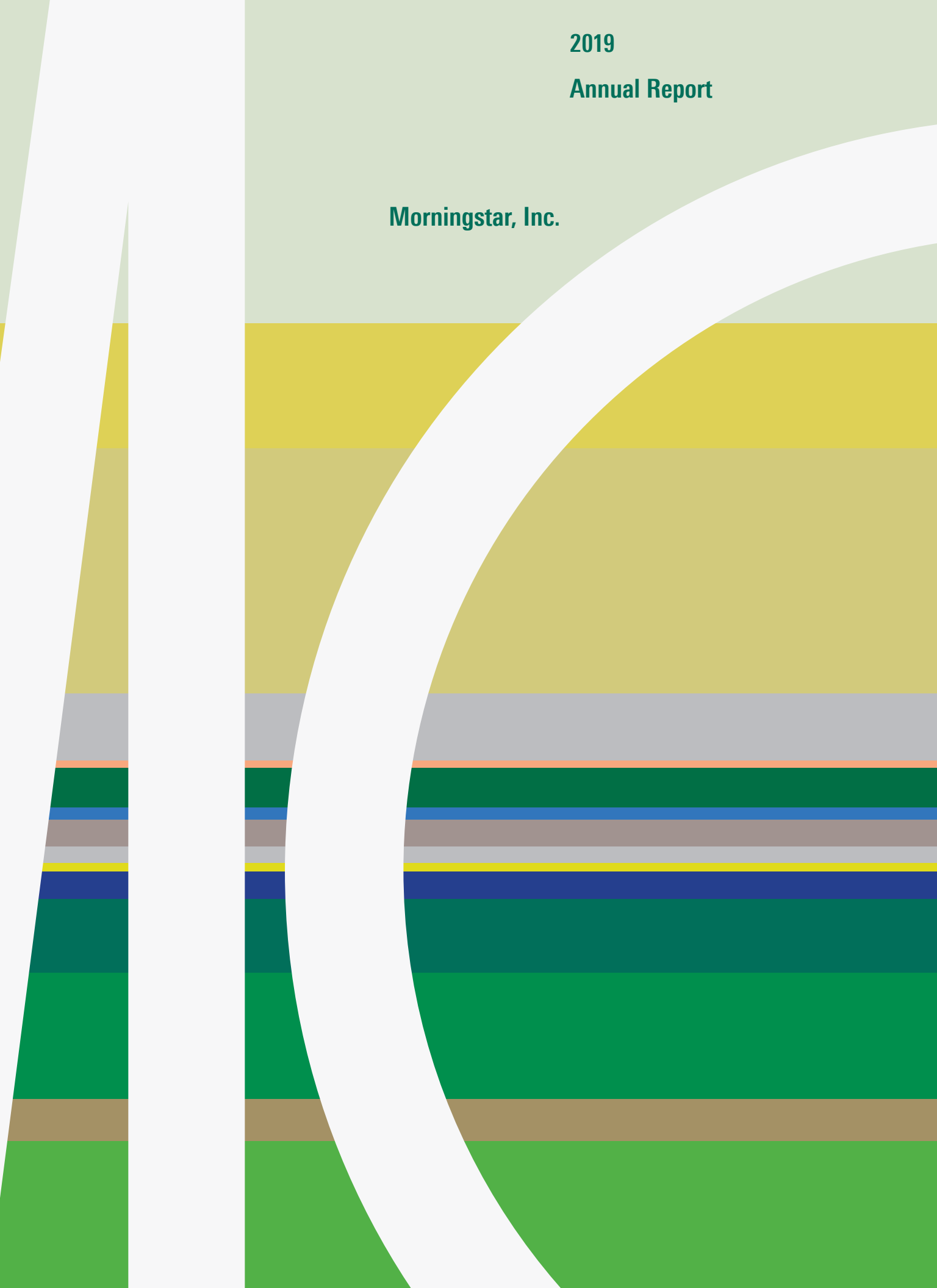


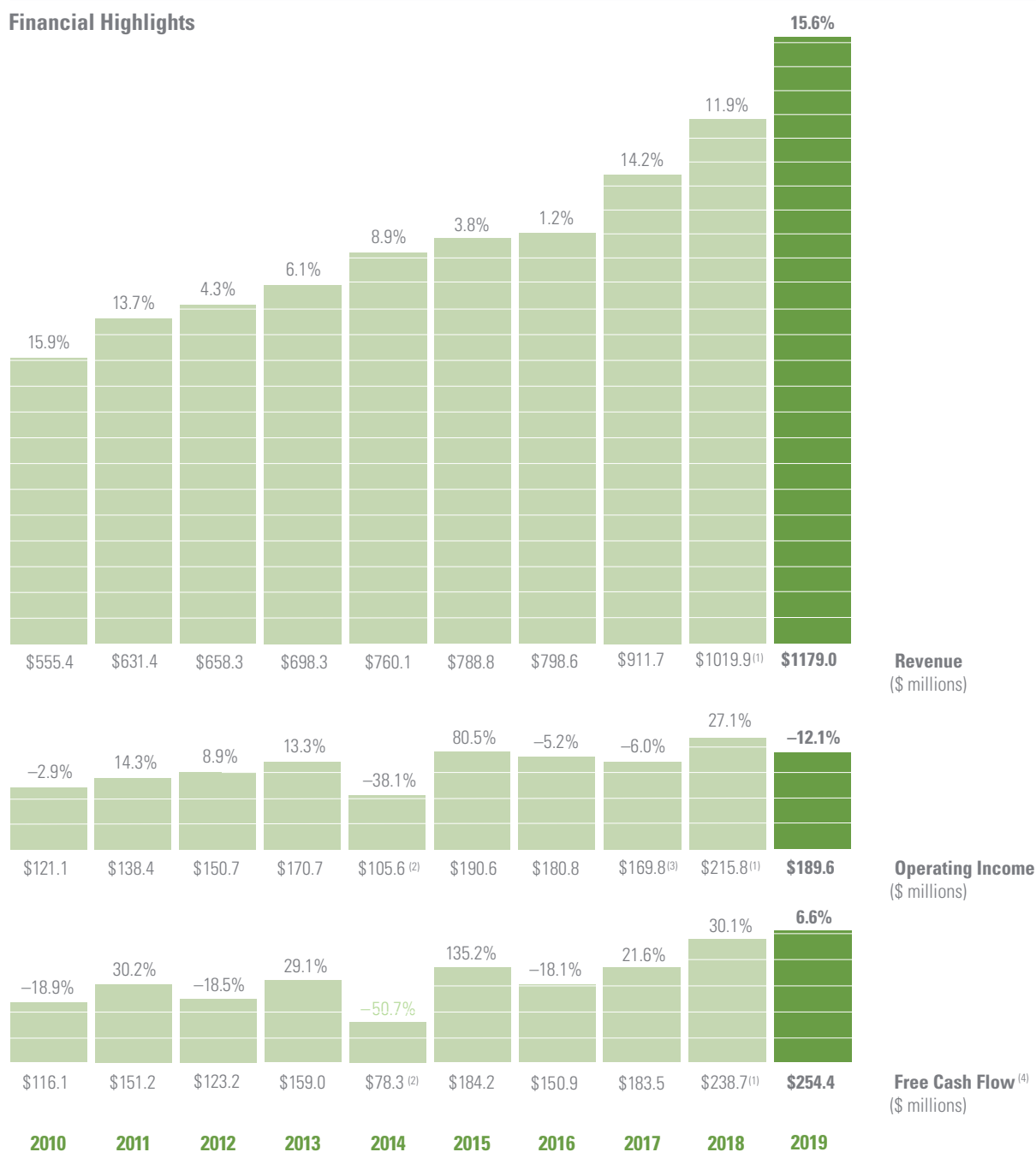
2019

Annual Report

Morningstar, Inc.



Financial Highlights



Revenue
(\$ millions)

Operating Income
(\$ millions)

Free Cash Flow⁽⁴⁾
(\$ millions)

Cash Flows

Cash provided by operating activities

Capital expenditures

Free cash flow⁽⁴⁾

(1) Revenue, operating income, and free cash flow in 2018 includes a \$10.5 million revenue benefit related to an amended license agreement and a corresponding favorable cash impact.

(2) Operating income and free cash flow for 2014 include a \$61.0 million litigation settlement expense and corresponding cash outflow.

(3) Operating income for 2017 includes the negative impact of a \$4.1 million impairment charge for certain software licenses due to the shift to our cloud-based strategy.

(4) Free cash flow, which we define as cash provided by operating activities less capital expenditures, is considered a non-GAAP financial measure. This measure is not equivalent to any measure required to be reported under U.S. generally accepted accounting principles (GAAP) and may not be comparable to similarly titled measures reported by other companies.

Dear Morningstar shareholders,

Today's investment landscape looks significantly different than it did even five years ago. Ongoing demand for increased value for advice, the expansion of so-called "alternative" asset classes into the mainstream, and the rise of ESG are all hallmarks of the modern investor experience.

While these trends are considered table stakes for empowering today's investors, Morningstar has grown by positioning itself ahead of these changes. We've advocated tirelessly for low-cost investing, made early investments in PitchBook and Sustainalytics, and most recently welcomed DBRS to the family in our quest to illuminate every corner of an investor's portfolio. I'm confident that Morningstar's mission to empower investor success is as meaningful as ever.

Investors are increasingly incorporating ESG factors into their long-term investment strategies.

ESG

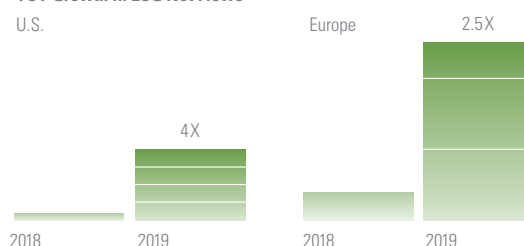
The progression of ESG investing from very specific, values-based, "socially responsible" circles into everyday investing is leaving an indelible mark on the investment landscape. ESG investing is soaring as more investors expand their definitions of value, moving beyond the traditional "alpha" approach of whether they gain or lose something by following such a strategy. In fact, a study we published in February 2020 concluded that investors can build a global portfolio of companies that have positive ESG attributes without compromising returns. Our work adds to the body of evidence that suggests ESG investing is not only good for the planet, but good for portfolios, too. Long-term investing has always been, at its core, a matter of thinking ahead. Rather than focusing on short-term performance metrics relative to a benchmark, long-term investors should be thinking about how their investments will perform in the economy of the future. In other words, if your investment strategy doesn't consider the opportunities and risks associated with climate change, labor laws, data privacy, social impact, and shareholder advocacy issues, you are ill-prepared.

Morningstar Direct will show you that 2019 was a banner year for environmental, social, and governance investing. Net flows into U.S. and European sustainable funds represented about 15% of the \$1.02 trillion in global fund flows, which is not an insignificant number. However, it's the rate of change that's noteworthy. Net flows into U.S. sustainable funds were \$20.6 billion, nearly 4 times the flows in 2018. In Europe, net flows into sustainable funds were about \$132.1 billion (in U.S. dollars), about 2.5 times the flows in 2018. ESG investing is gaining momentum.

ESG as a percent of All Net Flows in 2019



YOY Growth in ESG Net Flows



When it comes to investing, ESG is not political, it is practical. Climate change is already reshaping the focus of businesses around the world. The companies that will succeed in tomorrow's economy need to be poised for change today. In 30 years, the way we produce and consume energy will be vastly different from how we fuel our lives today. Investors should bet on the companies that are already planning for what is ahead. When Sarah Newcomb, a leader in our behavioral sciences group, recently bought a new home in the U.S. Northeast, she didn't look at today's water tables to assess flood risk, but rather the predictions of where the water tables will be in 30 years under a 3-degree increase in global temperature. To make a sound judgment, she went to the data.

For three decades, we have been the authority for evidence-based, simple-to-understand metrics on key attributes of investments. As the world enters a new phase of technological advancement, geological transformation, and human potential, there will be major structural changes to the global economy. With our partner Sustainalytics, we are committing ourselves to gathering the best possible data with the smartest analysis so that all investors, from institutional to individual enthusiast, can make properly informed decisions about how a company, sector, or managed investment is likely to fare in the

economy of the future. That future will be low-carbon, high-tech, and more transparent than any we have seen before because the data is available, but the public needs help deciphering it. That's exactly where we come in.

Pursuing this opportunity also uncovered that we had some work to do in applying an ESG framework to our own business; our own reporting has been largely ad hoc. In the spirit of improving transparency with our own investors, we now have a dedicated team that is working on understanding our own materiality matrix, with the goal of publishing our first official corporate sustainability report by 2021.

MORNINGSTAR

DBRS

We look forward to the new opportunities we have to serve investors and issuers through DBRS Morningstar.

The past year at Morningstar was defined by the largest acquisition in our history thus far. In July 2019, we closed our \$669.0 million acquisition of DBRS, the world's fourth-largest credit rating agency. The combined DBRS Morningstar rates more than 2,600 issuers and 54,000 debt securities worldwide. We're determined to make transparency the cornerstone of our strategy in credit ratings so that bond investors using our ratings truly appreciate the differentiated value of our offering.

While I prefer organic growth, there are times when an acquisition makes sense. We purchased an asset that should add value for years to come. As a larger combined entity in an \$8 billion industry where scale confers advantages, DBRS Morningstar has the chance to thrive.

Credit ratings should first and foremost provide investors with an independent, objective opinion of the opportunities and risks associated with an issuer's ability to satisfy its debt obligations. While there is skepticism around the issuer-paid model, we are operating within the current construct of this highly regulated industry. Our goal is to bring transparency to our methodologies, perform the most rigorous, independent research, and provide issuers and investors with the technology to demystify the rating delivery process. It's important to note that regulators, issuers, and investors are keen for us to emerge

as a strong alternative to the three legacy rating agencies that dominate this space. It won't be easy, but the terrific team we've put in place bolsters my confidence.

Detlef Scholz, president of DBRS Morningstar, is a thoughtful, measured leader who knows the rating industry inside and out, and his values align with those of our organization. He is the first member of our executive team to sit outside North America and is a key driver of the success we are experiencing in emerging as an alternative to the legacy rating firms in Europe. I met Detlef during the acquisition process and was immediately impressed; I think you'll see why when he presents during our annual meeting with shareholders.

You'll also have an opportunity to meet Steve Joynt, our newest board member, at the meeting. Steve previously ran DBRS, and as you'll see, not only does he love credit ratings, but he's a thoughtful observer of the industry who elevates the interests of investors and issuers. Given the significance of our investment and importance of credit ratings to our future, investors should be pleased to have someone of his skill and stature helping us navigate this industry.

The addition of DBRS Morningstar is an important part of our commitment to provide the most robust suite of solutions to the modern investor. We continue to gauge the opportunities we have and progress we've made in the key areas of our portfolio according to the three secular trends we believe will drive growth in our industry.

Three Secular Trends

Here is how our key product areas fare in light of three secular trends.

First, the modern investor is empowered with new data, research, and analytics.

The simplicity of this statement belies enormous changes in the quantity, frequency, and veracity of investment information, which requires constant innovation in our data-driven solutions. In 2019, Morningstar Data increased revenue 8.4% year over year in constant currency as we continued to add new data sets to our offerings, particularly in ESG, fixed-income analytics, and health savings accounts. We are continuing to look at



other specialty areas, as evidenced by our recent acquisition of Hueler Analytics, a leader in stable value funds data. We also aligned forces with Mercer Consulting Group to distribute its institutional strategy data and RoZetta Technology to launch our new tick data platform, which gives customers the ability to track market ticks across 300 exchanges.

We continue to expand our extensive data coverage universe. Today, we cover almost 260,000 open-end mutual funds and over 13,000 closed-end funds, 17,000 exchange-traded funds, and 51,000 stocks. We also cover 135,000 variable annuity/life subaccounts and policies, 14,000 unit investment trusts, 9,800 separate accounts, over 6,500 collective investment trusts, and 5,000 state-sponsored college savings plans. PitchBook covers more than 2.1 million privately held companies, including startups, venture capital firms, private equity-backed companies, and mature private companies. Plus, we deliver real-time market data on approximately 25.9 million exchange-traded equities, derivatives, commodities, futures, foreign exchange rates, and precious metals, alongside news, company fundamentals, and analytical insights. As more and more “fintechs” build solutions, they’re coming to us—the original fintech, as I called us at the Morningstar Investment Conference two years ago—for help in getting the data that underpins their solutions. Growth has been particularly robust in a competitive European market, where the rise of regulations has fueled new use cases for our data. It’s no wonder that this durable offering is a favorite of clients and many within our halls. Year in and year out, you should expect us to keep investing here.

Morningstar Direct had a good year, too, increasing revenue 9.5% in constant currency as clients continue to seek out one-stop-shop platforms that provide excellent user experiences. Our client workflows are stickier than ever; once you find a solution that

works for you, you're hooked. This phenomenon makes Direct "sticky", but it also poses an interesting challenge for us when providing our own clients with platform upgrades—balancing client preferences and needs with evolving technology. Our goal remains to make web-based Direct an amazing offering, but we're allowing clients to move between the desktop and cloud seamlessly.

On the individual investor front, Morningstar.com got a facelift, but our "front door" needs more work to be up to snuff for the modern investor. Since individual investors remain at the heart of our mission, we're excited about enhancing their experience with better data, tools, and research. In 2020, we'll remake the entire portfolio experience on Morningstar.com by allowing individual investors to pull their holdings data from over 18,000 financial institutions through our ByAllAccounts engine, creating more holistic portfolio views.



MORNINGSTAR®

The
Long View

We also want to ensure that the fantastic content we produce is seen by more individuals. Our content is the ultimate way to pull investors into the Morningstar universe, and we are working to make it more relevant for consumption in a digital age. While content is still king, how it is packaged and presented keeps evolving, and we need to stay on top of it. One recent favorite of mine is a podcast we launched in 2019, "The Long View." If you've been listening, I imagine you're finding it compelling; if not, I hope this letter prompts you to add it to your playlist. Christine Benz and Jeff Ptak do a great job exposing investors to a range of thought-provoking material.

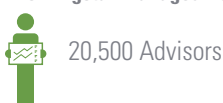
Our next trend is that investors demand more value from advice.

We're investing meaningfully in connecting investment planning to financial planning, most recently signified by the launch of our new financial planning tool, Goal Bridge. The aim of this tool is to continue helping advisors connect the different "jobs" they do for investors and to help demonstrate the value they bring to these different tasks. It's a beautiful, intuitive piece of software, and we've got high hopes for the impact it could deliver. As we continue to build out our global capability around financial planning, we've asked

Morningstar veteran Mike Barad to step in and drive connectivity and focus in this key area. Mike is doing a nice job elevating our capabilities in this space, and I anticipate we will continue to drive meaningful resources to this effort.

Last year, I wrote about the emerging opportunity we saw to serve newly independent advisors in Australia as a result of the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry. Key to this effort is localized financial planning software to complement our current capabilities, which we gained through a small acquisition, AdviserLogic. We're putting together a compelling suite of offerings in this important market—one that mimics our global capabilities—and Jamie Wickham, our managing director of Australia, is a leader with a full plate and big agenda ahead. I am excited and optimistic to see what our team in Australia will do in the next few years to position individuals and advisors for success in this fast-changing landscape.

Morningstar Managed Portfolios



Retirement Managed Accounts



Meanwhile, our advice-driven solutions —Managed Portfolios and Workplace Solutions— had mixed results from a revenue perspective in 2019 even as they made progress in delivering more value to investors. Morningstar Investment Management increased revenue modestly, falling short of our expectations for the year. It's no surprise that fee compression played a role here as investors continue to favor lower-cost passive strategies. That said, we continue to add to the base of advisors using Morningstar Managed Portfolios, which now total about 20,500 globally. As we continue to identify like-minded advisors who resonate with Morningstar's longer-term, value-oriented investment strategies, we're confident that our robust set of offerings will benefit from what we can only see as growing demand for value-added advice from advisors and the end investors they serve.

Workplace Solutions also felt the effects of similar trends, with 2019 revenue growing modestly. That said, assets under management and advisement continued to grow nicely, reaching \$159.4 billion as of Dec. 31, 2019. Participants in our retirement managed accounts grew to record levels, with 1.5 million individuals enrolled in the service.

In addition, we're just starting to capture some of the good work being done to build out a new distribution channel in the retirement plan advisor space. We launched our Advisor Managed Accounts service in 2019 and have seven registered investment advisor firms already signed up. This solution enables advisory firms to incorporate elements of their investment thinking into our managed accounts offering, thus making it easier for their advisors to stand behind the underlying participant recommendations. A driving force behind this solution is the increasing need for advisors to be able to offer personalized advice in a more scalable way. We also continued to have success with Morningstar Plan Advantage, an online platform that arms advisors with the tools and information they need to sell retirement plan services and manage their retirement book of business. With a network of 21 recordkeepers integrated into the MPA platform, we are well positioned to disrupt and potentially redefine this market, making it easier for smaller companies to benefit from retirement plans that offer the best possible investment lineups. The chance for employees in these historically underserved plans to have a secure and successful retirement is rising.

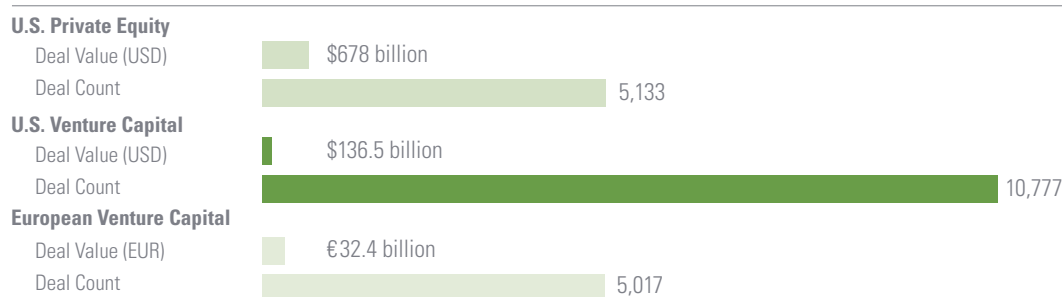
Another area we continue to have high hopes for is indexes. In 2019, total assets in investment products tracking Morningstar indexes finished the year at \$67.7 billion—growth of 44.7%. Organic asset growth, or new flows into the products, totaled \$9.2 billion in 2019. We think that the current providers aren't delivering much value to customers relative to what they charge, and most market participants generally agree. As with credit ratings, the challenge in effecting a switch largely has to do with inertia and legacy mindsets—both formidable obstacles—but we keep chipping away at it and have quietly built an investor-friendly and financially viable offering. We're proud that our strategic beta indexes (powered by Morningstar's proprietary research) continue to deliver strong performance. Overall, two thirds of Morningstar's strategic beta indexes outperformed their respective category benchmarks in 2019, and MOAT, an ETF offered by VanEck that

tracks the Morningstar Wide Moat Focus Index, finished 2019 in the top percentile of the large-blend fund category for the trailing five years (out of 1,060 funds). I'm certainly a satisfied investor in the offering!

We ended the year by appointing Ron Bundy, the former CEO of North America benchmarks and strategic accounts at FTSE Russell, as the leader of this business. Ron previously demonstrated success scaling an operation, and he's enthusiastic about our unique proposition, particularly in wealth management. He fits right into our welcoming culture, and it already feels like he's been here a long while. Expect us to make even more headway in this space as Ron charts a course for further acceleration.

Our final trend: a convergence of public and private markets.

It was another stellar year for PitchBook, with its user count surging to approximately 37,000 and revenue growing 49.0% year over year. This is an awesome achievement that highlights ongoing demand for a terrific solution. The team continues to delight clients with data set additions, more research, feature upgrades, and functionality enhancements that ultimately make PitchBook even more critical for any investor exposed to the private markets. In fact, we delivered more than 300 releases last year!



If you've kept up with the data and research we have on the PitchBook platform, you've already read about the blistering pace of activity across the private market landscape in 2019. In the United States, about \$678.0 billion worth of private equity-backed transactions were recorded across an estimated 5,133 completed deals. Although there was a mild year-on-year decline in deal activity, this is just the third time in history that U.S. private equity deal value has crested two thirds of a trillion dollars. On the venture capital

front, 2019 followed a record 2018 with another extremely robust annual capital investment of \$136.5 billion, marking the first consecutive years of over \$100 billion in U.S. VC deal value. This success was not limited to the U.S., as the European VC market posted another record year for deal-making at EUR 32.4 billion across more than 5,000 deals.

High equity valuations drove a record-breaking year in exits as a handful of the largest VC-backed companies went forward with initial public offerings, including Uber, Lyft, and Slack. These outcomes illustrate the importance of comparing public and private market valuations, and why our ongoing investment in the public company data sets offered on the PitchBook platform is so valuable to our clients. We believe that we have the best offering when it comes to providing investors with a total lifecycle view of a company's journey.

2019 Financial Performance

We've evolved our thinking around ESG, welcomed DBRS and its elevated capabilities, and leveraged secular trends to guide our strategy. These actions all contributed to a successful financial performance in 2019.

After crossing \$1 billion in revenue in 2018, our momentum continued in 2019 through organic growth and the acquisition of DBRS. For the full year, we generated \$1.2 billion of revenue, representing a year-over-year increase of 15.6%, or 8.4% on an organic basis. When excluding the contribution of a nonrecurring revenue benefit in 2018, organic revenue growth was 9.5% for the year. Free cash flow hit a high.

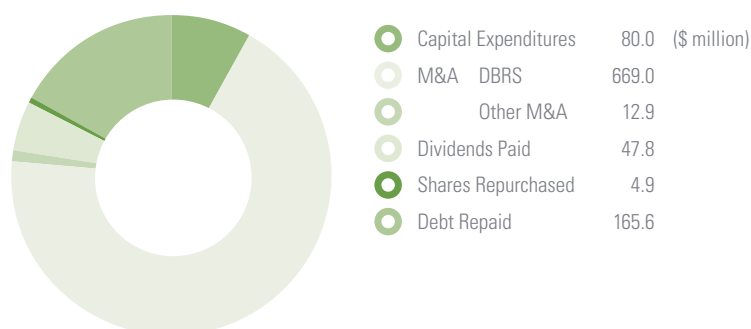
Operating expenses increased for a number of reasons, including the DBRS acquisition, which boosted professional fees related to the transaction as well as depreciation and amortization expense. Most important, we continued to invest for growth across Morningstar, and expense categories such as compensation, marketing, technology, and facilities increased. These were deliberate decisions made with a long-term mindset because we are earning meaningful returns on our investments over time. As a result, and after adjusting for M&A costs and amortization, adjusted operating income declined 1.4% for the year.

Given some of the noise with the DBRS acquisition and other one-time items, cash flow in 2019 is a much better measure of our financial success. Despite the decline in operating income, cash from operating activities increased 6.2% to \$334.4 million, and free cash flow increased 6.6% to \$254.4 million, demonstrating the underlying health of our business and the investments we're making.

We expect to see some of these trends persist into 2020 as we continue to make prudent growth-oriented investments and strengthen our technology infrastructure. Additionally, we are accelerating efforts to modify our physical footprint to better align with how we want to manage our increasingly global workforce. This includes a thorough review of our global real estate and organizational structure to ensure that we locate employees in the most optimal places for supporting Morningstar's longer-term goals and product development strategy, but also so they have the best opportunities for their own professional development. As we progress through this plan, we are likely to have certain redundancies and costs to transition work to the appropriate locations.

We are working on plans to grow our footprint in Mumbai. Aditya Agarwal, our managing director of India, was the very first employee to start in Mumbai in 2008. Since then, our workforce there has grown to more than 1,850 employees supporting the needs of the business. We continue to expand, particularly in data collection and product development, and a new Mumbai office will provide more capacity for us to grow. We anticipate spending much of the next year building out the space and are excited to start transitioning our teams into the office soon after.

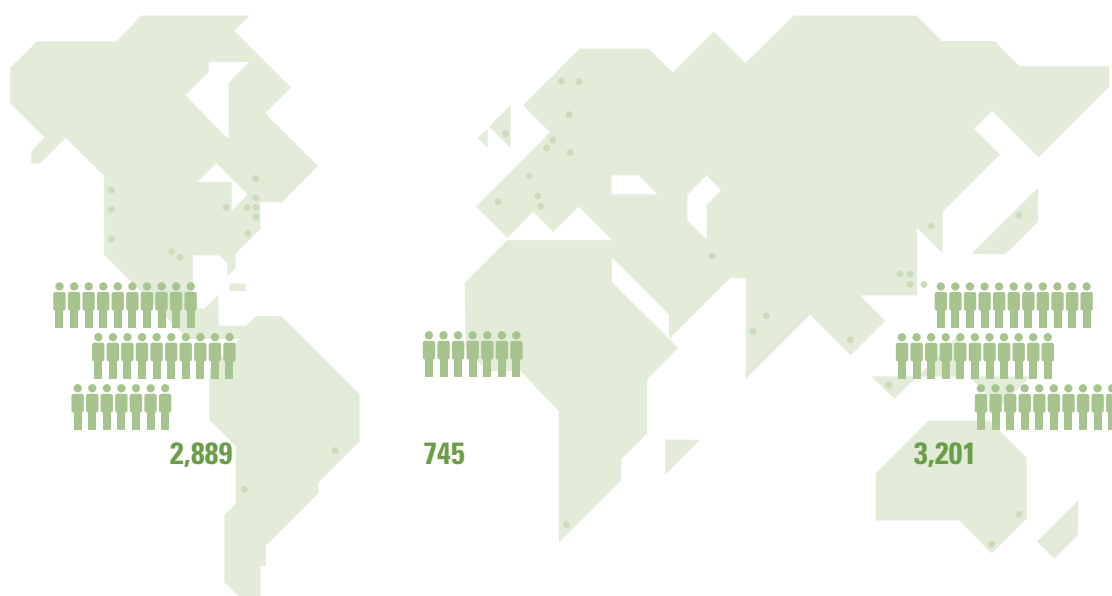
Capital Allocation



Finally, from a capital-allocation perspective, along with funding organic growth, we spent our excess cash on raising our dividend and reducing debt, particularly in the back half of the year. While the DBRS acquisition added debt, we have repaid \$96.0 million of it since the acquisition. Our balance sheet is in good shape to continue to provide us with flexibility to support growth and return capital to shareholders as appropriate.

Culture *None of this, of course, would be possible without an exceptional employee experience rooted in a strong and thriving culture.*

This year, we welcomed over 700 new DBRS employees spanning eight global offices into the Morningstar family; overall, we are approaching 7,000 employees in 27 countries.



I'm often asked what keeps me up at night, and I always answer that it's ensuring that the next person to walk our halls commits to our mission and values in the way we all do. As a result, I've asked our team to consider how Morningstar's recent growth—and the change it has catalyzed—might affect our ability to stay agile, innovative, and inclusive. In response, this team has been asking some tough questions. How well are we working together? What's happening in conference rooms and video conferences when we're doing our best work? How can we remain nimble enough to support and encourage innovation? How can we adjust our practices, processes, and communication style to support our multicultural, multigenerational workplace? How can we preserve the

best aspects of who we are and how we work while continuing to evolve? And how do we foster an engaging company culture if our teams and offices are spread around the world?

There are no easy answers to questions like these, or quick solutions to the challenges they present, but we knew the process had to begin by setting the baseline: figuring out what drives us—the commitments everyone at Morningstar shares—and exactly how we work when we're at our best. Led by Morningstar veteran Geoff Balzano, we conducted surveys and interviews with a diverse group of Morningstar employees living and working around the world to better understand what productive collaboration looks and feels like from multiple perspectives.

During that process, we found common themes among these stories and ideas that will help to shape our thinking about Morningstar's culture. We plan to incorporate these insights into how we conduct our leadership training, how we design our workspaces, how we do our work, and ultimately, how we anticipate our colleagues' needs and appreciate their contributions. As we worked through these exercises over the course of the year, I'm proud that we were named a Best Place to Work for LGBTQ Equality by Human Rights Campaign Foundation and one of the Top Companies for Women Technologists by AnitaB.org. In our internal surveys, an area of strength where we score really well—comparable to the best companies in the Fortune 100—is in fairness/equality for all, regardless of race, gender, or sexual orientation. These are wonderful acknowledgments of the work we've started to do, but I am looking forward to making even more progress in the future.

Acknowledgements

Thanks to those who have helped build Morningstar into what it is today: past and present.

Each year marks some comings and goings, and I would be remiss if I did not thank my friend and former colleague Tricia Rothschild for her many years of contributions to Morningstar. Trish is a wonderful human being, an advocate for investors, and a Morningstar champion. She will always be among those credited with helping build our firm and its unique culture.

I'd also like to thank Hugh Zentmyer for his many years of service to Morningstar as he retires from our board. As shareholders, you should know that Hugh proactively advocated on your behalf. For me personally, he was a tremendous sounding board, coming in early for board meetings in my first year as CEO, just to check in and make sure I was doing all right. Thank you, Hugh.

Morningstar is a special place with a special mission, and we're glad to have you as shareholders. While the papers are filled with stories on others complaining about the difficulty of being a public company, we feel quite the opposite. In setting up a model that focuses on long-term engagement with our shareholders, we feel lucky to have had most of you along for a lengthy ride. I often say that companies get the shareholders they deserve, and I feel grateful for the trust you place in us to help grow your investment or the investment you are making on a client's behalf. We take that trust seriously and continue to build Morningstar in a way that is consistent with our values and a long-term approach to value creation for all stakeholders.

We also love seeing you at our annual meeting. This year, we're scheduled to gather May 15, and as always, I look forward to meeting you and answering your questions in person.

Best regards,

A handwritten signature in dark ink, appearing to be 'Kunal', with a stylized flourish extending from the end.

Kunal

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, 2019
OR

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

For the transition period from _____ to _____
Commission File Number: 000-51280

MORNINGSTAR, INC.

(Exact Name of Registrant as Specified in its Charter)



Illinois
(State or Other Jurisdiction of
Incorporation or Organization)

22 West Washington Street
Chicago, Illinois 60602
(Address of Principal Executive Offices) (Zip Code)

36-3297908
(I.R.S. Employer
Identification Number)

(312) 696-6000
(Registrant's Telephone Number, Including Area Code)
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class
Common stock, no par value

Trading Symbol(s)
MORN

Name of Each Exchange on Which Registered
The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: **None**

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the 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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (\$232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

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

The aggregate market value of shares of common stock held by non-affiliates of the registrant as of June 28, 2019 was \$2.9 billion. As of February 14, 2020, there were 42,853,091 shares of the registrant's common stock, no par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain parts of the registrant's Definitive Proxy Statement for the 2020 Annual Meeting of Shareholders are incorporated into Part III of this Form 10-K.

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Part I

Item 1. Business

Overview

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. Our core competencies are data, research, and design, and we employ each of these to create products that clearly convey complex investment information to investors of all kinds. We started with affordable publications for individuals, then moved to creating technology solutions for professionals to help them research and select investments for clients. Today, we offer a suite of web-based solutions that serve individuals, financial advisors, asset managers, retirement-plan providers and sponsors, and institutional investors in the private capital markets. We also apply our investing philosophy to managing assets for clients who prefer not to make investment decisions themselves. Since our founding in 1984, we've expanded our presence in global markets where investors need an independent view they can trust.

We help investors in two primary ways. First, we support asset managers, individual and institutional investors, and financial advisors who make their own investment decisions with an extensive product line of web-based tools, investment data, and research that helps investors make the most suitable choices and recommendations. Our customers have access to a wide selection of investment data, fundamental equity research, manager research, credit ratings, and private capital markets research directly on our proprietary desktop or web-based software platforms, or through subscriptions, data feeds, and third-party distributors.

Second, we provide investment-management services, investment analysis platforms, and portfolio management and accounting software tools to advisors and financial institutions. Our managed portfolio offerings help financial institutions deliver investor-friendly products based on our valuation-driven, fundamentals-based approach to investing. Applying our expertise in asset allocation, investment selection, and portfolio construction, our global investment team creates long-term investment strategies built on Morningstar's data and ratings. We help retirement-plan sponsors build high-quality savings programs for employees. Our financial technology solutions allow advisors to continually demonstrate their value to clients, from creating an initial investment proposal to reporting portfolio performance and providing automated rebalancing tools.

Through DBRS Morningstar, we also provide independent credit ratings services for financial institutions, corporate and sovereign entities and structured finance products and instruments.

Our independence and our history of innovation make us a trusted resource for investors. While other companies may offer research, ratings, data, software products, or investment-management services, we are one of the few companies that can deliver all of these with the best interest of the investor in mind. We believe putting investors first, paired with the way we use design and technology to communicate complex financial information, sets us apart from our peers in the financial services industry.

Morningstar covers a wide range of investment offerings, including managed investment products, publicly listed companies, fixed-income securities, private capital markets, and real-time global market data. We focus our data and research efforts on several different areas:

Manager research (including mutual funds, exchange-traded funds, separate accounts, and other vehicles)

We've been providing independent analyst research on managed-investment strategies since the mid-1980s. We use this analysis to provide research reports and qualitative, forward-looking Morningstar Analyst Ratings for nearly 5,100 mutual funds, ETFs, separately managed accounts, model portfolios, and collective investment trusts (CITs) globally. In 2019, we significantly updated our Analyst Rating methodology reducing the number of analytical pillars from five to three—People, Process and Parent—and

giving more weight to the effect of fees. We also publish qualitative research and ratings on state-sponsored college-savings plans, target-date funds, and health-savings accounts. This analysis augments other quantitative ratings and analytics, such as the Morningstar Rating for funds (the “star rating”), which ranks managed investment strategies such as mutual funds based on their past risk-adjusted performance versus peers. In addition, the Morningstar Style Box visually depicts a strategy’s underlying investment style, making it easier to compare investments and build portfolios. The star rating and style box have become important tools that millions of investors and advisors use in making investment decisions.

In recent years, we’ve launched several new ratings and designations. In 2016, we launched the Morningstar Sustainability Rating to help investors evaluate funds based on environmental, social, and governance factors. Morningstar uses company-level research from our partner, Sustainalytics, and now provides Sustainability Ratings for approximately 52,000 investment vehicles. In 2019, we updated our Sustainability Rating to provide investors with a greater understanding of how the companies in their portfolio are managing financially material environmental, social, and governance risks relative to their peers. This rating is built to enable advisors and investors to directly compare companies across industries.

This enhanced Sustainability Rating is the latest addition to a range of sustainability-related designations and data sets at Morningstar. In 2018, we launched the Morningstar Low Carbon Risk Designation for funds, which is given to funds that exhibit low overall carbon risk and have lower-than-average exposure to companies with fossil fuel involvement. Sustainalytics provides company-level data and research; the designation is an indicator that the companies held in a portfolio may be in alignment with the transition to a low-carbon economy. Morningstar will continue to build its sustainability-related data sets (such as our new United States (U.S.) proxy data set), research, software, and tools as client demand continues to grow in this area.

The Morningstar Quantitative Rating is a forward-looking rating that uses algorithmic techniques to evaluate mutual funds. It employs machine learning to infer patterns in the way Morningstar’s manager-research analysts assign ratings to funds and then applies those learnings to rate funds the analysts don’t cover. It significantly expands the breadth of our forward-looking ratings.

As of December 31, 2019, we had more than 120 manager research analysts globally, including teams in North America, Europe, Australia, and Asia.

Equity research

As part of our research efforts on individual stocks, we popularized the concepts of economic moat, a measure of competitive advantage originally developed by Warren Buffett, and margin of safety, which reflects the size of the discount in a stock’s price relative to its estimated value. The Morningstar Rating for stocks is based on the stock’s current price relative to our analyst-generated fair value estimates, as well as the company’s level of business risk and economic moat. Our analysts cover approximately 1,500 companies using a consistent, proprietary methodology that focuses on fundamental analysis, competitive advantage assessment, and intrinsic value estimation. Morningstar’s data and research on publicly traded companies is used extensively in products throughout the company, such as institutional equity research, Morningstar Indexes such as the Morningstar Wide Moat Focus Index, our Global Market Barometer, and as a basis for equity portfolio strategies used in our managed portfolios.

PitchBook Data, Inc. (PitchBook), which we acquired in December 2016, focuses on private capital markets. PitchBook Analyst Research taps into proprietary data, such as valuations, deal multiples, and fund returns, to deliver analysis that allows clients to quickly gauge trends, map industries, and identify notable company sets in the private capital markets. In addition, PitchBook’s Emerging Spaces reports offer comprehensive assessments of disruptive sectors and are intended to help better segment and size markets, understand company and investor landscapes, evaluate opportunities and develop conviction around the growth

trajectories of emerging industries. As of December 31, 2019, the PitchBook Platform covered more than 2.1 million privately-held companies worldwide.

As of December 31, 2019, we had about 120 public equity analysts and nearly 30 private equity analysts globally, making us one of the largest providers of independent equity research. In addition to our analyst-driven coverage, we provide quantitative ratings and reports for approximately 54,000 publicly traded companies globally. These quantitative public equity ratings draw on the fundamental research of our equity analyst team and provide a forward-looking statistical view of the valuation, competitive advantage, and level of uncertainty for stocks that are often under-followed by other research firms.

Credit ratings

DBRS Morningstar provides global credit ratings as the world's fourth largest credit rating agency. On July 2, 2019, Morningstar, Inc. completed its acquisition of DBRS and shortly after began integrating DBRS and Morningstar Credit Ratings, LLC. By combining DBRS' strong market presence in Canada, Europe, and the U.S. with Morningstar Credit Ratings' U.S. footprint, we have expanded our global asset-class coverage and now provide investors with an enhanced platform featuring thought leadership, analysis and research. We rate more than 2,600 issuers and 54,000 securities worldwide, providing independent credit ratings for financial institutions, corporate and sovereign entities and structured finance products and instruments.

As of December 31, 2019, we had nearly 400 credit rating analysts based in the U.S., Canada, the United Kingdom, India, Germany, and Spain.

Portfolio advice methodologies

Since the beginning, Morningstar has provided individual investors with tools to monitor their own investments, such as the Ownership Zone, Sector Delta, and Portfolio X-Ray. These do-it-yourself applications allow investors to see how different investments work together to form a portfolio and to track its progress. We also continue to improve our total wealth approach to investing and asset-allocation capabilities, which are mainly used in the investment- management products we offer to professional investors. We also look for ways to infuse these capabilities into decision support tools. Whereas traditional asset-allocation methodologies focus solely on financial assets (such as stocks and bonds), our investment-management group has developed methodologies that provide a more holistic view of all sources of wealth, including financial capital, human capital, housing assets, and retirement and pension benefits. Our investment management group offers in-depth advice on asset allocation, portfolio construction, and security selection to meet the needs of investors and professionals looking for integrated portfolio solutions. We've also published research on "gamma," an innovative measure that quantifies how much additional retirement income investors can generate by making better financial planning decisions.

The following graphics describe some of our portfolio advice methodologies in greater detail:

The Morningstar Rating

We provide Morningstar ratings for funds (based on historical risk and returns) and stocks (based on our fair value estimates).



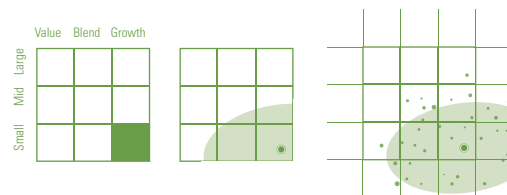
The Morningstar Analyst Rating

The Morningstar Analyst Rating for funds is a global, qualitative measure based on our assessment of five key pillars: process, performance, people, parent, and price.



The Morningstar Style Box

The Morningstar Style Box is a nine-square grid that illustrates the “investment style” of stocks and mutual funds. It classifies securities based on their market capitalization (the vertical axis) and growth and value factors (the horizontal axis).



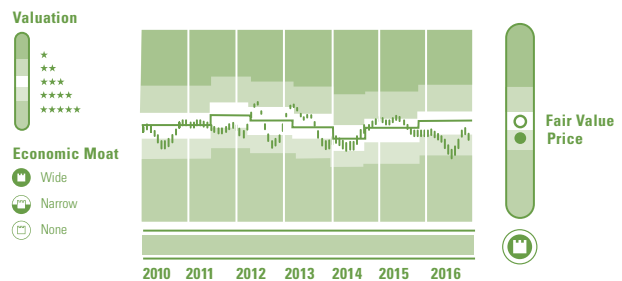
Economic Moat

Our analysts assign Economic Moat ratings of Wide, Narrow, or None based on our view of the company’s sustainable competitive advantage.



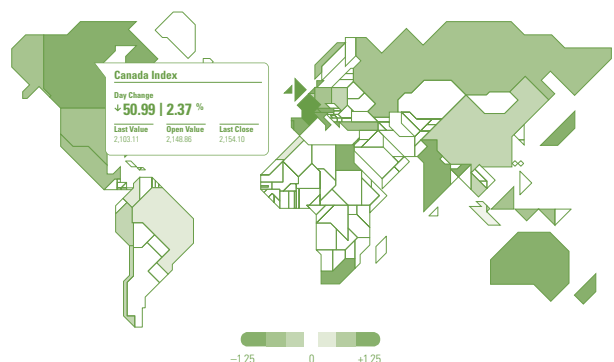
Price vs. Fair Value

Morningstar’s signature Price vs. Fair Value graph compares a stock’s market price with our estimate of the company’s intrinsic value, as well as how our ratings and the stock’s share price have changed over time.



Global Market Barometer

The Global Market Barometer is a current snapshot of the world’s equity markets based on price trends in the Morningstar Indexes.



Portfolio X-Ray

Our popular Portfolio X-Ray tool helps investors reduce risk and understand the key characteristics of their portfolios based on nine different factors.

Portfolio X-Ray

Asset Allocation

	% Net
U.S. Stocks	51.42
Non-U.S. Stocks	38.65
Bond	17.15
Cash	2.41
Other	2.00
Not classified	0.44



Stock Regions

	% Weight
Americas	50.27
North America	33.43
Latin America	7.81



Gamma Methodology

Our research on Gamma quantifies the value of financial planning and incorporates several key components that can improve investor outcomes.

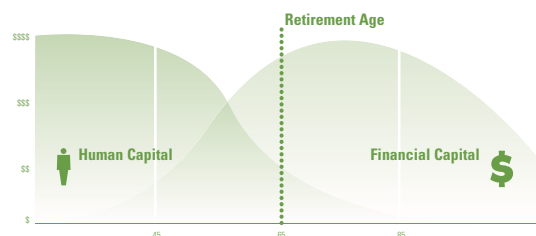


Gamma

- Asset Location and Withdrawal Sourcing
- Liability Relative Optimization
- Dynamic Withdrawal Strategy
- Annuity Allocation
- Total Wealth Asset Allocation

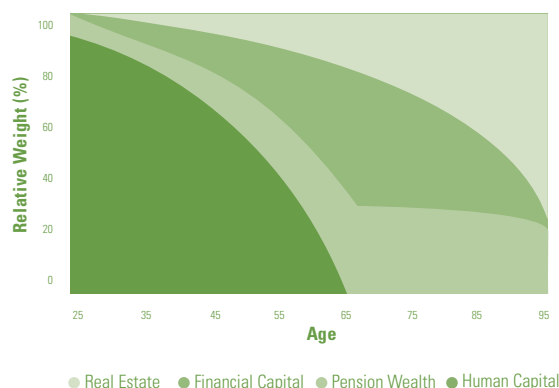
Human Capital

We use the concept of human capital—or potential future earning ability—to provide a more complete picture of an investor's financial worth and optimize the asset mix for retirement portfolios.



Total Wealth Approach

Our Total Wealth Approach provides a more complete view of all sources of an investor's wealth, including financial capital, human capital, housing assets, and retirement and pension benefits.



Morningstar Sustainability Rating

The Morningstar Sustainability Rating for funds helps investors evaluate mutual funds and exchange-traded funds based on environmental, social, and governance (ESG) factors.



Our Mission

Our mission is to empower investor success. Everything we do at Morningstar is in the service of the investor. The investing ecosystem is complex, and navigating it with confidence requires a trusted, independent voice. Our perspective—built every day by more than 6,700 employees across the globe—is delivered to institutions, advisors, and individuals with a single-minded purpose: to empower every investor with the conviction that he or she can make better-informed decisions and realize success on his or her own terms.

Our Strategy

Our strategy is to deliver insights and experiences essential to investing. Proprietary data sets, meaningful analytics, independent research, and effective investment strategies are at the core of the powerful digital solutions that investors across client segments rely on.

We execute our strategy through four connected elements: our people, our work, our clients, and our brand. The interaction between these four elements has enabled Morningstar to establish a position in the industry that is differentiated from our competition. We believe that our intangible assets, including the strength of our brand and our unique intellectual property, are difficult for competitors to replicate. Additionally, we strive to ensure our customers receive demonstrable value from our solutions causing them to be reluctant to undertake the cost of switching to other providers.

Trends Defining Our Business

We are focusing our strategy plan around three secular trends that are shaping the investment industry and defining the solutions we expect our customers to demand in the future.

The modern investor is empowered with new data, research, and analytics

A new generation of approaches and technologies is creating simpler and more personal experiences for the end investor. Established financial solution providers are competing against both startups and diversifying competitors to provide these experiences. Data and analytics are driving this trend, and we are well-positioned to provide these resources.

Investors demand more value from advice

This shift in investor expectations is driving change for all participants across the financial services industry. Therefore, we are focused on delivering digitized advice solutions that enable advisors to become more efficient, allowing them to allocate more time to the highest value activities. As part of this, we anticipate that investment decisions by all market participants will increasingly be influenced by third-party expertise and that the importance of financial planning will continue to grow.

Convergence of public and private markets

The private markets have become increasingly important and are influencing the public markets more than ever. Private companies stay private longer, leading to the shift of a large portion of company capital (market capitalization) out of the public view. In response, new insights and solutions will be required to help sophisticated investors and their service providers navigate investment strategies reliant on both public and private investment opportunities. Our unique ability to combine our leading private market data and insights along with our expanding public market data coverage puts us in a position to capitalize on this market convergence.

Major Customer Groups

Given our strategy and core capabilities discussed above, we focus on six primary customer groups:

- ▷ Advisor (including independent financial advisors and those affiliated with Registered Investment Advisors (RIAs), broker/dealers or other intermediaries);
- ▷ Asset management (including fund companies, insurance companies, and other companies that build and manage portfolios of securities for their clients);
- ▷ Fixed-income security issuers and arrangers;
- ▷ Private market/venture capital investors;
- ▷ Workplace/retirement (including retirement plan providers, advisors, and sponsors); and
- ▷ Individual investors.

Advisor

Financial advisors work with individual investors to help them reach their financial goals. This customer group includes independent advisors at RIA firms, advisors affiliated with independent broker/dealers, dually registered advisors, and “captive” advisors who are employees of a broker/dealer. These broker/dealers include wirehouses, regional broker/dealers, and banks. The advisor landscape is broad in both the U. S. and in other parts of the world where we focus. Our largest market is the U.S., where Cerulli Associates estimates there were about 306,000 financial advisors as of the end of 2019. We estimate that we serve approximately 40% of this market through the sale of our software solutions.

We believe our deep understanding of individual investors’ needs allows us to work with advisors to help them make more efficient use of their time and deliver better investment outcomes for their clients. Our advisor solutions also draw on Morningstar’s proprietary investment research methodologies and research insights.

We sell our advisor-related solutions both directly to independent financial advisors and through enterprise licenses, which allow financial advisors associated with the licensing firm to use our products.

We are expanding the range of services we offer to help financial advisors with all aspects of their daily workflow needs, including investment decision-making, portfolio construction, client monitoring and reporting, practice management, portfolio rebalancing that connects with custodial and trading interfaces, and financial planning. Because advisors are increasingly outsourcing investment management, we’re continuing to enhance Morningstar Managed Portfolios to help advisors save time and reduce compliance risk.

Our main products for financial advisors are Morningstar Advisor Workstation, Morningstar Office Cloud, and Morningstar Managed Portfolios.

Asset management

Asset-management firms manufacture financial products and manage and distribute investment portfolios. The asset management customer group includes individuals involved in sales, marketing, product development, business intelligence, and distribution, as well as investment management (often referred to as the “buy side”), which includes portfolio management and research. We estimate that there are more than 3,200 asset-management firms globally, ranging from large, global firms to firms with small fund lineups and operations in a single market or region. We estimate that we serve almost half of this market across our portfolio of solutions.

Our asset management offerings help companies connect with their clients because of Morningstar's strong brand presence with both financial advisors and individual investors. We offer a global reach and have earned investors' trust in our unbiased approach, investor-centric mission, and thought leadership.

The key products we offer for asset-management firms include Morningstar Direct for Asset Management, Morningstar Data, and Morningstar Indexes. For the buy side, key products include Morningstar Research, DBRS Morningstar, Morningstar Data, and Morningstar Direct.

Fixed income security issuers and arrangers

Credit ratings are issued in response to requests from issuers, intermediaries, or investors. Ratings are requested for corporate short and long-term fixed obligations, sovereign financings, and structured finance programs, including securitizations of receivables such as auto loans, credit cards, residential real estate loans, commercial real estate loans, and single project financings. In addition, claims-paying-ability ratings are issued for life, property/casualty, financial guaranty, title, and mortgage insurance companies. DBRS Morningstar's staff analyzes the factors which determine an issuer's or asset pool's credit quality and summarizes the basis for the ratings. Credit ratings are assigned and reviewed by a credit rating committee composed of senior credit rating analysts and managers. Credit ratings are typically monitored or reviewed at appropriate intervals depending on the type of rating.

We estimate that the \$8.0 billion global addressable ratings market has grown at a 7% compound annual growth rate over the past decade, supported by various secular trends. A continuing low-interest-rate environment supports corporate borrowings, and favorable spreads support high-yield and structured finance bond issuance.

Credit markets continue to evolve and use structured products as a key avenue for capital. Banks in the U.S. and Europe are relying more on structured products to reduce capital requirements as a result of increased regulatory requirements. Overall demand for structured products by institutional investors remains high.

In addition to ratings and research opinions, DBRS Morningstar also offers data derived from its ratings activities and analytical tools. These include ratings data feeds that can be integrated into companies' internal databases, web-based research, and ratings tools, including Viewpoint/Dealview (an interactive platform that provides access to CMBS transaction information and research reports, as well as commentary and work-product for DBRS Morningstar rated deals). This is a large and growing market, and we will continue to invest and increase the depth and breadth of our data and analytical tools offerings. As of December 31, 2019, we served approximately 2,600 issuers of debt.

Private market/venture capital investors

Through PitchBook, we reach almost 4,900 investment and research firms and their service providers, including venture capital and private equity firms, corporate development teams, investment banks, limited partners, lenders, law firms, and accounting firms.

PitchBook covers the full lifecycle of venture capital, private equity, and M&A, including the limited partners, investment funds, and service providers involved. Our main product for this customer group is the PitchBook Platform, an all-in-one research and analysis workstation that gives clients the ability to access data, discover new connections, and conduct research on potential investment opportunities. An Excel plug-in and mobile capabilities are included with the platform license, and Morningstar public equity research can also be delivered through the platform.

Workplace/retirement

In the U.S., 401(k) retirement plans and other types of defined-contribution (DC) plans, such as 403(b)s and the Thrift Savings Plan, are the dominant retirement plan offered by employers. According to the Investment Company Institute, there were \$8.5 trillion in assets in DC plans at end of the third quarter of 2019, compared to \$3.3 trillion in private-sector defined benefit (DB) plans and \$6.4 trillion in government DB plans.

DC plans help millions of workers in the U.S. save for retirement and significant strides have been made to roll out automated plan design features, such as auto-enrollment and auto-savings increases. The industry continues to struggle to boost employee savings rates and retirement readiness. We believe that a significant market exists for solutions, such as our managed retirement accounts offering, that are designed to address these shortcomings by providing personalized advice that helps individuals build assets for retirement and beyond. Other countries continue to follow in the footsteps of the U.S., abandoning traditional DB plans and pensions in favor of DC-focused solutions that shift saving for retirement from the employer to employee. Currently, our main focus is the U.S. market, because it continues to demonstrate healthy growth. In addition, many of our solutions are not easily adapted to foreign markets due to significant differences in regulatory frameworks that govern retirement saving and investing.

Our retirement solutions primarily reach individual investors through employers (plan sponsors) that offer DC plans for their employees. As of December 31, 2019, we served 36 retirement service providers, representing about 286,000 retirement plans. We can work directly with plan sponsors to help them design a suitable retirement program, but more typically, we deliver our retirement solutions through retirement plan providers that package our advice and investment lineups with administrative and record-keeping services. We recently expanded into the broker/dealer market by developing two new solutions. Morningstar Plan Advantage helps advisors affiliated with broker/dealers to manage their retirement plan book of business. An advisor managed accounts solution enables an RIA to incorporate its investment thinking and branding into our managed retirement accounts offering.

Our main product offerings for the workplace/retirement customer group include managed retirement accounts, fiduciary services, and custom models.

Individual investors

We offer tools and content for individual investors who invest to build wealth and save for other goals, such as retirement or college tuition. A Gallup survey released in April 2019 found that approximately 55% of individuals in the U.S. invest in the stock market either directly, through mutual funds, or self-directed retirement plans. We design products for individual investors who are actively involved in the investing process and want to take charge of their own investment decisions. We also reach individuals who want to learn more about investing or want to validate the advice they receive from brokers or financial advisors.

Our main product for individual investors is Morningstar.com, which can be accessed via desktop, tablet, or mobile phone applications, and includes both paid Premium Memberships and free content available to registered users and visitors. We also reach individual investors through licensing our content to other websites, such as Yahoo Finance, MSN Money, and Google Finance.

Business Model

We sell products and services that generate revenue in three major categories:

Licensed-based: The majority of our research, data, and proprietary platforms are accessed via subscription services that grant access on either a per user or enterprise-basis for a specified period of time. Licensed-based revenue includes Morningstar Data,

Morningstar Direct, Morningstar Advisor Workstation, Morningstar Office Cloud, PitchBook, Premium Memberships on Morningstar.com, and other similar products. Licensed-based revenue represented 68.9% of our 2019 consolidated revenue compared to 73.7% in 2018 and 73.2% in 2017.

Asset-based: We charge basis points and other fees for assets under management or advisement. Our Morningstar Investment Management, Workplace Solutions, and Morningstar Indexes products all fall under asset-based revenue. Asset-based revenue represented 18.0% of our 2019 consolidated revenue compared to 19.6% in 2018 and 20.0% in 2017.

Transaction-based: Credit ratings and ad sales on Morningstar.com comprise the majority of the products that are transactional, or one-time, in nature, versus the recurring revenue streams represented by our licensed and asset-based products. Transaction-based revenue represented 13.1% of our 2019 consolidated revenue compared to 6.7% in 2018 and 6.8% in 2017.

Major Products and Services

The section below describes our top five products by 2019 revenue and some of our other key products and services.

Morningstar Data

Morningstar Data gives institutions access to a full range of investment data spanning numerous investment databases, including equity fundamentals, managed investments, and real-time pricing and market data. We offer licenses and data feeds for our proprietary statistics, such as the Morningstar Style Box and Morningstar Rating, and a wide range of other data, including information on investment performance, risk, portfolios, operations data, fees and expenses, cash flows, financial statement data, consolidated industry statistics, and investment ownership. Institutions use Morningstar Data in a variety of investor communications, including websites, print publications, and marketing fact sheets, as well as for internal research and product development.

The Morningstar Data team uses emerging technologies including robotics process automation (RPA), machine learning, and natural language processing to further automate the manual, non-structured, and complex data-acquisition processes that traditional technologies are not able to address. Machine-learning models reduce the time and effort to collect data, thus creating additional capacity to acquire new data sets. We also have launched our new cloud-based data delivery system. This new system allows users to more easily explore our data capabilities, access the data they specifically want, and have flexibility around format and delivery options. In 2020, we plan to release our application programming interface (API), which will give us the ability to stream data directly to our clients.

In 2019, our data expansion efforts led to the addition of risk factor profile data, fixed-income analytics, health savings account (HSA) data, and enhancement of our environmental, social, and governance (ESG) data, including proxy vote data. We also launched our alliance with Mercer Consulting Group (Mercer), providing Mercer's institutional strategy data through our Morningstar products. Working with Rozetta Technologies, we launched our new "tick" data platform, allowing our customers to access our 5 petabytes of ongoing and historical data tracking the market ticks across more than 200 exchanges.

Pricing for Morningstar Data is based on the number of investment vehicles covered, the amount of information provided for each security, the frequency of updates, the method of delivery, the size of the licensing firm, the level of distribution, and the intended use by the client, otherwise known as the "use-case."

Our main global competitors for mutual fund data include Financial Express and Thomson Reuters. We also compete against smaller players that focus on local or regional information. For market and equity data, we primarily compete with FactSet, Financial Express, Interactive Data, and Thomson Reuters.

Morningstar Data is our largest product based on revenue and accounted for 16.7%, 18.2%, and 18.2% of our consolidated revenue in 2019, 2018, and 2017, respectively.

In 2019, we estimate that the annual revenue retention rate for Morningstar Data was approximately 103.5%, compared to 101.6% in 2018.

Morningstar Direct

Morningstar Direct is an investment-analysis platform built for asset-management and financial services professionals that includes data and advanced analytical tools on the complete range of securities in Morningstar's global database, as well as privately held investments and data from third-party providers. It helps portfolio managers, investment consultants, financial product managers, wealth managers, and other financial professionals develop, select, and monitor investments. Users can create advanced performance comparisons and in-depth analysis of an investment's underlying investment style, as well as custom-branded reports and presentations.

In 2019, we launched our alliance with Mercer in the U.S., Canada, EMEA, and Asia. Advisors and institutional investors can now access more data, research, and analytical tools that focus on institutional investments through the web-based editions of Morningstar Direct. We also launched our integration with Orion Advisor Technology (Orion). This integration helps advisors using Orion to easily run advanced analytics on their client accounts with Morningstar's proprietary tools, while decreasing the risk and time cost from manual data import.

We introduced the first phase of our multi-asset risk model, enabling users to assess interest-rate risk on fixed-income portfolios to better support multi-asset strategy, run scenario analyses, and capture interest-rate movement. Our new Morningstar Factor Profile component supports portfolio construction and anticipates outcomes with analysis of seven standard factors alongside Morningstar's proprietary models. We also made it possible for users to go beyond historical scenario analysis to address more complex concerns. With macro-financial or market-driven scenario analyses, users can define hypothetical market shocks and view their impacts on factor exposures, portfolio returns and volatility. We've also delivered a new portfolio construction tool that automatically creates portfolios based on advanced optimization techniques.

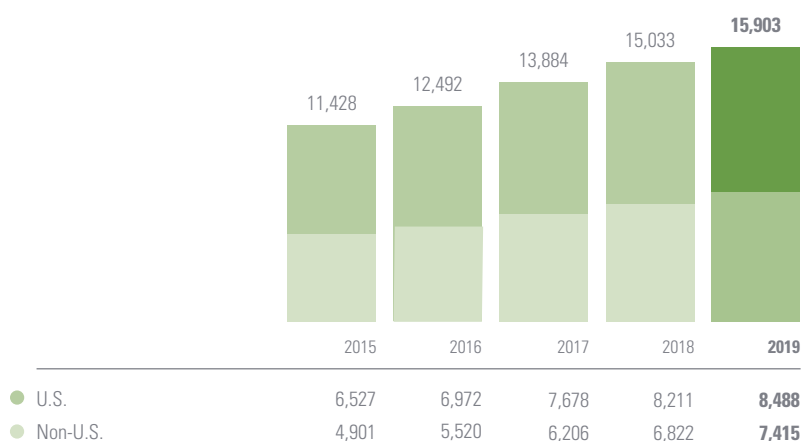
Sustainable investing has continued to be a key area of focus at Morningstar, from thought leadership to new tools. New data sets also became available through Morningstar Direct including fund-level carbon data, which aims to evaluate investments on carbon risk and carbon intensity as a result of the underlying business's company practices. Our sustainable attributes aim to capture the intention of the fund managers by analyzing language in a fund's prospectus, offering document, or regulatory filings.

Morningstar Direct's primary competitors are Bloomberg, eVestment Alliance, FactSet Research System's Cognity and SPAR, Strategic Insight's Simfund, and Refinitiv's Eikon. Pricing for Morningstar Direct is based on the number of licenses purchased. Add-on features, like the advanced Global Risk Model, may incur additional fees.

Morningstar Direct is our second-largest product based on revenue and accounted for 12.6%, 13.5%, and 13.6% of our consolidated revenue in 2019, 2018, and 2017, respectively.

Morningstar Direct had 15,903 licensed users worldwide as of December 31, 2019.

Morningstar Direct Licenses



In 2019, we estimate that our annual revenue retention rate for Morningstar Direct was approximately 99.2%, compared to 98.9% in 2018.

PitchBook

PitchBook, which we acquired in December 2016, provides data and research covering the private capital markets, including venture capital, private equity, and mergers and acquisitions (M&A). PitchBook's main product is the PitchBook Platform, an all-in-one research and analysis workstation for sophisticated investment and research professionals, including venture capital and private equity firms, corporate development teams, investment banks, limited partners, lenders, law firms, and accounting firms. Almost 37,000 professionals use this software to source deals, raise funds, build buyer lists, create benchmarks, network, and more. To accommodate their diverse needs, the platform offers company profiles for both private and public companies, advanced search functionality, and features that help to optimize workflow by surfacing information and extracting relevant insights.

PitchBook also offers a mobile application, Excel plug-in, data feeds, and flexible, à la carte data solutions that allow clients to access a variety of data points on demand.

In 2019, we delivered 338 upgrade releases through the PitchBook Platform, making it easier and faster to derive meaningful insights into the evolving capital markets. Notable feature releases in 2019 include the new Emerging Spaces, which allows our clients to discover niche spaces on the rise within relevant sectors and identify promising investment trends. Client feedback led to the launch of PitchBook's new valuation workflow capabilities in 2019, which offer better screening and search tools, a comprehensive public comps dataset, and in-depth equity research. We also improved our mobile capabilities with the introduction of Meeting Intel on PitchBook Mobile. Users can save time on meeting preparation by syncing their calendars to get instant insights on meeting participants.

We also focused on expanding datasets, adding coverage of over 535,000 North American private companies, driven by deep research analysis, and increased scale of our proprietary automated data collection processes. Additionally, through a commercial partnership with Dun & Bradstreet, we added another nearly 610,000 North American private companies including more than 150,000 private company financials. Complete with key data points, this update empowers PitchBook clients to discover hard-to-find, investable opportunities and identify service providers and lenders to work with.

We also added more than 100,000 European private companies with registry financials, primarily in Spain and Portugal, shareholder ownership data to 57,000 companies in Europe, and 5,700 new European valuations. In 2019, PitchBook focused on expanding coverage of Chinese venture capital, adding nearly 3,500 new Chinese companies with VC backing and over 9,700 new financings to these Chinese venture-backed companies.

Building on the 2017 integration of Morningstar's publicly traded company fundamental data into the PitchBook platform, we continued to enhance our public company data coverage in 2019 by introducing new data sets such as operating segment and business unit financials and adding to existing data such as calculation transparency for more data points to quickly audit reported values in source filings and understand the methodology behind calculated values.

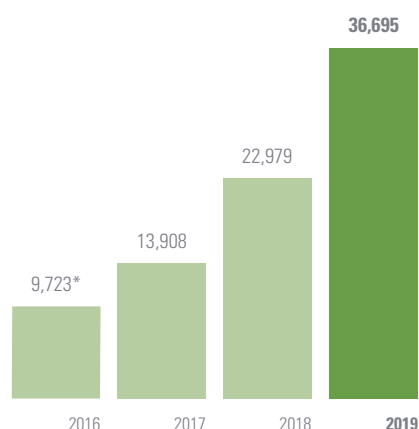
PitchBook's main competitors are CB Insights, Dow Jones VentureSource, Preqin, S&P Capital IQ, and Thomson Reuters.

Pricing for the PitchBook Platform is based on the number of seats, with the standard base license fees per user, with customized prices for large enterprises, boutiques, and startup firms.

PitchBook is our third-largest product based on revenue and made up 12.6%, 9.8%, and 7.0% of our consolidated revenue in 2019, 2018, and 2017, respectively.

PitchBook had 36,695 licensed users worldwide as of December 31, 2019.

PitchBook Platform Licenses



*Included for informational purposes only; Morningstar did not acquire full ownership of PitchBook until December 2016

In 2019, we estimate that our annual revenue retention rate for PitchBook was approximately 121.1%, compared to 122.3% in 2018.

DBRS Morningstar

DBRS Morningstar is our global credit ratings business and the world's fourth largest credit rating agency. On July 2, 2019, Morningstar, Inc. completed its acquisition of DBRS and shortly after began integrating DBRS with Morningstar's credit rating business, Morningstar Credit Ratings, LLC. DBRS Morningstar provides independent credit ratings for financial institutions, corporate and sovereign entities and structured finance products and instruments. Our ratings on structured finance instruments cover a broad range of sectors, including commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS), single-family rental securities, collateralized loan obligations (CLO), and other asset-backed securities (ABS).

Credit ratings are forward-looking opinions about credit risk that reflect the creditworthiness of an entity or security. They are determined through a Rating Committee process that facilitates rating decisions, which are a collective assessment of DBRS Morningstar opinions rather than the view of an individual analyst; are based on information that incorporates both global and local considerations and the use of approved methodologies; and are determined subject to policies and procedures designed to avoid or manage conflicts of interest.

Our credit ratings are determined based on established methodologies, models, and criteria that apply to entities and securities that we rate and that are periodically reviewed and updated. DBRS Morningstar maintains a comprehensive range of rating policies to support the objectivity and integrity of its rating processes and to promote the transparency of its rating operations.

We also provide other (non-credit rating) services such as CMBS deal monitoring, corporate credit estimates, and operational risk assessment services.

DBRS Morningstar competes with several other firms, including Fitch, Kroll Bond Ratings, Moody's, and S&P Global Ratings.

For new-issue ratings, we charge one-time fees to the issuer based on the type of security, the size of the transaction, and the complexity of the issue. For the six months ended December 31, 2019, we estimate that transaction-based fees comprised 63% of DBRS Morningstar's revenue; whereas the remainder can be classified as transaction-related, with recurring annual fees tied to surveillance, research, and other services. Pricing for these services vary depending on the solution and the level of access within a client organization.

DBRS Morningstar is our fourth-largest product based on revenue and accounted for 10.8% of our consolidated revenue in 2019.

Morningstar Investment Management

Morningstar Investment Management's flagship offering is Morningstar Managed Portfolios, an advisor service consisting of model portfolios designed mainly for fee-based independent financial advisors. Morningstar Managed Portfolios are primarily multi-asset strategies built using mutual funds, ETFs, and individual securities, and are tailored to meet specific investment time horizons, risk levels, and projected outcomes to help investors reach their financial goals.

Morningstar Managed Portfolios are available through two channels: our fee-based discretionary asset management service, also known as a turnkey asset management program (TAMP), or as strategist models on third-party managed account platforms. To date, our TAMP is available only in the U.S., whereas we strictly act as a model provider in our international markets.

Our TAMP is an end-to-end fee-based advisory experience, in which advisors access our model portfolios through a proprietary technology platform that offers functionality, such as proposals, client reporting, customer service, and back-office features such as trading. Using our TAMP allows the advisor to share fiduciary responsibility with us.

Morningstar Managed Portfolios are also offered on third-party platforms in both the U.S. and our international markets. When acting solely as a model provider, we do not provide any of the functionality that is provided by our TAMP, nor do we have an advisory relationship with the advisor's end client.

In 2019, we launched the Morningstar International Shares Active ETF, an active ETF that trades on the Australian Securities Exchange; launched ESG managed portfolios in the U.S. and U.K. markets to give advisors multimanager and multi-asset access to this growing investment approach; and introduced managed portfolios in India, a complete portfolio-management service designed to offer advisers in India a holistic investing solution to help clients meet their financial goals.

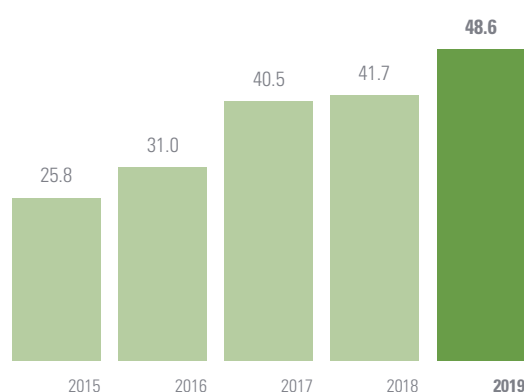
Also in 2019, we converted another \$2.1 billion in existing client assets into model portfolios that invest in a series of nine open-end, multimanager mutual funds registered as series of the Morningstar Funds Trust under the Investment Company Act of 1940. That brought the amount of total assets converted to the Morningstar Funds to more than \$3 billion since the funds were launched in 2018. Given advisor demand for high-quality, cost-effective, outsourced investment management, we expect demand for our portfolios that use Morningstar Funds to grow in 2020 and beyond.

We charge asset-based program fees for Morningstar Managed Portfolios, which are typically based on the type of service (i.e., TAMP versus strategist models) and the products contained within the portfolios.

In addition to Morningstar Managed Portfolios, other services we provide include institutional asset-management (e.g., act as a subadvisor) and asset-allocation services for asset managers, broker/dealers, and insurance providers. We offer these services through a variety of registered entities in Australia, Canada, the UAE, France, Hong Kong, India, Japan, South Africa, the United Kingdom, and the U.S.

We base pricing for institutional asset-management and asset-allocation services on the scope of work, our degree of investment discretion, and the level of service required. In the majority of our contracts, we receive asset-based fees.

Morningstar Managed Portfolios Assets under Management/Advisement (\$bil)



For Morningstar Managed Portfolios offered through our TAMP, our primary competitors are AssetMark, Brinker Capital, and SEI Investments. Our primary strategist offering competitors are Blackrock, Envestnet PMC, Russell, and Vanguard in the U.S., and we face competition from Financial Express and Seven in EMEA, and Dimensional, Russell, and Vanguard in Australia. We also compete with in-house research teams at independent broker/dealers who build proprietary portfolios for use on brokerage firm platforms, as well other registered investment advisors that provide investment strategies or models on these platforms.

Morningstar Investment Management is our fifth-largest product based on revenue and made up 9.8%, 10.9%, and 11.1% of our consolidated revenue in 2019, 2018, and 2017, respectively.

Morningstar Advisor Workstation

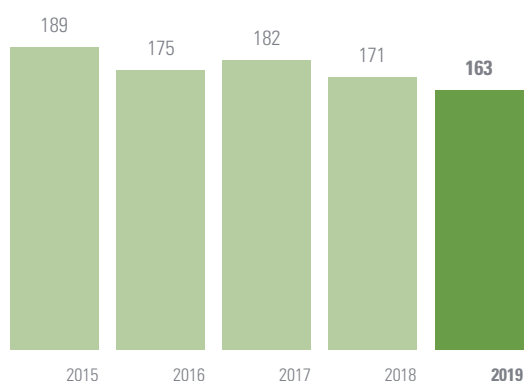
Morningstar Advisor Workstation is a web-based research and proposal generation platform built on our independent data and research and robust portfolio analytics. The software is typically sold through an enterprise contract and is primarily for retail advisors due to its strong ties and integrations with home-office applications and processes and a library of FINRA-reviewed reports for compliance needs. It allows advisors to build and maintain a client portfolio database that can be fully integrated with the home-office firm's back-office technology and resources. This helps advisors present and clearly illustrate their portfolio investment strategies through an easy-to-understand reporting output.

In the fall of 2019, we launched Goal Bridge, a new solution that extends Advisor Workstation's investment planning and proposal-generation capabilities to help retail advisors capture and connect the most common client goals to new investment plans. By connecting goal setting and investment planning, advisors streamline the processes and the ability to scale common investment strategies for similar client profiles, making financial planning and investment recommendations more efficient and accessible for all investors.

Throughout 2019, we continued to invest in capabilities that support key advisor workflows. We made the Morningstar Quantitative Rating™ for funds available through Advisor Workstation and launched new reports for sustainability, U.S. stocks, mutual funds, and ETFs featuring easy-to-understand interactive views. We also enhanced integrations with several leading third-party platforms, including MoneyGuidePro, eMoney, Redtail, and Albridge, to help advisors import client data into all aspects of their daily workflows.

As of December 31, 2019, 163 companies held licenses for the enterprise version of Morningstar Advisor Workstation in the U.S.

Morningstar Advisor Workstation Clients



In 2019, we estimate that our annual revenue retention rate for Advisor Workstation was approximately 98.1%, compared to 99.1% in 2018.

Pricing for Morningstar Advisor Workstation varies based on the number of users, as well as the number of databases licensed and level of functionality. We charge fixed annual fees per licensed user for a base configuration of Morningstar Advisor Workstation, but pricing varies significantly based on the scope of the license.

Competitors for Morningstar Advisor Workstation include AdvisoryWorld (LPL Financial), YCharts, ASI, Kwanti, and Financial Express outside of the U.S. Occasionally, broker/dealers also decide to build their own internal tools and attempt to bring their advisors' practice management tools in-house.

Workplace Solutions

Morningstar Workplace Solutions includes several different offerings, including managed retirement accounts (MRA), fiduciary services, Morningstar Lifetime Allocation Funds, and custom models.

Delivered primarily through the Morningstar Retirement Manager platform, our MRA program helps retirement plan participants define, track, and achieve their retirement goals. As part of this service, we deliver personalized recommendations for a target retirement income goal, a recommended contribution rate to help achieve that goal, a portfolio mix based on our Total Wealth methodology, and specific investment recommendations. We then manage the participant's investment portfolio for them, assuming full discretionary control. We also offer Advisor Managed Accounts, a program that allows financial advisors to specify and assume fiduciary responsibility for the underlying portfolios that are used within MRA. We do not hold assets in custody for the MRA we provide.

Our main competitors in MRA are Financial Engines, Fidelity, and Guided Choice. Companies that provide automated investment advice to consumers, such as Betterment and Wealthfront, are also attempting to break into employer-sponsored retirement markets.

In our fiduciary services offering, we help plan sponsors build out an appropriate investment lineup for their participants while helping to mitigate their fiduciary risk. Morningstar Plan Advantage is an extension of our fiduciary services that includes a technology platform that enables advisors at broker/dealer firms to more easily offer fiduciary protection, provider pricing, and investment reporting services to their plan sponsor clients.

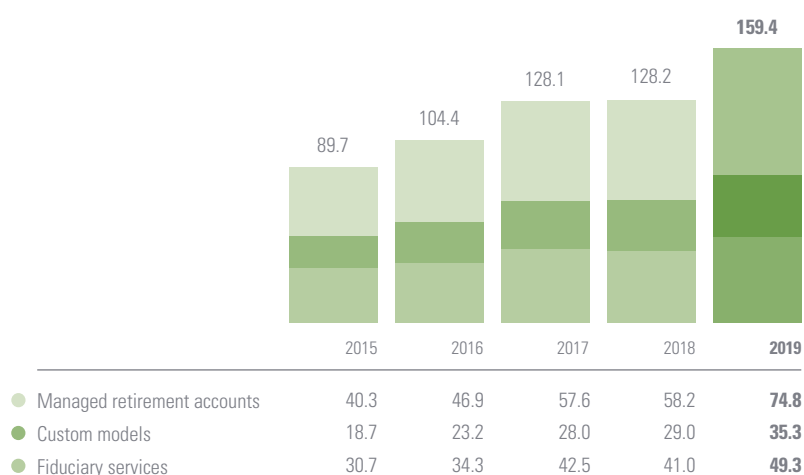
Our main competitors in fiduciary services are Mesirow and Wilshire Associates, but we are starting to see growing competition with Envestnet and smaller players such as LeafHouse Financial and IRON Financial. Broker/dealers are also looking to introduce their own fiduciary services in direct competition with record-keepers.

With our custom models, we offer two different services. We work with retirement plan record-keepers to design scalable solutions for their investment lineups, including target maturity models and risk-based models. We also provide custom model services direct to large plan sponsors, creating target date funds that are customized around a plan's participant demographics and investment menus. For custom models, we often compete with retirement plan consultants. We also serve as a non-discretionary subadvisor and index provider for the Morningstar Lifetime Allocation Funds, a series of target-date collective investment trust funds (CITs) offered by UBS Asset Management to retirement plan sponsors. Retirement plan sponsors can select a conservative, moderate, or growth version of the glide path for the funds based on the needs of participants in the plan. For the Lifetime Allocation Funds, we compete with other providers of target-date funds.

In 2019, we expanded our relationships with five key retirement RIA clients who purchased our new advisor managed account solutions.

Pricing for Workplace Solutions depends on several different factors, including the level of services offered (including whether the services involve acting as a fiduciary under the Employee Retirement Income Security Act, or ERISA), the number of participants, the level of systems integration required, and the availability of competing products.

**Workplace Solutions Assets
under Management/Advisement (\$bil)**



Morningstar.com

Our largest website, Morningstar.com, helps individual investors discover, evaluate, and monitor stocks, bonds, ETFs, and mutual funds; build and monitor portfolios; and monitor the markets. Revenue is generated from paid memberships through Morningstar Premium and Internet advertising sales.

Our Morningstar Premium offering is focused on bringing clarity and confidence to investment decisions. Members have access to proprietary Morningstar research, ratings, data, and tools, including analyst reports, portfolio management tools (such as Portfolio X-Ray), and stock and fund screeners. We offer Premium Membership services in Australia, Canada, Italy, the United Kingdom, and the U.S.

While many consumer-facing websites purchase advertising programmatically, Morningstar.com owns and sells digital advertising on a direct basis. In our experience, advertisers that desire to reach our significant user base of engaged individual investors support Morningstar.com's value as a unique, high-quality web property.

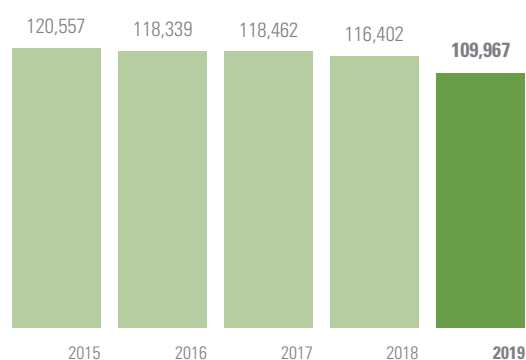
In 2019, we successfully upgraded the technology platform supporting Morningstar.com. The new technology stack provides improved uptime, faster performance, and cost savings in maintaining the website.

Morningstar.com primarily competes with trading platforms that concurrently offer research and investing advice, such as Fidelity, Schwab, TD Ameritrade, and eTrade. Research sites, such as The Motley Fool, Seeking Alpha, and Zacks Investment Research, also compete with us for paid membership. In addition, free or "freemium" websites such as Yahoo Finance, Dow Jones/

Marketwatch, The Wall Street Journal, Kiplinger, and TheStreet.com all compete for the advertising dollars of entities wishing to reach an engaged audience of investors.

As of December 31, 2019, Morningstar.com had approximately 110,000 paid Premium members in the U.S. plus an additional 15,000 Premium members across other global markets. We charge a monthly, annual, or multiyear subscription fee for Morningstar.com's Premium Membership service.

Morningstar.com Premium Memberships (U.S.)



Morningstar Office

Morningstar Office Cloud is a portfolio and practice management software package for RIAs that combines portfolio accounting and reporting with Morningstar's data, analytics, and research.

In 2019, we introduced a new capability to Morningstar Office Cloud: Model Marketplace, a centralized distribution platform that allows advisors to research third-party investment models, personalize strategies to fit their clients' needs, and initiate trade instructions in one connected workflow.

We continue to enhance our integrations with third-party platforms and added RightCapital in 2019.

Primary competitors to Morningstar Office Cloud include Black Diamond, Envestnet's Tamarac, Orion Advisor Services, and Advyzon.

As of December 31, 2019, approximately 5,300 financial advisors in the U.S. and the United Kingdom were licensed to use Morningstar Office Cloud.

In 2019, we estimate that our annual revenue retention rate for Morningstar Office Cloud was approximately 96.3%, compared to 97.8% in 2018.

Morningstar Indexes

We offer a broad range of indexes that can be used as performance benchmarks and for the purposes of creating investment products. Our indexes track major asset classes, including global equity, global fixed income and commodities. We offer multi-asset indexes, strategic beta indexes based on Morningstar's proprietary research, and sustainability indexes.

In 2019, several global asset managers launched low-cost investment vehicles tracking Morningstar's beta indexes. In addition, products based on our strategic-beta indexes, which included dividend-screened and moat-focused indexes that draw upon our proprietary research launched in the U.S., Europe, and Asia. Morningstar also launched a new global suite of bond indexes that represent all major fixed-income markets and asset classes. We launched additional sustainability-focused index families, including Low Carbon Risk, Sustainable Environment, and Sustainability Leaders.

More than 100 firms have now joined the Morningstar Open Indexes Project, which allows asset managers and other firms the ability to benchmark their investments against more than 100 Morningstar global equity indexes for free. The goal of the project is to lower benchmarking costs for the industry and improve outcomes for investors in response to the escalating costs of licensing market-cap-weighted equity indexes. Participants receive price return, total return, net return, and month-end constituent data for indexes included in the project. We license Morningstar Indexes to numerous institutions that offer ETFs, exchange-traded notes, and structured products based on the indexes. Firms license Morningstar Indexes for both product creation (where we typically receive the greater of a minimum fee or basis points tied to assets under management) and data licensing (where we typically receive annual licensing fees). In both cases, our pricing varies based on the level of distribution, the type of user, and the specific indexes licensed.

Major competitors for Morningstar Indexes include FTSE Russell, MSCI, S&P Dow Jones Indices (offered through S&P Global), and Bloomberg Indices.

Largest Customer

In 2019, our largest customer accounted for less than 2% of our consolidated revenue.

Acquisitions and Divestitures

Since our founding in 1984, we've supported our organic growth by introducing new products and services and expanding our existing offerings. From 2006 through 2019, we also completed 35 acquisitions to support our growth objectives. We completed the \$669 million acquisition of credit-ratings agency DBRS on July 2, 2019, and also acquired two Australian firms, Cuffelinks (now called FirstLinks) and AdviserLogic, in the fourth quarter of 2019.

For more information about our acquisitions and divestitures, refer to Notes 8 and 9 of the Notes to our Consolidated Financial Statements.

International Operations

We conduct our business operations outside of the U.S. through wholly owned or majority-owned operating subsidiaries based in each of the following 26 countries: Australia, Brazil, Canada, Chile, Denmark, France, Germany, India, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, People's Republic of China (both Hong Kong and the mainland), Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, United Arab Emirates, and the United Kingdom. See Note 6 of the Notes to our Consolidated Financial Statements for additional information concerning revenue from customers and assets from our business operations outside the U.S.

Intellectual Property and Other Proprietary Rights

We treat our brand name and logo, product names, databases and related content, software, technology, know-how, and the like as proprietary. We seek to protect this intellectual property by using: (i) trademark, copyright, patent and trade secrets laws; (ii) licensing and nondisclosure agreements; and (iii) other security and related technical measures designed to restrict unauthorized access and use. For example, we generally provide our intellectual property to third parties through the use of

standard licensing agreements, which define the extent and duration of any third-party usage rights and provide for our continued ownership in any intellectual property furnished.

Because of the value of our brand name and logo, we generally seek to register one or both of them as trademarks in all relevant international classes in any jurisdiction in which we have business offices or significant operations. We have registered the Morningstar name and/or logo in approximately 50 jurisdictions, including the EU, and have registrations pending in several others. In some jurisdictions, we may also choose to register one or more product names.

“Morningstar” and the Morningstar logo are both registered marks of Morningstar in the U.S. The table below includes some of the trademarks and service marks referenced in this report:

Morningstar® Advisor Workstation SM	Morningstar® Plan Advantage SM
Morningstar Analyst Rating TM	Morningstar® Portfolio X-Ray®
Morningstar® ByAllAccounts®	Morningstar Rating TM
Morningstar® Data	Morningstar® Retirement Manager SM
Morningstar Direct SM	Morningstar Style Box TM
Morningstar® Enterprise Components	Morningstar Sustainability Rating TM
Morningstar® Indexes	Morningstar.com®
Morningstar® Managed Portfolios SM	PitchBook®
Morningstar Market Barometer SM	DBRS®
Morningstar Office Cloud SM	

In addition to trademark registrations, we hold a number of U.S. patents, either directly or through our wholly owned subsidiary, Morningstar Investment Management LLC. These patents include those for coordinate-based document processing/data entry, financial portfolio management, portfolio management analysis, lifetime asset allocation, and asset allocation with annuities.

License Agreements

We license our products and related intellectual property to our customers, generally for a fee. Generally, we use our standard agreement forms, and we do not provide our products and services to customers or other users without having an agreement in place.

We maintain licensing agreements with most of our larger Morningstar operating companies around the world to allow them to access and use our intellectual property, including, without limitation, our products, trademarks, databases and content, technology, and know-how. We put these agreements in place to allow our operating companies to both market standard Morningstar products and services in their operating territories and to develop and sell territory-specific variants of those products under the Morningstar name in their specific territories.

In the ordinary course of our business, we obtain and use intellectual property from a variety of sources, including licensing it from third-party providers, developing it internally, and gathering it through publicly available sources (e.g., regulatory filings).

Seasonality

We believe our business has a minimal amount of seasonality. We sell most of our products with subscription or license terms of at least one year and we recognize revenue ratably over the term of each subscription or license agreement. This tends to offset most of the seasonality in our business.

We believe market movements and general market conditions have more influence on our performance than seasonality. The revenue we earn from asset-based fees depends on the value of assets on which we provide advisory services, and the size of our asset base can increase or decrease along with trends in market performance. In addition, our credit rating business is subject to market effects on the level of fixed income issuance.

Competitive Landscape

The economic and financial information industry includes a few large firms as well as numerous smaller companies, including startup firms. Some of our main competitors include Bloomberg, S&P Global, Thomson Reuters, Moody's, and Fitch. These companies have financial resources that are significantly greater than ours. We also compete with a variety of other companies in specific areas of our business. We discuss some of the key competitors in each area in the Major Products and Services section of this report.

We believe the most important competitive factors in our industry are brand and reputation, data accuracy and quality, technology, breadth of data coverage, quality of investment and credit research and analytics, design, product reliability, and value of the products and services provided.

Research and Development

A key aspect of our growth strategy is to expand our investment and credit research capabilities and enhance our existing products and services. We strive to adopt new technology that can improve our products and services. As a general practice, we manage our own websites and build our own software rather than relying on outside vendors. This allows us to control our technology development and better manage costs, enabling us to respond quickly to market changes and to meet customer needs efficiently. As of December 31, 2019, our technology team consisted of approximately 1,600 programmers and technology and infrastructure professionals.

Government Regulation

In addition to laws and regulations of application to businesses generally, certain subsidiaries of Morningstar engage in lines of business or other activities that subject them to various laws and regulations specific to those businesses or activities. These laws and regulations are primarily designed to protect investors and are most pervasive in our credit rating, investment management, and investment research businesses. Regulatory bodies or agencies that regulate our credit rating agency and investment adviser and research subsidiaries often have broad administrative powers, including the power to prohibit or restrict the subsidiary or persons connected with the subsidiary from carrying out business if it or they fail to comply with such laws and regulations or to impose censures, fines, or remedial undertakings as a result of such noncompliance. The rules governing the regulation of these subsidiaries are very detailed and technical. Accordingly, the discussion below is general in nature, does not purport to be complete and is subject to change based on future legislative, enforcement, and examination activities. Additional legislation and regulations—including those not directly tied to regulated activities (*e.g.* privacy and cybersecurity)—or changes in the interpretation or enforcement of existing laws and rules may adversely affect our business and profitability.

Investment Management and Investment Research

United States

Investment advisory and broker/dealer businesses are subject to extensive regulation in the U.S. at both the federal and state level, as well as by self-regulatory organizations. Financial services companies are among the nation's most extensively regulated. The Securities and Exchange Commission (SEC) is responsible for enforcing the federal securities laws and oversees federally registered investment advisors and broker/dealers.

Three of our subsidiaries, Morningstar Investment Management LLC (Morningstar Investment Management), Morningstar Investment Services LLC, and Morningstar Research Services LLC, are registered as investment advisors with the SEC under the Investment Advisers Act of 1940 (Advisers Act). As Registered Investment Advisors, these companies are subject to the requirements and regulations of the Advisers Act, including certain fiduciary duties to clients. The fiduciary duties of a Registered investment Adviser to its clients include an obligation of good faith and full and fair disclosure of all facts material to the client's engagement of the advisor, an obligation to provide investment advice suitable for the particular client, an obligation to have a reasonable, independent basis for investment recommendations, an obligation when directing client brokerage transactions to seek the best execution thereof, and an obligation to vote client proxies in the best interests of the client. Other requirements primarily relate to record-keeping and reporting, as well as general anti-fraud prohibitions. As Registered Investment Advisors, these subsidiaries are subject to on-site examination by the SEC.

Morningstar Funds Trust (the Trust) is an open-end management investment company under the Investment Company Act of 1940, as amended (Investment Company Act). Morningstar Investment Management serves as the sponsor and investment advisor of the Trust, and therefore, is subject to the requirements of the Investment Company Act. These requirements relate primarily to record-keeping, reporting, standards of care, valuation, and distribution. As sponsor and investment advisor to the Trust, Morningstar Investment Management is subject to on-site examinations by the SEC.

Connected with the Trust, Morningstar Investment Management is registered with the U.S. Commodity Futures Trading Commission as a commodity pool operator (CPO) and a member of the National Futures Association (NFA). As such, Morningstar Investment Management is subject to the requirements and regulations applicable to CPOs under the Commodity Exchange Act. These requirements primarily relate to record-keeping and reporting. As a CPO, Morningstar Investment Management is subject to on-site examinations for the NFA and/or the U.S. Commodity Futures Trading Commission.

In cases where these subsidiaries provide investment advisory services to retirement plans and their participants, they may be acting as fiduciaries under the Employee Retirement Income Security Act of 1974 (ERISA). As fiduciaries under ERISA, they have duties of loyalty and prudence, as well as duties to diversify investments and to follow plan documents to comply with the applicable portions of ERISA.

Morningstar Investment Services LLC is a broker/dealer registered under the Securities Exchange Act of 1934 (Exchange Act) and a member of FINRA. The regulation of broker/dealers has, to a large extent, been delegated by the federal securities laws to self-regulatory organizations, including FINRA. Subject to approval by the SEC, FINRA adopts rules that govern its members. FINRA and the SEC conduct periodic examinations of the brokerage operations of Morningstar Investment Services.

Broker/dealers are subject to regulations that cover all aspects of their securities business, including sales practices, capital structure, record-keeping, and the registration and conduct of directors, officers, and employees. As a registered broker/dealer, Morningstar Investment Services LLC is subject to certain net capital requirements under the Exchange Act. These requirements are designed to regulate the financial soundness and liquidity of broker/dealers.

Australia

Morningstar Australasia Pty Limited and Morningstar Investment Management Australia Ltd. are subsidiaries that provide financial information services and advice in Australia. They are registered under an Australian Financial Services license and subject to oversight by the Australian Securities and Investments Commission (ASIC). This license requires them to maintain positive net asset levels and minimum capital requirements, and to comply with the audit requirements of the ASIC.

United Kingdom

Morningstar Investment Management Europe Ltd. is authorized and regulated by the Financial Conduct Authority (FCA) to provide advisory services in the United Kingdom. As an authorized firm, Morningstar Investment Management Europe Ltd. is subject to the requirements and regulations of the FCA. These requirements primarily relate to financial reporting and other reporting obligations, record-keeping, and cross-border requirements.

In addition, Morningstar's index business, as a non-EU administrator of indexes, is seeking recognition from the FCA under the EU benchmarks regulation so that our indexes can continue to be used by EU sponsors of EU investable products (e.g., ETFs). The requirements under the regulation include compliance with International Organization of Securities Commissions' (IOSCO) Principles for Financial Benchmarks and the designation of a "legal representative" which, in our case, is authorized and regulated by the FCA. As a result of Morningstar Investment Management Europe's status with the FCA, it will serve as the index business's "legal representative". As a "legal representative", Morningstar Investment Management Europe Ltd will be responsible for overseeing the administration of the indexes available in the EU. This oversight responsibility includes ensuring the index business's compliance with Article 5 of the regulation, most notably overseeing changes to an index methodology and overseeing the control environment in administering indexes.

France

Morningstar Investment Consulting France SAS is currently registered as a conseiller en investissement financier (CIF) providing only non-discretionary investment advisory services to French domiciled financial institutions. As a CIF, Morningstar Investment Consulting France SAS does not benefit from Markets in Financial Instruments Directive's (MiFID) EU passport rights (i.e., the ability to provide investment advisory services outside of one's home country).

As part of our strategy around the departure of the United Kingdom from the European Union (Brexit), Morningstar Investment Consulting France is currently seeking authorization from the Autorité de Contrôle Prudentiel et de Résolution (ACPR) to conduct business under the Directive 2014/65/CE (MiFID II) and be regulated as an investment firm (entreprise d'investissement) by the ACPR. If granted, Morningstar Investment Consulting France SAS will be able to provide investment advisory services (both on a discretionary or non-discretionary basis) to those EU institutional clients currently being serviced by Morningstar Investment Management Europe. As an investment firm under MiFID II, Morningstar Investment Consulting France SAS will be subject to the requirements and regulations of MiFID II and ACPR which include capital requirements, financial reporting and other reporting obligations, record-keeping, and cross-border requirements.

Other Regions

We have a variety of other entities (including in Canada, France, Hong Kong, India, Japan, Singapore, and South Africa) that are registered with their respective regulatory bodies; however, the amount of business conducted by these entities related to the registration is relatively small.

Credit Ratings

United States

DBRS Morningstar's U.S. credit rating entity, DBRS, Inc., is registered with the SEC as a Nationally Recognized Statistical Rating Organization (NRSRO) and is authorized to rate classes of credit ratings in structured finance instruments, corporate credit issuers, sovereign entities, insurance companies, and financial institutions. As an NRSRO, DBRS, Inc. is subject to certain requirements and regulations under the Exchange Act. These requirements relate to record-keeping, reporting, governance, and conflicts of interest. As part of its NRSRO registration, DBRS, Inc. is subject to annual examination by the SEC. DBRS, Inc.'s affiliated rating agencies, DBRS Limited, DBRS Ratings Limited, DBRS Ratings GmbH, and Morningstar Credit Ratings, LLC, are each also registered with the SEC as credit rating affiliates of DBRS, Inc.

Canada

DBRS Morningstar's Canadian credit rating entity, DBRS Limited, is registered as a Designated Rating Organization (DRO) in Canada with the Ontario Securities Commission (OSC) as its principal regulator. DBRS Limited provides independent credit rating services in structured finance instruments, corporate credit issuers, governments, insurance companies, and financial institutions. As a DRO, DBRS Limited is subject to certain requirements and regulations under National Instrument 25-101. These requirements relate to record-keeping, reporting, governance, and conflicts of interest. As part of its DRO registration, DBRS Limited is subject to examination by the OSC. DBRS Limited's affiliated rating agencies, DBRS, Inc., DBRS Limited, DBRS Ratings Limited, and DBRS Ratings GmbH, are each also registered in Canada as DRO affiliates.

Europe

DBRS Morningstar's credit rating entities located in the U.K. (DBRS Ratings Limited) and Germany (DBRS Ratings GmbH) are registered with the European Securities and Markets Authority (ESMA) as credit rating agencies. They provide independent credit rating services in sovereign and public finance, structured finance, and corporate finance, including financial institutions, corporate credit issuers, and insurance undertakings. As registered credit rating agencies, DBRS Ratings Limited and DBRS Ratings GmbH are subject to certain requirements under Regulation (EC) No 1060/2009, as amended. These requirements relate to record-keeping, reporting, governance, and conflicts of interest.

Employees

We had 6,737 employees globally as of December 31, 2019. Our U.S.-based employees are not represented by any unions, and we have never experienced a walkout or strike.

Information about our Executive Officers

As of March 2, 2020, we had five executive officers. The table below summarizes information about each of these officers.

Name	Age	Position
Joe Mansueto	63	Executive Chairman
Kunal Kapoor	44	Chief Executive Officer
Jason Dubinsky	46	Chief Financial Officer
Bevin Desmond	53	Head of Talent and Culture
Danny Dunn	44	Chief Revenue Officer

Joe Mansueto

Joe Mansueto founded Morningstar in 1984 and served as our chief executive officer from 1984 to 1996 and again from 2000 to 2016. In 2017, he became executive chairman. In September 2019, Mansueto became owner and chairman of Chicago Fire FC, an American professional soccer franchise. Mansueto has served on Morningstar's board of directors since the company's inception.

Under Mansueto's leadership, Morningstar was named twice to *Fortune* magazine's "100 Best Companies to Work For" list, in 2011 and 2012. The *Chicago Tribune* recognized Morningstar as one of the top 100 workplaces in the Chicago area in 2010, 2011, and 2012, and *Crain's Chicago Business* listed Morningstar in its Fast Fifty feature in 2007, 2008, 2009, and 2011. Morningstar won the 2010 AIGA Chicago Chapter Corporate Design Leadership Award, which recognizes forward-thinking organizations that have advanced design by promoting it as a meaningful business policy.

In December 2016, *InvestmentNews* named Mansueto to its list of 20 Icons & Innovators. MutualFundWire.com recognized Mansueto as one of the 10 most influential individuals in the mutual fund industry in 2015, and he was the recipient of Plansponsor's Lifetime Achievement Award in 2013. In 2010, Mansueto received the Tiburon CEO Summit award, MutualFundWire.com named him ninth on its list of the 100 Most Influential People of the year, and *Chicago* magazine listed Mansueto among its top 40 Chicago pioneers over the past four decades. In 2007, *SmartMoney* magazine recognized him in the "SmartMoney Power 30," its annual list of the 30 most powerful forces in business and finance. He received the Distinguished Entrepreneurial Alumnus Award from The University of Chicago Booth School of Business in 2000.

Mansueto holds a bachelor's degree in business administration from The University of Chicago and a master's degree in business administration from The University of Chicago Booth School of Business.

Kunal Kapoor

Kunal Kapoor, CFA, is chief executive officer of Morningstar and a member of Morningstar's board of directors. Before assuming his current role in 2017, he served as president, responsible for product development and innovation, sales and marketing, and driving strategic prioritization across the firm.

Since joining Morningstar in 1997 as a data analyst, Kapoor has held a variety of roles at the firm, including leadership positions in research and innovation. He served as director of mutual fund research and was part of the team that launched Morningstar Investment Services, Inc., before moving on to other roles including director of business strategy for international operations, and later, president and chief investment officer of Morningstar Investment Services. During his tenure, he has also led Morningstar.com and the firm's data business as well as its global products and client solutions group.

Kapoor holds a bachelor's degree in economics and environmental policy from Monmouth College and a master's degree in business administration from The University of Chicago Booth School of Business. He also holds the Chartered Financial Analyst® designation, is a member of the CFA Society of Chicago, and served on the board of PitchBook, a private firm that provides a comprehensive private equity and venture capital database, prior to its acquisition by Morningstar in late 2016. Kapoor is also a member of the board of trustees of The Nature Conservancy in Illinois. In 2010, *Crain's Chicago Business* named him to its annual 40 Under 40 class, a list that includes professionals from a variety of industries who are contributing to Chicago's business, civic, and philanthropic landscape.

Jason Dubinsky

Jason Dubinsky is chief financial officer for Morningstar, responsible for controllership, tax, treasury, internal audit oversight, financial planning and analysis, real estate, procurement, and investor relations.

Before joining Morningstar in 2017, Dubinsky served as senior vice president and chief financial officer of planning and central operations for Walgreens Boots Alliance, Inc. At the pharmacy store chain, he was responsible for accounting and shared service functions for Walgreens' U.S. operations and led the financial planning and analysis function for the global business. Prior to the merger of Walgreens and Alliance Boots in 2014, he was Walgreens' vice president of finance and treasurer, with responsibility for business unit finance, treasury operations, risk management, and investor relations. Before joining Walgreens in 2009, he served as vice president of investment banking at Goldman Sachs and Lehman Brothers, where he led mergers and acquisitions and corporate finance activity for clients across various industries.

Dubinsky holds a bachelor's degree in business administration from the University of Michigan and a master's degree in business administration from New York University's Stern School of Business.

Bevin Desmond

Bevin Desmond is head of talent and culture, a role she has held since 2010. She is responsible for overseeing talent and culture for all of Morningstar's global operations. She also oversees both quality and transformation as well as data and development centers.

Desmond joined Morningstar in 1993 and was one of three employees who started the company's international business in the late 1990s. From 1999 to 2000, she served as manager of all international ventures. From 2000 to 2008, Desmond was president of Morningstar's international operations. She has also served as president of institutional software. Previously, Desmond was head of global markets from 2010 to 2017 and head of international operations from 2001 until 2010.

Desmond holds a bachelor's degree in psychology from St. Mary's College.

Danny Dunn

Danny Dunn is chief revenue officer for Morningstar. He is responsible for sales philosophy, strategy, and execution to drive revenue growth.

Before joining Morningstar in 2016, Dunn was vice president of the Midwest enterprise unit for IBM, a global information technology firm. He was responsible for marketing, strategy, sales, channels, and customer service for the complete IBM portfolio, including Cloud, Software, Services, Systems, and IBM Credit, LLC in the region. Prior to that, he was regional director for IBM's Chicago enterprise unit in 2013 and 2014, territory director for IBM's Wisconsin business unit from 2011 until June 2013, and territory sales leader for IBM Global Services from 2009 until July 2011. Before joining IBM in 2007, he led sales, account management, and client service at Neology, a software and technology consulting division of SmithBucklin Corp.

Dunn holds a bachelor's degree from the University of Vermont and a master's degree in business administration, with concentrations in marketing, strategy, and managerial economics, from the Kellogg School of Management at Northwestern University.

Company Information

We were incorporated in Illinois on May 16, 1984. Our corporate headquarters is located at 22 West Washington Street, Chicago, Illinois, 60602.

We maintain a corporate website at <http://www.morningstar.com/company>. Shareholders and other interested parties may access our investor relations website at <http://shareholders.morningstar.com>, which we use as a primary channel for disclosing

key information to our investors, some of which may contain material and previously non-public information. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to any of these documents are available free of charge on this site as soon as reasonably practicable after the reports are filed with or furnished to the SEC. We also post quarterly press releases on our financial results and other documents containing additional information related to our company on this site. We provide this website and the information contained in or connected to it for informational purposes only. That information is not part of this report.

Item 1A. Risk Factors

You should carefully consider the risks described below and all of the other information included in this Form 10-K when deciding whether to invest in our common stock or otherwise evaluating our business. If any of the following risks materialize, our business, financial condition, or operating results could suffer. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment. Our operations could also be affected by other risks that are not presently known to us or that we currently consider to be immaterial to our operations.

Our investment management operations may subject us to liability for any losses that result from a breach of our fiduciary duties.

Three of our subsidiaries, Morningstar Investment Management LLC, Morningstar Investment Services LLC, and Morningstar Research Services LLC, are registered as investment advisors with the SEC under the Advisers Act. As Registered Investment Advisors, these companies are subject to the requirements and regulations of the Advisers Act. These requirements primarily relate to record-keeping, reporting, and standards of care, as well as general anti-fraud prohibitions. The fiduciary duties of a Registered Investment Adviser to its clients include an obligation of good faith and full and fair disclosure of all facts material to the client's engagement of the advisor, an obligation to provide investment advice suitable for the particular client, an obligation to have a reasonable, independent basis for investment recommendations, an obligation when directing client brokerage transactions to seek the best execution thereof, and an obligation to vote client proxies in the best interests of the client. As Registered Investment Advisors, these subsidiaries are subject to on-site examination by the SEC.

In addition, in cases where these subsidiaries provide investment advisory services to retirement plans and their participants, they may be acting as fiduciaries under the Employee Retirement Income Security Act of 1974. As fiduciaries under ERISA, they have obligations to act in the best interest of their clients. They also have duties of loyalty and prudence, as well as duties to diversify investments and to follow plan documents to comply with the applicable portions of ERISA.

Our subsidiaries outside the U.S. that have investment advisory operations are subject to similar requirements.

We may face liabilities for actual or claimed breaches of our fiduciary duties, particularly in areas where we provide retirement advice and managed retirement accounts. In some of our retirement contracts, we act as an ERISA fiduciary by, for example, selecting and monitoring a broad range of diversified plan options. We also provide a managed account service for retirement plan participants who elect to have their accounts managed by our programs. Such activities have been the subject of increasing class action litigation in recent years. For example, in 2017, a participant in a pension plan filed a putative class action proceeding against us alleging that we, together with other defendant parties, violated the Racketeer Influenced and Corrupt Organizations Act by allegedly engaging in actions to steer plan participants into high-cost investments that pay unwarranted fees to the defendants. Our motion to dismiss that proceeding was granted, but there can be no assurance that other putative class action proceedings based on the same or other legal theories may not be brought against us in different contexts or, if brought, will be successfully dismissed. As of December 31, 2019, we had \$74.8 billion in assets under management in our managed retirement accounts. We could face substantial liabilities related to our management of these assets.

We rely on automated investment technology for our retirement advice and managed retirement accounts services. The Wealth Forecasting Engine is our core advice and managed accounts engine that determines appropriate asset allocations for retirement plan participants and assigns individuals to portfolios. We also rely on automated portfolio construction tools. Problems could arise if these programs do not work as intended, particularly if we failed to detect program errors over an extended period. Clients may take legal action against us for an actual or claimed breach of a fiduciary duty. If we make an error, we may be subject to

potentially large liabilities for make-whole payments and/or litigation. We cannot quantify the potential size of these liabilities with any level of precision.

In addition, we may face other legal liabilities based on other theories of liability relating to various substantive requirements of the Advisers Act and other federal and state securities laws, even in the absence of an actual or claimed breach of fiduciary duty. In total, we provided investment advisory and management services on approximately \$232.9 billion in assets as of December 31, 2019. We could face substantial liabilities related to our work on these assets.

Failing to maintain and protect our brand, independence, and reputation may harm our business. Our reputation and business may also be harmed by allegations made about possible conflicts of interest or by other negative publicity or media reports.

We believe that our brand is well recognized and highly regarded at both a corporate and product level among key decision makers at purchasers and users of our products and services. We also believe independence is at the core of our brand and business, and our reputation is our greatest corporate asset. We rely on our reputation for integrity and high-caliber products and services as a competitive advantage. Any failure to uphold our high ethical standards and ensure that our customers have a consistently positive experience with us could damage our reputation, either as an objective, honest, and credible source for investment and credit research and information or as a trusted solutions provider to our asset management and investment advisory customers, or both. Allegations of improper conduct, whether the ultimate outcome is favorable or unfavorable to us, as well as negative publicity or media reports about Morningstar, whether valid or not, may harm our reputation and damage our business. In addition, any failures by us to continue to instill effectively in our employees the non-negotiable expectation of independence and integrity may devalue our reputation over time.

As our business has evolved, we have entered into lines of business and business arrangements that may give rise to allegations of conflicts of interest or perceived failures of our independence. We provide ratings, analyst research, and investment recommendations on mutual funds and other investment products offered by our institutional clients. While we don't charge asset management firms for their products to be rated, we do charge licensing fees for the use of our ratings. We also provide investment advisory and investment management services, including through our own series of mutual funds, which exposes us to the claim that we are acting as both a referee and a player in the investment management industry. In our credit rating business, which we recently significantly expanded through the purchase of DBRS, we are subject to an issuer-pay business model under which we receive payments from issuers for our credit ratings rather than from the investors who consume such ratings. These payments may create the perception that our credit ratings and research are not independently determined or reliable.

Our reputation may also be harmed by factors outside of our control, such as news reports about our clients or adverse publicity about certain investment and ratings products. Our reputation could also suffer if we fail to produce competitive performance in our investment management offerings.

We could face significant reputational and financial consequences relating to cybersecurity and the protection of confidential information, including personal information about individuals.

Our business requires that we securely collect, process, store, and transmit confidential information, including personal information, relating to our operations, customers, employees, and other third parties. We continuously invest in systems, processes, controls, and other security measures to guard against the risk of improper access to or release of such information. However, these measures do not guarantee absolute security, and improper access to or release of confidential information may still occur through employee error or malfeasance, system error, other inadvertent release, failure to properly purge and protect data, or cyberattack.

We may suffer malicious attacks by individuals or groups (including those sponsored by nation-states, terrorist organizations or global corporations seeking to illicitly obtain technology or other intellectual property) seeking to attack our products and services or penetrate our network infrastructure to gain access to confidential information, including personal information, or to launch or coordinate distributed denial of service attacks. While we have dedicated resources responsible for maintaining appropriate levels of cybersecurity and implemented systems and processes intended to help identify cyberattacks and protect and remediate our network infrastructure, these attacks have become increasingly frequent, sophisticated, and difficult to detect. Our measures may not be adequate for all eventualities and may be vulnerable to circumvention of security systems, denial-of-service attacks or other cyber-attacks, hacking, “phishing” attacks, computer viruses, ransomware or malware, employee or insider error, employee or vendor malfeasance, social engineering, physical breaches or other malicious actions.

Recent well-publicized security breaches at other companies have led to enhanced government and regulatory scrutiny of the measures taken by companies to protect against cyberattacks and may in the future result in heightened cybersecurity requirements, including additional regulatory expectations for oversight of customers, vendors, and service providers. Our information technology systems interact with those of customers, vendors, and service providers. Our contracts with those parties typically require them to implement and maintain adequate security controls but we may not have the ability to effectively monitor the security measures of all our customers, vendors, and service providers. In a number of cases, our customers build and host their own web applications and access our solutions through our APIs. In these cases, additional risks reside in the customer’s system with respect to security and preventive controls. As a result, inadequacies of our customers’ security technologies and practices may only be detected after a security breach has occurred.

Any failure to safeguard confidential information or any material cybersecurity failures or incidents in our systems (or the systems of a customer, vendor, or service provider which stores or processes confidential information for which we are responsible) could cause us to experience reputational harm, loss of customers, regulatory actions, sanctions or other statutory penalties, litigation or financial losses and increased expenses related to addressing or mitigating the risks associated with any such material failures or incidents.

In addition to the risks above related to general confidential information, we may also be subject to specific obligations relating to personal information and personal financial information. Our products and websites, routinely collect, store, process, and transmit personal information about an individual, including personally identifiable information and personal financial information such as portfolio holdings, account numbers, and credit card information. Our business also operates across national borders and routinely moves personal information from one jurisdiction to another. We and our customers are often subject to federal, state, and foreign laws relating to privacy, cybersecurity, and data protection. The scope of the laws that may be applicable is often uncertain and may be inconsistent with laws of other jurisdictions. Consequently, our business is subject to a variety of continuously evolving and possibly conflicting regulations and customer requirements. Our compliance with these changing and increasingly burdensome regulations and requirements may cause us to incur substantial costs or require us to change our business practices which may impact financial results. If we fail to comply with these regulations or requirements we may be exposed to litigation expenses and possible significant liability, fees, or fines. For example, in the EU, the General Data Protection Regulation (GDPR) requirements could result in penalties of up to 4% of worldwide revenues.

Additionally, we make disclosures and statements regarding our use of personal information through our privacy policies and statements through our products and websites as required by privacy or data protection regulation. Failure to comply with our public statements or to adequately disclose our privacy or data protection practices could result in costly investigations by governmental authorities, litigation, and fines as well as reputational damage and customer loss.

We also from time to time acquire other companies that collect and process personal information. While we perform extensive due diligence on the technology systems of these companies, there can be no assurance that such companies have not suffered data breaches or system intrusions prior to or continuing after our acquisition for which we may be liable.

While we maintain insurance coverage that is intended to address certain aspects of cybersecurity and data protection risks, such coverage may not be sufficient to cover all or the majority of the costs, losses, or types of claims. Our insurance coverage would not extend to any reputational damage, loss of customers, or required improvements to our systems.

Failing to differentiate our products and continuously create innovative, proprietary research tools and financial advisor software, or to successfully transition clients to new versions of such tools or software, may harm our competitive position and business results.

We attribute much of our company's success over the past 36 years to our ability to develop innovative, proprietary research tools, such as Gamma, the Morningstar Rating, Morningstar Style Box, Ownership Zone, and Portfolio X-Ray. More recently, we've developed unique concepts and tools such as Investor Pulse, which combines fund data with predictive analytics, our Morningstar Quantitative and Sustainability Ratings for funds, our Global Risk Model, and Goal Bridge, our new financial planning software. We believe these innovations set us apart because many of our competitors focus on providing data or software rather than creating their own proprietary research frameworks. We also believe our ability to develop innovative, proprietary research tools is at the core of what drives Morningstar's value for all of our customer groups. With our financial advisor software products, we believe their functionality embeds them deeply in the advisor's daily workflows, which is a significant competitive advantage.

If we fail to continuously innovate and develop new research or software tools to meet the needs of our customers, our competitive position and business results may suffer. In addition, our reputation could be harmed if we're perceived as not moving quickly enough to meet the changing needs of investors or their financial advisors. These changing needs include a greater reliance on goals-based investing, the increased use of asset allocation portfolio models, and a significant emphasis on financial planning. Clients may also delay purchases of our currently offered research tools and software in anticipation of us offering new products or enhanced versions of existing products. Our competitive position and business results may also suffer if other companies are able to successfully introduce innovative, proprietary research tools and software that gain attention from our clients. We believe lower technology costs, the growth of open software platforms, and cloud computing technologies have lowered the barriers to entry for new competitors, making it easier for new players to enter the market. Smaller companies, including startup firms funded by private equity and venture capital, may be able to move more quickly to develop research, tools and advisor software platforms that gain a wide following.

In addition, the value of our data, research and software tools may be negatively affected by the increasing amount of information and tools that are available for free, or at low cost, through Internet sources or other low-cost delivery systems. Although we believe our products and services contain value-added features and functionality that deeply embed them in our customers' workflows, such developments may over time reduce the demand for, or customers' willingness to pay for, certain of our products and services.

If we fail to introduce innovative, proprietary research tools and frameworks or financial advisor software, we may not generate enough interest from potential clients to win new business. We cannot guarantee that we will successfully develop new product features and tools that differentiate our product offerings from those of our competitors.

In addition, we must make long-term investments and commit significant resources often before knowing whether such investments will result in products or services that satisfy our clients' needs or generate revenues sufficient to justify such

investments. In addition, from time to time, we also incur costs to transition clients to new or enhanced products or services. Such transitions can involve material execution risks and challenges. If we are unable to manage these investments and transitions successfully, our business, financial condition, and results of operations could be materially adversely affected.

Our business, products and facilities are at risk of a number of material disruptive events which our operational risk management and business continuity programs may not be adequate to address.

Our business and major products are dependent on our ability to provide data, software applications, and other products and services on a current and time-sensitive basis. We are at risk of disruptions from numerous factors, including pandemic, violent incident, natural disaster, power loss, telecommunications and internet failures, civil unrest, cybersecurity attacks and breaches, and other events beyond our reasonable control. We are also subject to potential shortcomings in our own business resilience practices, such as failures to fully understand dependencies between different business processes across the locations at which they are performed, inadequate vendor risk assessment and management processes and critical vendor dependencies, concentration of certain critical activities in areas of geopolitical risk or with “single point of failure” employees or employee groups, and possibly ineffective location recovery strategies in the event of a location disruption.

We have approximately 1,750 employees working at our corporate headquarters in Chicago, Illinois. These include most of our executive leadership team, as well as substantial numbers of employees involved in the delivery of most of our major products and services. If our headquarters were to become unusable due to a pandemic, natural disaster, a violent incident, or another dangerous emergency, we might not be able to continue business operations at an acceptable level that would meet all our legal and contractual commitments.

We now have approximately 1,100 employees working in our data and technology development center in Shenzhen, China. We rely on these employees to maintain and update our mutual fund database and work on other projects. Because China has a restrictive government under centralized control and the relationship between the U.S. and China is experiencing a period of increased political, military, trade, and other commercial tensions, our operations are subject to political and regulatory risk, which is inherently unpredictable. Laws and regulations relating to data privacy, security, protection of intellectual property rights, and acceptable telecommunication infrastructure in China, as well as the enforcement environment for such laws and regulations, are in certain cases uncertain and evolving. In addition, this facility is subject from time to time to extreme weather events and has been most recently disrupted by the outbreak of a novel coronavirus which has limited employees’ access to our offices. The concentration of certain types of development and data work carried out at this facility also involves operational risks for parts of our network infrastructure. While we have short-term backup plans in place, it would be difficult for us to maintain and update our mutual fund database if we were unable to access our Shenzhen operations for an extended period of time. Any difficulties that we face in continuing to operate our development center in China may harm our business and have a negative impact on the products and services we provide.

We have approximately 1,800 employees who work at our data collection, technology, and operational center in Mumbai, India. These employees maintain and update our equity database and PitchBook’s data and research operations, and provide shared services to many of our operations. This location is subject to extreme weather events and political unrest, including public protests that can disrupt transportation and make it difficult for employees to commute to and from work. The electrical infrastructure of Mumbai is also subject to more frequent interruptions than are experienced at our other major facilities. In addition, Mumbai has experienced and may in the future experience terrorist attacks. While we have short-term backup plans in place to address such business continuity issues, it would be challenging for us to maintain and update our equity database or continue to provide certain shared services to our worldwide operations if we were unable to access our Mumbai operations for an extended period of time.

We engage third party vendors in several locations, including Colombia, India, and Ukraine who provide contract labor in support of our operations. Each of these locations has experienced various types of geopolitical risks and the labor force at those locations may be subject to instructions from the third party vendors in the case of a disruptive event that might need to take into consideration priorities different from our own. Any extended disruptions to our contract operations in these locations would make it difficult for us to meet our operating goals.

Failing to respond to technological change, keep pace with new technology developments, or adopt a successful technology strategy may negatively affect our competitive position and business results.

We believe the technology landscape has been changing at an accelerating rate over the past several years. Changes in technology are fundamentally changing the ways investors access data and content. Examples include the shift from local network computing to cloud-based systems, the proliferation of wireless mobile devices, rapid acceleration in the use of social media platforms, the dissemination of data through application programming interfaces that permit real-time updating rather than raw data feeds, and the proliferation of machine learning and other artificial intelligence technologies. In addition, there has been an increasing focus on technology not merely supplying additional tools for users, but also offering solutions to specific client problems.

Our software development process is based on frequently rolling out new features so that we can quickly incorporate user feedback. While some changes in technology may offer opportunities for Morningstar, we cannot guarantee that we will successfully adapt our product offerings to meet evolving customer needs. If we fail to develop and implement new technology rapidly enough, we may sacrifice new business opportunities or renewals from existing customers. We may also incur additional operating expense if major software projects take longer than anticipated. Our technology is also heavily dependent on the quality and comprehensiveness of our data and our ability to successfully build analytics, research, and other intellectual property around that data. We are investing significant resources in consolidating our various data assets and improving their usability and deliverability across our platform of products. Our competitive position and business results may suffer if we fail to develop new technologies to meet client demands, if our execution speed is too slow, if we adopt a technology strategy that doesn't align with changes in the market, or if we fail to realize the value and potential of our data assets.

Compliance failures, regulatory action, or changes in laws applicable to our investment advisory or credit ratings operations could adversely affect our business.

Our investment management operations are a growing part of our overall business. The securities laws and other laws that govern our investment advisory activities are complex. The activities of our investment advisory operations in the U.S. are subject to provisions of the Advisers Act, ERISA, and, in the case of our advisory relationship with the Morningstar Funds Trust, the Investment Company Act of 1940 and the Commodity Exchange Act. In addition, Morningstar Investment Services is a broker/dealer registered under the Exchange Act and is subject to the rules of FINRA. We also provide investment advisory services in other areas around the world, and our operations are subject to additional regulations in markets outside the U.S. If we fail to comply with securities laws and other regulatory requirements, we may be subject to fines or other events that could have a negative effect on our business.

In addition, subject to the outcome of the negotiations between the U.K. and the EU to govern their future relationship following Brexit, our investment management operations in the United Kingdom are reasonably likely to lose their "passporting" permissions that permit them to conduct business in other European jurisdictions based on their supervision by the FCA. The prospect of such a loss of permissions is already requiring us to restructure our European investment management operations through the application of our French investment advisory subsidiary, Morningstar Investment Consulting France SAS, for authorization from the ACPR to conduct business under the Directive 2014/65/CE (MiFID II) and be regulated as an investment firm

(entreprise d'investissement) by the ACPR. If such authorization is granted, Morningstar Investment Consulting France SAS will be able to provide investment advisory services (both on a discretionary or non-discretionary basis) to those EU institutional clients currently being serviced by Morningstar Investment Management Europe. We expect this restructuring to have a number of adverse effects in relation to cost structure, duplication of functions and operating expense. Similarly, prior to our acquisition of DBRS, DBRS also created and registered with ESMA, a separate Germany-based credit rating agency, in order to ensure continuity of its EU business. This effort required substantial time and expense, including the relocation of various employees, and will increase the complexity of credit rating activities in Europe to the extent regulation between the U.K. and the EU begins to diverge.

In 2019, we acquired DBRS, the world's fourth largest credit rating agency, for \$669 million, and have been combining it with our legacy credit ratings business under the name DBRS Morningstar. DBRS Morningstar operates in a highly regulated environment in Canada, the U.S., and the EU. The laws and regulations governing credit ratings impose substantial ongoing compliance obligations and costs and subject DBRS Morningstar to regular regulatory examinations and occasional investigations, sometimes relating the credit ratings industry as a whole. In operating under these laws and regulations, DBRS Morningstar can experience good faith uncertainty over the scope, interpretation, and administration of such laws and regulations. In addition, differences between the laws and rules governing credit rating agencies in Canada, the U.S., and the EU can result in inconsistent regulatory requirements that it may not be possible to reconcile in a cost-efficient manner for a credit rating agency of DBRS Morningstar's size.

New laws and regulations may also affect the day-to-day operation of the business of DBRS Morningstar, its customers, and users of its credit ratings, including by imposing new or expanded requirements on such matters as communications with issuers as part of the rating assignment process, the manner in which DBRS Morningstar's ratings are developed and communicated, the manner in which customers may use credit ratings, and other aspects of the business model for credit rating agencies.

Our index business could be negatively affected by increased regulation of benchmarks generally, which could increase the costs and risks of producing and administering indexes. Such regulations may discourage market participants from continuing to use, administer or contribute to indexes, trigger changes in the rules or methodologies relating indexes, and/or lead to declining demand for indexes.

The laws, rules, and regulations, and their interpretations, applicable to our business may change in the future, and we may not be able to comply with these changes without extensive changes to our business practices. In addition, the broad scope of our business operations makes it more difficult to monitor areas that may be subject to regulatory and compliance risk. If we fail to comply with any applicable law, rule, or regulation, we could be fined, sanctioned, or barred from providing investment advisory, credit rating or index services in the future, which could adversely affect our business.

Volatility in the financial sector, global financial markets, and global economy may impact our results, resulting in lower revenue from asset-based fees and credit ratings business, as well as other parts of our business to a lesser extent.

Our business results are partly driven by factors outside of our control, including general economic and financial market trends. Any unfavorable changes in the environment we operate in could cause a corresponding negative effect on our business results. As a result, we may experience lower revenue, operating income, and other financial results in the event of a market downturn.

Many of our customers are asset-management firms and other financial-services companies, which are also subject to external trends and changes. For example, the financial crisis of 2008 and 2009 led to sustained spending cutbacks among many of the companies to which we sell. Some institutional clients implemented additional review processes for new contracts or started

providing certain services, such as investment management, in-house rather than hiring outside service providers. Merger-and-acquisition activity in the financial services sector has in the past, and may in the future, reduce the number of potential clients for our products and services.

Many companies in the financial services industry have also been subject to increasing government regulation and pressure to reduce fees. In turn, many of these firms have sought to reduce their operating costs by working with fewer service providers and/or negotiating lower fees for services they purchase.

In addition, our revenue from asset-based fees may be adversely affected by market declines, cash outflows from portfolios that we help manage, and the industrywide trend toward lower asset-based fees.

In 2019, asset-based revenue made up 18.0% of our consolidated revenue. The amount of asset-based revenue we earn primarily depends on the value of assets on which we provide advisory services, and the size of our asset base can increase or decrease along with trends in market performance.

Asset levels can also be affected if net inflows into the portfolios on which we provide investment advisory services drop or if these portfolios experience redemptions. A drop in net inflows or an increase in redemptions can result from a variety of factors, including overall market conditions and volatility or a decline in investment performance. If the level of assets on which we provide investment advisory or investment management services goes down, we expect our fee-based revenue to show a corresponding decline.

The Morningstar Funds Trust, a registered open-end mutual fund for which Morningstar Investment Management acts as investment advisor under an investment management agreement, had assets under management of approximately \$3.3 billion as of December 31, 2019. The Board of Trustees of the Morningstar Funds Trust must annually approve the terms of the investment management agreement (including fees) and can terminate the agreement upon 60-days' notice. If the Morningstar Funds Trust seeks to lower the fees that we receive or terminate its contract with us, we would experience a decline in fees earned from the Morningstar Funds, which could have a material adverse effect on the revenues and net income of our investment advisory services.

With our acquisition of DBRS, the portion of our revenues that is transaction-based increased to approximately 13.1% for 2019. The credit rating business can be severely impacted by prolonged volatility in U.S. and international financial markets due to its dependence on the number and dollar volume of debt securities issued in the capital markets. Market disruptions and economic slowdowns have in the past, and may in the future, negatively impact the volume of debt securities issued in global capital markets and the demand for credit ratings. Conditions that reduce issuers' ability or willingness to issue debt securities, such as market volatility, declining growth, currency devaluations, or other adverse economic trends, reduce the number and value of debt issuances for which we provide credit ratings services and thereby adversely affect the fees we earn in our credit ratings business. Future debt issuances also could be negatively affected by increases in interest rates, widening credit spreads, regulatory and political developments, growth in the use of alternative sources of credit, and defaults by significant issuers. Our ability to reduce costs in the event of such adverse developments can be negatively impacted by, among other things, our obligations to monitor and maintain outstanding ratings. Declines or other changes in the markets for debt securities may materially and adversely affect our business, operating results, and financial condition.

Our transactional business results may also be hurt by negative trends in Internet advertising sales, which made up 1.9% of consolidated revenue in 2019. Many advertisers have shifted some of their advertising spend to programmatic buying platforms

that target users on other sites, which has from time to time had a negative effect on advertising revenue for our website for individual investors, Morningstar.com. We are uncertain whether this trend will continue.

Our PitchBook business may also be subject to cyclical trends. Many of PitchBook's clients are investment banks and other participants in the capital and merger and acquisition markets, which are subject to periodic business downturns driven by changes in such markets. During these downturns, they often seek to reduce spending on third-party services as well as the number of employees, which would directly affect the number of prospective clients for PitchBook. As a data and research provider focusing on the private capital markets (including venture capital, private equity, and M&A), PitchBook may also be subject to volatility based on the amount of activity and market interest in these areas.

Our results could suffer if investment strategies and portfolios relying on passively managed funds continue to attract an outsized portion of investor attention and investment, or if the financial industry continues to meaningfully consolidate.

We generate a significant portion of our revenue from products and services related to mutual funds, and part of our growth since 1984 can be attributed to favorable industry trends. A significant portion of our fund research has historically focused on equity-related funds. In addition, we are best-known for our data and analyst research on actively managed equity funds. Over the past 15 years, passively managed index funds have seen greater investor interest, and this trend has accelerated in recent years. Passively managed portfolios generally charge lower management fees than active strategies and lower management fees are a significant factor in investment recommendations of financial advisors and plan sponsors attempting to fulfill their fiduciary duties. However, the ascendance of passive strategies may affect both the profitability of asset managers, on whose success we in part depend, and the perceived value of our research regarding such strategies. In addition, the change in financial advisor activity away from security selection to goals-based asset allocation and portfolio construction and the increasing use of model portfolios, as well as the growth of online wealth management tools that provide automated, algorithm-based portfolio management advice, sometimes called robo-advice, may further reduce demand for our data and analyst research.

The growth of the mutual fund industry is also being affected by merger and acquisition activity within the asset management industry and brokerage and custodial distribution platforms, which is reducing the number of asset managers and platforms offering mutual funds and ETFs, the pruning by some mutual fund and ETF platforms of the number of funds available for purchase, and the continuing impacts of regulation. With respect to regulation, the Markets in Financial Instruments Directive (MiFID II) in the EU, which requires that asset managers pay banks and brokers for investment research, has presented us with new business opportunities, but has also caused some of our clients to adapt their business practices and pricing models significantly to reflect or avoid these new costs, which may adversely affect their demand for our services. Industry consolidation, such as the proposed merger of Charles Schwab and TD Ameritrade, also may reduce demand for our software products that support financial advisers and also gives the combined entities additional pricing power with respect to some of our investment products like Retirement Managed Portfolios.

Prolonged downturns or volatility in the financial markets, increased investor interest in other investment vehicles, or a lack of investor confidence could reduce investor interest and investment activity and decrease demand for our products, including our software, data, and analyst research.

We could face liability for the information and data we collect and distribute or the reports and other documents produced by our software products.

We may be subject to claims for securities law violations, defamation (including libel and slander), negligence, or other claims relating to the information we publish, including our research and credit ratings. For example, investors may take legal action

against us if they rely on published information that contains an error, or a company may claim that we have made a defamatory statement about it or its employees. In addition, in our credit ratings business, we have access to significant amounts of material nonpublic information on issuers of securities, the inadvertent disclosure of which, or the misappropriation by employees or others, could expose us to various liabilities under securities and other laws.

Some of our products support the investment processes or the client account reporting practices and other activities of our clients who manage significant assets of other parties. Use of our products as part of such activities creates the risk that clients, or the parties whose assets are managed by our clients, may pursue claims against us for losses that may have some connection to our products. In the case of software products, even though most of our contracts for such products contain limitations of our liability in such cases, we may be required to make such clients or their customers whole for any losses in order to maintain our business relationships. We could also be subject to claims based on the content that is accessible from our website through links to other websites.

We rely on a variety of outside parties as the original sources for the information we use in our published data. These sources include securities exchanges, fund companies, hedge funds, transfer agents, and other data providers. We also incorporate data from a variety of third-party sources for PitchBook. Accordingly, in addition to possible exposure for publishing incorrect information that results directly from our own errors, we could face liability based on inaccurate data provided to us by others.

We could be subject to claims by providers of publicly available data and information we compile from websites and other sources that we have improperly obtained that data in violation of the source's copyrights or terms of use or based on the provisions of legislation such as GDPR that limit the bases on which businesses can collect personal information from and about individuals. We could also be subject to claims from third parties such as securities exchanges from which we license and redistribute data and information that we have used or redistributed the data or information in ways not permitted by our license rights or that we have inadequately permissioned our clients to use such data. The agreements with such exchanges and other data providers give them extensive data use audit rights, and such audits can be expensive and time consuming and potentially result in substantial fines. Defending claims based on the information we publish could be expensive and time-consuming and could adversely impact our business, operating results, and financial condition.

An outage of our database, technology-based products and services or network facilities could result in reduced revenue and the loss of customers, and our movement of parts of our technological and data infrastructure to the public cloud and other outsourced providers could expose us to various third party provider risks.

The success of our business depends upon our ability to deliver time-sensitive, up-to-date data and information that meets client expectations and contractual requirements. We rely extensively on our computer systems, database storage facilities, and other network infrastructure, which is located across multiple facilities in the U.S. and globally. Our mission-critical databases and networks are complex and interdependent, which increases the risk of failure. Problems in our network systems may lead to cascading effects involving product downtime, overloading of third-party data centers, and other issues that may affect our clients. Many of our client contracts contain service-level agreements that require us to meet certain obligations for delivering time-sensitive, up-to-date data and information. We may not be able to meet these obligations in the event of failure or downtime in our information systems.

Our operations and those of our suppliers and customers are vulnerable to interruption by fire, earthquake, power loss, telecommunications failure, terrorist attacks, wars, computer viruses, and other events beyond our control. Our database and network facilities may also be vulnerable to external attacks that misappropriate our data, corrupt our databases, or limit access to our information systems. To defend against these threats, we implement a series of controls focusing on both prevention and detection, including firewalls, intrusion detection systems, automated scanning and testing, server hardening, antivirus software, training, and patch management. We make significant investments in servers, storage, and other network infrastructure to prevent incidents of network failure and downtime, but we cannot guarantee that these efforts will work as planned.

Most of our products and services depend heavily on our electronic delivery systems and the Internet, although we are shifting the storage of our data and delivery of several of our products and services to cloud-based delivery systems. Our ability to deliver information using the Internet may be impaired because of infrastructure failures, service outages at third-party Internet providers, malicious attacks, or other factors. If disruptions, failures, or slowdowns of our electronic delivery systems or the Internet occur, our ability to distribute our products and services effectively and to serve our customers may be impaired.

We maintain off-site backup facilities for our data, but we cannot guarantee that these facilities will operate as expected during an interruption that affects our primary facility. There may be single points of failure that affect our core databases, data transfer interfaces, or storage area networks. We may not be able to fully recover data or information lost during a database or network facility outage. Any losses, service disruption, or damages incurred by us could have a material adverse effect on our business, operating results, or financial condition.

Our movement of parts of our technological infrastructure to the public cloud and software-as-a-service (SaaS) solutions presents a variety of additional risks, including risks relating to sharing the same computing resources with other users, the use by cloud and SaaS providers of virtualization products and various security issues relating thereto, reliance on cloud and SaaS providers' authentication, authorization and access control mechanisms, a lack of control over cloud and SaaS providers' redundancy systems and fault tolerances, and a reduced ability to directly address client concerns over data security and privacy. Any disruption of or interference with our use of the public cloud or SaaS solutions, or any information security breach at any cloud or SaaS provider, could materially impact our operations and have an adverse effect on our business. We are also currently moving to outsourced technology solutions around our on-premise data centers to better interface with cloud and SaaS platforms and reduce complexity and cost. However, over time, a growing dependence of our technology and data infrastructure on the public cloud and SaaS solutions also risks us becoming overly dependent on particular suppliers, which could adversely affect the pricing we receive from such suppliers and limit our ability to transition away from such suppliers in the event of service-quality issues.

Our acquisitions and other investments may not produce the results we anticipate. We may also incur debt in connection with acquisitions, which may limit our financial flexibility.

We have completed numerous acquisitions over the past 10 years, including our acquisition of DBRS in 2019 for \$669.0 million, and we intend to continue to pursue selective acquisitions to support our business strategy. However, there can be no assurance we can identify suitable acquisition candidates at acceptable prices. In addition, each acquisition presents potential challenges and risks. We may not achieve the growth targets that we established for the acquired business at the time of the acquisition. The process of integration may require more resources than we anticipated. We may assume unintended liabilities or experience operating difficulties or costs that we did not anticipate. We may also fail to retain key personnel of the acquired business which would make it difficult to follow through on our operating goals for the business. If an acquisition does not generate the results we anticipate, it could have a material adverse effect on our business, financial condition, and results of operations.

In connection with certain acquisitions, we have incurred indebtedness. Under our existing credit facility entered into in connection with the DBRS acquisition, we can borrow up to \$750.0 million, \$300.0 million under a revolving credit facility and \$450.0 million under a term loan facility. The term of this facility expires in July 2024. Under the terms of our agreement with the lender, we are subject to certain restrictions and financial covenants, which may limit our financial flexibility. As of December 31, 2019, borrowings in the principal amount of \$513.1 million are outstanding under such facility. While our business has historically generated strong cash flow and interest rates on corporate indebtedness are at historically low levels, our level of indebtedness as of the end of 2019 is significantly higher than it has been in our company's history and our ability to manage our business with such a level of indebtedness is unproven. In addition, our long-term indebtedness currently bears interest at fluctuating interest rates based on the London interbank offered rate (LIBOR) for deposits of U.S. dollars. During 2017, the U.K.'s Financial Conduct

Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. It is not clear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021 or if other regulators, such as the U.S. Federal Reserve, will seek to establish alternative reference rate mechanisms for the calculation of floating interest rates. It is not possible to predict the effect of these changes to LIBOR or the establishment of alternative reference rates on our borrowing costs over time or the availability to us of credit.

We also have, and intend to continue to make, various investments in companies where we do not have or obtain a controlling interest. Such investments are motivated both by their prospective financial return and the access they give us to certain new technologies, products, business ideas and management teams. While we obtain various rights in connection with such investments, the future value of such investments is highly dependent on the management skill of the managers of those companies.

We expect to continue making acquisitions and establishing investments and joint ventures as part of our long-term business strategy. Acquisitions, investments, and joint ventures involve a number of risks. They can be time-consuming and may divert management's attention from day-to-day operations, particularly if numerous acquisitions are in process at the same time. Financing an acquisition could result in dilution from issuing equity securities, reduce our financial flexibility because of reductions in our cash balance, or result in a weaker balance sheet from incurring debt.

Our future success depends on our ability to recruit, develop, and retain qualified employees.

We experience competition for analysts, technology experts, data and software engineers and other employees from other companies and organizations. Competition for these employees is intense, and we may not be able to retain our existing employees or be able to recruit and retain other highly qualified personnel in the future. In addition, we are exposed to overall rising wage scales in the employment markets in which some of our facilities are located, such as our development center in China, which negatively affects our ability to hire personnel generally without significantly increasing our compensation costs. In China, we believe our ability to hire qualified personnel is also being negatively impacted by the preference of job candidates to work for Chinese companies, as opposed to multinationals, in a period of increasing international tensions.

Our future success also depends on the continued service of our executive officers, including Joe Mansueto, our executive chairman and largest shareholder, and Kunal Kapoor, our Chief Executive Officer. The loss of Mansueto, Kapoor, or other executive officers could hurt our business, operating results, or financial condition. We do not have employment agreements, noncompete agreements, or life insurance policies in place with any of our executive officers. They may leave us and work for our competitors or start their own competing businesses.

Our operations outside of the U.S. involve additional challenges that we may not be able to meet.

Our operations outside of the U.S. generated \$312.6 million in revenue in 2019, or about 27% of our consolidated revenue. There are risks inherent in doing business outside the U.S., including challenges in reaching new markets because of established competitors and limited brand recognition; difficulties in staffing, managing, and integrating non-U.S. operations; difficulties in coordinating and sharing information globally; differences in laws and policies from country to country, including in relation to employment terms and conditions; exposure to varying legal standards, including intellectual property protection laws; potential tax exposure related to transfer pricing and other issues; heightened risk of fraud and noncompliance in some jurisdictions; and currency exchange rates and exchange controls. In addition, new risks have arisen from the assertion by various national governments of greater control over the movements of people and information across national borders. For example, changes to immigration policy in the United Kingdom as a result of Brexit and in the U.S. as a result of the current administration's more restrictive immigration enforcement could adversely affect our ability to attract and retain talent from other countries. In addition,

China's government has backed various measures that could compromise the privacy and security of our proprietary information or information concerning our customers including a ban on nonstate sanctioned virtual private networks and requirements that multinational firms acquire and use equipment from Chinese telecom suppliers. These risks could hamper our ability to expand around the world, which may hurt our financial performance and ability to grow.

We don't engage in currency hedging or have any positions in derivative instruments to hedge our currency risk. Our reported revenue could suffer if certain foreign currencies decline relative to the U.S. dollar, although the impact on operating income may be offset by an opposing currency impact on locally based operating expense.

Failure to protect our intellectual property rights, or claims of intellectual property infringement against us, could harm our brand and ability to compete effectively.

The steps we have taken to protect our intellectual property may not be adequate to safeguard our proprietary information. We rely primarily on patent, trademark, copyright, and trade secret rights, as well as contractual protections and technical safeguards, to protect our intellectual property rights and proprietary information. Despite these efforts, third parties may still attempt to challenge, invalidate, or circumvent our rights or improperly obtain our proprietary information. Further, effective trademark, copyright, and trade secret protection may not be available in every country in which we offer our services. Failure to adequately protect our intellectual property could harm our brand, devalue our proprietary content, and affect our ability to compete in the marketplace.

From time to time, we encounter jurisdictions in which one or more third parties have a pre-existing trademark registration in certain relevant international classes that may prevent us from registering our own marks in those jurisdictions. Our continued ability to use the "Morningstar" name or logo, either on a stand-alone basis or in association with certain products or services, could be compromised in those jurisdictions because of these pre-existing registrations. Similarly, from time to time, we encounter situations in certain jurisdictions where one or more third parties are already using the Morningstar name, either as part of a registered corporate name, a registered domain name, or otherwise. Our ability to effectively market certain products and/or services in those locations could be adversely affected by these pre-existing usages.

We have from time to time been subject to claims by third parties alleging infringement of their intellectual property rights. Such claims can also be alleged against clients, customers, or distributors of our products or services whom we have agreed to indemnify against third party claims of infringement. The defense of such claims can be costly and consume valuable management time and attention. We may be forced to settle such claims on unfavorable terms, which can include the payment of damages, the entry into royalty or licensing arrangements on commercially unfavorable terms, or the suspension of our ability to offer affected products or services. If litigation were to arise from any such claim, there can be no certainty we would prevail in it. If any of these risks were to materialize, it could have a material adverse effect on our business, financial condition, or results of operations.

Control by a principal shareholder could adversely affect our other shareholders.

As of December 31, 2019, Joe Mansueto, our executive chairman, owned approximately 49% of our outstanding common stock. As a result, he has the practical ability to control substantially all matters submitted to our shareholders for approval, including the election and removal of directors and any merger, consolidation, or sale of our assets. This concentration of ownership may delay or prevent a change in control, impede a merger, consolidation, takeover, or other business combination involving Morningstar, discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of the company, or result in actions that may be opposed by other shareholders.

Fluctuations in our operating results may negatively affect our stock price.

We believe our business has relatively large fixed costs and low variable costs, which magnify the impact of revenue fluctuations on our operating results. As a result, a decline in our revenue may lead to a larger decline in operating income. In addition, because we manage our business with a long-term perspective, we generally don't make significant adjustments to our strategy or cost structure in response to short-term factors. As a result, our operating results may suffer in the short term. In addition, we do not provide earnings guidance or hold one-on-one meetings with institutional investors and research analysts. Because of this policy and limited analyst coverage on our stock, our stock price may not always reflect the intrinsic value of our business and assets. If our operating results or other operating metrics fail to meet the expectations of outside research analysts and investors, the market price of our common stock may decline.

The future sale of shares of our common stock may negatively affect our stock price.

If our significant shareholders sell substantial amounts of our common stock, the market price of our common stock could fall. A significant reduction in ownership by Joe Mansueto or any other large shareholder could cause the market price of our common stock to fall. In addition, the average daily trading volume in our stock is relatively low. The lack of trading activity in our stock may lead to greater fluctuations in our stock price. Low trading volume may also make it difficult for shareholders to make transactions in a timely fashion.

Item 1B. Unresolved Staff Comments

We do not have any unresolved comments from the Staff of the SEC regarding our periodic or current reports under the Exchange Act.

Item 2. Properties

As of February 14, 2020, we leased approximately 563,000 square feet of office space for our U.S. operations, primarily for our corporate headquarters located in Chicago, Illinois. We also lease another 573,000 square feet of office space in 26 other countries around the world, including approximately 158,000 square feet in Mumbai, India and 121,000 square feet in Shenzhen, China. We believe that our existing and planned office facilities are adequate for our needs and that additional or substitute space is available to accommodate growth and expansion.

Item 3. Legal Proceedings

We incorporate by reference the information regarding legal proceedings set forth in Note 16 of the Notes to our Consolidated Financial Statements contained in Part II, Item 8 of this report.

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

Our common stock is listed on the Nasdaq Global Select Market under the symbol "MORN".

As of February 14, 2020, there were 805 shareholders of record of our common stock.

We paid four dividends during 2019. In the fourth quarter of 2019, we increased our quarterly cash dividend from 28 cents per share to 30 cents per share. While subsequent dividends will be subject to board approval, we expect to pay a regular quarterly dividend of 30 cents per share in 2020.

Any determination to pay dividends in the future will be at the discretion of our board of directors and will be dependent upon our results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law, and other factors deemed relevant by the board of directors. Future indebtedness and loan facilities could also prohibit or restrict our ability to pay dividends and make distributions to our shareholders.

Issuer Purchases of Equity Securities

Subject to applicable law, we may repurchase shares at prevailing market prices directly on the open market or in privately negotiated transactions in amounts that we deem appropriate.

We have an ongoing authorization, most recently approved by the board of directors on December 8, 2017, to repurchase up to \$500.0 million in shares of the company's outstanding common stock. The authorization expires on December 31, 2020.

The following table presents information related to repurchases of common stock we made during the three months ended December 31, 2019:

Period:	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced programs	Approximate dollar value of shares that may yet be purchased under the programs
October 1, 2019 - October 31, 2019	—	\$ —	—	474,439,476
November 1, 2019 - November 30, 2019	—	—	—	474,439,476
December 1, 2019 - December 31, 2019	—	—	—	474,439,476
Total	—	—	—	

Rule 10b5-1 Sales Plans

Our directors and executive officers may exercise stock options or purchase or sell shares of our common stock in the market from time to time. We encourage them to make these transactions through plans that comply with Exchange Act Rule 10b5-1(c). Morningstar will not receive any proceeds, other than proceeds from the exercise of stock options, related to these transactions. The following table, which we are providing on a voluntary basis, shows the Rule 10b5-1 sales plans entered into by our directors and executive officers that were in effect as of February 1, 2020:

Name and Position	Date of Plan	Plan Termination Date	Number of Shares to be Sold under the Plan	Timing of Sales under the Plan	Number of Shares Sold under the Plan through February 1, 2020	Projected Beneficial Ownership (1)
Cheryl Francis Director	11/1/2019	5/29/2020	—(2)	Shares to be sold under the plan upon exercise of option	—	28,774(3)
Steven Kaplan Director	7/31/2019	8/27/2020	2,316	Shares to be sold under the plan if the stock reach specified prices	—	44,208
Joe Mansueto Executive Chairman	11/26/2018	4/30/2020	1,600,000	Shares to be sold under the plan if the stock reach specified prices	1,200,000	20,814,144
Joe Mansueto Executive Chairman	11/5/2019	4/30/2021	1,600,000	Shares to be sold under the plan if the stock reaches specified prices beginning May 1, 2020	—	19,214,144
Caroline Tsay Director	8/6/2019	11/15/2020	964	Shares to be sold under the plan if the stock reaches specified prices	—	1,696

During the fourth quarter of 2019, the previously disclosed Rule 10b5-1 sales plan for Bevin Desmond and Gail Landis completed in accordance with their respective terms.

(1) This column reflects an estimate of the number of shares each identified director and executive officer will beneficially own following the sale of all shares under the Rule 10b5-1 sales plan. This information reflects the beneficial ownership of our common stock on December 31, 2019 and includes shares of our common stock subject to options that were then exercisable or that will have become exercisable by February 29, 2020 and restricted stock units that will vest by February 29, 2020. The estimates do not reflect any changes to beneficial ownership that may have occurred since December 31, 2019. Each director and executive officer identified in the table may amend or terminate his or her Rule 10b5-1 sales plan and may adopt additional Rule 10b5-1 plans in the future.

(2) The number of shares to be sold under this plan is equal to the number of shares necessary to pay the exercise price under an option for 2,316 shares, in the aggregate amount of \$132,660.48.

(3) Assumes the sale of 846 shares under the plan, based on the closing price per share of common stock of \$156.89 on January 31, 2020. The actual number of shares to be sold under the plan, and the resulting beneficial ownership, will depend on the actual sale price on the date of sale.

Item 6. Selected Financial Data

The selected historical financial data shown below should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements and related notes included elsewhere in this report. We have derived our Consolidated Statements of Income Data and Consolidated Cash Flow Data for the years ended December 31, 2019, 2018, and 2017 and Consolidated Balance Sheet Data as of December 31, 2019 and 2018 from our audited Consolidated Financial Statements included elsewhere in this report. The Consolidated Statements of Income Data and Consolidated Cash Flow Data for the years ended December 31, 2016 and 2015 and Consolidated Balance Sheet Data as of December 31, 2017, 2016, and 2015 were derived from our audited Consolidated Financial Statements that are not included in this report.

Consolidated Statements of Income Data

(in millions except per share amounts)	2019	2018	2017	2016	2015
Revenue	\$ 1,179.0	\$ 1,019.9 (1)	\$ 911.7	\$ 798.6	\$ 788.8
Operating expense	989.4	804.1	741.9	617.8	598.2
Operating income	189.6	215.8 (1)	169.8	180.8	190.6
Non-operating income, net	8.9 (2)	17.1 (2)	11.3 (2)	44.1	3.1
Income before income taxes and equity in net income (loss) of unconsolidated entities	198.5	232.9	181.1	224.9	193.7
Equity in net income (loss) of unconsolidated entities	(0.9)	(2.1)	(1.3)	(0.2)	1.8
Income tax expense	45.6	47.8	42.9	63.7	62.7
Consolidated net income	152.0	183.0	136.9	161.0	132.8
Net income attributable to noncontrolling interests	—	—	—	—	(0.2)
Net income attributable to Morningstar, Inc.	\$ 152.0	\$ 183.0	\$ 136.9	\$ 161.0	\$ 132.6

Net income per share attributable to Morningstar, Inc.:

Basic:	\$ 3.56	\$ 4.30	\$ 3.21	\$ 3.74	\$ 3.00
Diluted:	\$ 3.52	\$ 4.25	\$ 3.18	\$ 3.72	\$ 3.00
Dividends per common share:					
Dividends declared per common share	\$ 1.14	\$ 1.03	\$ 0.94	\$ 0.89	\$ 0.79
Dividends paid per common share	\$ 1.12	\$ 1.00	\$ 0.92	\$ 0.88	\$ 0.76
Weighted average common shares outstanding:					
Basic	42.7	42.6	42.7	43.0	44.2
Diluted	43.2	43.0	43.0	43.3	44.3

Consolidated Cash Flow Data

(in millions)	2019	2018	2017	2016	2015
Cash provided by operating activities	\$ 334.4	\$ 314.8 (1)	\$ 250.1	\$ 213.7	\$ 241.5
Capital expenditures	(80.0)	(76.1)	(66.6)	(62.8)	(57.3)
Free cash flow (3)	\$ 254.4	\$ 238.7 (1)	\$ 183.5	\$ 150.9	\$ 184.2
Cash used for investing activities (4)	\$ (746.3)	\$ (49.9)	\$ (60.8)	\$ (274.2)	\$ (79.5)
Cash provided by (used for) financing activities (5)	\$ 373.7	\$ (188.8)	\$ (157.5)	\$ 123.7	\$ (127.5)

Consolidated Balance Sheet Data

As of December 31 (in millions)	2019	2018	2017	2016	2015
Cash, cash equivalents, and investments	\$ 367.5	\$ 395.9	\$ 353.3	\$ 304.0	\$ 248.6
Working capital	107.4	238.8	206.6	177.1	105.5
Total assets	2,370.9	1,453.8	1,405.7	1,350.9	1,029.0
Deferred revenue (6)	282.3	210.0	185.5	179.5	152.0
Long-term liabilities	791.5 (7)	156.3 (7)	277.6 (7)	359.2 (7)	84.0
Total equity	1,083.6	934.7	804.9	696.8	640.6

(1) Revenue, operating income, and free cash flow in 2018 includes a \$10.5 million revenue benefit related to an amended license agreement and a corresponding favorable cash impact.

(2) Non-operating income in 2017 included a \$16.7 million gain related to the sale of HelloWallet. Non-operating income in 2018 included a \$10.5 million gain related to the sale of our 15(c) board consulting services product line. Non-operating income in 2019 included a \$19.5 million gain on the sale of our equity ownership in one of our unconsolidated entities.

(3) Free cash flow is considered a non-GAAP financial measure under SEC regulations. We present this measure as supplemental information to help investors better understand trends in our business results over time. Our management team uses free cash flow to evaluate our business. Free cash flow is not equivalent to any measure required to be reported under GAAP, nor should this data be considered an indicator of liquidity. Moreover, the free cash flow definition we use may not be comparable to similarly titled measures reported by other companies.

(4) Cash used for investing activities consists primarily of cash used for acquisitions, purchases of investments, net of proceeds from the sale of investments, capital expenditures, purchases of equity and cost-method investments, and proceeds from the sale of businesses, product lines, and equity investments. The level of investing activities can vary from period to period depending on the level of activity in these categories. Refer to Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources for more information concerning cash used for investing activities.

(5) Cash provided by (used for) financing activities consists primarily of cash used to make repayments on our credit facility, repurchase outstanding common stock through our share repurchase program, and dividend payments. These cash outflows are partially offset by proceeds from our revolving credit facility and stock option exercises. Refer to Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources for more information related to cash used for financing activities.

(6) We frequently invoice or collect cash in advance of providing services or fulfilling subscriptions for our customers and record these balances as deferred revenue. These amounts represent both current and non-current deferred revenue.

(7) Long-term liabilities in 2016, 2017, 2018, and 2019 include \$250.0 million, \$180.0 million, \$70.0 million, and \$502.1 million of long-term debt, respectively.

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

The discussion included in this section, as well as other sections of this report, contains forward-looking statements as that term is used in the Private Securities Litigation Reform Act of 1995. These statements are based on our current expectations about future events or future financial performance. Forward-looking statements by their nature address matters that are, to different degrees, uncertain, and often contain words such as "may," "could," "expect," "intend," "plan," "seek," "anticipate," "believe," "estimate," "predict," "potential," or "continue." These statements involve known and unknown risks and uncertainties that may cause the events we discuss not to occur or to differ significantly from what we expect. For us, these risks and uncertainties include, among others:

- ▷ *liability for any losses that result from an actual or claimed breach of our fiduciary duties;*
- ▷ *failing to maintain and protect our brand, independence, and reputation;*
- ▷ *liability related to cybersecurity and the protection of confidential information, including personal information about individuals;*
- ▷ *failing to differentiate our products and continuously create innovative, proprietary research tools and financial advisor software;*
- ▷ *inadequacy of our operational risk management and business continuity programs in the event of a material disruptive event;*
- ▷ *failing to respond to technological change, keep pace with new technology developments, or adopt a successful technology strategy;*
- ▷ *compliance failures, regulatory action, or changes in laws applicable to our investment advisory or credit ratings operations;*
- ▷ *volatility in the financial sector, global financial markets, and global economy and its effect on our revenue from asset-based fees and credit ratings business;*
- ▷ *trends in the asset management industry, including the increasing adoption of investment strategies and portfolios relying on passively managed investment vehicles and increased industry consolidation;*
- ▷ *liability relating to the collection or distribution of information and data we collect and produce, or errors included therein;*
- ▷ *an outage of our database, technology-based products and services, or network facilities or the movement of parts of our technology and data infrastructure to the public cloud and other outsourced providers;*
- ▷ *the failure of acquisitions and other investments to be efficiently integrated and produce the results we anticipate;*
- ▷ *the failure to recruit, develop, and retain qualified employees;*
- ▷ *challenges faced by our non-U.S. operations, including the concentration of data and development work at our offshore facilities in China and India; and*
- ▷ *the failure to protect our intellectual property rights or claims of intellectual property infringement against us.*

A more complete description of these risks and uncertainties can be found in Item 1A—Risk Factors of this report. If any of these risks and uncertainties materialize, our actual future results may vary significantly from what we expect. We do not undertake to update our forward-looking statements as a result of new information or future events.

This section includes comparisons of certain 2019 financial information to the same information for 2018. Year-to-year comparisons of the 2018 financial information to the same information for 2017 can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

All dollar and percentage comparisons, which are often accompanied by words such as “increase,” “decrease,” “grew,” “declined,” “was up,” “was down,” “was flat,” or “was similar” refer to a comparison with the prior year unless otherwise stated.

Understanding Our Company

Key Business Characteristics

We offer an extensive line of products and services for individual investors, financial advisors, asset managers, retirement plan providers and sponsors, and institutional investors and other participants in the private capital markets. Many of our products are sold through subscriptions or license agreements. As a result, we typically generate recurring revenue.

Revenue

We generate revenue by selling a variety of investment-related products and services. We sell many of our products and services, including Morningstar Data, Morningstar Advisor Workstation, Morningstar Direct, and PitchBook, through license agreements. Our license agreements typically range from one to three years. We sell some of our other products, such as Premium Membership service on Morningstar.com, via subscriptions. These subscriptions are mainly offered for a one-year term, although we offer terms ranging from one month to three years.

Our investment management products have multiple fee structures, which vary by client and region. In general, we seek to receive asset-based fees for any work we perform that involves managing investments or acting as a subadvisor to investment portfolios. For any individual contract, we may receive flat fees, variable asset-based fees, or a combination of the two. Some of our contracts include minimum fee levels that provide us with a flat payment up to a specified asset level, above which we also receive variable asset-based fees. In the majority of our contracts that include variable asset-based fees, we bill clients quarterly in arrears based on average assets for the quarter. Other contracts may include provisions for monthly billing or billing based on assets as of the last day of the billing period rather than on average assets.

In our Workplace Solutions area, our contracts may include one-time setup fees, technology licensing fees, asset-based fees for managed retirement accounts, fixed and variable fees for advice and guidance, or a combination of these fee structures. We also offer plan sponsor advice and custom target-date consulting arrangements. Fees for these services may be based on the level of assets under advisement.

We also generate transaction-based revenue, primarily from DBRS Morningstar and including the sale of advertising on our websites and sponsorship of conferences. For the six months ended December 31, 2019, approximately 63% of the revenue generated by DBRS Morningstar came from one-time, transaction-based fees driven by our provision of ratings on newly-issued securities; whereas the remainder can be classified as transaction-related, with recurring annual fees tied to surveillance, credit research, or other services.

Deferred Revenue

We invoice some of our clients and collect cash in advance of providing services or fulfilling subscriptions for our customers. Deferred revenue totaled \$282.3 million (of which \$250.1 million was classified as a current liability with an additional \$32.2 million included in other long-term liabilities) at the end of 2019. We expect to recognize this deferred revenue in future periods as we fulfill the service obligations under our subscription agreements.

Significant Operating Leverage

Our business requires significant investments to create and maintain proprietary software, databases, and content. While the fixed costs of the investments we make in our business are relatively high, the variable cost of adding customers is relatively low. This reflects our business focus on Internet-based platforms and assets under management. At times, we may make investments in building our databases and content that cause weaker short-term operating results. During other periods, our profitability may improve because we're able to increase revenue without increasing our cost base at the same rate. When revenue decreases, however, we may not be able to adjust our cost base at a corresponding rate.

Operating Expense

We classify our operating expense into separate categories for cost of revenue, sales and marketing, general and administrative, and depreciation and amortization, as described below. We include stock-based compensation expense, as appropriate, in each of these categories.

- ▷ *Cost of revenue.* This category includes compensation expense for employees who produce the products and services we deliver to our customers. For example, this category covers production teams and analysts who write investment research reports. It also includes compensation expense for programmers, designers, and other employees who develop new products and enhance existing products. In some cases, we capitalize the compensation costs associated with certain software development projects. This reduces the expense that we would otherwise report in this category. Cost of revenue also includes other expenses, such as third-party data purchases and data lines.
- ▷ *Sales and marketing.* This category includes compensation expense for our sales teams, product managers, and marketing professionals. We also include the cost of advertising, direct mail campaigns, and other marketing and promotion efforts in this category.
- ▷ *General and administrative.* This category includes compensation expense for our management team and other corporate functions, including employees in our compliance, finance, human resources, and legal departments. It also includes costs for corporate systems and facilities.
- ▷ *Depreciation and amortization.* Our capital expenditures mainly relate to capitalized software development costs, information technology equipment, and leasehold improvements. We depreciate property and equipment using the straight-line method based on the useful lives of the assets, which range from three to seven years. We amortize leasehold improvements over the lease term or their useful lives, whichever is shorter. We amortize capitalized software development costs over their estimated economic life, generally three years. We also include amortization related to identifiable intangible assets, which is mainly driven by acquisitions, in this category. We amortize intangible assets using the straight-line method over their estimated economic useful lives, which range from one to 25 years.

International Operations

As of December 31, 2019, we had majority-owned operations in 26 countries outside of the United States (U.S.) and included their results of operations and financial condition in our consolidated financial statements. We account for these investments outside of the U.S. and where we have significant influence, including Morningstar Japan K.K. (MJKK) and Sustainalytics Holding B.V. (Sustainalytics), using the equity method of accounting.

How We Evaluate Our Business

When our analysts evaluate a stock, they focus on assessing the company's estimated intrinsic value, which is based on estimated future cash flows, discounted to their value in today's dollars. Our approach to evaluating our own business works the same way.

Our goal is to increase the intrinsic value of our business over time, which we believe is the best way to create value for our shareholders. We do not make public financial forecasts for our business because we want to avoid creating any incentives for our management team to make speculative statements about our financial results that could influence our stock price or take actions that help us meet short-term forecasts, but may not build long-term shareholder value.

We provide three specific measures that can help investors generate their own assessment of how our intrinsic value has changed over time:

- ▷ Revenue (including organic revenue);
- ▷ Operating income (loss) (including adjusted operating income); and
- ▷ Free cash flow.

Organic revenue, adjusted operating income, and free cash flow are not measures of performance set forth under U.S. generally accepted accounting principles (GAAP).

We define organic revenue as consolidated revenue excluding acquisitions, divestitures, adoption of accounting changes, and foreign currency translations. We present organic revenue because we believe it helps investors better compare our period-to-period results, and our management team uses this measure to evaluate the performance of our business. We exclude revenue from businesses acquired or divested from organic revenue for a period of 12 months after we complete the acquisition or divestiture. Organic revenue is not equivalent to any measure required under GAAP and may not be comparable to similarly titled measures reported by other companies.

We define adjusted operating income as operating income excluding all mergers and acquisitions (M&A) related expenses and amortization. We present adjusted operating income because we believe it better reflects period-over-period comparisons and improves overall understanding of the underlying performance of the business absent the impact of M&A.

We define free cash flow as cash provided by or used for operating activities less capital expenditures. We present free cash flow as supplemental information to help investors better understand trends in our business results over time. Our management team uses free cash flow to evaluate our business. Free cash flow is not equivalent to any measure required under GAAP and should not be considered an indicator of liquidity. Moreover, the free cash flow definition we use may not be comparable to similarly titled measures reported by other companies.

To evaluate how successful we've been in maintaining existing business for products and services that have renewable revenue, we calculate retention and renewal rates using two different methods. For subscription-based products, we calculate a retention rate based on the number of subscriptions retained during the year as a percentage of the number of subscriptions up for renewal. For products sold through contracts and licenses, we use the contract value method, which is based on tracking the dollar value of renewals compared with the total dollar value of contracts up for renewal during the period. We include changes in the contract value in the renewal amount, unless the change specifically results from adding a new product that we can identify. We also include variable-fee contracts in this calculation and use the actual revenue for the previous comparable fiscal period as the base

rate for calculating the renewal percentage. The renewal rate excludes setup and customization fees, migrations to other Morningstar products, and contract renewals that were pending as of January 31, 2020.

Regulatory Trends Affecting Our Business

In addition to the industry developments described under “Business—Trends Defining Our Business”, there are several longer-term regulatory trends we consider relevant to our business, as outlined below.

General

With the passage of over ten years since the financial crisis of 2008 and 2009, the regulatory frameworks for financial services companies globally have generally become more settled. There has been a distinct shift from a period of intense regulatory redesign initiatives to a period where regulatory expectations revolve around how well organizations have implemented required regulatory change.

For enterprises like ours that operate nationally and globally, we are experiencing increasingly fragmented regulatory activity as a period of global regulatory response and coordination is replaced by different jurisdictions and regulators reasserting their full control of their own regulatory agendas. The causes of this are varied, including the withdrawal of the United Kingdom (U.K.) from the European Union (EU) and the effect that may have on trans-European financial services providers, the federal gridlock in the United States that has resulted in various states implementing divergent regulatory requirements in areas like data privacy and consumer protection, and the rise of disruptive technologies that permit greater personalization of interactions between financial services providers and their various customer bases.

Many of the 2019 developments focus on certain themes globally, including access to financial services, the quality of advice and the value of the services provided, the protection of customer data and transparency around the uses of such data, the minimization of conflicts of interest, and improvements in corporate governance and risk management.

Brexit

The U.K. withdrawal from the EU on January 31, 2020, has implications for certain Morningstar businesses, including investment management, credit ratings, and indexes. The full implications are unknown until the U.K. and EU finalize trade agreements, which may or may not be completed before the expiration of the current transition period that is currently set to expire at the end of 2020 but could be extended. In the meantime, the Withdrawal Agreement governs, and the U.K. effectively remains in the EU’s customs union and single market. At least until the end of 2020, Morningstar’s investment management (MIME) and credit rating operations (DBRS Morningstar) in both the EU and U.K. continue to be subject to the EU’s laws and regulations governing EU investment managers and credit rating agencies (EU regime) and, in the case of DBRS Morningstar, supervision by the European Securities and Markets Authority (ESMA). MIME is currently, and will continue to be, authorized and regulated by the Financial Conduct Authority, but is expected to lose its “passporting” rights to deliver certain financial services across the EU. With respect to DBRS Morningstar’s U.K. operations, at the end of the transition period, it is expected that they will no longer be subject to the EU regime or ESMA supervision, but rather will become subject to the U.K. laws and regulations governing U.K. credit rating agencies (U.K. regime) and supervision by the U.K.’s Financial Conduct Authority (FCA). The FCA has confirmed that DBRS Morningstar’s U.K.-based credit rating agency’s current ESMA registration will convert to a U.K. registration at the expiration of the transition period. The U.K. regime, adopted in 2019, largely mirrors the EU regime, which should minimize any significant change in DBRS Morningstar’s U.K. operations. However, over time, the U.K. may begin to make modifications to those laws and regulations. Similarly, the FCA may change its regulations over time so they are no longer the same as or equivalent to similar regulations in the U.K. to which MIME is subject.

Investment Management and Indexes

In the U.S., the Securities and Exchange Commission (SEC) adopted Regulation Best Interest, which becomes effective June 30, 2020. The regulation will require brokers, who have previously been held to a suitability standard in relation to investment recommendations to their clients, to act in their clients' best interests when making an investment recommendation, by meeting four core obligations: providing certain prescribed disclosures before or at the time of a recommendation about the recommendation and the relationship between the retail customer and the broker; exercising reasonable diligence, care, and skill in making recommendations; establishing, maintaining, and enforcing policies and procedures reasonably designed to address conflicts of interest; and establishing, maintaining, and enforcing policies and procedures reasonably designed to achieve compliance with Regulation Best Interest. We expect this regulation to increase demand for certain of our solutions that assist in demonstrating compliance with these obligations.

In addition, in the U.S., the Setting Every Community Up for Retirement Enhancement Act of 2019, better known as the SECURE Act, became law. The SECURE Act is likely to increase the number of participants in defined- contribution plans by, among other things, permitting "open" multiple-employer plans with unrelated plan sponsors, increasing the availability to small employers of safe harbor plans that automatically enroll employees, and including part-time workers as participants in plans. We expect this new law will present opportunities for our retirement solutions business.

In the U.K., regulators began reviews of the effects of the 2013 Retail Distribution Review (RDR), which emphasized increased regulation of advisory fees, higher professional standards for financial advisors, and "whole of market" investment solutions, and the 2016 Financial Advice Market Review (FAMR) which explored how the financial advice market could work better for all consumer demographics. Such reviews were initially expected to be completed in 2019 but are now expected in 2020.

In the EU, market participants continue to adjust to the Markets in Financial Instruments Directive (MiFID II), which became effective in January 2018. The main provisions include, among other things, limits on portfolio managers' use of third-party research, quality and organizational rules regarding the provision of advice, additional governance requirements for the manufacturing and distribution of financial instruments and structured deposits, requirements for firms to provide clients with details of all costs and charges related to their investments, and new rules for disclosing the cumulative effect of costs on investor returns.

With respect to indexes, European Union Benchmarks Regulation 2016/1011 came into force on June 30, 2016 with a majority of its provisions having a compliance date of January 1, 2018. This Regulation applies to Morningstar's index group as a result of making available its indexes to European investable product sponsors (e.g., ETF sponsors) as the tracking index for their investable product.

Under the regulation, third country index administrators like Morningstar were required to obtain recognition under the regulation by December 31, 2019 to continue offering their indexes in the EU. However, in 2019, the European Commission agreed to an extension of this deadline until December 31, 2021. The principal objective of the Regulation is to ensure benchmarks used in financial instruments and financial contracts or to measure the performance of investment funds (e.g., a tracking index of a ETF) are free of conflicts of interest, are used appropriately and reflect the actual market or economic reality they are intended to measure.

The European Commission announced its Action Plan on Sustainable Finance in May 2018 and the European Securities and Market Authority published its technical advice on implementing the plan in the area of investment services in April 2019. These requirements would, among other things, modify MiFID II to require financial services providers to take into account

environmental, social and governance (ESG) considerations when complying with existing requirements relating to the operation of their organizations, their product development and governance, and their assessment of the suitability of certain investments for certain clients.

In addition to ESG regulation in the areas of investment management and advice, ESG regulations around disclosure and governance are increasing worldwide, but on a fragmentary basis. They include the EU's new regulation on disclosures, which should help align standards across investment, insurance, and retirement products, current and proposed rules in Europe and the U.K. requiring disclosure of how products weigh ESG considerations, as well as their policies in relation to the stewardship of investments, and SEC requirements around the disclosure of votes on shareholder resolutions, including ESG-related resolutions.

In Australia, the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry issued a final report on February 1, 2019. The commission did not recommend the elimination of vertically integrated wealth management business models but proposed a tighter set of rules around such vertical integration to make it more difficult to inappropriately incentivize the sale of financial products through aligned distribution channels. In particular financial advisers will be required to disclose to a client why they are not independent, impartial and unbiased before providing advice. The commission has also recommended a stronger regulatory presence with the imposition of more fines and an increase in enforcement litigation. The fund management industry also continues to be an area of regulatory reform with the introduction of the Asia Region Funds Passport and Corporate Collective Investment Vehicle Schemes allowing the regional offering of funds, the review of fees and costs disclosure for managed investment and superannuation funds, and a suite of seven new and updated regulatory guides for the fund management industry.

Regulators in the financial services industry have indicated they are increasingly concerned by risk factors related to senior management accountability, data protection and privacy, and cybersecurity. For example, jurisdictions such as Hong Kong, the U.K., Australia, and Singapore have adopted or are considering the adoption of more stringent rules that will require that specific individuals be identified as responsible for certain senior management functions and will hold a firm's senior management team personally accountable for their own and their firm's actions and conduct.

Other Regulation

Data privacy regulation continues to proliferate, as numerous national and state jurisdictions are considering new data privacy regulations. The EU's General Data Protection Regulation (GDPR) continues to be a major influence on the global privacy landscape. Many non-EU countries are following the EU's lead and implementing rules similar to GDPR in their jurisdictions in order to enable cross-border data exchange. Australia, Brazil, India, and Korea have all implemented or are moving to implement data privacy laws that resemble GDPR.

In the U.S., the California Consumer Privacy Act (CCPA) went into effect in January 2020. CCPA, heavily influenced by GDPR, is the first comprehensive data privacy law in the U.S. to date. Several other states are considering their own comprehensive privacy regulations.

Congressional legislators have also acknowledged the insufficiency of the current privacy law landscape in the financial services field and are in the early stages of exploring new legislation in the financial technology space. Additionally, legislators have proposed dual proposals for a comprehensive consumer federal privacy law; however, adoption of a unified federal regulation in 2020 is unlikely until lessons from the CCPA can be consumed by federal regulators.

Since operations in the financial services industry require the processing of significant amounts of personally identifiable information (PII), we believe the burdens of regulation, and possibly inconsistent regulation, will proliferate. In particular, the patchwork of U.S. state laws creates complexity and ambiguity as to the application of such laws to particular persons, categories of personal information, or types of transactions.

As a related matter, issues of cybersecurity as they relate to the identification and mitigation of system vulnerabilities also continue to grow in prominence and laws governing data breaches proliferate. In 2019, New York amended its cybersecurity regulations to place new burdens for companies handling client financial data. Financial regulators have also increased scrutiny on the data protection practices of the entities that they oversee. For example, the SEC's Office of Compliance Inspections and Examinations has indicated that its 2020 examination programs will continue to prioritize cybersecurity with an emphasis on, among other things, proper configuration of network storage devices and information security governance.

Supplemental Operating Metrics (Unaudited)

The tables below summarize our key product metrics and other supplemental data.

(in millions)	Year Ended December 31, 2019		
	2019	2018	2019 Change
Revenue by type (1)			
License-based (2)	\$ 812.7	\$ 751.6	8.1%
Asset-based (3)	211.6	200.4	5.6%
Transaction-based (4)	154.7	67.9	127.8%
Key product area revenue (1)			
Morningstar Data	\$ 196.8	\$ 185.2	6.3%
Morningstar Direct	148.6	137.9	7.8%
PitchBook	148.4	99.6	49.0%
DBRS Morningstar (5)	127.6	36.3	251.5%
Morningstar Investment Management	115.9	111.2	4.2%
Morningstar Advisor Workstation	88.5	90.0	(1.7)%
Workplace Solutions	78.4	75.3	4.1%
Select business metrics			
Morningstar Direct licenses	15,903	15,033	5.8%
PitchBook Platform licenses	36,695	22,979	59.7%
Advisor Workstation clients (U.S.)	163	171	(4.7)%
Morningstar.com Premium Membership subscriptions (U.S.)	109,967	116,402	(5.5)%
Assets under management and advisement (approximate) (\$bil) (6)			
Workplace Solutions			
Managed Accounts (7)	\$ 74.8	\$ 58.2	28.5%
Fiduciary Services	49.3	41.0	20.2%
Custom Models	35.3	29.0	21.7%
Workplace Solutions (total)	\$ 159.4	\$ 128.2	24.3%
Investment Management			
Morningstar Managed Portfolios	\$ 48.6	\$ 41.7	16.5%
Institutional Asset Management	16.0	16.8	(4.8)%
Asset Allocation Services	8.9	6.5	36.9%
Investment Management (total)	\$ 73.5	\$ 65.0	13.1%
Asset value linked to Morningstar Indexes (\$bil)	67.7	46.8	44.7%
Our employees (approximate)			
Worldwide headcount	6,737	5,416	24.4%
Average assets under management and advisement (\$bil)	\$ 214.0	\$ 200.1	6.9%

(1) Revenue by type and key product area revenue includes the effect of foreign currency translations. For the year ended December 31, 2019, Morningstar Data, Morningstar Direct, and Morningstar Investment Management increased revenue by 8.4%, 9.5%, and 5.7%, respectively, whereas Advisor Workstation revenue declined by 1.5% when excluding the impact of foreign currency.

(2) License-based revenue includes Morningstar Data, Morningstar Direct, Morningstar Advisor Workstation, PitchBook, and other similar products. License-based revenue during 2018 included a \$10.5 million revenue benefit related to an amended license agreement. Excluding the non-recurring revenue benefit from the license amendment in the prior period results, license-based revenue grew 10.0% during 2019.

(3) Asset-based revenue includes Morningstar Investment Management, Workplace Solutions, and Morningstar Indexes.

(4) Transaction-based revenue includes DBRS Morningstar, Internet advertising sales, and conferences.

(5) Revenue for the twelve months ended December 31, 2018 reflects Morningstar Credit Ratings. Revenue for the first six months of 2019 includes revenue from Morningstar Credit Ratings while revenue for the third and fourth quarters of 2019 includes revenue from DBRS Morningstar, the newly combined credit ratings operations. For the six months ended 2019, transaction-based revenue, derived primarily from one-time ratings fees was 63% of such revenue. Recurring revenue from surveillance, research, and other services comprised the remainder in such period.

(6) The asset totals shown above (including assets we either manage directly or for which we provide consulting or subadvisory work) only include assets for which we receive basis-point fees. Some of our client contracts include services for which we receive a flat fee, but we do not include those assets in the total reported.

Excluding changes related to new contracts and cancellations, changes in the value of assets under advisement can come from two primary sources: gains or losses related to overall trends in market performance, and net inflows or outflows caused when investors add to or redeem shares from these portfolios.

Aside from Morningstar Managed Portfolios, it's difficult for our Investment Management business to quantify these cash inflows and outflows. The information we receive from most of our clients does not separately identify the effect of cash inflows and outflows on asset balances for each period. We also cannot specify the effect of market appreciation or depreciation because the majority of our clients have discretionary authority to implement their own portfolio allocations.

(7) Many factors can cause changes in assets under management and advisement for our managed retirement accounts, including employer and employee contributions, plan administrative fees, market movements, and participant loans and hardship withdrawals. The information we receive from the plan providers does not separately identify these transactions or the changes in balances caused by market movement.

Consolidated Results

Key metrics (in millions)	2019	2018	Change
Revenue	\$ 1,179.0	\$ 1,019.9	15.6%
Operating income	189.6	215.8	(12.1)%
Operating margin	16.1%	21.2%	(5.1)pp
Cash used for investing activities	\$ (746.3)	\$ (49.9)	1,395.6%
Cash provided by (used for) financing activities	\$ 373.7	\$ (188.8)	(297.9)%
Cash provided by operating activities	\$ 334.4	\$ 314.8	6.2%
Capital expenditures	(80.0)	(76.1)	5.1%
Free cash flow	\$ 254.4	\$ 238.7	6.6%

pp—percentage points

Consolidated Revenue

(in millions)	2019	2018	Change
Consolidated revenue	\$ 1,179.0	\$ 1,019.9	15.6%

In 2019, our consolidated revenue rose \$159.1 million, or 15.6%. DBRS Morningstar, our newly combined credit ratings operation, contributed \$91.3 million of revenue growth during 2019. Foreign currency movements increased revenue by \$12.3 million in 2019. Revenue in 2018 included a \$10.5 million license fee related to an amended license agreement that did not recur in 2019.

We experienced strong revenue growth across all revenue types during 2019.

License-based revenue, which represents subscription services available to customers, increased 8.1% during 2019 driven by demand for license-based products, such as PitchBook, Morningstar Data, and Morningstar Direct. PitchBook exhibited strong levels of both new account sales as well as existing client renewals and upgrades, which resulted in an increase in revenue of \$48.8 million during 2019. The number of PitchBook Platform licenses increased to 36,695 at the end of 2019, compared with 22,979 at the end of 2018. Strong contributions from international markets helped to drive revenue growth of \$11.6 million and \$10.7 million for both Morningstar Data and Morningstar Direct, respectively.

Asset-based revenue increased 5.6% during 2019, primarily driven by Morningstar Managed Portfolios, Morningstar Indexes, and Workplace Solutions. Morningstar Managed Portfolios revenue increased \$7.7 million, primarily driven by the gross revenue contribution of Morningstar Funds Trust of \$9.5 million, which largely offset ongoing fee compression resulting from a shift in the asset mix to lower-fee strategies. Total assets linked to Morningstar Indexes grew 44.7% over the prior year period, which contributed to revenue growth. Workplace Solutions revenue increased \$3.0 million due to asset growth in managed accounts, custom models, and fiduciary services. Average assets under management and advisement (calculated based on available average quarterly or monthly data) were approximately \$214.0 billion in 2019, compared with \$200.1 billion in 2018.

Transaction-based revenue grew 127.8% during 2019, driven by the \$127.6 million revenue contribution of DBRS Morningstar. Excluding the impact of the combined credit ratings contribution, transaction-based revenue declined \$4.5 million, or 14.2%, due to decreases in advertising revenue on Morningstar.com.

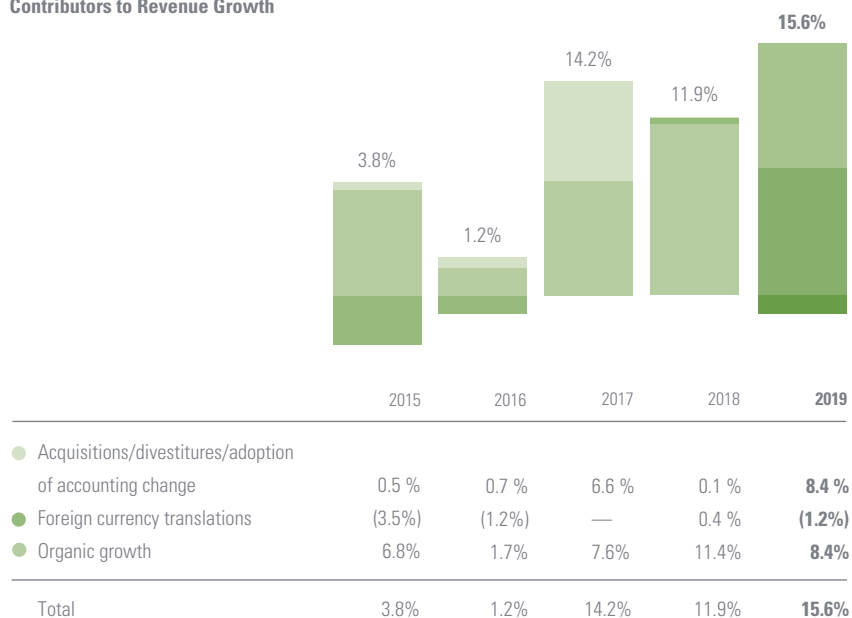
Organic revenue

Organic revenue (revenue excluding acquisitions, divestitures, adoption of accounting changes, and the effect of foreign currency translations) is considered a non-GAAP financial measure. The definition of organic revenue we use may not be the same as similarly titled measures used by other companies. Organic revenue should not be considered an alternative to any measure of performance as promulgated under GAAP.

To allow for more meaningful comparisons of our results in different periods, we provide information about organic revenue, which reflects our underlying business excluding acquisitions, divestitures, adoption of accounting changes, and the effect of foreign currency translations. We exclude revenue from acquired businesses from our organic revenue growth calculation for a period of 12 months after we complete the acquisition. For divestitures, we exclude revenue in the prior period for which there is no comparable revenue in the current period.

The combination of DBRS and Morningstar's U.S.-based credit ratings operations in 2019 makes it difficult to ascribe the origin of revenue growth to either entity. As such, revenue from the entire credit ratings operation will be excluded from the reporting of organic revenue growth through the second quarter of 2020. Prior period results have been adjusted to conform to this presentation.

Organic revenue increased 8.4% in 2019. PitchBook, Morningstar Data, and Morningstar Direct were the main drivers of the increase in organic revenue during 2019. Excluding the \$10.5 million license fee related to an amended license agreement that did not recur in 2019, organic revenue increased 9.5%.

Contributors to Revenue Growth

The tables below reconcile consolidated revenue with organic revenue:

(in millions)	2019	2018	Change
Consolidated revenue	\$ 1,179.0	\$ 1,019.9	15.6%
Less: acquisitions	(107.8)	(20.2)	433.7%
Less: divestitures	—	—	—%
Less: adoption of accounting changes	—	—	—%
Effect of foreign currency translations	12.3	—	NMF
Organic revenue	\$ 1,083.5	\$ 999.7	8.4%

NMF—Not meaningful

Revenue by geographical area

(in millions)	Year ended December 31		
	2019	2018	Change
United States	\$ 866.4	\$ 764.2	13.4%
Asia	27.9	24.5	13.9%
Australia	39.5	40.9	(3.4)%
Canada	56.9	30.7	85.3%
Continental Europe	88.0	81.2	8.4%
United Kingdom	93.9	72.4	29.7%
Other	6.4	6.0	6.7%
Total International	312.6	255.7	22.3%
Consolidated revenue	\$ 1,179.0	\$ 1,019.9	15.6%

International revenue comprised approximately 27% of our consolidated revenue in 2019, compared with 25% in 2018. Approximately 58% of international revenue is generated by Continental Europe and the U.K.

Revenue from international operations increased \$56.9 million, or 22.3%, in 2019. The increase in 2019 is primarily due to our acquisition of DBRS, which has a significant revenue base in Canada, the U.K., and Continental Europe.

International organic revenue

International organic revenue (international revenue excluding acquisitions, divestitures, adoption of accounting changes, and the effect of foreign currency translations) is considered a non-GAAP financial measure. The definition of international organic revenue we use may not be the same as similarly titled measures used by other companies. International organic revenue should not be considered an alternative to any measure of performance as promulgated under GAAP.

International organic revenue increased 8.1% during 2019 primarily driven by Morningstar Data and Morningstar Direct.

The tables below present a reconciliation from international revenue to international organic revenue:

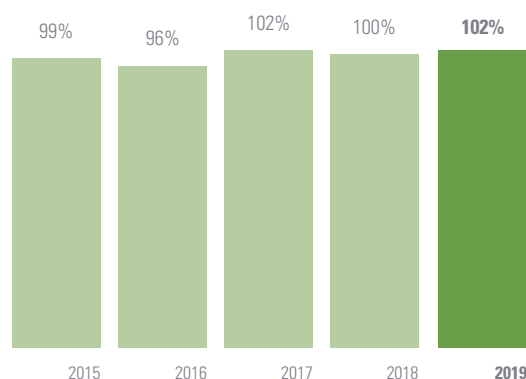
(in millions)	2019	2018	Change
International revenue	\$ 312.6	\$ 255.7	22.3%
Less: acquisitions	(48.5)	—	—%
Less: divestitures	—	—	—
Less: adoption of accounting changes	—	—	—%
Effect of foreign currency translations	12.3	—	NMF
International organic revenue	\$ 276.4	\$ 255.7	8.1%

Renewal Rates

As discussed in *How We Evaluate Our Business*, we calculate retention and renewal rates to help measure how successful we've been in maintaining existing business for products and services that have renewable revenue.

The graph below illustrates our retention metrics over the past five years for all of our contract-based products and services, which are primarily weighted toward Morningstar Data, Morningstar Direct, PitchBook, Morningstar Advisor Workstation, and Morningstar Office Cloud.

Renewal Rates for Contract-Based Products



For these contract-based products and services, we estimate that our weighted average annual renewal rate was approximately 102% in 2019, compared with 100% in 2018. The figure for contract-based products includes the effect of price changes;

increasing client bases upon contract renewal; changes to the contract value upon renewal (such as increased users); and changes in the value of variable-fee contracts. These factors, therefore, can lead to a renewal rate percentage over 100%.

Consolidated Operating Expense

(in millions)	2019	2018	Change
Cost of revenue	\$ 483.1	\$ 411.1	17.5%
% of revenue	41.0%	40.3%	0.7 pp
Sales and marketing	177.9	148.5	19.8%
% of revenue	15.1%	14.6%	0.5 pp
General and administrative	210.7	147.8	42.6%
% of revenue	17.9%	14.5%	3.4 pp
Depreciation and amortization	117.7	96.7	21.7%
% of revenue	10.0%	9.5%	0.5 pp
Total operating expense	\$ 989.4	\$ 804.1	23.0%
% of revenue	83.9%	78.8%	5.1 pp

In 2019, operating expense increased \$185.3 million, or 23.0%. DBRS Morningstar contributed 10.9% to operating expense growth, including deal-related amortization and integration expenses as well as costs related to a pending legal settlement. Operating expenses for the remainder of Morningstar increased 12.1% as we continue to invest for growth in the business. Foreign currency translations increased our operating expense by \$11.3 million in 2019.

Compensation expense (which primarily consists of salaries, bonus, and other company-sponsored benefits) increased \$80.3 million in 2019. The addition of approximately 504 employees from the DBRS acquisition contributed \$45.3 million of the total increase in compensation expense. The remaining increase reflects investments in headcount related to roles in data collection and analysis, product and software development, and sales and service support. Production expense increased \$16.3 million, mainly due to the fees paid to sub-advisors and other costs related to the Morningstar Funds Trust as well as cloud computing costs. Amortization expense increased \$15.8 million primarily from additional amortization related to intangibles from the acquisition of DBRS. Rent expense increased \$13.6 million during 2019 in connection with planned expansion and office lease renewals in certain geographies. Stock-based compensation expense also increased \$12.6 million in 2019, primarily resulting from continued achievement of incentive targets under the PitchBook management bonus plan.

We had 6,737 employees worldwide at the end of 2019, compared with 5,416 in 2018. This increase reflects continued investment in resources to support our key growth initiatives, including operations in India and the United States. This increase also includes approximately 504 employees who joined Morningstar as a result of the DBRS acquisition in July 2019.

Cost of revenue

Cost of revenue is our largest category of operating expense, representing about one-half of our total operating expense. Our business relies heavily on human capital, and cost of revenue includes the compensation expense for employees who produce our products and services. We include compensation expense for approximately 80% of our employees in this category.

Cost of revenue increased \$72.0 million, or 17.5%, in 2019. Higher compensation expense of \$46.9 million was the largest contributor to the increase. DBRS Morningstar contributed \$31.9 million of the increase in compensation expense. Higher

production expense of \$16.3 million also contributed to the unfavorable variance in this category, mainly due to \$9.5 million in fees paid to sub-advisors and other costs related to the Morningstar Funds Trust as well as cloud computing costs.

Continuous focus on development of our major software platforms, in addition to bringing new products and capabilities to market, resulted in a slight increase in capitalized software development over the prior period, which in turn reduced operating expense. In 2019, we capitalized \$53.8 million in costs associated with software development activities, mainly related to enhanced capabilities in our products, internal infrastructure, and software compared with \$53.5 million in 2018.

Sales and marketing

Sales and marketing expense increased \$29.4 million, or 19.8%, in 2019, reflecting a \$16.5 million increase in compensation expense, which was partially driven by additional headcount from the DBRS acquisition. Sales commission expense was higher by \$3.9 million due to strong PitchBook sales performance. Advertising and marketing spend increased \$3.0 million due to higher levels of spend on advertising and promotional materials. Stock-based compensation also increased \$2.0 million, primarily driven by the continued achievement of incentive targets under the PitchBook management bonus plan.

General and administrative

General and administrative expense increased \$62.9 million, or 42.6%, during 2019. Compensation expense increased \$16.8 million, of which DBRS Morningstar accounted for \$8.6 million. Rent expense increased \$13.6 million in connection with planned expansion and office lease renewals in certain geographies. Professional fees increased \$9.7 million during 2019 primarily due to acquisition-related expenses for DBRS. Stock-based compensation was higher by \$9.4 million primarily driven by continued achievement of incentive targets under the PitchBook management bonus plan.

Depreciation and amortization

Depreciation and amortization increased \$21.0 million, or 21.7%, in 2019.

Depreciation expense rose \$5.2 million in 2019, mainly driven by depreciation expense related to capitalized software development incurred over the past several years. Intangible amortization expense increased \$15.8 million in 2019, primarily from additional amortization related to intangibles generated by the acquisition of DBRS.

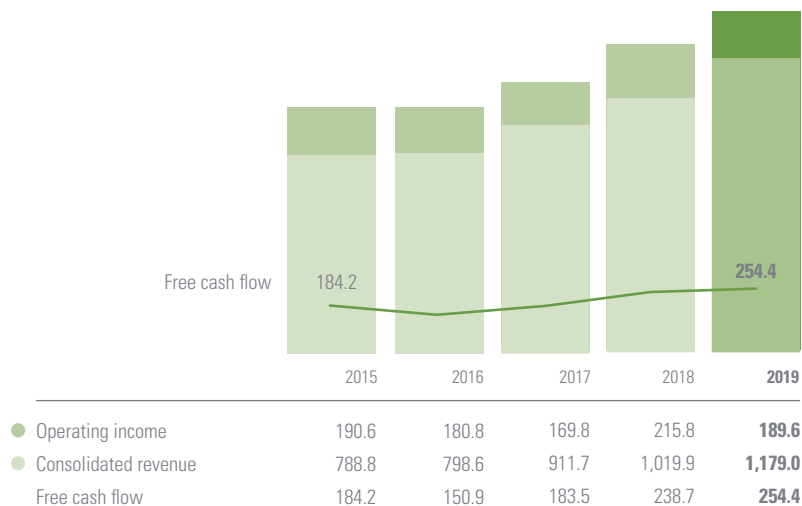
Amortization of intangible assets will be an ongoing expense. We estimate that this expense will total approximately \$53.5 million for the twelve months ended December 31, 2020. Our estimates of future amortization expense for intangible assets may be affected by additional acquisitions, divestitures, changes in the estimated average useful lives, and foreign currency translation.

Consolidated Operating Income and Operating Margin

(in millions)	2019	2018	Change
Operating income	\$ 189.6	\$ 215.8	(12.1)%
Operating margin	16.1%	21.2%	(5.1) pp

Consolidated operating income decreased \$26.2 million in 2019, reflecting an increase in operating expenses of \$185.3 million, which was partially mitigated by an increase in revenue of \$159.1 million. Operating margin was 16.1%, a decrease of 5.1 percentage points compared with 2018.

Key Metrics (\$mil)



We reported adjusted operating income, which excludes M&A related expenses and amortization expense, of \$233.3 million in 2019. Adjusted operating income is a non-GAAP financial measure; the table below shows a reconciliation to the most directly comparable GAAP financial measure.

(in millions)	2019	2018	Change
Operating income	\$ 189.6	\$ 215.8	(12.1)%
Add: all intangible amortization expense	36.5	20.7	76.3%
Add: all M&A-related expenses	7.2	—	NMF
Adjusted operating income	\$ 233.3	\$ 236.5	(1.4)%

We reported an adjusted operating margin, which excludes M&A-related expenses and amortization expense, of 19.8% in 2019. Adjusted operating margin is a non-GAAP financial measure; the table below shows a reconciliation to the most directly comparable GAAP financial measure.

	2019	2018	Change
Operating margin	16.1%	21.2%	(5.1) pp
Add: all intangible amortization expense	3.1%	2.0%	1.1 pp
Add: all M&A-related expenses	0.6%	—%	0.6 pp
Adjusted operating margin	19.8%	23.2%	(3.4) pp

Non-Operating Income, Equity in Net Loss of Unconsolidated Entities, and Effective Tax Rate and Income Tax Expense

Non-Operating Income

The following table presents the components of non-operating income, net:

(in millions)	2019	2018
Interest income	\$ 2.4	\$ 2.3
Interest expense	(11.1)	(4.1)
Gain on sale of investments, net	1.2	1.0
Gain on sale of product line	—	10.5
Gain on sale of equity investments	19.5	5.6
Other (expense) income, net	(3.1)	1.8
Non-operating income, net	\$ 8.9	\$ 17.1

Interest income reflects interest from our investment portfolio. Interest expense mainly relates to the outstanding principal balance under the prior credit facility and the new senior credit agreement, which we entered into during the third quarter of 2019 to fund the acquisition of DBRS.

The gain on sale of equity investments in 2019 relates to the sale of our equity ownership in one of our equity method investments during the third quarter of 2019.

Other (expense) income, net primarily includes foreign currency exchange gains and losses resulting from the U.S. dollar denominated short-term investments held in non-U.S. jurisdictions.

Equity in Net Loss of Unconsolidated Entities

(in millions)	2019	2018
Equity in net loss of unconsolidated entities	\$ (0.9)	\$ (2.1)

Equity in net loss of unconsolidated entities primarily reflects income from Morningstar Japan K.K. (MJKK) offset by losses in our other equity method investments.

We describe our investments in unconsolidated entities in more detail in Note 10 of the Notes to our Consolidated Financial Statements.

Effective Tax Rate and Income Tax Expense

The following table summarizes the components of our effective tax rate:

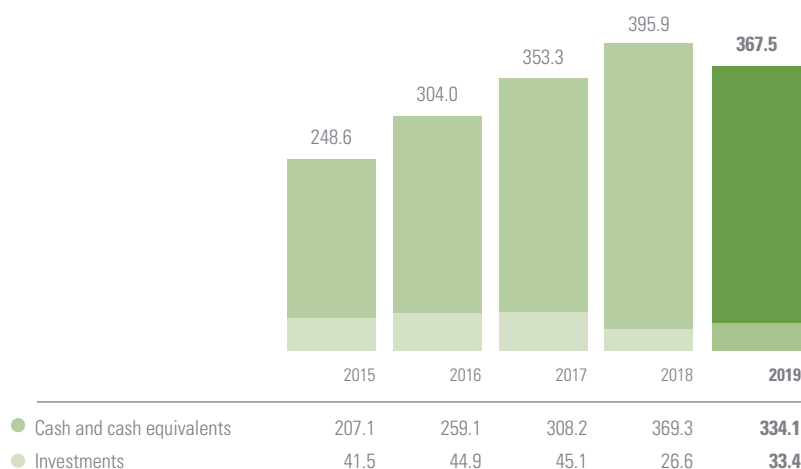
(in millions)	2019	2018
Income before income taxes and equity in net loss of unconsolidated entities	\$ 198.5	\$ 232.9
Equity in net loss of unconsolidated entities	(0.9)	(2.1)
Total	\$ 197.6	\$ 230.8
Income tax expense	\$ 45.6	\$ 47.8
Effective tax rate	23.1%	20.7%

Our effective tax rate in 2019 was 23.1%, an increase of 2.4 percentage points compared with 20.7% in 2018, primarily due to minimum taxes and non-deductible expenses in 2019.

Liquidity and Capital Resources

As of December 31, 2019, we had cash, cash equivalents, and investments of \$367.5 million, down \$28.4 million from the end of 2018. The decrease reflects cash provided by operating activities and proceeds from long-term debt of \$610.0 million, partially offset by \$681.9 million of cash paid for the acquisition of DBRS and AdviserLogic, \$165.6 million of repayments of long-term debt, \$80.0 million of capital expenditures, dividends paid of \$47.8 million, and \$15.2 million for employee taxes paid from withholding of restricted stock units. We also used \$4.9 million to repurchase common stock under our share repurchase program, of which \$0.3 million was repurchased in the fourth quarter of 2018, but was settled and paid for in January 2019. Purchases of equity-method investments of \$1.5 million also offset the cash inflows.

Cash, Cash Equivalents, and Investments (\$mil)

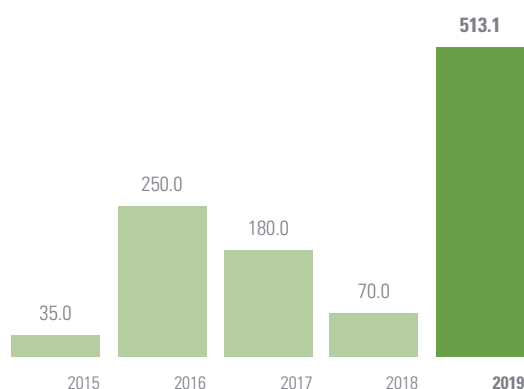


Cash provided by operating activities is our main source of cash. In 2019, cash provided by operating activities was \$334.4 million, reflecting \$292.9 million of net income, adjusted for non-cash items and \$41.5 million in positive changes from our net operating assets and liabilities.

On July 2, 2019, we entered into a new senior credit agreement (the Credit Agreement), the initial borrowings under which were made to finance the DBRS acquisition, and repaid all outstanding obligations under the prior credit facility. The Credit Agreement provides the company with a five year multi-currency credit facility with an initial borrowing capacity of up to \$750.0 million, including a \$300.0 million revolving credit facility and a term loan facility of \$450.0 million. We had an outstanding principal balance of \$513.1 million as of December 31, 2019 and a revolving credit facility borrowing availability of \$230.0 million. The Credit Agreement also contains financial covenants under which we: (i) may not exceed a maximum consolidated leverage ratio of 3.50 to 1.00 (or 3.75 to 1.00 for the four fiscal quarters following any material acquisition (as defined in the Credit Agreement)) and (ii) are required to maintain a minimum consolidated interest coverage ratio of not less than 3.00 to 1.00. We were in compliance

with the financial covenants as of December 31, 2019. See Note 3 of the Notes to our Consolidated Financial Statements for additional information on our new Credit Agreement.

Debt (\$mil)



We believe our available cash balances and investments, along with cash generated from operations and the borrowing capacity under our Credit Agreement, will be sufficient to meet our operating and cash needs for at least the next 12 months. We invest our cash reserves in cash equivalents and investments and maintain a conservative investment policy. We invest most of our investment balance (approximately \$32.0 million, or 95.8% of our total investments balance as of December 31, 2019) in stocks, bonds, options, mutual funds, money market funds, or exchange-traded products that replicate the model portfolios and strategies created by Morningstar. These investment accounts may also include exchange-traded products where Morningstar is an index provider.

Approximately 70% of our cash, cash equivalents, and investments as of December 31, 2019 was held by our operations outside the U.S., up from about 67% as of December 31, 2018. The amount of accumulated undistributed earnings of our foreign subsidiaries was approximately \$240.5 million as of December 31, 2019. We have not recorded deferred income taxes on the \$240.5 million primarily because most of these earnings were previously subject to the one-time deemed mandatory repatriation tax under the Tax Cuts and Jobs Act of 2017. In February 2019, we repatriated approximately \$45.8 million of our foreign earnings to the U.S. Otherwise, we generally consider our U.S. directly-owned foreign subsidiary earnings to be permanently reinvested.

We intend to use our cash, cash equivalents, and investments for general corporate purposes, including working capital and funding future growth.

In December 2017, the board of directors approved a share repurchase program that authorizes the company to repurchase up to \$500.0 million in shares of the company's outstanding common stock, effective January 1, 2018. The authorization expires on December 31, 2020. We have repurchased a total of 244,180 shares for \$25.6 million through December 31, 2019 and had approximately \$474.4 million available for future repurchases as of December 31, 2019.

In 2019, we also paid dividends of \$47.8 million. In February 2020, our board of directors declared a quarterly dividend of 30 cents per share. The dividend is payable on April 30, 2020 to shareholders of record as of April 3, 2020. While subsequent dividends will be subject to board approval, we expect to make regular quarterly dividend payments of 30 cents per share in 2020.

We expect to continue making capital expenditures in 2020, primarily for computer hardware and software provided by third parties, internally developed software, and leasehold improvements for new and existing office locations. We continue to adopt more public cloud and software as a service applications for new initiatives and are in the process of migrating relevant parts of our data centers to the public cloud over the next several years. During this migration, we expect to run certain applications and infrastructure in parallel. These actions will have some transitional effects on our level of capital expenditures and operating expenses.

We also expect to use a portion of our cash and investments balances in the first quarter of 2020 to make annual bonus payments of approximately \$83.4 million related to the 2019 bonus compared to \$62.0 million in 2018. The increase is primarily due to the acquisition of DBRS.

Consolidated Free Cash Flow

As described in more detail above, we define free cash flow as cash provided by or used for operating activities less capital expenditures. We present free cash flow solely as supplemental disclosure to help investors better understand how much cash is available after we spend money to operate our business. Our management team uses free cash flow to evaluate our business. Free cash flow is not a measure of performance. Also, the free cash flow definition we use may not be comparable to similarly titled measures used by other companies.

(in millions)	2019	2018	Change
Cash provided by operating activities	\$ 334.4	\$ 314.8	6.2%
Capital expenditures	(80.0)	(76.1)	5.1%
Free cash flow	\$ 254.4	\$ 238.7	6.6%

We generated free cash flow of \$254.4 million in 2019, an increase of \$15.7 million compared with 2018. The change reflects a \$19.6 million increase in cash provided by operating activities as well as a \$3.9 million increase in capital expenditures.

Acquisitions

We paid a total of \$683.3 million, less cash acquired, related to acquisitions over the past three years. We describe these acquisitions in Note 8 of the Notes to our Consolidated Financial Statements.

We paid a total of \$33.7 million related to purchasing additional investments in unconsolidated entities over the past three years. We describe these investments in Note 10 of the Notes to our Consolidated Financial Statements.

Divestitures

We sold our 15(c) board consulting services product line in 2018 and received a total of \$10.5 million related to this sale. We sold HelloWallet in 2017 and received a total of \$23.7 million related to this sale. For more information, please see Note 9 of the Notes to our Consolidated Financial Statements.

Application of Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our Consolidated Financial Statements, which have been prepared in accordance with GAAP. We discuss our significant accounting policies in Note 2 of the Notes to our Consolidated Financial Statements. The preparation of financial statements in accordance with GAAP requires our management team to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expense, and related disclosures included in our Consolidated Financial Statements.

We continually evaluate our estimates. We base our estimates on historical experience and various other assumptions that we believe are reasonable. Based on these assumptions and estimates, we make judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results could vary from these estimates and assumptions. If actual amounts are different from previous estimates, we include revisions in our results of operations for the period in which the actual amounts become known.

We believe the following critical accounting policies reflect the significant judgments and estimates used in the preparation of our Consolidated Financial Statements:

Revenue Recognition

Most of our revenue comes from the sale of subscriptions for data, software, and Internet-based products and services. We recognize this revenue in equal amounts over the term of the subscription or license, which generally ranges from one to three years. We also provide research, investment management, retirement advice, and other services. We recognize this revenue when the service is provided or during the service obligation period defined in the contract.

We make significant judgments related to revenue recognition, including identifying the transaction price in a contract. For contracts that combine multiple products and services or other performance obligations, we make judgments regarding the value of each obligation in the arrangement based on selling prices of the items as if when sold separately. We recognize revenue as we satisfy our performance obligations under the terms of the contracts with our customers. If arrangements include an acceptance provision, we begin recognizing revenue upon the receipt of customer acceptance.

We make judgments at the beginning of an arrangement regarding whether or not collection of the consideration to which we are entitled is probable. We typically sell to institutional customers with whom we have a history of successful collections and assess the probability of collection on a customer-by-customer basis.

Deferred revenue is the amount collected in advance for subscriptions, licenses, or services that has not yet been recognized as revenue. Deferred revenue totaled \$282.3 million at the end of 2019 (of which \$250.1 million was classified as a current liability with an additional \$32.2 million included in other long-term liabilities). We expect to recognize this deferred revenue in future periods as we fulfill our service obligations under our subscription and service agreements.

The amount of deferred revenue may increase or decrease based on the mix of contracted products and services and the volume of new and renewal subscriptions. The timing of future revenue recognition may change depending on the terms of the applicable agreements and the timing of fulfilling our service obligations. To the extent that there are material differences between our determination of deferred revenue and its expected realization and actual results, our financial condition or results of operations may be affected.

Acquisitions, Goodwill, and Other Intangible Assets

We generally acquire businesses which are accounted for as business combinations. Our financial statements reflect the operations of an acquired business starting from the completion of the transaction. We record the estimated fair value of assets acquired and liabilities assumed as of the date of acquisition.

To account for each business combination, we utilize the acquisition method of accounting which requires the following steps (1) identifying the acquirer, (2) determining the acquisition date, (3) recognizing and measuring identifiable assets acquired and liabilities assumed and (4) recognizing and measuring goodwill or a gain from a bargain purchase.

Regardless of whether an acquisition is considered to be a business combination or an asset acquisition, allocating the purchase price to the acquired assets and liabilities involves management judgment. We base the fair value estimates on available historical information and on future expectations and assumptions that we believe are reasonable, but these estimates are inherently uncertain.

Determining the fair value of intangible assets requires significant management judgment in the following areas:

- ▷ Identify the acquired intangible assets: For each acquisition, we identify the intangible assets acquired. These intangible assets generally consist of customer relationships, trademarks and trade names, technology-related intangibles (including internally developed software and databases), and in certain acquisitions, noncompete agreements.
- ▷ Estimate the fair value of these intangible assets: We may consider various approaches to value the intangible assets. These include the cost approach, which measures the value of an asset based on the cost to reproduce it or replace it with another asset of like utility by applying the reproduction cost method or replacement cost method; the market approach, which values the asset through an analysis of sales and offerings of comparable assets which can be adjusted to reflect differences between the investment or asset being valued and the comparable investments or assets, such as historical financial condition and performance, expected economic benefits, time and terms of sale, utility, and physical characteristics, and the income approach, which measures the value of an asset based on the present value of the economic benefits it is expected to produce utilizing inputs such as estimated future cash flows based on forecasted revenue growth rates and EBITDA margins, estimated attritions rate and weighted average cost of capital and discount rate assumptions.
- ▷ Estimate the remaining useful life of the assets: For each intangible asset, we use judgment and assumptions to establish the remaining useful life of the asset. For example, for customer relationships, we determine the estimated useful life with reference to observed customer attrition rates. For technology-related assets such as databases, we make judgments about the demand for current data and historical metrics in establishing the remaining useful life. For internally developed software, we estimate an obsolescence factor associated with the software.

We record any excess of the purchase price over the estimated fair values of the net assets acquired as goodwill, which is not amortized. Instead, it is subject to an impairment test annually or whenever indicators of impairment exist. We review the carrying value of goodwill for impairment at least annually based on our assessment of impairment indicators. If impairment indicators exist, we reduce the goodwill balance to reflect the revised fair value.

We believe the accounting estimates related to purchase price allocations and subsequent goodwill impairment testing are critical accounting estimates because changes in these assumptions could materially affect the amounts and classifications of

assets and liabilities presented in our Consolidated Balance Sheets, as well as the amount of amortization and depreciation expense, if any, recorded in our Consolidated Statements of Income.

Stock-Based Compensation

We include stock-based compensation expense in each of our operating expense categories. Our stock-based compensation expense primarily reflects grants of restricted stock units, performance share awards, and market stock units.

We measure stock-based compensation expense at the grant date based on the fair value of the award and recognize the expense ratably over the award's vesting period. We measure the fair value of our restricted stock units on the date of grant based on the market price of the underlying common stock as of the close of trading on the day before the grant. We estimate expected forfeitures of stock-based awards at the grant date and recognize compensation cost only for those awards expected to vest. We later adjust this forfeiture assumption to the actual forfeiture rate. Therefore, changes in the forfeiture assumptions do not change the total amount of expense ultimately recognized over the vesting period. Instead, different forfeiture assumptions would only affect the timing of expense recognition over the vesting period.

We adjust the stock-based compensation expense to reflect those awards that ultimately vested and update our estimate of the forfeiture rate that will be applied to awards not yet vested.

Income Taxes

Our effective tax rate is based on the mix of income and losses in our U.S. and non-U.S. operations, statutory tax rates, and tax-planning opportunities available to us in the various jurisdictions in which we operate. Significant judgment is required to evaluate our tax positions.

Because of timing differences required by tax law, the effective tax rate reflected in our Consolidated Financial Statements is different from the tax rate reported on our tax return (our cash tax rate). Some of these differences, such as expenses that are not deductible in our tax return, are permanent. Other differences, such as depreciation expense, reverse over time. These timing differences create deferred tax assets and liabilities. We determine our deferred tax assets and liabilities based on temporary differences between the financial reporting and the tax basis of assets and liabilities.

As of December 31, 2019, we had gross deferred tax assets of \$46.0 million and gross deferred tax liabilities of \$128.0 million. The deferred tax assets include \$4.5 million of deferred tax assets related to \$21.4 million of net operating losses (NOLs) of our non-U.S. operations. In assessing the realizability of our deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. We have recorded a valuation allowance against all but approximately \$11.7 million of the non-U.S. NOLs, reflecting the likelihood that the benefit of the NOLs will not be realized. We have not recorded a valuation allowance against the U.S. federal NOLs of \$0.8 million because we expect the benefit of the U.S. federal NOLs to be fully utilized before expiration.

In assessing the need for a valuation allowance, we consider both positive and negative evidence, including tax planning strategies, projected future taxable income, and recent financial performance. If we determine a lower allowance is required at some point in the future, we would record a reduction to our tax expense and valuation allowance. These adjustments would be made in the same period we determined the change in the valuation allowance was needed. This would cause our income tax expense, effective tax rate, and net income to fluctuate.

We use judgment to identify, recognize, and measure the amounts of uncertain tax positions to be recorded in the financial statements related to tax positions taken or expected to be taken in a tax return. We recognize liabilities to represent our potential future obligations to taxing authorities for the benefits taken in our tax returns. We adjust these liabilities, including any impact of the related interest and penalties, in light of changing facts and circumstances, such as the progress of a tax audit. A number of years may elapse before a particular matter for which we have established a reserve is audited and finally resolved. The number of years with open tax audits varies depending on the tax jurisdiction.

We use judgment to classify unrecognized tax benefits as either current or noncurrent liabilities in our Consolidated Balance Sheets. Settlement of any particular issue would usually require the use of cash. We generally classify liabilities associated with unrecognized tax benefits as noncurrent liabilities. It typically takes several years between our initial tax return filing and the final resolution of any uncertain tax positions with the tax authority. We recognize favorable resolutions of tax matters for which we have previously established reserves as a reduction to our income tax expense when the amounts involved become known.

Assessing the future tax consequences of events that have been recognized in our Consolidated Financial Statements or tax returns requires judgment. Variations in the actual outcome of these future tax consequences could materially impact our financial position, results of operations, or cash flows.

Contingencies

We are subject to various claims and contingencies related to legal proceedings and regulatory investigations. These legal proceedings and regulatory investigations involve inherent uncertainties including, but not limited to, court rulings, negotiations between affected parties, and government actions. Assessing the probability of loss for such contingencies and determining how to accrue the appropriate liabilities requires judgment. If actual results differ from our assessments, our financial position, results of operations, or cash flows would be affected.

Recently Issued Accounting Pronouncements

Refer to Note 18 of the Notes to our Consolidated Financial Statements for recently adopted accounting pronouncements and recently issued accounting pronouncements not yet adopted as of December 31, 2019.

Contractual Obligations

The table below shows our known contractual obligations as of December 31, 2019, and the expected timing of cash payments related to these contractual obligations:

(in millions)	2020	2021	2022	2023	2024	Thereafter	Total
Minimum commitments on non-cancelable operating lease obligations (1)	\$ 41.7	\$ 37.9	\$ 25.4	\$ 22.9	\$ 17.7	\$ 55.7	\$ 201.3
Minimum payments related to long-term financing agreements	1.1	—	—	—	—	—	1.1
Minimum payments on Credit Agreement (2)	11.3	14.1	22.5	22.5	444.1	—	514.5
Unrecognized tax benefits (3)	10.8	—	—	—	—	—	10.8
Total	\$ 64.9	\$ 52.0	\$ 47.9	\$ 45.4	\$ 461.8	\$ 55.7	\$ 727.7

(1) The non-cancelable operating lease obligations are mainly for office space.

(2) The minimum payments on the term facility and revolving credit facility reflect outstanding principal balance of \$513.1 million and an estimate for interest and commitment fees.

(3) Represents unrecognized tax benefits (including penalties and interest, less the impact of any associated tax benefits). The amount included in the table represents items that may be resolved through settlement of tax audits during 2020. The table excludes \$3.0 million of unrecognized tax benefits, included as a long-term liability in our Consolidated Balance Sheet as of December 31, 2019, for which we cannot make a reasonably reliable estimate of the period of payment.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Our investment portfolio is actively managed and may suffer losses from fluctuating interest rates, market prices, or adverse security selection. These accounts may consist of stocks, bonds, options, mutual funds, money market funds, or exchange-traded products that replicate the model portfolios and strategies created by Morningstar. These investment accounts may also include exchange-traded products where Morningstar is an index provider. As of December 31, 2019, our cash, cash equivalents, and investments balance was \$367.5 million. Based on our estimates, a 100 basis-point change in interest rates would not have a material effect on the fair value of our investment portfolio.

We are subject to risk from fluctuations in the interest rates related to our long-term debt. The interest rates are based upon the applicable LIBOR rate plus an applicable margin for such loans or the lender's base rate plus an applicable margin for such loans. Based on December 31, 2019 estimated LIBOR rates, we estimate a 100 basis-point change in the LIBOR rate would have a \$5.1 million impact on an annualized basis.

We are subject to risk from fluctuations in foreign currencies from our operations outside of the U.S. To date, we have not engaged in currency hedging, and we do not currently have any positions in derivative instruments to hedge our currency risk.

The table below shows our exposure to foreign currency denominated revenue and operating income for the year ended December 31, 2019:

(in millions, except foreign currency rates)	Euro	British Pound	Canadian Dollar	Australian Dollar	Other Foreign Currencies
Foreign currency rate in U.S. dollars as of December 31, 2019	1.1217	1.3187	0.7683	0.7014	n/a
Foreign denominated percentage of revenue	4.8%	8.0%	4.8%	3.3%	5.7%
Foreign denominated percentage of operating income	12.9%	(0.2)%	7.0%	1.3%	(27.1)%
Estimated effect of a 10% adverse currency fluctuation on revenue	\$ (5.5)	\$ (6.4)	\$ (4.8)	\$ (3.5)	\$ (6.0)
Estimated effect of a 10% adverse currency fluctuation on operating income	\$ (2.4)	\$ 0.2	\$ (1.1)	\$ (0.3)	\$ 6.1

The table below shows our net investment exposure in foreign currencies as of December 31, 2019:

(in millions)	Euro	British Pound	Canadian Dollar	Australian Dollar	Other Foreign Currencies
Assets, net of unconsolidated entities	\$ 153.2	\$ 349.1	\$ 376.3	\$ 66.4	\$ 170.3
Less: liabilities	40.9	82.2	235.5	29.9	29.2
Net currency position	\$ 112.3	\$ 266.9	\$ 140.8	\$ 36.5	\$ 141.1
Estimated effect of a 10% adverse currency fluctuation on equity	\$ (11.2)	\$ (26.7)	\$ (14.1)	\$ (3.6)	\$ (14.1)

Item 8. Financial Statements and Supplementary Data

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Morningstar, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Morningstar, Inc. and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2019 and the related notes and financial statement schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission", and our report dated March 2, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principles

As discussed in Note 2 and Note 18 to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC) Topic 842, *Leases*.

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue from contracts with customers as of January 1, 2018 due to the adoption of FASB's ASC Topic 606, *Revenue from Contracts with Customers*.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of sufficiency of audit evidence over revenue

As discussed in Notes 2 and 5 to the consolidated financial statements, the Company has recorded \$1,179.0 million in revenues, of which \$812.7 million was related to licensed-based products, \$211.6 was related to asset-based products, and \$154.7 was related to transaction-based products, for the year ended December 31, 2019. These disaggregated portions of revenue contain multiple product revenue streams. The Company's process to account for and recognize revenue differs between certain revenue streams.

We identified the evaluation of the sufficiency of audit evidence over revenue as a critical audit matter. Evaluating the sufficiency of audit evidence obtained required especially subjective auditor judgment due to the multiple product revenue streams and the use of multiple processes to account for and recognize revenue. This included determining the revenue streams where procedures were performed and the nature and extent of audit evidence obtained over each revenue stream.

The primary procedures we performed to address this critical audit matter included the following. We used auditor judgment to determine the nature and extent of procedures to be performed, including the determination of the revenue streams over which those procedures were performed. For product revenue streams where procedures were performed, we:

- ▷ tested certain internal controls over the Company's revenue recognition processes;
- ▷ evaluated the Company's revenue recognition accounting policies;
- ▷ selected a sample of revenue transactions and assessed recorded amounts by comparing them for consistency with underlying documentation, including the customer contract; and,
- ▷ evaluated the revenue transactions for consistency with the Company's accounting policies, as applicable, including timing of revenue recognition

In addition, we evaluated the overall sufficiency of audit evidence obtained over revenue.

Evaluation of acquisition-date fair value of the customer relationship intangible asset

As discussed in Note 8 to the consolidated financial statements, on July 2, 2019 the Company acquired Ratings Acquisition Corp ("DBRS") in a business combination for total cash consideration of \$682.1 million. As an element of the transaction, the Company acquired customer relationship intangible assets related to credit rating customers. The acquisition-date fair value for the customer relationship intangible asset was \$219.1 million.

We identified the evaluation of the acquisition-date fair value of the customer relationship intangible asset as a critical audit matter. There was a high degree of subjectivity involved in evaluating key assumptions in the Company's income approach methodology used to determine fair value, including:

- ▷ forecasted revenue growth rates
- ▷ estimated customer attrition rates
- ▷ forecasted earnings before interest, taxes, depreciation and amortization (EBITDA) margin
- ▷ estimated discount rates

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's process to determine the acquisition-date fair value of the customer relationship intangible asset, including controls over the evaluation of each key assumption. We evaluated the Company's forecasted revenue growth rates by comparing to those of the Company's relevant peers when considering the nature of the acquired DBRS business and to historical actual results. We compared the estimated customer attrition rates to the implied attrition developed using the useful lives of customer relationship assets disclosed by market participants. We compared the Company's forecasted EBITDA margins to historical actual results. We involved valuation professionals with specialized skills and knowledge who assisted in evaluating:

- ▷ the valuation methodology used by the Company to determine the fair value of the customer relationship intangible asset;
- ▷ the Company's estimated discount rates by comparing to publicly available market data for comparable companies;
- ▷ the Company's estimated customer attrition rates and assessed them by considering publicly available market data for comparable companies.

/s/ KPMG LLP

We have served as the Company's auditor since 2011.

Chicago, Illinois
March 2, 2020

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Morningstar, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Morningstar, Inc.'s and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2019, 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 Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and our report dated March 2, 2020 expressed an unqualified opinion on those consolidated financial statements.

The Company acquired DBRS during 2019, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, the internal control over financial reporting of the operations of the acquired business. Total assets of \$136.7 million and total revenues of \$127.6 million related to the acquired business are included in the consolidated financial statements of the Company as of and for the year ended December 31, 2019. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of DBRS.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that

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

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

/s/ KPMG LLP

Chicago, Illinois
March 2, 2020

Morningstar, Inc. and Subsidiaries

Consolidated Statements of Income

Year ended December 31 (in millions except per share amounts)	2019	2018	2017
Revenue	\$ 1,179.0	\$ 1,019.9	\$ 911.7
Operating expense:			
Cost of revenue	483.1	411.1	386.6
Sales and marketing	177.9	148.5	134.3
General and administrative	210.7	147.8	129.8
Depreciation and amortization	117.7	96.7	91.2
Total operating expense	989.4	804.1	741.9
Operating income	189.6	215.8	169.8
Non-operating income:			
Interest expense, net	(8.7)	(1.8)	(3.6)
Gain on sale of investments, reclassified from other comprehensive income	1.2	1.0	3.2
Gain on sale of business	—	—	16.7
Gain on sale of a product line	—	10.5	—
Gain on sale of equity investments	19.5	5.6	—
Other (expense) income, net	(3.1)	1.8	(5.0)
Non-operating income, net	8.9	17.1	11.3
Income before income taxes and equity in net loss of unconsolidated entities	198.5	232.9	181.1
Equity in net loss of unconsolidated entities	(0.9)	(2.1)	(1.3)
Income tax expense	45.6	47.8	42.9
Consolidated net income	\$ 152.0	\$ 183.0	\$ 136.9
Net income per share:			
Basic	\$ 3.56	\$ 4.30	\$ 3.21
Diluted	\$ 3.52	\$ 4.25	\$ 3.18
Dividends per common share:			
Dividends declared per common share	\$ 1.14	\$ 1.03	\$ 0.94
Dividends paid per common share	\$ 1.12	\$ 1.00	\$ 0.92
Weighted average shares outstanding:			
Basic	42.7	42.6	42.7
Diluted	43.2	43.0	43.0

See notes to consolidated financial statements.

Morningstar, Inc. and Subsidiaries

Consolidated Statements of Comprehensive Income

Year ended December 31 (in millions)	2019	2018	2017
Consolidated net income	\$ 152.0	\$ 183.0	\$ 136.9
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustment	11.5	(26.6)	33.4
Unrealized gains (losses) on securities:			
Unrealized holding gains (losses) arising during period	3.8	(1.0)	3.4
Reclassification of gains included in net income	(0.9)	(0.8)	(1.9)
Other comprehensive income (loss)	14.4	(28.4)	34.9
Comprehensive income	\$ 166.4	\$ 154.6	\$ 171.8

See notes to consolidated financial statements.

Morningstar, Inc. and Subsidiaries

Consolidated Balance Sheets

As of December 31 (in millions except share amounts)

	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 334.1	\$ 369.3
Investments	33.4	26.6
Accounts receivable, less allowance for doubtful accounts of \$4.1 and \$4.0, respectively	188.5	172.2
Income tax receivable, net	6.3	1.8
Deferred commissions	16.9	14.8
Other current assets	24.0	16.9
Total current assets	603.2	601.6
Property, equipment, and capitalized software, net	154.7	143.5
Investments in unconsolidated entities	59.6	63.1
Goodwill	1,039.1	556.7
Operating lease assets	144.8	—
Intangible assets, net	333.4	73.9
Deferred tax asset, net	10.7	—
Deferred commissions	13.5	10.3
Other assets	11.9	4.7
Total assets	\$ 2,370.9	\$ 1,453.8
Liabilities and equity		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 58.9	\$ 54.4
Accrued compensation	137.5	109.5
Deferred revenue	250.1	195.8
Current portion of long-term debt	11.0	—
Operating lease liabilities	35.8	—
Other current liabilities	2.5	3.1
Total current liabilities	495.8	362.8
Operating lease liabilities	138.7	—
Accrued compensation	12.1	11.8
Deferred tax liability, net	95.0	22.2
Long-term debt	502.1	70.0
Deferred revenue	32.2	14.2
Other long-term liabilities	11.4	38.1
Total liabilities	1,287.3	519.1
Equity:		
Morningstar, Inc. shareholders' equity:		
Common stock, no par value, 200,000,000 shares authorized, of which 42,848,359 and 42,642,118 shares were outstanding as of December 31, 2019 and December 31, 2018, respectively	—	—
Treasury stock at cost, 10,840,173 and 10,816,672 shares as of December 31, 2019 and December 31, 2018, respectively	(728.7)	(726.8)
Additional paid-in capital	655.0	621.7
Retained earnings	1,217.9	1,114.8
Accumulated other comprehensive loss:		
Currency translation adjustment	(63.0)	(74.5)
Unrealized gain (loss) on available-for-sale investments	2.4	(0.5)
Total accumulated other comprehensive loss	(60.6)	(75.0)
Total equity	1,083.6	934.7
Total liabilities and equity	\$ 2,370.9	\$ 1,453.8

See notes to consolidated financial statements.

Morningstar, Inc. and Subsidiaries

Consolidated Statements of Equity

(in millions, except share amounts)	Morningstar, Inc. Shareholders' Equity							Total Equity
	Common Stock Shares Outstanding	Par Value	Treasury Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Non Controlling Interest	
Balance as of December 31, 2016	42,932,994	\$ —	\$ (667.9)	\$ 584.0	\$ 861.9	\$ (81.5)	\$ 0.3	\$ 696.8
Net income		—	—	—	136.9	—	—	136.9
Other comprehensive income:								
Unrealized gain on available-for-sale investments, net of tax of \$1.8		—	—	—	—	3.4	—	3.4
Reclassification of adjustments for gains included in net income, net of income tax of \$1.2		—	—	—	—	(1.9)	—	(1.9)
Foreign currency translation adjustment, net		—	—	—	—	33.4	—	33.4
Other comprehensive income, net		—	—	—	—	34.9	—	34.9
Issuance of common stock related to stock-option exercises and vesting of restricted stock units, net	161,445	—	1.6	(6.2)	—	—	—	(4.6)
Stock-based compensation—restricted stock units		—	—	16.5	—	—	—	16.5
Stock-based compensation—performance share awards		—	—	7.1	—	—	—	7.1
Stock-based compensation—performance share awards		—	—	0.5	—	—	—	0.5
Common shares repurchased	(546,732)	—	(41.9)	—	—	—	—	(41.9)
Dividends declared (\$0.94 per share)		—	—	—	(40.1)	—	—	(40.1)
Purchase of additional interest in majority-owned investment		—	—	(0.9)	—	—	(0.3)	(1.2)
Balance as of December 31, 2017	42,547,707	—	(708.2)	601.0	958.7	(46.6)	—	804.9
Cumulative effect of accounting change related to the adoption of ASU No. 2014-09	—	—	—	—	17.0	—	—	17.0
Net income		—	—	—	183.0	—	—	183.0
Other comprehensive income:								
Unrealized loss on available-for-sale investments, net of tax of \$0.7		—	—	—	—	(1.0)	—	(1.0)
Reclassification of adjustments for gains included in net income, net of income tax of \$0.3		—	—	—	—	(0.8)	—	(0.8)
Foreign currency translation adjustment, net		—	—	—	—	(26.6)	—	(26.6)
Other comprehensive loss, net		—	—	—	—	(28.4)	—	(28.4)

Morningstar, Inc. and Subsidiaries

Consolidated Statements of Equity

(in millions, except share amounts)	Morningstar, Inc. Shareholders' Equity							Total Equity
	Common Stock Shares Outstanding	Common Stock Par Value	Treasury Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Non Controlling Interest	
Issuance of common stock related to stock-option exercises and vesting of restricted stock units, net of shares withheld for taxes on settlements of restricted stock units	278,656	—	2.3	(15.5)	—	—	—	(13.2)
Reclassification of awards previously liability-classified that were converted to equity	—	—	—	4.5	—	—	—	4.5
Stock-based compensation—restricted stock units	—	—	—	19.8	—	—	—	19.8
Stock-based compensation—performance share awards	—	—	—	10.2	—	—	—	10.2
Stock-based compensation—market stock units	—	—	—	1.7	—	—	—	1.7
Common shares repurchased	(202,245)	—	(20.9)	—	—	—	—	(20.9)
Dividends declared (\$1.03 per share)	—	—	—	—	(43.9)	—	—	(43.9)
Balance as of December 31, 2018	42,624,118	—	(726.8)	621.7	1,114.8	(75.0)	—	934.7
Net income	—	—	—	—	152.0	—	—	152.0
Other comprehensive income:								
Unrealized gain on available-for-sale investments, net of income tax of \$1.3	—	—	—	—	—	3.8	—	3.8
Reclassification of adjustments for gains included in net income, net of income tax of \$0.3	—	—	—	—	—	(0.9)	—	(0.9)
Foreign currency translation adjustment, net	—	—	—	—	—	11.5	—	11.5
Other comprehensive income, net	—	—	—	—	—	14.4	—	14.4
Issuance of common stock related to stock-option exercises and vesting of restricted stock units, net of shares withheld for taxes on settlements of restricted stock units	266,176	—	2.7	(17.9)	—	—	—	(15.2)
Reclassification of awards previously liability-classified that were converted to equity	—	—	—	6.8	—	—	—	6.8
Stock-based compensation—restricted stock units	—	—	—	20.4	—	—	—	20.4
Stock-based compensation—performance share awards	—	—	—	20.6	—	—	—	20.6
Stock-based compensation—market stock units	—	—	—	3.4	—	—	—	3.4
Common shares repurchased	(41,935)	—	(4.6)	—	—	—	—	(4.6)
Dividends declared (\$1.14 per share)	—	—	—	—	(48.9)	—	—	(48.9)
Balance as of December 31, 2019	42,848,359	\$ —	\$ (728.7)	\$ 655.0	\$ 1,217.9	\$ (60.6)	\$ —	\$ 1,083.6

See notes to consolidated financial statements.

Morningstar, Inc. and Subsidiaries

Consolidated Statements of Cash Flows

Year ended December 31 (in millions)	2019	2018	2017
Operating activities			
Consolidated net income	\$ 152.0	\$ 183.0	\$ 136.9
Adjustments to reconcile consolidated net income to net cash flows from operating activities:			
Depreciation and amortization	117.7	96.7	91.2
Deferred income taxes	(6.0)	(1.1)	(14.1)
Stock-based compensation expense	44.4	31.7	24.1
Provision for bad debt	2.3	2.5	2.3
Equity in net loss of unconsolidated entities	0.9	2.1	1.3
Gain on sale of business	—	—	(16.7)
Gain on sale of a product line	—	(10.5)	—
Gain on sale of equity investments	(19.5)	(5.6)	—
Other, net	1.1	(2.5)	1.8
Changes in operating assets and liabilities			
Accounts receivable	11.3	(29.6)	(1.2)
Accounts payable and accrued liabilities	3.2	6.0	0.7
Accrued compensation and deferred commissions	17.1	15.6	20.2
Income taxes—current	(11.6)	(12.4)	9.7
Deferred revenue	28.1	28.6	2.5
Other assets and liabilities	(6.6)	10.3	(8.6)
Cash provided by operating activities	334.4	314.8	250.1
Investing activities			
Purchases of investment securities	(36.2)	(35.7)	(34.9)
Proceeds from maturities and sales of investment securities	35.8	51.2	42.2
Capital expenditures	(80.0)	(76.1)	(66.6)
Acquisitions, net of cash acquired	(681.9)	(0.4)	(1.0)
Proceeds from sale of a business, net	—	—	23.7
Proceeds from sale of a product line	—	10.5	—
Proceeds from sale of equity-method investments, net	17.6	7.9	—
Purchases of equity- and cost-method investments	(1.5)	(7.4)	(24.8)
Other, net	(0.1)	0.1	0.6
Cash used for investing activities	(746.3)	(49.9)	(60.8)
Financing activities			
Common shares repurchased	(4.9)	(20.9)	(42.3)
Dividends paid	(47.8)	(42.6)	(39.3)
Proceeds from long-term debt	610.0	—	—
Repayment of long-term debt	(165.6)	(110.0)	(70.0)
Proceeds from stock-option exercises	0.2	0.1	0.2
Employee taxes withheld for restricted stock units	(15.2)	(13.3)	(4.8)
Other, net	(3.0)	(2.1)	(1.3)
Cash provided by (used for) financing activities	373.7	(188.8)	(157.5)
Effect of exchange rate changes on cash and cash equivalents	3.0	(15.0)	17.3
Net (decrease) increase in cash and cash equivalents	(35.2)	61.1	49.1
Cash and cash equivalents—beginning of period	369.3	308.2	259.1
Cash and cash equivalents—end of period	\$ 334.1	\$ 369.3	\$ 308.2
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	\$ 63.3	\$ 67.0	\$ 47.1
Cash paid for interest	\$ 11.0	\$ 3.7	\$ 5.4
Supplemental information of non-cash investing and financing activities:			
Unrealized gain (loss) on available-for-sale investments	\$ 3.9	\$ (2.7)	\$ 2.0

See notes to consolidated financial statements.

Morningstar, Inc. and Subsidiaries

Notes to Consolidated Financial Statements

1. Description of Business

Morningstar, Inc. and its subsidiaries (Morningstar, we, our, the company) provide independent investment research for investors around the world. We offer an extensive line of products and services for individual investors, financial advisors, asset managers, retirement plan providers and sponsors, and private market/venture capital investors. We have operations in 27 countries.

2. Summary of Significant Accounting Policies

The acronyms that appear in these Notes to our Consolidated Financial Statements refer to the following:

ASC	Accounting Standards Codification
ASU	Accounting Standards Update
EITF	Emerging Issues Task Force
FASB	Financial Accounting Standards Board
SEC	Securities and Exchange Commission

Principles of Consolidation. We conduct our business operations through wholly owned or majority-owned operating subsidiaries. The accompanying consolidated financial statements include the accounts of Morningstar, Inc. and our subsidiaries. We consolidate assets, liabilities, and results of operations of subsidiaries in which we have a controlling interest and eliminate all significant intercompany accounts and transactions.

We account for investments in entities in which we exercise significant influence, but do not control, using the equity method.

As part of our investment management operations, we manage certain funds outside of the U.S. that are considered variable interest entities. For the majority of these variable interest entities, we do not have a variable interest. In cases where we do have a variable interest, we are not the primary beneficiary. Accordingly, we do not consolidate any of these variable interest entities.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses during the reporting period. Actual results may differ from these estimates.

Cash and Cash Equivalents. Cash and cash equivalents consist of cash and investments with original maturities of three months or less. We state them at cost, which approximates fair value. We state the portion of our cash equivalents that are invested in money market funds at fair value, as these funds are actively traded and have quoted market prices.

Investments. We account for our investments in accordance with FASB ASC 320, *Investments—Debt and Equity Securities*. We classify our investments into three categories: held-to-maturity, trading, and available-for-sale.

- ▷ Held-to-maturity: We classify certain investments, primarily certificates of deposit, as held-to-maturity securities, based on our intent and ability to hold these securities to maturity. We record held-to-maturity investments at amortized cost in our Consolidated Balance Sheets.

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- ▷ Trading: We classify certain other investments, primarily equity securities, as trading securities. We include realized and unrealized gains and losses associated with these investments as a component of our operating income in our Consolidated Statements of Income. We record these securities at their fair values in our Consolidated Balance Sheets.
 - ▷ Available-for-sale: Investments not considered held-to-maturity or trading securities are classified as available-for-sale securities. Available-for-sale securities primarily consist of equity securities, exchange-traded funds, and mutual funds. We report unrealized gains and losses for available-for-sale securities as other comprehensive income (loss), net of related income taxes. We record these securities at their fair values in our Consolidated Balance Sheets.

Fair Value Measurements. FASB ASC 820, *Fair Value Measurements* (FASB ASC 820) defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. Under FASB ASC 820, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The standard applies whenever other standards require (or permit) assets or liabilities to be measured at fair value.

FASB ASC 820 uses a fair value hierarchy based on three broad levels of valuation inputs:

- ▷ Level 1: Valuations based on quoted prices in active markets for identical assets or liabilities that we have the ability to access.
- ▷ Level 2: Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.
- ▷ Level 3: Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

We provide additional information about our cash equivalents and investments that are subject to valuation under FASB ASC 820 in Note 7.

Concentration of Credit Risk. For the years ended December 31, 2019, 2018, and 2017, no single customer represented 5% or more of our consolidated revenue. If receivables from our customers become delinquent, we begin a collections process. We maintain an allowance for doubtful accounts based on our estimate of the probable losses of accounts receivable.

Property, Equipment, and Depreciation. We state property and equipment at historical cost, net of accumulated depreciation. We depreciate property and equipment using the straight-line method based on the useful life of the asset, which ranges from three to seven years. We amortize leasehold improvements over the lease term or their useful lives, whichever is shorter.

Computer Software and Internal Product Development Costs. We capitalize certain costs in accordance with FASB ASC 350-40, *Internal-Use Software*, FASB ASC 350-50, *Website Development Costs*, and FASB ASC 985, *Software*. Internal product development costs mainly consist of employee costs for developing new web-based products and certain major enhancements of existing products. We amortize these costs on a straight-line basis over the estimated economic life, which is generally three years. We include capitalized software development costs related to projects that have not been placed into service in our construction in progress balance.

The table below summarizes our depreciation expense related to capitalized developed software for the past three years:

(in millions)	2019	2018	2017
Capitalized developed software depreciation expense	\$ 61.1	\$ 42.8	\$ 30.6

The table below summarizes our capitalized software development costs for the past three years:

(in millions)	2019	2018	2017
Capitalized software development costs	\$ 64.8	\$ 53.5	\$ 46.3

Business Combinations. When we make acquisitions, we allocate the purchase price to the assets acquired, liabilities assumed, and goodwill. We follow FASB ASC 805, *Business Combinations*. We recognize and measure the fair value of the acquired operation as a whole, as well as the assets acquired and liabilities assumed, at their fair values as of the date we obtain control, regardless of the percentage ownership in the acquired operation or how the acquisition was achieved. We expense direct costs related to the business combination, such as advisory, accounting, legal, valuation, and other professional fees, as incurred. We recognize restructuring costs, including severance and relocation for employees of the acquired entity, as post-combination expenses unless the target entity meets the criteria of FASB ASC 420, *Exit or Disposal Cost Obligations*, on the acquisition date.

As part of the purchase price allocation, we follow the requirements of FASB ASC 740, *Income Taxes* (FASB ASC 740). This includes establishing deferred tax assets or liabilities reflecting the difference between the values assigned for financial statement purposes and income tax purposes. In certain acquisitions, the goodwill resulting from the purchase price allocation may not be deductible for income tax purposes. FASB ASC 740 prohibits recognition of a deferred tax asset or liability for temporary differences in goodwill if goodwill is not amortizable and deductible for tax purposes.

Goodwill. Changes in the carrying amount of our recorded goodwill are mainly the result of business acquisitions, divestitures, and the effect of foreign currency translations. In accordance with FASB ASC 350, *Intangibles—Goodwill and Other*, we do not amortize goodwill; instead, goodwill is subject to an impairment test annually, or whenever indicators of impairment exist. An impairment would occur if the carrying amount of a reporting unit exceeded the fair value of that reporting unit. We performed annual impairment reviews in the fourth quarter of 2019 and 2018. We did not record any impairment losses in 2019, 2018, and 2017.

Intangible Assets. We amortize intangible assets using the straight-line method over their estimated useful lives, which range from one to twenty years. We have no intangible assets with indefinite useful lives. In accordance with FASB ASC 360-10-35, *Subsequent Measurement—Impairment or Disposal of Long-Lived Assets*, we review intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. If the value of future undiscounted cash flows is less than the carrying amount of an asset group, we record an impairment loss based on the excess of the carrying amount over the fair value of the asset group. We did not record any impairment losses in 2019, 2018, and 2017.

Revenue Recognition. On January 1, 2018, we began recognizing revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers* (ASC Topic 606). The company has retained similar recognition and measurement upon adoption of ASC Topic 606 as under accounting standards in effect in prior periods.

Under ASC Topic 606, we recognize revenue by applying the following five-step model to each of our customer arrangements:

1. Identify the customer contract;

2. Identify the performance obligations in the contract;
3. Determine the transaction price;
4. Allocate the transaction price to the performance obligations; and
5. Recognize revenue when (or as) performance obligations are satisfied.

Revenues are recognized when (or as) performance obligations are satisfied by transferring a promised product or service to the customer. Products or services are transferred when (or as) the customer obtains control of the product or service. The transaction price for a customer arrangement is the amount we expect to be entitled to in exchange for transferring the promised product or service. The transaction price may include fixed amounts, variable amounts, or both. When the right to payment exceeds revenue recognized the result is an increase to deferred revenue. When a customer's license-based contract is signed, the customer's service is activated immediately. License-based arrangements, our largest source of revenue from customers, generally is billed for the entire term, or billed annually (if the contract term is longer than one year). Customers are typically given payment terms of thirty to sixty days, although some customers pay immediately.

Revenue from contracts with customers is derived from license-based arrangements, asset-based arrangements, and transaction-based arrangements.

License-based revenue, which represents subscription services available to customers and not a license under the accounting guidance, is generated through subscription contracts entered into with our customers of Morningstar Data, Morningstar Direct, Morningstar Advisor Workstation, Morningstar Enterprise Components, PitchBook Data, and other similar products. Our performance obligations under these contracts are typically satisfied over time, as the customer has access to the service during the term of the subscription license and the level of service is consistent during the contract period. Each individual day within the contract period is viewed to be a service and the entirety of the service subscription term is determined to be a series combined into a single performance obligation and recognized over-time and on a straight-line basis, typically over terms of 12 to 36 months.

Asset-based revenue is generated through consulting service contracts with our customers of Morningstar Investment Management, Workplace Solutions, and Morningstar Indexes. Our performance obligations under these contracts are a daily asset management performance obligation which is determined to be a daily service and thus satisfied over time as the customer receives continuous access to a service for the contract term. We recognize revenue daily over the contract term based on the value of assets under management and a tiered fee agreed to with the customer (typically in a range of 30-55 basis points of the customer's average daily portfolio balance). Asset-based arrangements typically have a term of 12 to 36 months. The fees from such arrangements represent variable consideration, and the customer does not make separate purchasing decisions that result in additional performance obligations. Significant changes in the underlying fund assets, or significant disruptions in the market, are evaluated to determine if revisions on estimates of earned asset-based fees for the current quarter are needed. An estimate of the average daily portfolio balance is included in determining revenue for a given period. Estimates are based on the most recently reported quarter, and, as a result, it is unlikely a significant reversal of revenue would occur.

Transaction-based revenue is generated through contracts with our customers for the provision of DBRS Morningstar credit ratings, Internet advertising on morningstar.com, and Morningstar conferences. Our performance obligations for Morningstar Credit Ratings include the issuance of the rating and may include surveillance services for a period of time as agreed with the customer. We allocate the transaction price to the deliverables based on their relative selling price, which is generally based on the price we charge when the same deliverable is sold separately. Our performance obligation for the issuance of the rating is

satisfied when the rating is issued, which is when we recognize the related revenue. Our performance obligations for surveillance services is satisfied over time, as the customer has access to the service during the surveillance period and the level of service is consistent during the contract period. Therefore, we recognize revenue for this performance obligation on a straight-line basis. Our performance obligations for Internet advertising and Morningstar conferences are satisfied as the service is delivered, and therefore we recognize revenue when the performance obligation is satisfied (as the customer's advertisements are displayed and at the completion of the Morningstar conference).

Our contracts with customers may include multiple performance obligations. For most of these arrangements, we generally allocate revenue to each performance obligation based on its estimated standalone selling price. We generally determine standalone selling prices based on prices charged to customers when the same performance obligation is sold separately.

Our contracts with customers may include third-party involvement in providing goods or services to the customer. The inclusion of third-party content does not result in separate performance obligations because it is not delivered separately from the other service offerings. In these arrangements, the customer has contracted to receive a single, integrated and bundled solution with third-party and Morningstar content delivered via Morningstar's subscription services. Revenue and related costs of revenue from third-party content is presented on a gross basis within the condensed consolidated financial statements.

Deferred revenue represents the portion of licenses or subscriptions billed or collected in advance of the service being provided which we expect to recognize as revenue in future periods.

Sales Commissions. Under prior accounting standards, the company expensed sales incentive compensation costs, (sales commissions) as incurred. However, upon adopting ASC Topic 606 and ASC 340-40, *Other Assets and Deferred Costs—Contracts with Customers*, on January 1, 2018, we began capitalizing sales commissions, which are considered directly attributable to obtaining a customer contract. Such costs are capitalized using a portfolio approach that aggregates these costs by legal entity within their geographical regions. Capitalized sales commissions are amortized using the straight-line method over a period that is consistent with the transfer of the products or services to the customer to which the sales commission relates. The period of transfer for each portfolio is the shorter of the weighted-average customer life, or the economic life of the underlying technology that delivers the products or services. As of December 31, 2019, the period of transfer was determined to be approximately two to three years. Discretionary amounts which are added to sales commission payments are expensed as incurred, as they are not considered to be directly attributable to obtaining a customer contract.

Stock-Based Compensation Expense. We account for our stock-based compensation expense in accordance with FASB ASC 718, *Compensation—Stock Compensation* (FASB ASC 718). Our stock-based compensation expense reflects grants of restricted stock units, performance share awards, market stock units, and stock options. We measure the fair value of our restricted stock units, restricted stock, and performance share awards on the grant date based on the closing market price of Morningstar's common stock on the day prior to the grant. For market stock units, we estimate the fair value of the awards using a Monte Carlo valuation model. For stock options, we estimate the fair value of our stock options on the date of grant using a Black-Scholes option-pricing model. We amortize the fair values to stock-based compensation expense, net of estimated forfeitures, ratably over the vesting period.

We estimate expected forfeitures of all employee stock-based awards and recognize compensation cost only for those awards expected to vest. We determine forfeiture rates based on historical experience and adjust the estimated forfeitures to actual forfeiture experience, as needed.

Income Taxes. We record deferred income taxes for the temporary differences between the carrying amount of assets and liabilities for financial statement purposes and tax purposes in accordance with FASB ASC 740. FASB ASC 740 prescribes the minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. It also provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, and disclosure for uncertain tax positions.

We recognize interest and penalties related to unrecognized tax benefits as part of income tax expense in our Consolidated Statements of Income. We classify liabilities related to unrecognized tax benefits as either current or long-term liabilities in our Consolidated Balance Sheet, depending on when we expect to make payment.

Leases. We determine if a contract is or contains a lease at the inception of the contract. For identified operating leases, we recognize a lease liability and right-of-use asset on the consolidated balance sheet. The right-of-use asset represents our right to use an underlying asset for the lease term, and the operating lease liability represents the company's obligation to make lease payments.

Our lease agreements consist primarily of real estate leases for office space, and non-real estate leases in which office equipment is primarily the underlying asset. In cases where an agreement contains both a lease and non-lease component, we do not allocate consideration to both components, but account for each as a single lease component by class of underlying asset. There are few instances of short-term agreements in our lease portfolio, which are typically arranged as needed and paid on a month-to-month basis. These leases are not recognized on the Consolidated Balance Sheet, but monthly lease expense is recognized on the Consolidated Statements of Income.

Operating lease liabilities and right-of-use assets are measured using the present value of future lease payments of the lease term at the commencement date. Right-of-use assets also include initial direct costs incurred by the company, net of pre-payments and lease incentives. In the absence of an explicit rate in the lease agreement, the discount rate used to calculate present value is equal to the company's incremental borrowing rate. Operating lease expense is recognized on a straight-line basis over the life of the lease and is included in general and administrative expenses on the Consolidated Statements of Income.

3. Credit Arrangements

Debt

The following table summarizes our total debt and long-term debt as of December 31, 2019 and December 31, 2018.

(in millions)	As of December 31, 2019	As of December 31, 2018
Term Facility, net of unamortized debt issuance costs of \$1.3 million	\$ 443.1	\$ —
Revolving Credit Facility	70.0	—
Prior Revolving Credit Facility	—	70.0
Total debt	\$ 513.1	\$ 70.0
Less: Current portion of long-term debt, net of unamortized debt issuance costs of \$0.3 million	11.0	—
Long-term debt	\$ 502.1	\$ 70.0

Credit Agreement

In connection with the acquisition of Ratings Acquisition Corp (DBRS) on July 2, 2019, the company entered into a new senior credit agreement (the Credit Agreement). The Credit Agreement provides the company with a five-year multi-currency credit

facility with an initial borrowing capacity of up to \$750.0 million, including a \$300.0 million revolving credit facility (the Revolving Credit Facility) and a term loan facility of \$450.0 million (the Term Facility). The Credit Agreement also provides for the issuance of up to \$50.0 million of letters of credit and a \$100.0 million sub-limit for a swingline facility under the Revolving Credit Facility. The new Credit Agreement will expire on July 2, 2024. As of December 31, 2019, our total outstanding debt under the Credit Agreement was \$513.1 million with borrowing availability of \$230.0 million under the Revolving Credit Facility.

The interest rate applicable to any loan under the Credit Agreement is, at our option, either: (i) the applicable London interbank offered rate (LIBOR) plus an applicable margin for such loans, which ranges between 1.00% and 1.50%, based on our consolidated leverage ratio or (ii) the lender's base rate plus the applicable margin for such loans, which ranges between 0.00% and 0.50%, based on our consolidated leverage ratio.

The proceeds of the Term Facility and initial borrowings under the Revolving Credit Facility were used to finance the acquisition of DBRS. The proceeds of future borrowings under the Revolving Credit Facility may be used for working capital, capital expenditures or any other lawful corporate purpose.

The portions of deferred debt issuance costs related to the Revolving Credit Facility are included in other current and other non-current assets, and the portion of deferred debt issuance costs related to the Term Facility is reported as a reduction to the carrying amount of the Term Facility. Amortization of debt issuance costs related to the Revolving Credit Facility are amortized on a straight-line to interest expense over the term of the Credit Agreement. Amortization of debt issuance costs related to the Term Facility are amortized to interest expense using the effective interest method over the term of the Credit Agreement.

Prior Revolving Credit Facility

The new Credit Agreement replaced the prior \$300.0 million five-year credit facility (the Prior Revolving Credit Facility), which was scheduled to expire on December 21, 2020. The Prior Revolving Credit Facility was repaid and terminated by the company upon execution of the Credit Agreement. In December 2018, we amended the Prior Revolving Credit Facility to extend the maturity date to December 21, 2020 with no other changes in terms. This credit agreement provided us with a borrowing capacity of up to \$300.0 million and provided for issuance of up to \$25.0 million of letters of credit. The interest rate applicable to any loan under the credit agreement was, at our option, either: (i) the applicable LIBOR plus an applicable margin for such loans, which ranged between 1.00% and 1.75%, based on our consolidated leverage ratio or (ii) the lender's base rate plus the applicable margin for such loans which ranged between 2.00% and 2.75%, based on our consolidated leverage ratio.

Compliance with Covenants

The Credit Agreement contains financial covenants under which we: (i) may not exceed a maximum consolidated leverage ratio of 3.50 to 1.00 (or 3.75 to 1.00 for the four fiscal quarters following any material acquisition (as defined in the Credit Agreement)) and (ii) are required to maintain a minimum consolidated interest coverage ratio of not less than 3.00 to 1.00. We were in compliance with the financial covenants as of December 31, 2019 and December 31, 2018.

4. Income Per Share

The following table shows how we reconcile our net income and the number of shares used in computing basic and diluted income per share:

(in millions, except per share amounts)	2019	2018	2017
Basic net income per share:			
Consolidated net income	\$ 152.0	\$ 183.0	\$ 136.9
Weighted average common shares outstanding	42.7	42.6	42.7
Basic net income per share	\$ 3.56	\$ 4.30	\$ 3.21
Diluted net income per share:			
Consolidated net income	\$ 152.0	\$ 183.0	\$ 136.9
Weighted average common shares outstanding	42.7	42.6	42.7
Net effect of dilutive stock options and restricted stock units	0.5	0.4	0.3
Weighted average common shares outstanding for computing diluted income per share	43.2	43.0	43.0
Diluted net income per share	\$ 3.52	\$ 4.25	\$ 3.18

During the periods presented, the number of anti-dilutive restricted stock units, performance share awards, or market stock units to exclude from our calculation of diluted earnings per share was immaterial.

5. Revenue

Disaggregation of Revenue

The following table presents our revenue disaggregated by revenue type. Sales and usage-based taxes are excluded from revenue.

	Year ended December 31		
(in millions)	2019	2018	2017
License-based	\$ 812.7	\$ 751.6	\$ 667.7
Asset-based	211.6	200.4	182.2
Transaction-based	154.7	67.9	61.8
Consolidated revenue	\$ 1,179.0	\$ 1,019.9	\$ 911.7

License-based performance obligations are generally satisfied over time as the customer has access to the product or service during the term of the subscription license and the level of service is consistent during the contract period. License-based agreements typically have a term of 12 to 36 months. License-based revenue is generated from the sale of Morningstar Data, Morningstar Direct, Morningstar Advisor Workstation, PitchBook, and other similar products.

Asset-based performance obligations are satisfied over time as the customer receives continuous access to a service for the term. Asset-based arrangements typically have a term of 12 to 36 months. The asset-based fees represent variable consideration and the customer does not make separate purchasing decisions that result in additional performance obligations. Significant changes in the underlying fund assets, or significant disruptions in the market, are evaluated to determine if revisions of estimates of earned asset-based fees are needed for the current quarter. An estimate of variable consideration is included in the initial transaction price only to the extent it is probable that a significant reversal in the amount of the revenue recognized will not occur. Estimates of asset-based fees are based on the most recently completed quarter and, as a result, it is unlikely a significant reversal of revenue would occur. Asset-based revenue includes Morningstar Investment Management, Workplace Solutions, and Morningstar Indexes.

Transaction-based performance obligations are satisfied when the product or service is completed or delivered. Transaction-based revenue includes DBRS Morningstar credit ratings, Internet advertising, and conferences. DBRS Morningstar credit ratings revenue may include revenue from surveillance services, which is recognized over time, as the customer has access to the service during the surveillance period.

Contract liabilities

Our contract liabilities represent deferred revenue. We record contract liabilities when cash payments are received or due in advance of our performance, including amounts which may be refundable. The contract liabilities balance as of December 31, 2019 had a net increase of \$72.3 million, primarily driven by cash payments received or payable in advance of satisfying our performance obligations. We recognized \$194.9 million of revenue in 2019 that was included in the contract liabilities balance as of December 31, 2018.

We expect to recognize revenue related to our contract liabilities for 2020 and subsequent years as follows:

(in millions)	As of December 31, 2019
2020	\$ 437.1
2021	107.1
2022	44.4
2023	14.2
2024	8.9
Thereafter	55.0
Total	\$ 666.7

The aggregate amount of revenue we expect to recognize for 2020 and subsequent years is higher than our contract liability balance of \$282.3 million as of December 31, 2019. The difference represents the value of future obligations for signed contracts where we have not yet begun to satisfy the performance obligations or have partially satisfied performance obligations.

The table above does not include variable consideration for unsatisfied performance obligations related to certain of our licensed-based, asset-based, and transaction-based contracts as of December 31, 2019. We are applying the optional exemption available under ASC Topic 606, as the variable consideration relates to these unsatisfied performance obligations being fulfilled as a series. The performance obligations related to these contracts are expected to be satisfied over the next 12 to 36 months as services are provided to the client. For licensed-based contracts, the consideration received for services performed is based on future user count, which is known at the time the services are performed. The variable consideration for this revenue can be affected by the number of user licenses, which cannot be reasonably estimated. For asset-based contracts, the consideration received for services performed is based on future asset values, which will be known at the time the services are performed. The variable consideration for this revenue can be affected by changes in the underlying value of fund assets due to client redemptions, additional investments, or movements in the market. For transaction-based contracts, the consideration received for services performed is based on the number of impressions, which will be known once impressions are created. The variable consideration for this revenue can be affected by the timing and quantity of impressions in any given period and cannot be reasonably estimated.

As of December 31, 2019, the table above also does not include revenue for unsatisfied performance obligations related to certain of our license-based and transaction-based contracts with duration of one year or less since we are applying the optional exemption under ASC Topic 606. For certain license-based contracts, the remaining performance obligation is expected to be less than one year based on the corresponding subscription terms. For transaction-based contracts, such as new credit rating issuances and conferences, the related performance obligations are expected to be satisfied within the next twelve months.

Contract Assets

Our contract assets represent accounts receivable, less allowance for doubtful accounts and deferred commissions.

The following table summarizes our contract assets balance:

(in millions)	As of December 31	
	2019	2018
Accounts receivable, less allowance for doubtful accounts	\$ 188.5	\$ 172.2
Deferred commissions	30.4	25.1
Total contract assets	\$ 218.9	\$ 197.3

The following table shows the change in our deferred commissions balance from January 1, 2019 to December 31, 2019:

	(in millions)
Balance as of January 1, 2019	\$ 25.1
Commissions earned and capitalized	24.9
Amortization of capitalized amounts	(19.6)
Balance as of December 31, 2019	\$ 30.4

6. Segment and Geographical Area Information*Segment Information*

We report our results in a single reportable segment, which reflects how our chief operating decision maker allocates resources and evaluates our financial results. Because we have a single reportable segment, all required financial segment information can be found directly in the Consolidated Financial Statements. The accounting policies for our reportable segment are the same as those described in Note 2. We evaluate the performance of our reporting segment based on revenue and operating income.

Geographical Area Information

The tables below summarize our revenue, long-lived assets, which includes property, equipment, and capitalized software, net and operating lease assets, by geographical area:

Revenue by geographical area

(in millions)	Year ended December 31		
	2019	2018	2017
United States	\$ 866.4	\$ 764.2	\$ 687.0
Asia	27.9	24.5	21.2
Australia	39.5	40.9	34.6
Canada	56.9	30.7	29.4
Continental Europe	88.0	81.2	69.9
United Kingdom	93.9	72.4	64.7
Other	6.4	6.0	4.9
Total International	312.6	255.7	224.7
Consolidated revenue	\$ 1,179.0	\$ 1,019.9	\$ 911.7

Property, equipment, and capitalized software, net by geographical area

(in millions)	As of December 31	
	2019	2018
United States	\$ 131.2	\$ 126.4
Asia	6.6	6.5
Australia	4.2	5.0
Canada	2.9	0.3
Continental Europe	2.3	1.3
United Kingdom	6.9	3.8
Other	0.6	0.2
Total International	23.5	17.1
Consolidated property, equipment, and capitalized software, net	\$ 154.7	\$ 143.5

Operating lease assets by geographical area

(in millions)	As of December 31	
	2019	2018
United States	\$ 86.4	\$ —
Asia	20.2	—
Australia	5.8	—
Canada	7.5	—
Continental Europe	6.3	—
United Kingdom	17.9	—
Other	0.7	—
Total International	58.4	—
Consolidated operating lease assets	\$ 144.8	\$ —

As of December 31, 2018, there were no operating lease assets on the balance sheet since Topic 842 became effective for the company on January 1, 2019.

The long-lived assets by geographical area table does not include deferred commissions, non-current as the balance is not significant.

7. Investments and Fair Value Measurements

We classify our investments into three categories: available-for-sale, held-to-maturity, and trading. Our investment portfolio consists of stocks, bonds, options, mutual funds, money market funds, or exchange-traded products that replicate the model portfolios and strategies created by Morningstar. These investment accounts may also include exchange-traded products where Morningstar is an index provider. We classify our investment portfolio as shown below:

(in millions)	As of December 31	
	2019	2018
Available-for-sale	\$ 25.8	\$ 20.1
Held-to-maturity	2.3	2.5
Trading securities	5.3	4.0
Total	\$ 33.4	\$ 26.6

The following table shows the cost, unrealized gains (losses), and fair values related to investments classified as available-for-sale and held-to-maturity:

(in millions)	As of December 31, 2019				As of December 31, 2018			
	Cost	Unrealized Gain	Unrealized Loss	Fair Value	Cost	Unrealized Gain	Unrealized Loss	Fair Value
Available-for-sale:								
Equity securities and exchange-traded funds	\$ 19.0	\$ 2.9	\$ —	\$ 21.9	\$ 17.9	\$ 1.2	\$ (1.8)	\$ 17.3
Mutual funds	3.7	0.2	—	3.9	3.0	—	(0.2)	2.8
Total	\$ 22.7	\$ 3.1	\$ —	\$ 25.8	\$ 20.9	\$ 1.2	\$ (2.0)	\$ 20.1
Held-to-maturity:								
Certificates of deposit	\$ 2.3	\$ —	\$ —	\$ 2.3	\$ 2.5	\$ —	\$ —	\$ 2.5
Total	\$ 2.3	\$ —	\$ —	\$ 2.3	\$ 2.5	\$ —	\$ —	\$ 2.5

As of December 31, 2019 and December 31, 2018, investments with unrealized losses for greater than a 12-month period were not material to the Consolidated Balance Sheets and were not deemed to have other than temporary declines in value.

The table below shows the cost and fair value of investments classified as available-for-sale and held-to-maturity based on their contractual maturities as of December 31, 2019 and December 31, 2018.

(in millions)	As of December 31, 2019		As of December 31, 2018	
	Cost	Fair Value	Cost	Fair Value
Available-for-sale:				
Equity securities, exchange-traded funds, and mutual funds	\$ 22.7	\$ 25.8	\$ 20.9	\$ 20.1
Total	\$ 22.7	\$ 25.8	\$ 20.9	\$ 20.1
Held-to-maturity:				
Due in one year or less	\$ 2.3	\$ 2.3	\$ 2.3	\$ 2.3
Due in one to three years	—	—	0.2	0.2
Total	\$ 2.3	\$ 2.3	\$ 2.5	\$ 2.5

The following table shows the realized gains and losses arising from sales of our investments classified as available-for-sale recorded in our Consolidated Statements of Income:

(in millions)	2019	2018	2017
Realized gains	\$ 1.2	\$ 1.8	\$ 3.4
Realized losses	—	(0.8)	(0.2)
Realized gains, net	\$ 1.2	\$ 1.0	\$ 3.2

We determine realized gains and losses using the specific identification method.

The following table shows the net unrealized (losses) gains on trading securities as recorded in our Consolidated Statements of Income:

(in millions)	2019	2018	2017
Unrealized (losses) gains, net	\$ 0.6	\$ (0.2)	\$ 0.1

The table below shows the fair value of our assets subject to fair value measurements that are measured at fair value on a recurring basis using the fair value hierarchy:

- Level 1: Valuations based on quoted prices in active markets for identical assets or liabilities that we have the ability to access.
- Level 2: Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.
- Level 3: Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

(in millions)	Fair Value as of December 31, 2019	Fair Value Measurements as of December 31, 2019 Using Fair Value Hierarchy		
		Level 1	Level 2	Level 3
Available-for-sale investments				
Equity securities and exchange-traded funds	\$ 21.9	\$ 21.9	\$ —	\$ —
Mutual funds	3.9	3.9	—	—
Trading securities	5.3	5.3	—	—
Cash equivalents	0.9	0.9	—	—
Total	\$ 32.0	\$ 32.0	\$ —	\$ —

(in millions)	Fair Value as of December 31, 2018	Fair Value Measurements as of December 31, 2018 Using Fair Value Hierarchy		
		Level 1	Level 2	Level 3
Available-for-sale investments				
Equity securities and exchange-traded funds	\$ 17.3	\$ 17.3	\$ —	\$ —
Mutual funds	2.8	2.8	—	—
Trading securities	4.0	4.0	—	—
Cash equivalents	0.1	0.1	—	—
Total	\$ 24.2	\$ 24.2	\$ —	\$ —

Based on our analysis of the nature and risks of our investments in equity securities and mutual funds and exchange-traded funds, we have determined that presenting each of these investment categories in the aggregate is appropriate.

We measure the fair value of money market funds, mutual funds, equity securities, and exchange-traded funds based on quoted prices in active markets for identical assets or liabilities. We did not hold any securities categorized as Level 2 or Level 3 as of December 31, 2019 and December 31, 2018.

8. Acquisitions, Goodwill, and Other Intangible Assets

2019 Acquisitions

AdviserLogic

On December 1, 2019, we acquired AdviserLogic, a cloud-based financial planning software platform for financial advisors in Australia. We began consolidating the financial results of AdviserLogic in our Consolidated Financial Statements on December 1, 2019.

DBRS

On July 2, 2019, we acquired 100% of the voting equity interests of DBRS for total cash consideration of \$682.1 million. DBRS delivers comprehensive credit rating services and ongoing surveillance to customers in various market sectors across Canada, the U.S., and Europe. The combination of DBRS with Morningstar Credit Ratings' business (collectively, DBRS Morningstar) expands global asset class coverage and provides investors with fixed-income analysis and research through the combined platform.

We began consolidating the financial results of this acquisition in our Consolidated Financial Statements on July 2, 2019. DBRS Morningstar contributed \$127.6 million of revenue and \$123.5 million of operating expense during the year ended December 31, 2019. We incurred transaction-related costs of \$6.5 million during the year 2019.

We accounted for this transaction using the acquisition method of accounting, which requires that assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date. Morningstar was the accounting acquirer for purposes of accounting for the business combination. The values assigned to the assets acquired and liabilities assumed are based on preliminary estimates of fair value available as of December 31, 2019, and may be adjusted during the measurement period of up to 12 months from the date of acquisition as further information becomes available. Any changes in the fair values of the assets acquired and liabilities assumed during the measurement period may result in adjustments to goodwill.

As of December 31, 2019, we completed our initial determination of the fair values of the acquired, identifiable assets and liabilities based on the information available. The primary areas that are not yet finalized due to information that may become available subsequently and may result in changes in the values assigned to various assets and liabilities include acquired intangible assets and current and deferred tax assets and liabilities. If additional information that existed as the time of the acquisition date becomes available within 12 months of the acquisition date, there may be adjustments to these initial fair value measurements.

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

	(in millions)
Cash consideration transferred	\$ 682.1
Cash and cash equivalents	\$ 8.5
Accounts receivable	28.8
Property, equipment, and capitalized software, net	12.8
Intangible assets, net	284.1
Goodwill	473.3
Operating lease assets	33.3
Other current and non-current assets	5.7
Deferred revenue	(43.2)
Deferred tax liability, net	(66.6)
Operating lease liabilities	(35.0)
Other current and non-current liabilities	(19.6)
Total fair value of DBRS	\$ 682.1

Accounts receivable acquired were recorded at gross contractual amounts receivable, which approximates fair value. We expect to collect substantially all of the gross contractual amounts receivable within a reasonable period of time after the acquisition date.

The preliminary allocation of the estimated fair values of the assets acquired and liabilities assumed includes \$284.1 million of acquired intangible assets, as follows:

	(in millions)	Weighted Average Useful Life (years)
Customer-related assets	\$ 219.1	10
Technology-based assets	29.4	5
Intellectual property (trademarks and trade names)	35.6	7
Total intangible assets	\$ 284.1	

We recognized a preliminary net deferred tax liability of \$66.6 million mainly because the amortization expense related to certain intangible assets is not deductible for income tax purposes.

Goodwill of \$473.3 million represents the excess over the fair value of the net tangible and intangible assets acquired. Goodwill is not deductible for income tax purposes.

The following unaudited pro forma information presents a summary of our Condensed Consolidated Statements of Income for the year ended December 31, 2019 and 2018, as if we had completed the acquisition as of January 1, 2018.

This unaudited pro forma information is presented for illustrative purposes and is not intended to represent or be indicative of the actual results of operations or expected synergies of DBRS Morningstar that would have been achieved had the acquisition occurred at the beginning of the earliest period presented, nor is it intended to represent or be indicative of future results of operations.

In calculating the pro forma information below, we included an estimate of amortization expense related to the intangible assets acquired, depreciation expense due to changes in estimated remaining useful lives of long-lived assets, reduction in revenue as a result of the fair value adjustments to deferred revenue, and interest expense incurred on the long-term debt.

Unaudited Pro Forma Financial Information (in millions)	2019	2018
Revenue	\$ 1,259.2	\$ 1,184.5
Operating income	190.3	223.6
Net income	148.2	179.7
Basic net income per share	\$ 3.47	\$ 4.22
Diluted net income per share	\$ 3.43	\$ 4.18

Other acquisition activity during 2019 was not significant.

Goodwill

The following table shows the changes in our goodwill balances from January 1, 2018 to December 31, 2019:

	(in millions)
Balance as of January 1, 2018	\$ 564.9
Other, primarily foreign currency translation	(8.2)
Balance as of December 31, 2018	\$ 556.7
Acquisition of DBRS	473.3
Other, primarily foreign currency translation	9.1
Balance as of December 31, 2019	\$ 1,039.1

We did not record any impairment losses in 2019, 2018, or 2017 as the estimated fair value of our reporting unit exceeded its carrying value and we did not note any indicators of impairment. We perform our annual impairment testing during the fourth quarter of each year.

Intangible Assets

The following table summarizes our intangible assets:

	As of December 31, 2019				As of December 31, 2018			
(in millions)	Gross	Accumulated Amortization	Net	Weighted Average Useful Life (years)	Gross	Accumulated Amortization	Net	Weighted Average Useful Life (years)
Intellectual property	\$ 66.7	\$ (32.9)	\$ 33.8	8	\$ 30.8	\$ (29.2)	\$ 1.6	9
Customer-related assets	377.9	(130.3)	247.6	11	153.0	(111.7)	41.3	12
Supplier relationships	0.2	(0.1)	0.1	20	0.2	(0.1)	0.1	20
Technology-based assets	163.7	(112.0)	51.7	7	126.9	(96.3)	30.6	7
Non-competition agreements	2.4	(2.2)	0.2	5	2.4	(2.1)	0.3	5
Total intangible assets	\$ 610.9	\$ (277.5)	\$ 333.4	10	\$ 313.3	\$ (239.4)	\$ 73.9	10

The following table summarizes our amortization expense related to intangible assets:

(in millions)	2019	2018	2017
Amortization expense	\$ 36.5	\$ 20.7	\$ 23.6

We did not record any impairment losses involving intangible assets in 2019, 2018, or 2017.

We amortize intangible assets using the straight-line method over their expected economic useful lives.

Based on acquisitions and divestitures completed through December 31, 2019, we expect intangible amortization expense for 2020 and subsequent years to be as follows:

	(in millions)
2020	\$ 53.5
2021	50.2
2022	42.2
2023	40.0
2024	34.0
Thereafter	113.5
Total	\$ 333.4

Our estimates of future amortization expense for intangible assets may be affected by additional acquisitions, divestitures, changes in the estimated average useful lives, impairments, and foreign currency translation.

9. Divestitures

2019 Divestitures

We did not complete any divestitures in 2019.

2018 Divestitures

In January 2018, we sold our 15(c) board consulting services product line for \$10.5 million and recorded a gain of \$10.5 million on the sale.

2017 Divestitures

On June 30, 2017, we sold HelloWallet to KeyBank National Association, a bank-based financial services company. We recorded a gain on the sale of \$16.7 million. This gain mainly represents the sale proceeds of \$23.7 million less \$2.4 million of goodwill and the write-off of the remaining net book value of the acquired intangible assets. As some aspects of HelloWallet had been integrated into Morningstar's single reporting unit, the goodwill attributable to this transaction was calculated using a relative fair value allocation method.

The sale of HelloWallet did not meet the criteria to be classified as a discontinued operation because the divestiture did not represent a strategic shift that had, or will have, a major effect on our operations and financial results.

The following table summarizes the amounts included in the gain on sale of the business for the year ended December 31, 2017:

(in millions)	Year ended December 31 2017
Proceeds received	\$ 23.7
Intangibles and internally developed software	(4.5)
Goodwill	(2.4)
Other assets and liabilities	(0.1)
Total gain on sale of business	\$ 16.7

10. Investments in Unconsolidated Entities

Our investments in unconsolidated entities consist primarily of the following:

(in millions)	As of December 31	
	2019	2018
Investment in MJKK	\$ 24.0	\$ 23.9
Investment in Sustainalytics	25.3	25.7
Other-equity method investments	6.6	10.3
Investments accounted for using the cost method	3.7	3.2
Total investments in unconsolidated entities	\$ 59.6	\$ 63.1

Morningstar Japan K.K. Morningstar Japan K.K. (MJKK) develops and markets financial information products and services customized for the Japanese market. MJKK's shares are traded on the Tokyo Stock Exchange under the ticker 47650. We account for our investment in MJKK using the equity method. The following table summarizes our ownership percentage in MJKK and the market value of this investment based on MJKK's publicly quoted share price:

	As of December 31	
	2019	2018
Morningstar's approximate ownership of MJKK	30.4%	30.4%
Approximate market value of Morningstar's ownership in MJKK:		
Japanese yen (¥ in millions)	¥ 10,319.0	¥ 7,525.4
Equivalent U.S. dollars (\$ in millions)	\$ 95.0	\$ 68.4

Sustainalytics Holding B.V. In July 2017, we acquired a minority stake in Sustainalytics Holding B.V. (Sustainalytics), which is an independent environmental, social, and governance and corporate governance research, ratings, and analysis firm supporting investors around the world with the development and implementation of responsible investment strategies. Our ownership in Sustainalytics was 43.4% as of December 31, 2019 and 44.0% as of December 31, 2018.

11. Property, Equipment, and Capitalized Software, net

The following table shows our property, equipment, and capitalized software, net summarized by major category:

(in millions)	As of December 31	
	2019	2018
Capitalized software	\$ 328.3	\$ 294.8
Capitalized equipment	70.1	83.5
Furniture and fixtures	33.7	29.6
Leasehold improvements	92.1	77.3
Telephone equipment	2.3	2.1
Construction in progress	5.5	7.9
Property, equipment, and capitalized software, at cost	532.0	495.2
Less accumulated depreciation	(377.3)	(351.7)
Property, equipment, and capitalized software, net	\$ 154.7	\$ 143.5

The following table summarizes our depreciation expense:

(in millions)	2019	2018	2017
Depreciation expense	\$ 81.2	\$ 76.0	\$ 67.6

12. Leases

We lease office space and certain equipment under various operating and finance leases, with the majority of our lease portfolio consisting of operating leases for office space.

We determine whether an arrangement is or includes an embedded lease at contract inception. Operating lease assets and lease liabilities are recognized at commencement date and initially measured using the present value of lease payments over the defined lease term. Lease expense is recognized on a straight-line basis over the lease term. For finance leases, we also recognize a finance lease asset and finance lease liability at inception, with lease expense recognized as interest expense and amortization.

A contract is or contains an embedded lease if the contract meets all of the below criteria:

- ▷ There is an identified asset;
- ▷ We obtain substantially all of the economic benefits of the asset; and
- ▷ We have the right to direct the use of the asset.

For initial measurement of the present value of lease payments and for subsequent measurement of lease modifications, we are required to use the rate implicit in the lease. However, most of our leases do not provide an implicit rate; therefore, we use our incremental borrowing rate, which is a collateralized rate. To apply the incremental borrowing rate, we used a portfolio approach and grouped leases based on similar lease terms in a manner whereby we reasonably expect that the application does not differ materially from a lease-by-lease approach.

Our leases have remaining lease terms of approximately 1 year to 14 years, which may include the option to extend the lease when it is reasonably certain we will exercise that option. We do not have lease agreements with residual value guarantees, sale leaseback terms, or material restrictive covenants.

Leases with an initial term of 12 months or less are not recognized on the balance sheet. We recognize lease expense for these leases on a straight-line basis over the lease term.

The following table summarizes our operating lease assets and lease liabilities:

Leases (in millions)	Balance Sheet Classification	As of December 31, 2019
Assets		
Operating	Operating lease assets	\$ 144.8
Liabilities		
Current		
Operating	Operating lease liabilities	\$ 35.8
Non-current		
Operating	Operating lease liabilities	138.7
Total lease liabilities		\$ 174.5

Our operating lease expense for the years ended December 31, 2019, 2018, and 2017 was \$33.9 million, \$32.5 million, and \$30.3 million, respectively. Charges related to our operating leases that are variable and, therefore, not included in the

measurement of the lease liabilities, were \$12.7 million for the year ended December 31, 2019. We made lease payments of \$33.1 million during the year ended December 31, 2019.

The following table shows our minimum future rental commitments due in each of the next five years and thereafter for operating leases:

Minimum Future Lease Commitments (in millions)

2020	\$ 41.7
2021	37.9
2022	25.4
2023	22.9
2024	17.7
Thereafter	55.7
Total lease payments	201.3
Adjustment for discount to present value	26.8
Total	\$ 174.5

As of December 31, 2019, we had \$16.7 million related to an executed operating lease included in the table above, primarily for office space, that has not yet commenced. This lease will commence during 2020 with a lease term of 11 years.

The following table summarizes our weighted-average lease terms and weighted-average discount rates for our operating leases:

As of December 31, 2019

Weighted-average remaining lease term (in years)	6.6
Weighted-average discount rate	4.2%

13. Stock-Based Compensation

Stock-Based Compensation Plans

Our shareholders approved the Morningstar 2011 Stock Incentive Plan (the 2011 Plan) on May 17, 2011. As of that date, we stopped granting awards under the Morningstar 2004 Stock Incentive Plan (the 2004 Plan). The 2004 Plan amended and restated the Morningstar 1993 Stock Option Plan, the Morningstar 2000 Stock Option Plan, and the Morningstar 2001 Stock Option Plan.

The 2011 Plan provides for a variety of stock-based awards, including, among other things, restricted stock units, restricted stock, performance share awards, market stock units, and stock options. We granted restricted stock units, restricted stock, and stock options under the 2004 Plan.

All of our employees and our non-employee directors are eligible for awards under the 2011 Plan.

Grants awarded under the 2011 Plan or the 2004 Plan that are forfeited, canceled, settled, or otherwise terminated without a distribution of shares, or shares withheld by us in connection with the exercise of options, will be available for awards under the 2011 Plan. For any shares subject to awards that are withheld by us in connection with the payment of any required income tax withholding, the 2011 Plan provides for the ability to have these shares become available for new awards, but this feature of the 2011 plan has not been implemented.

The following table summarizes the number of shares available for future grants under our 2011 Plan:

(in millions)	As of December 31
	2019
Shares available for future grants	2.8

Accounting for Stock-Based Compensation Awards

The following table summarizes our stock-based compensation expense and the related income tax benefit we recorded in the past three years:

(in millions)	Year ended December 31		
	2019	2018	2017
Restricted stock units	\$ 20.4	\$ 19.8	\$ 16.5
Performance share awards	20.6	10.2	7.1
Market stock units	3.4	1.7	0.5
Total stock-based compensation expense	\$ 44.4	\$ 31.7	\$ 24.1
Income tax benefit related to the stock-based compensation expense	\$ 10.0	\$ 7.0	\$ 7.8

The following table summarizes the stock-based compensation expense included in each of our operating expense categories for the past three years:

(in millions)	Year ended December 31		
	2019	2018	2017
Cost of revenue	\$ 12.9	\$ 11.7	\$ 9.6
Sales and marketing	5.6	3.5	3.0
General and administrative	25.9	16.5	11.5
Total stock-based compensation expense	\$ 44.4	\$ 31.7	\$ 24.1

The following table summarizes the amount of unrecognized stock-based compensation expense as of December 31, 2019 and the expected number of months over which the expense will be recognized:

	Unrecognized stock-based compensation expense (in millions)	Weighted average expected amortization period (months)
Restricted stock units	\$ 38.8	33
Market stock units	6.9	26
Total unrecognized stock-based compensation expense	\$ 45.7	32

In accordance with FASB ASC 718, we estimate forfeitures of employee stock-based awards and recognize compensation cost only for those awards expected to vest.

Restricted Stock Units

Restricted stock units (RSUs) represent the right to receive a share of Morningstar common stock when that unit vests. RSUs granted to employees vest ratably over a four-year period. RSUs granted to non-employee directors vest ratably over a three-year period.

We measure the fair value of our RSUs on the grant date based on the closing market price of the underlying common stock on the day prior to grant. We amortize that value to stock-based compensation expense, net of estimated forfeitures, ratably over the vesting period.

The following table summarizes restricted stock unit activity during the past three years:

Restricted Stock Units (RSUs)	Unvested	Vested but Deferred	Total	Weighted Average Grant Date Value per RSU
RSUs Outstanding—December 31, 2016	541,245	9,748	550,993	\$ 75.77
Granted	331,470	—	331,470	78.33
Dividend equivalents	—	78	78	60.99
Vested	(212,005)	—	(212,005)	75.38
Issued	—	(6,547)	(6,547)	49.40
Forfeited	(55,831)	—	(55,831)	76.49
RSUs Outstanding—December 31, 2017	604,879	3,279	608,158	\$ 77.52
Granted	243,614	—	243,614	108.60
Dividend equivalents	—	16	16	73.28
Vested	(279,774)	—	(279,774)	80.68
Issued	—	(3,295)	(3,295)	73.28
Forfeited	(41,254)	—	(41,254)	86.47
RSUs Outstanding—December 31, 2018	527,465	—	527,465	\$ 89.53
Granted	233,618	—	233,618	135.67
Vested	(269,917)	—	(269,917)	95.67
Forfeited	(31,721)	—	(31,721)	100.71
RSUs Outstanding—December 31, 2019	459,445	—	459,445	\$ 108.61

Market Stock Units

In May and November 2017, 2018, and 2019, executive officers, other than Joe Mansueto, and certain other employees, were granted market stock units (MSUs). These MSUs represent the right to receive a target number of shares that will vest at the end of a three-year performance period depending on the company's total shareholder return over that three-year period. The MSUs that were granted in 2019 to the executive officers and certain other employees also have a revenue kicker that will provide an increased number of shares that can be earned if certain 2022 revenue goals are exceeded.

We measure the fair value of our MSUs on the grant date using a Monte Carlo valuation model. We amortize that value to stock-based compensation expense ratably over the vesting period.

We used the following assumptions to estimate the fair value of our MSUs during 2017, 2018, and 2019:

Grant Date	Assumptions for Monte Carlo Valuation Model		
	Expected volatility	Dividend yield	Risk-free interest rate
May 15, 2017	17.4%	1.20%	1.49%
November 15, 2017	17.7%	1.04%	1.79%
May 15, 2018	17.4%	0.89%	2.70%
November 15, 2018	19.6%	0.83%	2.92%
May 15, 2019	20.3%	0.84%	2.17%
November 15, 2019	21.0%	0.72%	1.59%

The table below shows MSUs granted and target market stock units outstanding as of December 31, 2019:

	As of December 31, 2019
MSUs granted	124,102
Weighted average fair value per award	\$ 100.51
Number of target MSUs outstanding	119,331
Unamortized expense, based on current performance levels (in millions)	\$ 6.9

PitchBook Bonus Plan

In connection with our acquisition of PitchBook, we adopted a management bonus sub-plan under the 2011 Plan for certain employees of PitchBook (the PitchBook Plan). Pursuant to the terms of the PitchBook Plan, awards having an aggregate target value equal to \$30.0 million will be available for issuance with annual grants of \$7.5 million for 2017, \$7.5 million in 2018, and \$15.0 million in 2019. We also renewed the PitchBook Plan for the 2020-2022 period. Pursuant to the terms of this renewal, awards having an aggregate target value equal to \$30.0 million will be available for issuance with annual grants of \$7.5 million for 2020, \$7.5 million in 2021, and \$15.0 million in 2022.

Each grant will consist of performance-based share unit awards, which will vest over a one-year period and will be measured primarily based on the achievement of certain annual revenue targets specifically related to PitchBook's business. Upon achievement of these targets, earned performance units will be settled in shares of our common stock on a one-for-one basis. If PitchBook exceeds certain performance conditions, the PitchBook Plan participants will receive payment for performance units in excess of the aggregate target values described above. If PitchBook fails to meet threshold performance conditions, the PitchBook Plan participants will not be entitled to receive payment for any performance units.

The table below shows target performance share awards granted and shares that will be issued based on final performance levels for performance share awards granted as of December 31, 2019:

	As of December 31, 2019
Target performance share awards granted	132,522
Weighted average fair value per award	\$ 112.16
Number of shares that will be issued based on final 2019 performance levels	182,211
Unamortized expense, based on current performance levels (in millions)	\$ —

Stock Options

Stock options granted to employees vest ratably over a four-year period. Grants to our non-employee directors vest ratably over a three-year period. All grants expire 10 years after the date of grant.

In May 2011, we granted 86,106 stock options under the 2004 Stock Incentive Plan. We estimated the fair value of the options on the grant date using a Black-Scholes option-pricing model. The weighted average fair value of options granted during 2011 was \$23.81 per share based on the following assumptions:

Assumptions for Black-Scholes Option Pricing Model

Expected life (years)	7.4
Volatility factor	35.1%
Dividend yield	0.35%
Interest rate	2.87%

The following table summarizes stock option activity in the past three years for our various stock option grants:

Option Grants	2019		2018		2017	
	Underlying Shares	Weighted Average Exercise Price	Underlying Shares	Weighted Average Exercise Price	Underlying Shares	Weighted Average Exercise Price
Options outstanding—beginning of year	40,685	\$ 57.28	41,685	\$ 57.28	46,001	\$ 57.28
Granted	—	—	—	—	—	—
Canceled	—	—	—	—	—	—
Exercised	(3,416)	57.28	(1,000)	57.28	(4,316)	57.28
Options outstanding—end of year	37,269	\$ 57.28	40,685	\$ 57.28	41,685	\$ 57.28
Options exercisable—end of year	37,269	\$ 57.28	40,685	\$ 57.28	41,685	\$ 57.28

The following table summarizes the total intrinsic value (difference between the market value of our stock on the date of exercise and the exercise price of the option) of options exercised:

(in millions)	2019	2018	2017
Intrinsic value of options exercised	\$ 0.4	\$ 0.1	\$ 0.1

The table below shows additional information for options outstanding and exercisable as of December 31, 2019:

Range of Exercise Prices	Options Outstanding					Options Exercisable		
	Number of Options	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)	Exercisable Shares	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)
\$57.28	37,269	1.37	\$ 57.28	\$ 3.5	37,269	1.37	\$ 57.28	\$ 3.5
Vested or Expected to Vest								
\$57.28	37,269	1.37	\$ 57.28	\$ 3.5				

The aggregate intrinsic value in the table above represents the total pretax intrinsic value all option holders would have received if they had exercised all outstanding options on December 31, 2019. The intrinsic value is based on our closing stock price of \$151.31 on December 31, 2019.

14. Defined-Contribution Plan

We sponsor a defined-contribution 401(k) plan, which allows our U.S.-based employees to voluntarily contribute pretax dollars up to a maximum amount allowable by the U.S. Internal Revenue Service. In 2019, 2018, and 2017, we made matching contributions to our 401(k) plan in the U.S. in an amount equal to 75 cents for every dollar of an employee's contribution, up to a maximum of 7% of the employee's compensation in the pay period.

The following table summarizes our matching contributions:

(in millions)	2019	2018	2017
401(k) matching contributions	\$ 12.0	\$ 11.0	\$ 10.4

15. Income Taxes

Income Tax Expense and Effective Tax Rate

The following table shows our income tax expense and our effective tax rate for the years ended December 31, 2019, 2018, and 2017:

(in millions)	2019	2018	2017
Income before income taxes and equity in net loss of unconsolidated entities	\$ 198.5	\$ 232.9	\$ 181.1
Equity in net loss of unconsolidated entities	(0.9)	(2.1)	(1.3)
Total	\$ 197.6	\$ 230.8	\$ 179.8
Income tax expense	\$ 45.6	\$ 47.8	\$ 42.9
Effective tax rate	23.1%	20.7%	23.9%

Our effective tax rate in 2019 was 23.1%, an increase of 2.4 percentage points compared with 20.7% in 2018, primarily due to minimum taxes and non-deductible expenses in 2019.

Our effective tax rate in 2018 was 20.7%, a decrease of 3.2 percentage points compared with 23.9% in 2017, primarily due to the 2018 tax impacts of the Tax Cuts and Jobs Act of 2017 (Tax Reform Act) and also because of updates to our provisional tax estimates recorded in 2017.

The amount of accumulated undistributed earnings of our foreign subsidiaries was approximately \$240.5 million as of December 31, 2019. In February 2019, we repatriated approximately \$45.8 million of these foreign earnings to the U.S. Otherwise, we generally consider our U.S. directly-owned foreign subsidiary earnings to be permanently reinvested. We have not recorded deferred income taxes on the \$240.5 million primarily because most of these earnings were previously subject to the one-time deemed mandatory repatriation tax under the Tax Reform Act. We maintain a deferred tax liability for foreign withholding taxes on certain foreign affiliate parent companies that are not indefinitely reinvested.

The following table reconciles our income tax expense at the U.S. federal income tax rate to income tax expense as recorded:

(in millions, except percentages)	2019		2018		2017	
	Amount	%	Amount	%	Amount	%
Income tax expense at U.S. federal rate	\$ 41.5	21.0%	\$ 48.5	21.0%	\$ 63.0	35.0%
State income taxes, net of federal income tax benefit	7.5	3.8	7.4	3.2	3.0	1.7
Impacts of Tax Reform Act(1)	—	—	(2.3)	(1.0)	(10.6)	(5.9)
Stock-based compensation activity	(2.2)	(1.1)	(2.6)	(1.1)	0.3	0.2
Equity in net income of unconsolidated subsidiaries (including holding gains upon acquisition)	0.3	0.2	1.0	0.4	1.2	0.7
Book gain over tax gain on sale of HelloWallet	—	—	—	—	(6.8)	(3.8)
Net change in valuation allowance related to non-U.S. deferred tax assets, primarily net operating losses	(2.1)	(1.1)	(0.2)	(0.1)	0.1	0.1
Difference between U.S. federal statutory and foreign tax rates	1.1	0.6	0.2	0.1	(5.2)	(2.9)
Change in unrecognized tax benefits	(0.9)	(0.5)	1.0	0.4	1.2	0.7
Credits and incentives	(2.2)	(1.1)	(3.6)	(1.6)	(3.7)	(2.1)
Foreign tax provisions (GILTI, FDII, and BEAT)(2)	(1.4)	(0.7)	(3.7)	(1.6)	—	—
Non-deductible expenses and other, net	4.0	2.0	2.1	0.9	0.4	0.2
Total income tax expense	\$ 45.6	23.1%	\$ 47.8	20.7%	\$ 42.9	23.9%

(1) Impacts of the Tax Reform Act (change in U.S. tax rate, deemed mandatory repatriation, and deferred taxes).

(2) The Tax Reform Act established the Global Intangible Low-Tax Income (GILTI) provision, which taxes U.S. allocated expenses and certain income from foreign operations; the Foreign-Derived Intangible Income (FDII) provision, which allows a deduction against certain types of U.S. taxable income resulting in a lower effective U.S. tax rate on such income; and the Base Erosion Anti-abuse Tax (BEAT), which is a new minimum tax based on cross-border service payments by U.S. entities.

Income tax expense consists of the following:

(in millions)	Year ended December 31		
	2019	2018	2017
Current tax expense:			
U.S.			
Federal	\$ 28.3	\$ 31.0	\$ 40.3
State	9.4	11.1	6.6
Non-U.S.	14.0	12.3	9.9
Current tax expense	51.7	54.4	56.8
Deferred tax expense (benefit):			
U.S.			
Federal	0.2	(3.0)	(10.9)
State	—	(1.7)	(1.9)
Non-U.S.	(6.3)	(1.9)	(1.1)
Deferred tax expense, net	(6.1)	(6.6)	(13.9)
Income tax expense	\$ 45.6	\$ 47.8	\$ 42.9

The following table provides our income before income taxes and equity in net income (loss) of unconsolidated entities, generated by our U.S. and non-U.S. operations:

(in millions)	Year ended December 31		
	2019	2018	2017
U.S.	\$ 159.7	\$ 188.2	\$ 143.5
Non-U.S.	38.8	44.7	37.6
Income before income taxes and equity in net loss of unconsolidated entities	\$ 198.5	\$ 232.9	\$ 181.1

Deferred Tax Assets and Liabilities

We recognize deferred income taxes for the temporary differences between the carrying amount of assets and liabilities for financial statement purposes and their tax basis. The tax effects of the temporary differences that give rise to the deferred income tax assets and liabilities are as follows:

(in millions)	As of December 31	
	2019	2018
Deferred tax assets:		
Stock-based compensation expense	\$ 7.6	\$ 4.7
Accrued liabilities	18.0	17.0
Deferred revenue	5.5	3.7
Net operating loss carryforwards—U.S.	0.2	0.2
Net operating loss carryforwards—Non-U.S.	4.5	2.4
Deferred royalty revenue	0.2	0.3
Allowance for doubtful accounts	1.4	1.4
Deferred rent	8.0	7.4
Unrealized exchange losses, net	—	0.2
Other	0.6	0.6
Total deferred tax assets	46.0	37.9
Deferred tax liabilities:		
Acquired intangible assets	(82.7)	(16.5)
Property, equipment, and capitalized software	(25.8)	(26.7)
Unrealized exchange gains, net	(1.1)	—
Prepaid expenses	(9.1)	(7.1)
Investments in unconsolidated entities	(6.3)	(4.8)
Withholding tax—foreign dividends	(3.0)	(3.0)
Total deferred tax liabilities	(128.0)	(58.1)
Net deferred tax liability before valuation allowance	(82.0)	(20.2)
Valuation allowance	(2.3)	(2.0)
Deferred tax liability, net	\$ (84.3)	\$ (22.2)

The deferred tax assets and liabilities are presented in our Consolidated Balance Sheets as follows:

(in millions)	As of December 31	
	2019	2018
Deferred tax asset, net	\$ 10.7	\$ —
Deferred tax liability, net	(95.0)	(22.2)
Deferred tax liability, net	\$ (84.3)	\$ (22.2)

The following table summarizes our U.S. net operating loss (NOL) carryforwards:

(in millions)	As of December 31	
	2019	2018
	Expiration Dates	Expiration Dates
U.S. federal NOLs subject to expiration dates	\$ 0.8 2023	\$ 1.0 2023

The net decrease in the U.S. federal NOL carryforwards as of December 31, 2019 compared with 2018 primarily reflects the utilization of U.S. federal NOLs. We have not recorded a valuation allowance against the U.S. federal NOLs of \$0.8 million because we expect the benefit of the U.S. federal NOLs to be fully utilized before expiration.

The following table summarizes our NOL carryforwards for our non-U.S. operations:

(in millions)	As of December 31	
	2019	2018
Non-U.S. NOLs subject to expiration dates from 2021 through 2039	\$ 6.8	\$ 5.5
Non-U.S. NOLs with no expiration date	14.6	5.1
Total	\$ 21.4	\$ 10.6
Non-U.S. NOLs not subject to valuation allowances	\$ 11.7	\$ 2.0

The change in non-U.S. NOL carryforwards as of December 31, 2019 compared with 2018 primarily reflects U.K. NOLs for which a valuation allowance is not recorded. The losses may be carried forward indefinitely and have no expiration.

In assessing the realizability of our deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. We recorded a valuation allowance against all but approximately \$11.7 million of the non-U.S. NOLs, reflecting the likelihood that the benefit of these NOLs will not be realized.

Unrecognized Tax Benefits

We conduct business globally and as a result, we file income tax returns in U.S. federal, state, local, and foreign jurisdictions. In the normal course of business, we are subject to examination by tax authorities throughout the world. The open tax years for our U.S. Federal tax returns and most state tax returns include the years 2014 to the present.

We are currently under audit by federal, state, and local tax authorities in the U.S. as well as tax authorities in certain non-U.S. jurisdictions. It is likely that the examination phase of some of these federal, state, local, and non-U.S. audits will conclude in 2020. It is not possible to estimate the effect of current audits on previously recorded unrecognized tax benefits.

As of December 31, 2019, our Consolidated Balance Sheet included a current liability of \$10.8 million and a non-current liability of \$3.0 million for unrecognized tax benefits. As of December 31, 2018, our Consolidated Balance Sheet included a current liability of \$6.6 million and a noncurrent liability of \$7.1 million for unrecognized tax benefits. These amounts include interest and penalties, less any associated tax benefits.

The table below reconciles the beginning and ending amount of the gross unrecognized tax benefits as follows:

(in millions)	2019	2018
Gross unrecognized tax benefits—beginning of the year	\$ 13.1	\$ 18.7
Increases as a result of tax positions taken during a prior-year period	3.0	0.8
Decreases as a result of tax positions taken during a prior-year period	(0.2)	(0.3)
Increases as a result of tax positions taken during the current period	1.2	1.6
Decreases relating to settlements with tax authorities	(3.8)	(2.5)
Reductions as a result of lapse of the applicable statute of limitations	(0.7)	(5.2)
Gross unrecognized tax benefits—end of the year	\$ 12.6	\$ 13.1

In 2019, we recorded a net increase of \$4.0 million of gross unrecognized tax benefits before settlements and lapses of statutes of limitations, of which \$1.1 million increased our income tax expense by \$1.1 million.

In addition, we reduced our unrecognized tax benefits by \$4.5 million for settlements and lapses of statutes of limitations, of which \$2.1 million decreased our income tax expense by \$1.9 million.

As of December 31, 2019, we had \$12.6 million of gross unrecognized tax benefits, of which \$12.6 million, if recognized, would reduce our effective income tax rate and decrease our income tax expense by \$12.4 million.

We record interest and penalties related to uncertain tax positions as part of our income tax expense. The following table summarizes our gross liability for interest and penalties:

(in millions)	As of December 31	
	2019	2018
Liabilities for interest and penalties	\$ 1.6	\$ 1.3

We recorded the increase in the liabilities for penalties and interest, net of any tax benefits, to income tax expense in our Consolidated Statements of Income in 2019.

16. Contingencies

We record accrued liabilities for litigation, regulatory, and other business matters when those matters represent loss contingencies that are both probable and estimable. In these cases, there may be an exposure to loss in excess of any amounts accrued. When a loss contingency is not both probable and estimable, we do not establish an accrued liability. As litigation, regulatory, or other business matters develop, we evaluate whether such matters present a loss contingency that is probable and estimable on an ongoing basis.

Data Audits and Reviews

In our global data business, we include in our products, or directly redistribute to our customers data, and information licensed from third-party vendors. Our compliance with the terms of these licenses is subject to audit by the third-party vendors, and we also regularly review our compliance with the terms of the licenses. We are undergoing several such third-party vendor audits and internal reviews, and the results and findings may indicate that we may be required to make a payment for prior data usage. Due to lack of available information and data, as well as potential variations of any audit or internal review findings, we are not able to reasonably estimate a possible loss, or range of losses for some matters. While we cannot predict the outcomes, we do not believe the results of any audits or reviews will have a material adverse effect on our business, operating results, or financial position.

Credit Ratings Settlement

In November 2019, Morningstar Credit Ratings, LLC ("MCR") reached an agreement in principle with the staff of the SEC to settle an investigation relating to certain sales and marketing practices at MCR's asset-backed securities group in 2015 and 2016. Assuming it is approved by the full Commission, the proposed settlement would involve a censure, a cease-and-desist order, certain undertakings by MCR, and a civil money penalty of \$3.5 million, which has been accrued as of December 31, 2019. The settlement remains subject to approval by the SEC.

Other Matters

We are involved from time to time in regulatory investigations and legal proceedings that arise in the normal course of our business. While it is difficult to predict the outcome of any particular investigation or proceeding, we do not believe the result of any of these matters will have a material adverse effect on our business, operating results, or financial position.

17. Share Repurchase Program

In December 2017, the board of directors approved a new share repurchase program that authorizes the company to repurchase up to \$500.0 million in shares of the company's outstanding common stock effective January 1, 2018. The authorization expires on December 31, 2020. We may repurchase shares from time to time at prevailing market prices on the open market or in private transactions in amounts that we deem appropriate.

As of December 31, 2019, we had repurchased a total of 244,180 shares for \$25.6 million under this authorization, leaving \$474.4 million available for future repurchases.

18. Recent Accounting Pronouncements

Recently adopted accounting pronouncements

Leases: On February 25, 2016, the FASB issued ASU No. 2016-02, *Leases* (Topic 842), which requires lessees to recognize almost all leases on their balance sheet as a right-of-use asset and a lease liability. Expenses are recognized in the Consolidated Statements of Income in a manner similar to previous accounting guidance. Topic 842 originally required the use of a modified retrospective approach upon adoption. In July 2018, the FASB issued ASU No. 2018-11, *Leases* (Topic 842)—*Targeted Improvements*, which allows an additional transition method to adopt the new lease standard at the adoption date instead of the beginning of the earliest period presented. We elected this transition method at the adoption date of January 1, 2019.

We also chose to elect the following practical expedients upon adoption: not to reassess whether any expired or existing contracts are or contain leases, not to reassess the lease classification for any expired or existing leases, not to reassess initial direct costs for any existing leases, and not to separately identify lease and nonlease components (i.e. maintenance costs) except for real estate leases. Additionally, we elected the short-term lease exemption, and are only applying the requirements of Topic 842 to long-term leases (leases greater than 1 year).

The adoption of Topic 842 resulted in the presentation of \$118.8 million of operating lease assets and \$145.8 million of operating lease liabilities on the consolidated balance sheet as of March 31, 2019. At implementation, we also reclassified \$27.9 million in deferred rent liabilities related to these leases, which decreased recognized operating lease assets. The new standard did not have a material impact on the statement of income. See Note 12 for additional information.

Income Statement-Reporting Comprehensive Income: On February 14, 2018, the FASB issued ASU No. 2018-02, *Income Statement-Reporting Comprehensive Income* (Topic 220): *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, to address a specific consequence of the Tax Reform Act by allowing a reclassification from accumulated other comprehensive income (loss) to retained earnings for stranded tax effects resulting from the Tax Reform Act's reduction of the U.S. federal corporate income tax rate. The new standard became effective for us on January 1, 2019 and is to be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Reform Act is recognized. We did not elect to reclassify any stranded tax effects from accumulated other comprehensive income (loss) to retained earnings; therefore, the adoption did not have an impact on our consolidated financial statements and related disclosures.

Compensation—Stock Compensation: On June 20, 2018, the FASB issued ASU No. 2018-07, *Compensation—Stock Compensation* (Topic 718)—*Improvements to Nonemployee Share-Based Payment Accounting*, which aligns the accounting for share-based payment awards issued to employees and nonemployees. Under the new standard, the existing employee guidance will apply to nonemployee share-based transactions (as long as the transaction is not effectively a form of financing), with the exception of specific guidance related to the attribution of compensation cost. The cost of nonemployee awards will continue to be recorded as if the grantor had paid cash for the goods or services. In addition, the contractual term can be used in lieu of an expected term in the option-pricing model for nonemployee awards. The new standard became effective for us on January 1, 2019.

and will be applied to all new awards granted after the date of adoption. The adoption did not have an impact on our consolidated financial statements and related disclosures.

Codification Improvements to Investments—Debt and Equity Securities: On July 17, 2018, the FASB issued ASU No. 2018-09, *Codification Improvements* (ASU No. 2018-09), which modifies the disclosure requirements on debt and equity securities related to ASC 320, *Investments—Debt and Equity Securities*. ASU No. 2018-09 removes the requirement for these disclosures when an entity provides summarized interim financial information. The new standard became effective for us on January 1, 2019. The adoption did not have an impact on our consolidated financial statements.

Recently issued accounting pronouncements not yet adopted

Current Expected Credit Losses: On June 16, 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses* (Topic 326): *Measurement of Credit Losses on Financial Instruments* (ASU No. 2016-13), which requires that expected credit losses relating to financial assets measured on an amortized cost basis and available-for-sale debt securities be recorded through an allowance for credit losses. ASU No. 2016-13 limits the amount of credit losses to be recognized for available-for-sale debt securities to the amount by which carrying value exceeds fair value and also requires the reversal of previously recognized credit losses if fair value increases. On April 25, 2019, the FASB issued ASU No. 2019-04, *Codification Improvements* (ASU No. 2019-04), which clarifies certain aspects of accounting for credit losses. On May 15, 2019, the FASB issued ASU No. 2019-05, *Financial Instruments—Credit Losses* (Topic 326): *Targeted Transition Relief* (ASU No. 2019-05), which allows entities to elect the fair value option on certain financial instruments. The new standard became effective for us on January 1, 2020 and is to be applied as a cumulative-effect adjustment to retained earnings. We believe that the most notable impact of these standards relate to our processes around the assessment of the adequacy of our allowance for doubtful accounts on accounts receivable and the recognition of credit losses. We are evaluating the effect that ASU No. 2016-13, ASU No. 2019-04, and ASU No. 2019-05 will have on our consolidated financial statements and related disclosures.

Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement: On August 28, 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement* (Topic 820): *Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* (ASU No. 2018-13), which eliminates, adds and modifies certain disclosure requirements around items such as transfers between Level 1 and 2, policy of timing of transfers, and valuation process for Level 3. The new standard became effective for us on January 1, 2020. As we only have Level 1 investments, the adoption of ASU No. 2018-13 will have no impact on our consolidated financial statements and related disclosures.

Cloud Computing: On August 29, 2018, the FASB issued ASU No. 2018-15, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*, which helps entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement (CCA) by providing guidance for determining when an arrangement includes a software license and when an arrangement is solely a hosted CCA service. Under the new standard, customers will apply the same criteria for capitalizing implementation costs as they would for an arrangement that has a software license. The new guidance also prescribes the balance sheet, income statement, and cash flow classification of the capitalized implementation costs and related amortization expense, and requires additional quantitative and qualitative disclosures. The new standard became effective for us on January 1, 2020. Early adoption is permitted, including adoption in any interim period for which financial statements have not been issued. Entities can choose to adopt the new guidance prospectively to eligible costs incurred on or after the date this guidance is first applied or retrospectively. We will apply the new guidance prospectively to eligible costs incurred on or after the effective date. We are evaluating the effect that ASU No. 2018-15 will have on our consolidated financial statements and related disclosures.

Income Taxes: On December 18, 2019, the FASB issued ASU No. 2019-12, *Simplifying the Accounting for Income Taxes*, which is intended to simplify the accounting for income taxes by removing certain exceptions to the general principles of ASC 740 *Income Taxes* and providing for simplification in several other areas. The new standard is effective for us on January 1, 2021. Early adoption is permitted. We have not made a decision on early adoption. We are evaluating the effect that ASU No. 2019-12 will have on our consolidated financial statements and related disclosures.

19. Selected Quarterly Financial Data (unaudited)

	2019				2018			
(in millions except per share amounts)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Revenue	\$ 258.9	\$ 273.9	\$ 313.8	\$ 332.4	\$ 243.5	\$ 252.4	\$ 261.3 (3)	\$ 262.7
Total operating expense	209.4	223.1	264.2	292.7	196.0	198.8	195.9	213.4
Operating income	49.5	50.8	49.6	39.7	47.5	53.6	65.4	49.3
Non-operating (expense) income, net	(3.3)	2.3	13.9 (1)	(4.0)	9.3 (2)	1.4	7.3	(0.9)
Income before income taxes and equity in net (loss) income of unconsolidated entities	46.2	53.1	63.5	35.7	56.8	55.0	72.7	48.4
Equity in net (loss) income of unconsolidated entities	(1.5)	0.7	(1.1)	1.0	(1.5)	(0.4)	0.3	(0.5)
Income tax expense	11.5	11.7	13.3	9.1	13.4	12.8	16.1	5.5
Consolidated net income	\$ 33.2	\$ 42.1	\$ 49.1	\$ 27.6	\$ 41.9	\$ 41.8	\$ 56.9	\$ 42.4
Net income per share:								
Basic	\$ 0.78	\$ 0.99	\$ 1.15	\$ 0.64	\$ 0.99	\$ 0.98	\$ 1.33	\$ 0.99
Diluted	\$ 0.77	\$ 0.98	\$ 1.14	\$ 0.64	\$ 0.98	\$ 0.97	\$ 1.32	\$ 0.99
Dividends per common share:								
Dividends declared per common share	\$ 0.28	\$ 0.28	\$ —	\$ 0.58	\$ 0.25	\$ 0.25	\$ —	\$ 0.53
Dividends paid per common share	\$ 0.28	\$ 0.28	\$ 0.28	\$ 0.28	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Weighted average shares outstanding:								
Basic	42.6	42.7	42.8	42.8	42.5	42.6	42.6	42.7
Diluted	43.0	43.1	43.2	43.3	42.9	43.0	43.1	43.1

(1) Non-operating income for the third quarter of 2019 includes a \$19.5 million gain related to the sale of an equity method investment.

(2) Non-operating income in first quarter of 2018 includes a \$10.5 million gain related to the sale of our 15(c) board consulting services product line.

(3) Revenue in the third quarter of 2018 includes a \$10.5 million revenue benefit related to an amended license agreement.

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

Not applicable.

Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

We design disclosure controls and procedures to reasonably assure that information required to be disclosed in the 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. Disclosure controls and procedures include, without limitation, controls and procedures designed to reasonably assure that information required to be disclosed in the reports filed under the Exchange Act is accumulated and communicated to management, including the chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

We completed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act, as of December 31, 2019. Management, including our chief executive officer and chief financial officer, participated in and supervised this evaluation. Based on that evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures are effective to provide reasonable assurance that information required to be disclosed in the reports we file or submit under the Exchange Act meets the requirements listed above.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our 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 U.S. generally accepted accounting principles.

We carried out an evaluation, under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of the effectiveness of our internal control over financial reporting based on the framework set forth in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2019.

As permitted under the SEC guidelines, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of DBRS, which we acquired on July 2, 2019. We are currently integrating the operations of DBRS into our internal control framework and processes. The operations of DBRS Morningstar, our newly created credit ratings operation, constituted \$136.7 million of our consolidated assets, less acquired intangible assets and goodwill, and \$127.6 million of our consolidated revenue as of and for the year ended December 31, 2019, respectively.

KPMG LLP, an independent registered public accounting firm, issued its report on the effectiveness of our internal control over financial reporting, which is included in Part II, Item 8 of this Form 10-K under the caption "Financial Statements and Supplementary Data" and incorporated herein by reference.

(c) Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the fiscal quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

There is no information that was required to be disclosed in a report on Form 8-K during the fourth quarter of the year covered by this report that was not reported.

Part III

Item 10. Directors, Executive Officers, and Corporate Governance

The information contained under the headings Proposal 1—Election of Directors, Board of Directors and Corporate Governance—Independent Directors, Board of Directors and Corporate Governance—Board Committees and Charters, and Delinquent Section 16(a) Reports in the definitive proxy statement for our 2020 Annual Meeting of Shareholders (the Proxy Statement) and the information contained under the heading Executive Officers in Part I of this report is incorporated herein by reference in response to this item.

We have adopted a code of ethics, which is posted in the Investor Relations area of our corporate website at <https://shareholders.morningstar.com> in the Governance section. We intend to include on our website any amendments to, or waivers from, a provision of the code of ethics that apply to our principal executive officer, principal financial officer, principal accounting officer, or controller that relates to any element of the code of ethics definition contained in Item 406(b) of SEC Regulation S-K. Shareholders may request a free copy of these documents by sending an e-mail to investors@morningstar.com.

Item 11. Executive Compensation

The information contained under the headings Board of Directors and Corporate Governance—Directors' Compensation, Compensation Discussion and Analysis, Compensation Committee Report, Compensation Committee Interlocks and Insider Participation, and Executive Compensation in the Proxy Statement is incorporated herein by reference in response to this item.

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

The information contained under the headings Security Ownership of Certain Beneficial Owners and Management and Equity Compensation Plan Information in the Proxy Statement is incorporated herein by reference in response to this item.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information contained under the headings Certain Relationships and Related Party Transactions and Board of Directors and Corporate Governance—Independent Directors in the Proxy Statement is incorporated herein by reference in response to this item.

Item 14. Principal Accountant Fees and Services

The information contained under the headings Audit Committee Report and Principal Accounting Firm Fees in the Proxy Statement is incorporated herein by reference in response to this item.

Part IV

Item 15. Exhibits and Financial Statement Schedules

(a)

1. Consolidated Financial Statements

The following documents are filed as part of this Annual Report on Form 10-K under Item 8—Financial Statements and Supplementary Data:

Report of KPMG LLP, Independent Registered Public Accounting Firm

Financial Statements:

Consolidated Statements of Income—Years ended December 31, 2019, 2018, and 2017
 Consolidated Statements of Comprehensive Income—Years ended December 31, 2019, 2018, and 2017
 Consolidated Balance Sheets—December 31, 2019 and 2018
 Consolidated Statements of Equity—Years ended December 31, 2019, 2018, and 2017
 Consolidated Statements of Cash Flows—Years ended December 31, 2019, 2018, and 2017
 Notes to Consolidated Financial Statements

2. Financial Statement Schedules

Report of Independent Registered Public Accounting Firm

The report of KPMG LLP dated March 2, 2020 concerning the Financial Statement Schedule II, Morningstar, Inc., and subsidiaries Valuation and Qualifying Accounts, is included at the beginning of Part II, Item 8 of this Annual Report on Form 10-K for the years ended December 31, 2019, December 31, 2018, and December 31, 2017.

The following financial statement schedule is filed as part of this Annual Report on Form 10-K:

Schedule II: Valuation and Qualifying Accounts

All other schedules have been omitted as they are not required, not applicable, or the required information is otherwise included.

(in millions)	Balance at Beginning of Year	Charged (Credited) to Costs & Expenses	Additions (Deductions) Including Currency Translations	Balance at End of Year
Allowance for doubtful accounts: Year ended December 31,				
2019	\$ 4.0	\$ 2.4	\$ (2.3)	\$ 4.1
2018	\$ 3.2	\$ 2.4	\$ (1.6)	\$ 4.0
2017	\$ 2.1	\$ 2.3	\$ (1.2)	\$ 3.2

3. Exhibits

Exhibit	Description
2.1	Agreement and Plan of Merger, dated May 28, 2019, by and among Morningstar, Alpine Merger Co., Ratings Acquisition Corp and Shareholder Representative Services LLC is incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K that we filed with the SEC on June 3, 2019.
3.1	Amended and Restated Articles of Incorporation of Morningstar are incorporated by reference to Exhibit 3.1 to our Registration Statement on Form S-1, as amended, Registration No. 333-115209 (the Registration Statement).
3.2	By-laws of Morningstar, as in effect on February 27, 2018, are incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K that we filed with the SEC on February 28, 2018.
4.1	Specimen Common Stock Certificate is incorporated by reference to Exhibit 4.1 to the Registration Statement.
4.2†	Description of Morningstar's Securities.
10.1*	Form of Indemnification Agreement is incorporated by reference to Exhibit 10.1 to the Registration Statement.
10.2*	Morningstar Incentive Plan, as amended and restated effective January 1, 2014, is incorporated by reference to Exhibit 10.2 to our Annual Report on Form 10-K for the year ended December 31, 2013.
10.3*	Morningstar 2004 Stock Incentive Plan, as amended and restated effective as of July 24, 2009, is incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2009.
10.4*	Morningstar 2011 Stock Incentive Plan is incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K that we filed with the SEC on May 18, 2011.
10.5*	Form of Morningstar 2004 Stock Incentive Plan Stock Option Agreement for awards made on May 15, 2011 is incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2011 (the June 2011 10-Q).
10.6*	Form of Morningstar 2004 Stock Incentive Plan Director Stock Option Agreement for awards made on May 15, 2011 is incorporated by reference to Exhibit 10.2 to the June 2011 10-Q.
10.7*	Form of Morningstar 2011 Stock Incentive Plan Restricted Stock Unit Award Agreement for awards made on and after May 15, 2013 is incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (the June 2013 10-Q).
10.8*	Form of Morningstar 2011 Stock Incentive Plan Director Restricted Stock Unit Award Agreement, as amended and restated effective December 3, 2015 is incorporated by reference to Exhibit 10.12 to our Annual Report on Form 10-K for the year ended December 31, 2015 (the 2015 10-K).
10.9*	Form of Morningstar 2011 Stock Incentive Plan CEO Restricted Stock Unit Award Agreement for award made on January 3, 2017 is incorporated by reference to Exhibit 10.11 to our Annual Report on Form 10-K for the year ended December 31, 2016.
10.10*	Form of Morningstar 2011 Stock Incentive Plan Market Stock Unit Award Agreement for awards made on May 15, 2017 is incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017.
10.11*	Form of Morningstar 2011 Stock Incentive Plan Market Stock Unit Award Agreement for awards made on and after November 15, 2017 and prior to May 15, 2019 is incorporated by reference to Exhibit 10.12 to our Annual Report on Form 10-K for the year ended December 31, 2017 (the 2017 10-K).
10.12*	Form of Morningstar 2011 Stock Incentive Plan Restricted Stock Unit Award Agreement for awards made on and after November 15, 2017 and prior to May 15, 2019 is incorporated by reference to Exhibit 10.13 to the 2017 10-K.
10.13*	Form of Morningstar 2011 Stock Incentive Plan CFO Restricted Stock Unit Award Agreement for award made on November 15, 2017 is incorporated by reference to Exhibit 10.14 to the 2017 10-K.
10.14*	Form of Morningstar 2011 Stock Incentive Plan Restricted Stock Unit Award Agreement for awards made on and after May 15, 2019 is incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019.
10.15*	Form of Morningstar 2011 Stock Incentive Plan Market Stock Unit Award Agreement for awards made on and after May 15, 2019 is incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019.
10.16*	Form of Morningstar 2011 Stock Incentive Plan Market Stock Unit with Revenue Kicker Award Agreement for awards made on and after May 15, 2019 is incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019.
10.17†*	Separation Agreement dated October 30, 2019 between Morningstar and Tricia Rothschild.
10.18	Credit Agreement dated as of July 2, 2019 among Morningstar, certain subsidiaries of Morningstar, and Bank of America, N.A. is incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K that we filed with the SEC on July 3, 2019.
10.19	Amendment No.1 to Credit Agreement dated as of August 13, 2019 among Morningstar, certain subsidiaries of Morningstar, and Bank of America, N.A. is incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019.

Exhibit	Description
21.1†	Subsidiaries of Morningstar.
23.1†	Consent of KPMG LLP.
31.1†	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2†	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1†	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2†	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101†	The following financial information from Morningstar's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 2, 2020, formatted in Inline XBRL: (i) Cover Page, (ii) Consolidated Statements of Income, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Balance Sheets, (v) Consolidated Statements of Equity, (vi) Consolidated Statements of Cash Flows and (vii) the Notes to Consolidated Financial Statements.
104†	Cover Page Interactive Data File (the cover page XBRL tags are embedded in the Inline XBRL document).

* Management contract with a director or executive officer or a compensatory plan or arrangement in which directors or executive officers are eligible to participate.

† Filed or furnished herewith.

Item 16. Form 10-K Summary

None.

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 on March 2, 2020.

MORNINGSTAR, INC.

By: /s/ Kunal Kapoor

Kunal Kapoor

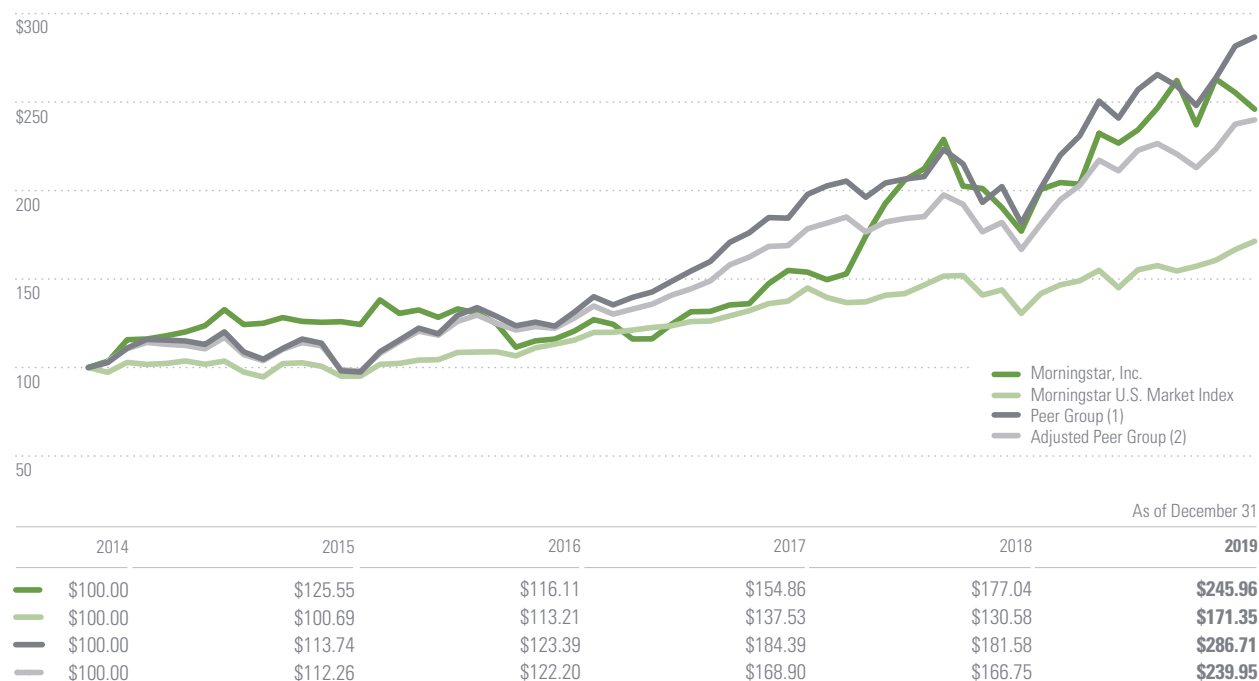
Title: Chief Executive Officer

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

Signature	Title	Date
/s/ Kunal Kapoor Kunal Kapoor	Chief Executive Officer (principal executive officer) and Director	March 2, 2020
/s/ Jason Dubinsky Jason Dubinsky	Chief Financial Officer (principal financial officer)	March 2, 2020
/s/ Kimberly McGarry Kimberly McGarry	Chief Accounting Officer (principal accounting officer)	March 2, 2020
/s/ Joe Mansueto Joe Mansueto	Chairman of the Board	March 2, 2020
/s/ Robin Diamonte Robin Diamonte	Director	March 2, 2020
/s/ Cheryl Francis Cheryl Francis	Director	March 2, 2020
/s/ Stephen Joynt Stephen Joynt	Director	March 2, 2020
/s/ Steven Kaplan Steven Kaplan	Director	March 2, 2020
/s/ Gail Landis Gail Landis	Director	March 2, 2020
/s/ Bill Lyons Bill Lyons	Director	March 2, 2020
/s/ Jack Noonan Jack Noonan	Director	March 2, 2020
/s/ Caroline Tsay Caroline Tsay	Director	March 2, 2020
/s/ Hugh Zentmyer Hugh Zentmyer	Director	March 2, 2020

Stock Price Performance Graph

The graph below shows a comparison of cumulative total return for our common stock, the Morningstar U.S. Market Index, and a group of peer companies, which are listed below the graph. The graph assumes an investment of \$100 beginning on January 1, 2014, in our common stock, the Morningstar U.S. Market Index, and the peer group, including reinvestment of dividends. The returns shown are based on historical results and are not intended to suggest future performance.



- (1) Our peer group consists of the following companies: Envestnet Inc., FactSet Research System Inc., Moody's Corporation, MSCI Inc., SEI Investments Company, S&P Global Inc., and Thomson Reuters Corporation. We added Moody's to our peer group in 2019. This change is reflected in the graph from 2014 to present.
- (2) In order to provide a comparison to our previously-defined peer group, the adjusted peer group line shows the cumulative total return for all of the companies mentioned above excluding Moody's.

Corporate Headquarters

Morningstar, Inc., 22 West Washington Street, Chicago, Illinois 60602, +1 312 696-6000

Transfer Agent and Registrar

Computershare Investor Services LLC, 2 North LaSalle Street, Chicago, Illinois 60602, +1 866 303-0659 (toll free)

Ethics Hotline

Morningstar has established a confidential Ethics Hotline that anyone may use to report complaints or concerns about ethics violations, including accounting irregularities, financial misstatements, problems with internal accounting controls, or noncompliance with external rules and regulations.

The Morningstar Ethics Hotline is operated by NAVEX Global, an independent company that is not affiliated with Morningstar. The hotline is available 24 hours a day, seven days a week.

Anyone may make a confidential, anonymous report by calling the hotline toll free at: +1 800 555-8316.

Annual Meeting

Morningstar's annual meeting of shareholders will be held at 9 a.m. on Friday, May 15, 2020 at our corporate headquarters, 22 West Washington Street, Chicago, Illinois 60602.

Investor Questions

We encourage all interested parties—including securities analysts, potential shareholders, and others—to submit questions to us in writing. We publish responses to these questions on our website and in Form 8-Ks furnished to the SEC, generally on the first Friday of every month. If you have a question about our business, please send it to investors@morningstar.com.

Board of Directors

- ▲ Robin Diamonte
Vice President and Chief
Investment Officer, United
Technologies Corp.
- ■ Cheryl Francis
Co-Chairman, Corporate
Leadership Center
- Steven Joynt
Former Chief Executive Officer,
DBRS, Inc.
- ▲ ■ Steve Kaplan
Neubauer Family Professor of
Entrepreneurship and Finance,
University of Chicago Booth
School of Business
- Kunal Kapoor
Chief Executive Officer
- ▲ Gail Landis
Former Managing Principal,
Evercore Asset Management, LLC
- ▲ ■ William Lyons
Former President and Chief
Executive Officer, American
Century Companies, Inc.
- Joe Mansueto
Executive Chairman,
Morningstar, Inc.
- ■ Jack Noonan
Former Chairman, President and
Chief Executive Officer, SPSS Inc.
- ▲ Caroline Tsay
Chief Executive Officer, Compute
Software, Inc.

Executive Officers

Bevin Desmond
Head of Talent and Culture

Jason Dubinsky
Chief Financial Officer

Danny Dunn
Chief Revenue Officer

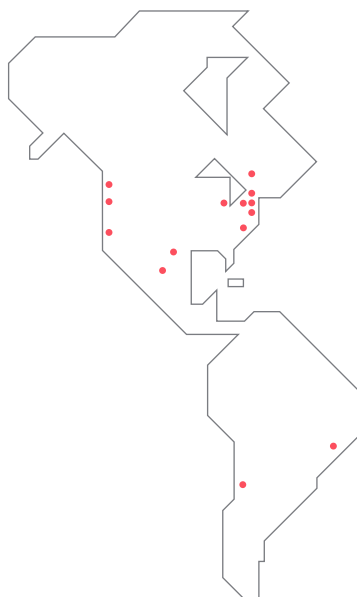
Kunal Kapoor
Chief Executive Officer

Joe Mansueto
Executive Chairman

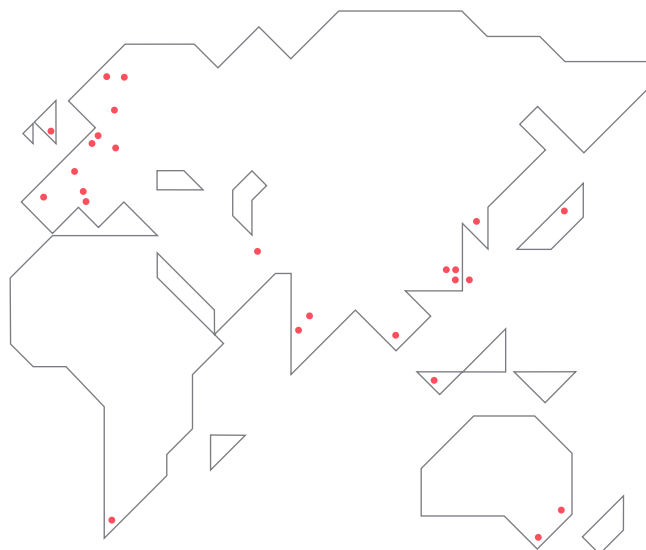
● Member of audit committee

■ Member of compensation committee

▲ Member of nominating/
governance committee



Canada
United States
Mexico
Brazil
Chile



Denmark
France
Germany
Italy
Luxembourg
The Netherlands
Norway
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South Africa
Sweden
Switzerland
United Kingdom
Australia
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India
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Singapore
South Korea
Taiwan
Thailand
United Arab Emirates

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