available for the payment of dividends and other distributions.

In the event of the liquidation, dissolution or winding up of the Company, subject to the preferences of the holders of any preferred stock of the Company that may be outstanding from time to time, holders of Class A common stock and Class B

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

common stock will be entitled to share equally and ratably in the assets available for distribution to the Company's stockholders. There are no redemption or sinking fund provisions applicable to the Class A or the Class B common stock.

Preferred stock

The Company's amended and restated certificate of incorporation permits the Company to issue up to 10,000,000 shares of preferred stock in one or more series with such designations, titles, voting powers, preferences and rights and such qualifications, limitations and restrictions as may be fixed by the board of directors of the Company without any further action by the Company's stockholders. The Company's board of directors may increase or decrease the number of shares of any series of preferred stock following the issuance of that series of preferred stock, but in no instance can the number of shares of a series of preferred stock be reduced below the number of shares of the series then outstanding.

Preferred Stock and Purchase of Capped Call Option

On May 19, 2015, the Company completed its offering of 120,750 shares of the Company's 5.625% Series A cumulative perpetual convertible preferred stock ("Series A Convertible Preferred Stock") that provided \$117.2 million of proceeds, net of underwriting fees and issuance costs of \$3.6 million. Each share of the Series A Convertible Preferred Stock is entitled to dividends at a rate of 5.625% per annum which will be payable, when and if declared by the board of directors of the Company, quarterly, in arrears, on February 15, May 15, August 15 and November 15 of each year. The Company may, at its option, pay dividends in cash, common stock or a combination thereof. The Company declared and accrued a cash dividend of \$6.8 million, \$6.8 million, and \$6.8 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Each share of Series A Convertible Preferred Stock is non-voting and has a liquidity preference over the Company's Class A common stock and ranks senior to all classes or series of the Company's Class A common stock, but junior to all of the Company's existing and future indebtedness with respect to dividend rights and rights upon the Company's involuntary liquidation, dissolution or winding down.

Each share of Series A Convertible Preferred Stock is convertible, at the option of the holder, into a number of shares of our Class A common stock equal to the liquidation preference of \$1,000 divided by the conversion rate. The initial conversion rate (subsequent to the December 5, 2016 reverse stock split) is 38.0619 shares (which equates to \$26.27 per share) of the Company's Class A common stock for each share of the Series A Convertible Preferred Stock. At any time on or after May 20, 2020, the Company may elect to convert all outstanding shares of the Series A Convertible Preferred Stock into shares of the Company's Class A common stock, cash or a combination thereof, at the Company's election, in each case, based on the then-applicable conversion rate, if the last reported sale price of the Company's Class A common stock equals or exceeds 150% of the then-current conversion price on at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days (including on the last trading day of such period) immediately prior to such election. At the time of conversion, the conversion rate may be adjusted based on certain events including but not limited to the issuance of cash dividends or Class A common stock as dividends to the Company's Class A common shareholders or a share split or combination.

In connection with the issuance and sale of the Series A Convertible Preferred Stock, the Company entered into a capped call option transaction (the "Capped Call Option Transaction") with Nomura Global Financial Products Inc. (the "option counterparty") for \$15.9 million. The Capped Call Option Transaction is expected generally to reduce the potential dilution to the Company's Class A common stock (if the Company elects to convert to common shares) and/or offset any cash payments that the Company is required to make upon conversion of any Series A Convertible Preferred Stock. The Capped Call Option Transaction has an initial effective strike price of \$26.27 per share, which matches the initial conversion price of the Series A Convertible Preferred Stock, and a cap price of \$33.54 per share. However, to the extent that the market price of Class A common stock, as measured under the terms of the Capped Call Option Transaction, exceeds the cap price thereof, there would nevertheless be dilution and/or such cash payments would not be offset. As the Capped Call Option Transaction is a free standing derivative that is indexed to the Company's own stock price and the Company controls if it is settled in cash or stock it qualifies for equity classification as a reduction to additional paid in capital.

Embedded Cash Conversion Option on the 2022 Convertible Notes

Upon issuance of the 2022 Convertible Notes (see Note 23), the Company recognized the embedded cash conversion option at fair value of \$23.4 million which was valued as of June 26, 2018 at \$29.0 million. On June 26, 2018, the Company received shareholder approval for the Company to settle the 2022 Convertible Note entirely in class A common shares. Upon receiving shareholder approval, the Company reclassified the separately recognized conversion option from a derivative liability to equity.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Treasury Stock

Treasury stock of \$234.1 million as of December 31, 2018, compared to \$186.8 million as of December 31, 2017, resulted from \$12.1 million acquired through repurchases of shares to cover employee minimum tax withholding obligations related to stock compensation vesting events under the Company's Equity Plans or other similar transactions, \$3.4 million received from an escrow account established to satisfy the Company's indemnification claims arising under the terms of the purchase agreement entered into in connection with the Company's acquisition of Convergenx Group, LLC and \$31.8 million purchased in connection with a share repurchase program.

The following represents the activity relating to the treasury stock held by the Company during the year ended December 31, 2018:

	Treasury stock shares	Cost (dollars in thousands)	Average cost per share
Balance outstanding at December 31, 2017	12,133,276	\$ 186,846	\$ 15.40
Shares purchased for minimum tax withholding under the Equity Plans or other similar transactions	803,236	12,136	15.11
Shares of stock received in respect of indemnification claims	236,173	3,398	14.39
Purchase of treasury stock	2,164,186	31,762	14.68
Balance outstanding at December 31, 2018	<u>15,336,871</u>	<u>\$ 234,142</u>	<u>\$ 15.27</u>

25. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income includes the after tax change in unrealized gains and losses on foreign currency translation adjustments. During the periods presented, the Company did not have material reclassifications out of other comprehensive income.

	Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Beginning Balance	\$ (8)	\$ (2)	\$ —
Foreign currency translation	3	(6)	(2)
Ending Balance	<u>\$ (5)</u>	<u>\$ (8)</u>	<u>\$ (2)</u>

26. Earnings Per Share

The Company calculates its basic and diluted earnings per share in accordance with US GAAP. Basic earnings per share is calculated by dividing net income attributable to the Company's common stockholders by the weighted average number of common shares outstanding for the period. As of December 31, 2018, there were 28,437,860 of Class A common shares outstanding. The Company has included 253,772 fully vested, unissued restricted stock units in its calculation of basic earnings per share. As of December 31, 2017, there were 29,632,020 of Class A common shares outstanding. The Company has included 191,962 fully vested, unissued restricted stock units in its calculation of basic earnings per share.

Diluted earnings per common share are calculated by adjusting the weighted average outstanding shares to assume conversion of all potentially dilutive items. The Company uses the treasury stock method to reflect the potential dilutive effect of the warrants (see Note 6(a)), unexercised stock options, unvested restricted shares, restricted stock units, and SAR's. In calculating the number of dilutive shares outstanding, the shares of common stock underlying unvested restricted shares and restricted stock units are assumed to have been delivered, and options and warrants are assumed to have been exercised, for the entire period being presented. The number of performance-linked unvested restricted stock units that are included in the calculation are at the amount that could be earned using current payout rates. The assumed proceeds from the assumed vesting, delivery and exercising were calculated as the amount of compensation cost attributed to future services and not yet recognized.

The Company can elect to settle the Series A Convertible Preferred Stock in shares, cash, or a combination of both. The Company's intent is to settle in cash and, based on current and projected liquidity needs, the Company has the ability to do so.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

The computation of earnings per share is as follows:

	Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands, except share and per share data)		
Net income (loss)	\$ 83,217	\$ (37,091)	\$ (12,395)
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	40,398	23,791	6,882
Net income (loss) attributable to Cowen Inc.	42,819	(60,882)	(19,277)
Preferred stock dividends	6,792	6,792	6,792
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 36,027	\$ (67,674)	\$ (26,069)
Shares for basic and diluted calculations:			
Weighted average shares used in basic computation	29,545	29,492	26,857
Stock options	—	—	—
Stock appreciation rights	—	—	—
Restricted stock	1,190	—	—
Weighted average shares used in diluted computation	30,735	29,492	26,857
Earnings (loss) per share:			
Basic	\$ 1.22	\$ (2.29)	\$ (0.97)
Diluted	\$ 1.17	\$ (2.29)	\$ (0.97)

27. Segment Reporting

The Company conducts its operations through two segments: the investment management segment and the investment bank segment. These activities are conducted primarily in the United States and substantially all of its revenues are generated domestically. The performance measure for these segments is Economic Income (Loss), which management uses to evaluate the financial performance of and make operating decisions for the segments including determining appropriate compensation levels. Expenses not directly associated with specific segments are allocated based on the most relevant measures applicable, including headcount, square footage and other factors.

In general, Economic Income (Loss) (which is attributable to Cowen Inc.) is a pre-tax measure that (i) eliminates the impact of consolidation for Consolidated Funds and excludes (ii) goodwill and intangible impairment (iii) certain other transaction-related adjustments and/or reorganization expenses (iv) certain costs associated with debt and (v) preferred stock dividends. Economic Operating Income (Loss) represents Economic Income (Loss) before depreciation and amortization expenses. In addition, Economic Income (Loss) revenues include investment income that represents the income the Company has earned in investing its own capital, including realized and unrealized gains and losses, interest and dividends, net of associated investment related expenses. For US GAAP purposes, these items are included in each of their respective line items. Economic Income (Loss) revenues also include management fees, incentive income and investment income earned through the Company's investment as a general partner in certain real estate entities and the Company's investment in the activist business and certain investment funds. For US GAAP purposes, all of these items, are recorded in other income (loss). Economic Income (Loss) recognizes incentive fees during periods when the fees are not yet crystallized for US GAAP reporting. In addition, Economic Income (Loss) expenses are reduced by reimbursement from affiliates, which for US GAAP purposes is presented gross as part of revenue.

As further stated below, one major difference between Economic Income (Loss) and US GAAP net income (loss) is that Economic Income (Loss) presents the segments' results of operations without the impact resulting from the full consolidation of any of the Consolidated Funds. The consolidation of these investment funds' results include the pro rata share of the income or loss attributable to other owners of such entities which is reflected in net income (loss) attributable to redeemable non-controlling interest in consolidated subsidiaries in the accompanying consolidated statements of operations. This pro rata share has no effect on the overall financial performance for the investment management segment, as ultimately, this income or loss is not income or loss for the investment management segment itself. Included in Economic Income (Loss) is the actual pro rata share of the income or loss attributable to the Company as an investor in such entities, which is relevant in management making operating decisions and evaluating financial performance.

The following tables set forth operating results for the Company's investment management and investment bank segments and related adjustments necessary to reconcile the Company's Economic Income (Loss) measure to arrive at the Company's consolidated US GAAP net income (loss):

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Year Ended December 31, 2018								
				Adjustments				US GAAP Net Income (Loss)
	Investment Management	Investment Bank	Total Economic Income (Loss)	Funds Consolidation	Other Adjustments			
(dollars in thousands)								
Revenues								
Investment banking	\$ —	\$ 329,061	\$ 329,061	\$ —	\$ 28,161	(a)		\$ 357,222
Brokerage	—	452,299	452,299	—	(38,717)	(b)		413,582
Management fees	46,017	3,158	49,175	(2,513)	(17,004)	(c)		29,658
Incentive income (loss)	23,747	—	23,747	(52)	(20,578)	(c)(a)		3,117
Investment income (loss)	37,642	18,704	56,346	—	(56,346)	(d)(e)		—
Interest and dividends	—	—	—	—	108,009	(d)		108,009
Reimbursement from affiliates	—	—	—	(269)	1,307	(f)		1,038
Aircraft lease revenue	—	—	—	—	1,852	(e)		1,852
Reinsurance premiums	—	—	—	—	38,096	(g)		38,096
Other revenue	(2,143)	975	(1,168)	—	5,672	(g)		4,504
Consolidated Funds revenues	—	—	—	9,838	—			9,838
Total revenues	105,263	804,197	909,460	7,004	50,452			966,916
Interest expense	11,396	11,617	23,013	—	81,103	(d)		104,116
Total net revenues	93,867	792,580	886,447	7,004	(30,651)			862,800
Expenses								
Non interest expense	83,943	718,078	802,021	—	76,970	(d)(h)(i)		878,991
Consolidated Funds expenses	—	—	—	8,615	—			8,615
Total expenses	83,943	718,078	802,021	8,615	76,970			887,606
Total other income (loss)	—	—	—	35,494	88,248	(d)(k)(j)		123,742
Income taxes expense / (benefit)	—	—	—	—	15,719	(h)		15,719
Income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	8,292	—	8,292	33,883	(1,777)			40,398
Income (Loss) attributable to Cowen Inc.	\$ 1,632	\$ 74,502	\$ 76,134	\$ —	\$ (33,315)			\$ 42,819
Less: Preferred stock dividends			6,792					6,792
Income (Loss) attributable to Cowen Inc. common stockholders			69,342					\$ 36,027
Add back: Depreciation and amortization expense			11,583					
Economic Operating Income (Loss) attributable to Cowen Inc. common stockholders			\$ 80,925					

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Year Ended December 31, 2017

	Adjustments						US GAAP Net Income (Loss)
	Investment Management	Investment Bank	Total Economic Income (Loss)	Funds Consolidation	Other Adjustments		
	(dollars in thousands)						
Revenues							
Investment banking	\$ —	\$ 223,614	\$ 223,614	\$ —	\$ —		\$ 223,614
Brokerage	38	312,742	312,780	—	(19,170)	(b)	293,610
Management fees	52,239	3,148	55,387	(2,593)	(19,549)	(c)	33,245
Incentive income (loss)	26,028	—	26,028	(1,739)	(18,906)	(c)	5,383
Investment income (loss)	31,447	13,695	45,142	—	(45,142)	(d)(e)	—
Interest and dividends	—	—	—	—	49,440	(d)	49,440
Reimbursement from affiliates	—	—	—	(297)	3,157	(f)	2,860
Aircraft lease revenue	—	—	—	—	3,751	(e)	3,751
Reinsurance premiums	—	—	—	—	30,996	(g)	30,996
Other revenue	1,575	1,656	3,231	—	5,330	(g)	8,561
Consolidated Funds revenues	—	—	—	7,321	—		7,321
Total revenues	111,327	554,855	666,182	2,692	(10,093)		658,781
Interest expense	14,268	4,620	18,888	—	42,061	(d)	60,949
Total net revenues	97,059	550,235	647,294	2,692	(52,154)		597,832
Expenses							
Non interest expense	92,567	532,820	625,387	(199)	58,935	(d)(h)(i)	684,123
Consolidated Funds expenses	—	—	—	12,526	—		12,526
Total expenses	92,567	532,820	625,387	12,327	58,935		696,649
Total other income (loss)	—	—	—	31,073	74,706	(d)(j)(k)	105,779
Income taxes expense / (benefit)	—	—	—	—	44,053	(h)	44,053
Income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	6,072	—	6,072	21,438	(3,719)		23,791
Income (Loss) attributable to Cowen Inc.	\$ (1,580)	\$ 17,415	\$ 15,835	\$ —	\$ (76,717)		\$ (60,882)
Less: Preferred stock dividends			6,792				6,792
Income (Loss) attributable to Cowen Inc. common stockholders			9,043				\$ (67,674)
Add back: Depreciation and amortization expense			11,558				
Economic Operating Income (Loss) attributable to Cowen Inc. common stockholders			\$ 20,601				

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Year Ended December 31, 2016

	Adjustments					US GAAP Net Income (Loss)
	Alternative Investment	Broker- Dealer	Total Economic Income (Loss)	Funds Consolidation	Other Adjustments	
(dollars in thousands)						
Revenues						
Investment banking	\$ —	\$ 133,279	\$ 133,279	\$ —	\$ —	\$ 133,279
Brokerage	—	207,040	207,040	—	(7,860) (b)	199,180
Management fees	64,086	3,162	67,248	(1,665)	(24,971) (c)	40,612
Incentive income (loss)	26,274	—	26,274	(714)	(17,226) (c)	8,334
Investment income (loss)	3,015	1,008	4,023	—	(4,023) (d)	—
Interest and dividends	—	—	—	—	14,732 (d)	14,732
Reimbursement from affiliates	—	—	—	(303)	10,807 (f)	10,504
Aircraft lease revenue	—	—	—	—	4,161 (e)	4,161
Reinsurance premiums	—	—	—	—	32,459 (g)	32,459
Other revenue	29,202	565	29,767	—	(7,412) (d)	22,355
Consolidated Funds revenues	—	—	—	5,949	—	5,949
Total revenues	122,577	345,054	467,631	3,267	667	471,565
Interest expense	12,827	4,363	17,190	—	12,118 (d)	29,308
Total net revenues	109,750	340,691	450,441	3,267	(11,451)	442,257
Expenses						
Non interest expense	102,163	369,188	471,351	(429)	37,824 (d)(h)(i)	508,746
Consolidated Funds expenses	—	—	—	9,064	—	9,064
Total expenses	102,163	369,188	471,351	8,635	37,824	517,810
Total other income (loss)	—	—	—	8,532	35,534 (d)	44,066
Income taxes expense / (benefit)	—	—	—	—	(19,092) (h)	(19,092)
Income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	7,821	—	7,821	3,164	(4,103)	6,882
Income (Loss) attributable to Cowen Inc.	\$ (234)	\$ (28,497)	\$ (28,731)	\$ —	\$ 9,454	\$ (19,277)
Less: Preferred stock dividends			6,792			6,792
Income (Loss) attributable to Cowen Inc. common stockholders			(35,523)			\$ (26,069)
Add back: Depreciation and amortization expense			11,009			
Economic Operating Income (Loss) attributable to Cowen Inc. common stockholders			\$ (24,514)			

The following is a summary of the adjustments made to US GAAP net income (loss) for the segment to arrive at Economic Income (Loss):

Funds Consolidation: The impacts of consolidation and the related elimination entries of the Consolidated Funds are not included in Economic Income (Loss). Adjustments to reconcile to US GAAP net income (loss) included elimination of incentive income and management fees earned from the Consolidated Funds and addition of investment fund expenses excluding management fees paid, investment fund revenues and investment income (loss).

Other Adjustments:

- (a) Economic Income (Loss) presents underwriting expenses net of investment banking revenues, expenses reimbursed from clients within their respective expense category and records income from uncrystallized incentive fees.
- (b) Economic Income (Loss) brokerage revenues included net securities borrowed and securities loaned activities.
- (c) Economic Income (Loss) recognizes revenues (i) net of distribution fees paid to agents and (ii) our proportionate share of management and incentive fees of certain real estate operating entities, the healthcare royalty business and the activist business.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

- (d) Economic Income (Loss) recognizes Company income from proprietary trading (including interest and dividends).
- (e) Aircraft lease revenue is shown net of expenses in investment income for Economic Income (Loss).
- (f) Reimbursement from affiliates is shown as a reduction of Economic Income expenses, but is included as a part of revenues under US GAAP.
- (g) Economic Income (Loss) recognizes underwriting income from the Company's insurance related activities, net of expenses, within other revenue.
- (h) Economic Income (Loss) excludes income taxes and acquisition related adjustments as management does not consider these items when evaluating the performance of the segment.
- (i) Economic Income (Loss) recognizes the Company's proportionate share of expenses, for certain real estate operating entities and the activist business, for which the investments are recorded under the equity method of accounting for investments.
- (j) Economic Income (Loss) excludes gain/(loss) on debt extinguishment.
- (k) Economic Income (Loss) excludes the bargain purchase gain which resulted from the Convergenx Group acquisition.

For the years ended December 31, 2018 and 2017, there was no one investment fund or other customer which represented more than 10% of the Company's total revenues.

28. Regulatory Requirements

As registered broker-dealers, Cowen and Company, Cowen Execution, ATM Execution, Cowen Prime and Westminster are subject to the SEC's Uniform Net Capital Rule 15c3-1 ("SEC Rule 15c3-1"), which requires the maintenance of minimum net capital. Each registered broker-dealer has elected to compute net capital under the alternative method permitted by the Rule. Under the alternative method, Cowen and Company's minimum net capital requirement, as defined in (a)(4) of the Rule, is \$1.0 million. Cowen Execution, ATM Execution, Cowen Prime and Westminster are required to maintain minimum net capital, as defined in (a)(1)(ii) of the Rule, equal to the greater of \$250,000 or 2% of aggregate debits arising from customer transactions. Advances to affiliates, repayment of borrowings, distributions, dividend payments and other equity withdrawals are subject to certain notification and other requirements of the Rule and other regulatory bodies.

Cowen Prime is also subject to Commodity Futures Trading Commission Regulation 1.17 ("Regulation 1.17"). Regulation 1.17 requires net capital equal to or in excess of \$45,000 or the amount of net capital required by SEC Rule 15c3-1, whichever is greater. Cowen Execution is also subject to Options Clearing Corporation ("OCC") Rule 302. OCC Rule 302 requires maintenance of net capital equal to the greater of \$2,000,000 or 2% of aggregate debit items. At December 31, 2018, Cowen Execution had \$110.4 million of net capital in excess of this minimum requirement.

Cowen International Ltd and Cowen Execution Ltd are subject to the capital requirements of the FCA, as defined, must exceed the minimum capital requirement set forth by the FCA. Effective June 1, 2018, the FCA approved Ramius UK's application to cancel all of its FCA authorization permissions. Accordingly, Ramius UK is no longer an FCA regulated and authorized firm. Ramius UK sought the cancellation. Effective December 20, 2018, Cowen Execution Ltd was formally approved to trade in a principal capacity conditional upon the completion, and communication to the Wholesale Supervision, of the implementation of its order management system.

As of December 31, 2018, these regulated broker-dealers had regulatory net capital or financial resources, regulatory net capital requirements or minimum FCA requirement and excess as follows:

Subsidiary	Net Capital	Minimum Net Capital Requirement (dollars in millions)	Excess Net Capital
Cowen and Company	\$91.9	\$1.0	\$90.9
Cowen Execution	\$112.7	\$2.3	\$110.4
ATM Execution	\$3.1	\$0.3	\$2.8
Cowen Prime	\$8.7	\$0.3	\$8.4
Westminster	\$14.5	\$0.3	\$14.2
Cowen International Ltd	\$12.9	\$9.9	\$3.0
Cowen Execution Ltd	\$4.9	\$3.2	\$1.7

The Company's U.S. broker-dealers must also comply with SEC Rule 15c3-3 or claim an exemption pursuant to subparagraphs (k)(2)(i) or (k)(2)(ii) of that rule. Firms can rely on more than one exemption. Cowen and Company, Cowen

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Prime and ATM Execution claim the (k)(2)(ii) exemption with regards to some or all of their customer accounts and transactions that are introduced on a fully-disclosed basis to their clearing agents for clearing, settlement and custody. Cowen and Company, Cowen Prime and Westminster claim the (k)(2)(i) exemption with regards to customer transactions and balances that are cleared, settled and custodied in Special Bank Accounts.

In accordance with the requirements of SEC Rule 15c3-3, Cowen Execution may be required to deposit in a Special Reserve Account cash or acceptable qualified securities for the exclusive benefit of customers. As of December 31, 2018, Cowen Execution had segregated approximately \$16.1 million of cash, while its required deposit was \$6.8 million.

As a clearing broker-dealer, Cowen Execution is required to compute a reserve requirement for proprietary accounts of broker-dealers ("PAB accounts"), as defined in SEC Rule 15c3-3. Cowen Execution conducts PAB reserve computations in order to determine the amount it is required to deposit in its PAB Reserve Bank Accounts pursuant to SEC Rule 15c3-3. This allows each correspondent firm that uses Cowen Execution as its clearing broker-dealer to classify its PAB account assets held at Cowen Execution as allowable assets in the correspondent's net capital calculation. At December 31, 2018, Cowen Execution had \$17.5 million of cash on deposit in PAB Reserve Bank Accounts, which was more than its required deposit of \$4.2 million.

Cowen and Company, ATM Execution, Cowen Prime and Cowen Execution also maintain certain assets in PAB accounts held at their respective clearing brokers. Each treats its assets held in those PAB accounts at the respective clearing brokers as allowable assets for net capital purposes.

Cowen's Luxembourg reinsurance companies, Vianden RCG Re SCA and Hollenfels, individually and their Luxembourg parent holding company, Ramius Enterprise Luxembourg Holdco S.à r.l., on a combined basis with the reinsurance companies, are required to maintain a solvency capital ratio as calculated by relevant European Commission directives and local regulatory rules in Luxembourg. Each reinsurance company's individual solvency capital ratio as well as the combined solvency capital ratio of the holding and reinsurance companies as of December 31, 2018 were in excess of this minimum requirement.

Based on minimum capital and surplus requirements pursuant to the laws of the state of New York that apply to captive insurance companies, RCG Insurance Company, Cowen's captive insurance company incorporated and licensed in the state of New York, was required to maintain capital and surplus of approximately \$0.3 million as of December 31, 2018. RCG Insurance Company's capital and surplus as of December 31, 2018 totaled approximately \$32.5 million.

29. Related Party Transactions

The Company and its affiliated entities are the managing member, general partner and/or investment manager to the Company's investment funds and certain managed accounts. Management fees and incentive income are primarily earned from affiliated entities. As of December 31, 2018 and 2017, \$19.4 million and \$13.5 million, respectively, included in fees receivable are earned from related parties. The Company may, at its discretion, reimburse certain fees charged to the investment funds that it manages to avoid duplication of fees when such funds have an underlying investment in another affiliated investment fund. For the years ended December 31, 2018, these amounts are immaterial. For the years ended December 31, 2017 and 2016, the Company reimbursed the investment funds it manages \$0.1 million and \$0.2 million, respectively, which were recorded net in management fees and incentive income in the accompanying consolidated statements of operation. As of December 31, 2017, related amounts still payable were immaterial. Fees receivable and fees payable are recorded at carrying value, which approximates fair value.

The Company may also make loans to employees or other affiliates, excluding executive officers of the Company. These loans are interest bearing and settle pursuant to the agreed-upon terms with such employees or affiliates, and are included in due from related parties in the accompanying consolidated statements of financial condition. As of December 31, 2018 and 2017, loans to employees of \$17.0 million and \$11.1 million, respectively, were included in due from related parties on the accompanying consolidated statements of financial condition. Of these amounts \$8.8 million and \$4.8 million, respectively, are related to forgivable loans. These forgivable loans provide for a cash payment up-front to employees, with the amount due back to the Company forgiven over a vesting period. An employee that voluntarily ceases employment, or is terminated with cause, is generally required to pay back to the Company any unvested forgivable loans granted to them. The forgivable loans are recorded as an asset to the Company on the date of grant and payment, and then amortized to compensation expense on a straight-line basis over the vesting period. The vesting period on forgivable loans is generally one to three years. The Company recorded compensation expense of \$3.1 million, \$2.1 million, and \$1.2 million for the years ended December 31, 2018, 2017, and 2016, respectively. This expense is included in employee compensation and benefits in the accompanying consolidated statement of operations. For the years ended December 31, 2018, the interest income was immaterial, for the year ended December 31, 2017, the interest income was \$0.1 million and for the year ended December 31, 2016, the interest income was immaterial for these related party loans and advances. This income is included in interest and dividends in the accompanying consolidated statement of operations.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

As of December 31, 2018 and 2017, included in due from related parties is \$7.7 million and \$14.0 million, respectively, related to the sales of portions of the Company's ownership interest in the activist business of Starboard Value to the Starboard principals. It is being financed through the profits of the relevant Starboard entities over a 5 year period and earns interest at 5% per annum. The interest income for the years ended December 31, 2018, 2017, and 2016 was \$0.4 million, \$0.8 million, and \$0.6 million, respectively.

The remaining balance included in due from related parties of \$8.9 million and \$9.7 million as of December 31, 2018 and 2017, respectively, relates to amounts due to the Company from affiliated investment funds and real estate entities due to expenses paid on their behalf. Included in due to related parties is approximately \$0.6 million and \$0.6 million as of December 31, 2018 and 2017, respectively, related to a subordination agreement with an investor in certain real estate funds. This total is based on a hypothetical liquidation of the real estate funds as of the balance sheet date.

Employees and certain other related parties invest on a discretionary basis within consolidated entities. These investments generally are subject to preferential management fee and performance fee arrangements. As of December 31, 2018 and 2017, such investments aggregated \$25.1 million and \$28.2 million, respectively, were included in redeemable non-controlling interests on the accompanying consolidated statements of financial condition. Their share of the net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds aggregated \$7.6 million, \$7.2 million, and \$5.7 million for the years ended December 31, 2018, 2017, and 2016, respectively.

The Company may, at times, have unfunded commitment amounts pertaining to related parties. See Note 22 "Commitments and Contingencies" for amounts committed as of December 31, 2018.

30. Guarantees and Off-Balance Sheet Arrangements

Guarantees

US GAAP requires the Company to disclose information about its obligations under certain guarantee arrangements. Those standards define guarantees as contracts and indemnification agreements that contingently require a guarantor to make payments to the guaranteed party based on changes in an underlying security (such as an interest or foreign exchange rate, security or commodity price, an index or the occurrence or nonoccurrence of a specified event) related to an asset, liability or equity security of a guaranteed party. Those standards also define guarantees as contracts that contingently require the guarantor to make payments to the guaranteed party based on another entity's failure to perform under an agreement as well as indirect guarantees of the indebtedness of others.

In the normal course of its operations, the Company enters into contracts that contain a variety of representations and warranties which provide general indemnifications. The Company's maximum exposure under these arrangements is unknown as this would involve future claims that may be made against the Company that have not yet occurred. However, based on experience, the Company expects the risk of loss to be remote.

The Company indemnifies and guarantees certain service providers, such as clearing and custody agents, trustees and administrators, against specified potential losses in connection with their acting as an agent of, or providing services to, the Company or its affiliates. The Company also indemnifies some clients against potential losses incurred in the event specified third-party service providers, including sub-custodians and third-party brokers, improperly execute transactions. The maximum potential amount of future payments that the Company could be required to make under these indemnifications cannot be estimated. However, the Company believes that it is unlikely it will have to make significant payments under these arrangements and has not recorded any contingent liability in the consolidated financial statements for these indemnifications.

The Company also provides representations and warranties to counterparties in connection with a variety of commercial transactions and occasionally indemnifies them against potential losses caused by the breach of those representations and warranties. The Company may also provide standard indemnifications to some counterparties to protect them in the event additional taxes are owed or payments are withheld, due either to a change in or adverse application of certain tax laws. These indemnifications generally are standard contractual terms and are entered into in the normal course of business. The maximum potential amount of future payments that the Company could be required to make under these indemnifications cannot be estimated. However, the Company believes it is unlikely it will have to make material payments under these arrangements and has not recorded any contingent liability in the accompanying consolidated financial statements for these indemnifications.

The Company may maintain cash and cash equivalents at financial institutions in excess of federally insured limits. The Company has not experienced any material losses in such accounts and does not believe it is exposed to significant credit risks in relation to such accounts.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Off-Balance Sheet Arrangements

The Company has no material off-balance sheet arrangements, which have not been disclosed, as of December 31, 2018 and 2017. Through indemnification provisions in clearing agreements with clients, customer activities may expose the Company to off-balance-sheet credit risk. Pursuant to the clearing agreement, the Company is required to reimburse the Company's clearing broker, without limit, for any losses incurred due to a counterparty's failure to satisfy its contractual obligations. However, these transactions are collateralized by the underlying security, thereby reducing the associated risk to changes in the market value of the security through the settlement date.

The Company's customer securities activities are transacted on a delivery versus payment, cash or margin basis. In delivery versus payment transactions, the Company is exposed to risk of loss in the event of the customers' or brokers' inability to meet the terms of their contracts.

In margin transactions, the Company extends credit to clients collateralized by cash and securities in their account. In the event the customers or brokers fail to satisfy their obligations, the Company may be required to purchase or sell securities at prevailing market prices in order to fulfill the obligations.

The Company's exposure to credit risk can be directly impacted by volatile securities markets, which may impair the ability of counterparties to satisfy their contractual obligations. The Company seeks to control its credit risk through a variety of reporting and control procedures, including establishing credit limits based upon a review of the customers' financial condition and credit ratings. The Company seeks to control the risk associated with its customer margin transactions by requiring customers to maintain margin collateral in compliance with various regulatory and internal guidelines. The Company also monitors required margin levels daily and, pursuant to its guidelines, requires customers to deposit additional collateral, or reduce positions, when necessary.

In addition, during the normal course of business, the Company has exposure to a number of risks including market risk, currency risk, credit risk, operational risk, liquidity risk and legal risk. As part of the Company's risk management process, these risks are monitored on a regular basis throughout the course of the year.

The Company enters into secured and unsecured borrowing agreements to obtain funding necessary to cover daily securities settlements with clearing corporations. At times, funding is required for unsettled customer delivery versus payment and riskless principal transactions, as well as to meet deposit requirements with clearing organizations. Secured arrangements are collateralized by the securities. The Company maintains uncommitted financing arrangements with large financial institutions, the details of which are summarized below as of December 31, 2018.

Lender	Contractual Amount	Available Amount	Maturity Date	Description
Pledge Lines				
	(dollars in thousands)			
Texas Capital Bank	\$ 75,000	\$ 75,000	None	Secured Depository Trust Company Pledge Line
BMO Harris Bank	75,000	75,000	None	Secured Tri-Party Pledge Facility
BMO Harris Bank	150,000	150,000	None	Secured Depository Trust Company Pledge Line
Total	300,000	300,000		
Revolving Credit Facility				
BMO Harris Bank Canadian Imperial Bank of Commerce Texas Capital Bank	70,000	70,000	August 23, 2019	(Syndicated) Unsecured liquidity facility to cover increases in National Securities Clearing Corporation margin deposit requirements
Total Credit Lines	\$ 370,000	\$ 370,000		

31. Subsequent Events

On January 2, 2019 (the "Acquisition Date"), the Company, together with its indirect wholly owned subsidiaries, Cowen International Ltd and Cowen QN Acquisition LLC, completed its previously announced acquisition (the "Acquisition") of Quarton International AG through the acquisition of all of the outstanding equity interest of Quarton International AG's affiliated combining companies, Quarton Management AG, Quarton International Europe AG, Quarton Partners, LLC and Quarton Securities GP, LLC (which owns a U.S. Securities Exchange Commission ("SEC") registered broker-dealer that was subsequently renamed to Cowen Securities LP), comprising the U.S. and European operations of the acquired combining

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

companies (collectively "Quarton"). Quarton is a group of leading global financial advisory companies serving the middle market.

Due to the limited time since the date of the Acquisition, it is impractical for the Company to make certain business combination disclosures as of the date of this filing as the Company is still finalizing the analysis of the information necessary to provide these disclosures. As a result, the Company is unable to present the allocation of the preliminary purchase price to the fair value of assets acquired and liabilities assumed. The Company is also unable to present supplemental pro forma financial information related to the Acquisition. The Company plans to provide this information in its quarterly report on Form 10-Q for the quarter ended March 31, 2019. The acquisition will be accounted for under the acquisition method in accordance with US GAAP. As such, the results of operations for Quarton will be included in the Company's condensed consolidated statements of operations as of the Acquisition Date, and the assets acquired and liabilities assumed will be recorded at their fair value as at the Acquisition Date. Subsequent to the Acquisition, the operations of Quarton will be integrated within the Company's investment bank segment.

The aggregate estimated purchase price of the Acquisition was \$115.0 million. The Company expects a significant portion of the consideration to be allocated to goodwill and intangibles assets. On the Acquisition Date the Company paid an upfront consideration of \$75.0 million subject to certain net working capital and other customary adjustments, with additional contingent consideration of \$40.0 million that will become payable dependent on the achievement of certain milestones by Quarton in each of the first four years following the Acquisition Date, if certain conditions are met, an additional fifth year following the Acquisition Date. In addition, Quarton and the Company have established a retention bonus pool for previous Quarton employees. A portion of the preliminary purchase price was deposited into escrow, in the amount of \$0.3 million, as a reserve for any future claims against the sellers of Quarton. All consideration, including a) the upfront consideration, b) amounts pursuant to any employee retention program and c) contingent consideration, consist of a combination of 80% cash and 20% shares of the Company's Class A common stock. Shares issued on the Acquisition Date of 1,033,950 were valued based on the 30-trading day volume-weighted average price per share of \$14.52 as of December 31, 2018. Any shares of Class A common stock issued in connection with any such contingent payments will be valued based on the 30-trading day volume-weighted average price per share as of the day immediately prior to the date on which such shares are to be issued.

The Acquisition consideration held in escrow does not meet the definition of contingent consideration as provided under US GAAP. The amount held in escrow was included in the preliminary purchase price as representations and warranties were expected to be valid as of the Acquisition date.

The Company has recognized approximately \$1.9 million of acquisition-related costs, including legal, accounting, and valuation services through December 31, 2018. These costs are included in professional, advisory and other fees in the accompanying consolidated statements of operations.

The Company has evaluated events that have occurred after the balance sheet date but before the financial statements are issued and has determined that there were no other subsequent events requiring adjustment or disclosure in the consolidated financial statements.

Cowen Inc.
Notes to Consolidated Financial Statements (Continued)

Supplemental Financial Information

The following table presents unaudited quarterly results of operations for 2018 and 2017. These quarterly results reflect all normal recurring adjustments that are, in the opinion of management, necessary for a fair presentation of the results. Revenues and net income (loss) can vary significantly from quarter to quarter due to the nature of the Company's business activities.

Cowen Inc.
Quarterly Financial Information (Unaudited)

	Quarter Ended			
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
(dollars in thousands, except per share data)				
Total revenues	\$ 251,384	\$ 234,573	\$ 221,028	\$ 259,931
Income (loss) before income taxes	34,932	33,999	25,861	4,144
Income tax expense (benefit)	6,923	3,993	5,083	(280)
Net income (loss)	28,009	30,006	20,778	4,424
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	11,156	24,607	5,290	(655)
Net income (loss) attributable to Cowen Inc.	16,853	5,399	15,488	5,079
Preferred stock dividends	1,698	1,698	1,698	1,698
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 15,155	\$ 3,701	\$ 13,790	\$ 3,381
Earnings (loss) per share:				
Basic	\$ 0.51	\$ 0.12	\$ 0.47	\$ 0.12
Diluted	\$ 0.50	\$ 0.12	\$ 0.45	\$ 0.11
Weighted average number of common shares:				
Basic	29,625	29,769	29,610	29,194
Diluted	30,492	30,720	30,844	30,955

	Quarter Ended			
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
(dollars in thousands, except per share data)				
Total revenues	\$ 114,971	\$ 160,530	\$ 178,830	\$ 204,450
Income (loss) before income taxes	14,000	27,800	12,109	(46,947)
Income tax expense (benefit)	1,911	(785)	2,281	40,646
Net income (loss)	12,089	28,585	9,828	(87,593)
Net income (loss) attributable to redeemable non-controlling interests in consolidated subsidiaries and investment funds	9,105	21,145	5,162	(11,621)
Net income (loss) attributable to Cowen Inc.	2,984	7,440	4,666	(75,972)
Preferred stock dividends	1,698	1,698	1,698	1,698
Net income (loss) attributable to Cowen Inc. common stockholders	\$ 1,286	\$ 5,742	\$ 2,968	\$ (77,670)
Earnings (loss) per share:				
Basic	\$ 0.05	\$ 0.20	\$ 0.09	\$ (2.51)
Diluted	\$ 0.05	\$ 0.19	\$ 0.09	\$ (2.51)
Weighted average number of common shares:				
Basic	27,061	28,634	31,271	30,934
Diluted	28,401	29,474	32,246	30,934

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

COWEN INC.

By: /s/ JEFFREY M. SOLOMON

Name: Jeffrey M. Solomon

Title: *Chief Executive Officer*

Date: March 6, 2019

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 and on the dates indicated.

Signature	Title	Date
<u>/s/ JEROME S. MARKOWITZ</u>	Chairman of the Board of Directors	March 6, 2019
Jerome S. Markowitz		
<u>/s/ JEFFREY M. SOLOMON</u>	Chief Executive Officer (Principal Executive Officer)	March 6, 2019
Jeffrey M. Solomon		
<u>/s/ STEPHEN A. LASOTA</u>	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 6, 2019
Stephen A. Lasota		
<u>/s/ BRETT H. BARTH</u>	Director	March 6, 2019
Brett H. Barth		
<u>/s/ KATHERINE E. DIETZE</u>	Director	March 6, 2019
Katherine E. Dietze		
<u>/s/ STEVEN KOTLER</u>	Director	March 6, 2019
Steven Kotler		
<u>/s/ LAWRENCE E. LEIBOWITZ</u>	Director	March 6, 2019
Lawrence E. Leibowitz		
<u>/s/ JACK H. NUSBAUM</u>	Director	March 6, 2019
Jack H. Nusbaum		
<u>/s/ DOUGLAS A. REDIKER</u>	Director	March 6, 2019
Douglas A. Rediker		
<u>/s/ JOSEPH R. WRIGHT</u>	Director	March 6, 2019
Joseph R. Wright		

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Certification

I, Jeffrey M. Solomon, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cowen Inc:
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2019

/s/ JEFFREY M. SOLOMON

Name: Jeffrey M. Solomon

Title: *Chief Executive Officer*
(principal executive officer)

Certification

I, Stephen A. Lasota, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cowen Inc:
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2019

/s/ STEPHEN A. LASOTA

Name: Stephen A. Lasota

Title: *Chief Financial Officer (principal financial officer and principal accounting officer)*

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Cowen Inc. (the "Company") on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2019

/s/ JEFFREY M. SOLOMON

Name: Jeffrey M. Solomon
Title: Chief Executive Officer
(principal executive officer)

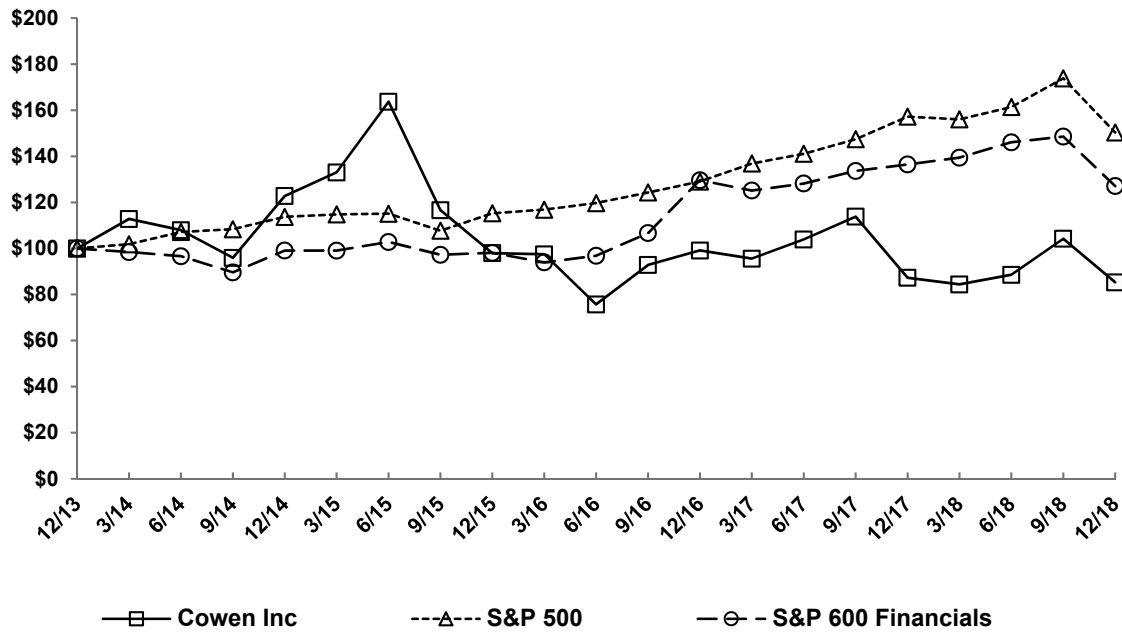
/s/ STEPHEN A. LASOTA

Name: Stephen A. Lasota
Title: Chief Financial Officer (principal financial
officer and principal accounting officer)

* The foregoing certification is being furnished solely pursuant to 18 U.S.C Section 1350 and is not being filed as part of the Report or as a separate disclosure document

Stock Performance

The following graph and table compares the performance of an investment in our common stock with investments in the S&P 500 Index and the S&P 600 Financials Index over the period of December 31, 2013 through December 31, 2018, the last day of trading in fiscal 2018. Both the graph and the table assume that \$100 was invested on December 30, 2013 and the dividends, if any, were reinvested on the date of payment. The performance shown in the graph represents past performance and should not be considered indicative of future performance.



	12/31/13	12/31/18
Cowen Inc.	\$100.00	\$ 85.29
S&P 500	100.00	150.33
S&P 600 Financials	100.00	127.07

CAPABILITIES

MARKETS

INVESTMENT BANKING

RESEARCH

INVESTMENT MANAGEMENT

PRIME BROKERAGE

OUTSOURCED TRADING

KYBER DATA SCIENCE

CONFERENCES & CORPORATE ACCESS

LOCATIONS

U.S.

ATLANTA

BOSTON

CHICAGO

CLEVELAND

DETROIT

HOUSTON

INDIANAPOLIS

LOS ANGELES

MINNEAPOLIS

NEW YORK

ORLANDO

SAN FRANCISCO

STAMFORD

WASHINGTON, DC

INTERNATIONAL

BELFAST

BERLIN

FRANKFURT

GRAZ

HONG KONG

LEIPZIG

LONDON

LUXEMBOURG

MUNICH

ZURICH

COMMITTEE ON ENVIRONMENTAL REPORT 2018