

ANNUAL REPORT 2019



Letter to Shareholders

2019 Annual Report on Form 10-K





Letter to Shareholders

Dear shareholders,

2019 was a great year for IHS Markit as we delivered our financial results for the third consecutive year within our longer-term financial objectives and progressed our strategic initiatives including those focused on our customers, our people and the communities in which we operate. We also rebalanced our portfolio, increased our capital return commitment including a new quarterly cash dividend that started in 2020, and continued to increase the pace of innovation within the firm. We believe this track record of consistent execution and results is being recognized by our strong share price growth in 2019 of 36% as compared to 16% for the S&P 500, and an increase of 122% since our merger in 2016.

It was also a year of accelerating change across the markets we serve. In this environment our data and insight continues to help our customers make long term strategic decisions and manage daily operational activities. We see increasing opportunities to support our customers in a number of areas including using our platforms to provide greater transparency in the alternative asset space, helping customers manage the implications of climate change and sustainability, and managing the increasing demand for hybrid and electric vehicles. Change provides new opportunities for us to help our customers, and we believe our strategic initiatives around our data lake and data science will enable us to more quickly organize and harness the full capabilities of IHS Markit to do so. Change is a constant in the current world and we are making sure we are positioning ourselves to benefit from it.

2019 Review

Financial Highlights

In 2019, we delivered solid financial results that drive stronger shareholder value:

- Revenue grew 10% including 6% organic growth
- Adjusted EBITDA margin expanded 130 basis points, and normalized Adjusted EBITDA margin expanded 100 basis points excluding the impact of foreign exchange
- Diluted EPS decreased 8% and Adjusted EPS grew 15% year over year

It has been great to see the drivers of growth supported from across our portfolio.

Commitment to strong capital return

Our attractive business model produces strong annual cash flow. In 2019 we returned \$576 million of capital through share repurchases at an average price of \$64.16. Looking forward, we have committed to return a minimum of 50% of our annual capital capacity and up to as much as 75% through our new quarterly cash dividend and continued share repurchases.

Rebalancing our Portfolio

We made great progress rebalancing our portfolio, divesting assets including our aerospace and defense business, and completing bolt-on acquisitions in line with our strategy. These include the purchase of Agribusiness Intelligence, which strengthens our chemical business, and the CO2 emissions analytics assets from our joint venture partner Novation. We've fully integrated these businesses and already recognized early synergies. As we look forward, you should expect to see continuing efforts with respect to portfolio rebalancing and capital return.

Strategic Initiatives

We made good progress against our strategic initiatives in 2019 which will help us deliver more for our customers, employees, shareholders, and the communities in which we operate.

Driving a Culture of Innovation

Innovation enables us to leverage our data assets, industry experts and growing data science capabilities to help our customers in new ways. We initiated several programs this year across the company to drive innovation. We are also benefiting from our new internal measurement of innovation which helps us measure and manage new product investment and development in a more transparent way.

Technology and Product

Technology, analytics and data science help us meet the sophisticated needs of our customers. To allow for greater efficiencies around data ingestion, faster product development and improved distribution of our data and products, we have on-boarded all relevant data into our data lake. We are already using this platform internally for product innovation and we expect to make it fully available to our customers in the second half of 2020.

People

We focused on employee engagement during 2019 and increased our survey scores year on year, in part through new programs and initiatives covering learning and development, leadership, management, interns and graduates, and mentorship. We also increased our philanthropy both in the total amount donated and through volunteering, where we completed 57,412 volunteer hours, up 15% compared to 2018.

Looking Forward

We see substantive opportunities for growth which we will continue to explore, in many cases driven by economic, regulatory or structural change impacting our customers. These opportunities are in large addressable markets where our combination of data, technology and expertise allows us to partner with our customers to solve their most pressing needs.

Shift to private capital. The private or alternatives markets are in excess of \$5.8 trillion and expected to double over the next five years; the “dry powder” available for investment at the end of 2019 was \$2.2 trillion. At the same time, managers are increasingly pursuing strategies across multiple asset classes, in turn driving up operational complexity. The market is ripe for the solutions that we have provided for many years - helping to provide transparency, performance benchmarking, operational efficiency, regulatory compliance and, most importantly, better decision making. Using our existing products and services, we will scale to more effectively service this marketplace.

Asset manager efficiency. Despite continued growth of assets under management, asset managers are under material margin pressure due to a combination of lower expense ratios and rising operational and technology spend. Total fees have seen substantial declines across major asset classes over the last decade due to the massive shift of assets to passive management, consolidation, and the overall lower return environment. Our deep expertise and customer relationships put us in a unique position to provide our asset manager customers with solutions and managed services to help restructure their cost bases for the decade ahead.

Climate and sustainability. Over the past 12 months climate and sustainability has moved center stage: automotive manufacturers are being impacted by more stringent government regulations and the shift towards electric and autonomous vehicles; the resources industry is transitioning to a lower carbon economy; and financial firms are increasingly looking at their portfolios through an ESG or sustainability lens. The total addressable market for climate and sustainability solutions that help companies understand the trends ahead, benchmark their position, assess risk and comply with regulations is substantial and growing. We have a strong and growing set of “green” solutions across all of our key segments providing data, analytics, research and advice to support our customers in this complex and dynamic environment. We are well positioned to help them manage the opportunities and challenges being driven by climate change, sustainability and technology.

As an example, global auto supply chains are facing more uncertainty today than at any time in their recent past due to the dual impact of technological advancement and regulatory pressure driven by climate. With technology content per vehicle expected to rise to approximately \$2,000 over the next five years, suppliers are competing for new growth opportunities in excess of \$200 billion. At the same time, thousands of suppliers associated with the internal combustion engine are facing intense pressure to adapt as their traditional business begins to decline. With our proprietary technology and compliance

data assets and our detailed supply chain mapping, we are ideally positioned to assist suppliers as they seek to reposition their portfolios to gain exposure to emerging technologies and markets such as electrification and autonomous driving.

Digital transformation. As the so-called Industrial Revolution 4.0 continues to unfold, our customers are increasingly looking to transform themselves by leveraging technology and adapting their systems and processes. Our customers are all at different stages of digital transformation and each is challenged in a different way. Through our experience of working closely with customers undergoing this transformation and our deep domain expertise, we are in a unique position to tackle these large-scale issues and the complexity of the decisions that need to be made.

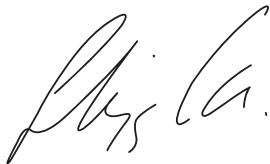
I am confident in our path ahead and see an abundance of opportunity to expand. We will support our existing revenues, innovate, create new revenue streams, manage our costs, create efficiencies and be disciplined in our capital management, all in order to drive double digit earnings growth. Finally in a world where ESG is playing an increasingly important role, not only to our shareholders but also in how we leave the planet for the next generation, we will continue to review and improve our approach to sustainability and aim to remain in the upper quartile of our peers.

In closing, I want to thank Todd Hyatt who has been an exceptional CFO and business partner over the years. He has transitioned his responsibilities to Jonathan Gear and will retire at the end of this year. I'd like to welcome Jonathan as our new CFO who has been with IHS Markit for fifteen years and has led two of our three major businesses since the time of the merger. The transition has been seamless through the dedication of both individuals and our strong values of partnership and accountability. I would also like to thank Rich Roedel for his immense contribution to IHS Markit as he retires this year after 15 years of dedicated service on our board of directors.

We have experienced great success and I am particularly proud with how we have positioned ourselves to continue to deliver in 2020 and beyond. I'd like to take this opportunity to thank our teams for their hard work, our customers for their trust in us, and our shareholders for their investment and commitment to IHS Markit.

Sincerely,

Lance Ugla

A handwritten signature in black ink, appearing to read 'Lance Ugla', written in a cursive style.

Chairman and CEO



**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 November 30, 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 001-36495

IHS MARKIT LTD.

(Exact name of registrant as specified in its charter)

Bermuda
(State or other jurisdiction of
incorporation or organization)

98-1166311
(IRS Employer
Identification No.)

4th Floor, Ropemaker Place
25 Ropemaker Street
London, England
EC2Y 9LY

(Address of Principal Executive Offices)

+44 20 7260 2000

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Shares, \$0.01 par value per share	INFO	New York Stock Exchange

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

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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 and post such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates, based upon the closing price for the common shares as reported on the NASDAQ Global Select Market on the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$15.1 billion. All executive officers, directors, and holders of five percent or more of the outstanding common shares of the registrant have been deemed, solely for purposes of the foregoing calculation, to be "affiliates" of the registrant.

As of December 31, 2019, there were 392,948,672 of our common shares outstanding, excluding 25,219,470 outstanding common shares held by the Markit Group Holdings Limited Employee Benefit Trust.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of the Form 10-K, to the extent not set forth herein, is incorporated herein by reference from the registrant's definitive proxy statement on Schedule 14A for the 2020 Annual General Meeting of Shareholders, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the close of the registrant's fiscal year.

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Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. These statements, which express management’s current views concerning future business, events, trends, contingencies, financial performance, or financial condition, appear at various places in this report and use words like “aim,” “anticipate,” “assume,” “believe,” “continue,” “could,” “estimate,” “expect,” “forecast,” “future,” “goal,” “intend,” “likely,” “may,” “might,” “plan,” “potential,” “predict,” “project,” “see,” “seek,” “should,” “strategy,” “strive,” “target,” “will,” and “would” and similar expressions, and variations or negatives of these words. Examples of forward-looking statements include, among others, statements we make regarding: guidance and predictions relating to expected operating results, such as revenue growth and earnings; strategic actions such as acquisitions, joint ventures, and dispositions, the anticipated benefits therefrom, and our success in integrating acquired businesses; anticipated levels of capital expenditures in future periods; anticipated levels of indebtedness, capital allocation, dividends, and share repurchases in future periods; our belief that we have sufficient liquidity to fund our ongoing business operations; expectations of the effect on our financial condition of claims, litigation, environmental costs, contingent liabilities, and governmental and regulatory investigations and proceedings; and our strategy for customer retention, growth, product development, market position, financial results, and reserves. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on management’s current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict and many of which are outside of our control. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following: operating in competitive markets, economic and financial conditions, including volatility in interest and exchange rates; our ability to develop new products and services; our ability to manage system failures or capacity constraints; our ability to manage fraudulent or unpermitted data access or other cyber-security or privacy breaches; our ability to successfully manage risks associated with changes in demand for our products and services; our ability to manage our relationships with third-party service providers; legislative, regulatory, and economic developments, including any new or proposed U.S. Treasury rule changes; the extent to which we are successful in gaining new long-term relationships with customers or retaining existing ones and the level of service failures that could lead customers to use competitors’ services; the anticipated tax treatment, unforeseen liabilities, future capital expenditures, revenues, expenses, earnings, synergies, economic performance, indebtedness, financial condition, losses, future prospects, business and management strategies for the management, expansion, and growth of our operations; our ability to retain and hire qualified personnel; our ability to satisfy our debt obligations and our other ongoing business obligations; and the occurrence of any catastrophic events, including acts of terrorism or outbreak of war or hostilities. These risks, as well as other risks which would cause actual results to be significantly different from those expressed or implied by these forward-looking statements, are more fully discussed under the caption “Risk Factors” in this Annual Report on Form 10-K, along with our other filings with the U.S. Securities and Exchange Commission (“SEC”). While the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Consequences of material differences in results as compared with those anticipated in the forward-looking statements could include, among other things, business disruption, operational problems, financial loss, legal liability to third parties and similar risks, any of which could have a material adverse effect on our consolidated financial condition, results of operations, credit rating, or liquidity. Therefore, you should not rely on any of these forward-looking statements. Any forward-looking statement made by us in this Annual Report on Form 10-K is based only on information currently available to our management and speaks only as of the date of this report. We do

not assume any obligation to publicly provide revisions or updates to any forward-looking statements, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by securities and other applicable laws.

Website and Social Media Disclosure

We use our website (www.ihsmarket.com) and corporate Twitter account (@IHSMARKIT) as routine channels of distribution of company information, including news releases, analyst presentations, and supplemental financial information, as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. Accordingly, investors should monitor our website and our corporate Twitter account in addition to following press releases, SEC filings, and public conference calls and webcasts. Additionally, we provide notifications of news or announcements as part of our investor relations website. Investors and others can receive notifications of new information posted on our investor relations website in real time by signing up for email alerts.

None of the information provided on our website, in our press releases, public conference calls, and webcasts, or through social media channels is incorporated into, or deemed to be a part of, this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our website or our social media channels are intended to be inactive textual references only.

Financial Presentation

We operate on a November 30 fiscal year end. Unless otherwise indicated, references in this Annual Report on Form 10-K to an individual year means the fiscal year ended November 30. For example, “2019” refers to the fiscal year ended November 30, 2019.

Trademarks, Service Marks, and Copyrights

We own or have rights to use the trademarks, service marks, and trade names that we use in connection with the operation of our business; other trademarks, service marks, and trade names referred to in this Annual Report on Form 10-K are, to our knowledge, the property of their respective owners. We also own or have the rights to copyrights that protect aspects of our products and services. Solely for convenience, the trademarks, service marks, trade names, and copyrights referred to in this Annual Report on Form 10-K are listed without the ®, ™, and © symbols, but we will assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors to these trademarks, service marks, and trade names.

PART I

Item 1. Business

History and Development of the Company

IHS Markit Ltd. (“IHS Markit” or “we” or “us” or “our”) was formed in 2016 through a merger (“Merger”) of IHS Inc., which had been in business since 1959 and was publicly traded since 2005, and Markit Ltd., which was founded in 2003 and was publicly traded since 2014. IHS Markit Ltd. is incorporated pursuant to the laws of Bermuda, and our common shares are traded on the New York Stock Exchange under the symbol “INFO.”

Our principal executive offices are located at 4th Floor, Ropemaker Place, 25 Ropemaker Street, London, England EC2Y 9LY. Our telephone number at this address is +44 20 7260 2000. We maintain a registered office in Bermuda at Clarendon House, 2 Church Street, Hamilton HM 11, Bermuda. The telephone number of our registered office is +1 441 295 5950.

Our Vision

Our vision is to be our customers’ leading source for critical information, analytics, and insight. Our purpose is to help our customers grow, enabling better decision making and operational efficiency.

Our Business

We deliver data, insight, and software that combine our expertise, unique content sets, and leading technology to the world’s major industries, financial markets, and governments. Our analytics reveal interdependencies across complex industries, which enhances transparency, reduces risk, and improves operational efficiency for our customers. Our information, analytics, and solutions are significant components in the systems and workflows of many of our customers and continue to become increasingly important to our customers’ operations. We leverage leading technologies and our industry expertise to create innovative products and services that provide information and insight to our customers to help them be more efficient and make more informed decisions. We are committed to sustainable, profitable growth.

Our core competency is using our expertise to source and transform data into information and analytics that our customers can use when making operational and strategic decisions. We are a dependable resource for our customers, who require and demand the most accurate and robust information available. We are dedicated to providing the information and analysis our customers need to make critical decisions that drive growth and value for their operations.

By integrating and connecting our information and analytics with proprietary and widely used decision-support technology on scalable platforms, we produce critical information and insight designed to meet our customers’ needs. Our product development teams have also created proprietary Web services and application interfaces that enhance access to our information and allow our customers to integrate our offerings with other data, business processes, and applications (such as computer-aided design, enterprise resource planning (“ERP”), supply chain management, and product data/lifecycle management).

Our Objectives

To achieve our vision, we are focusing our efforts primarily on the following areas:

- *Customers.* We are working together with our customers to be a trusted and valued partner through meaningful and responsive engagement, deep and differentiated expertise, and best-in-class delivery.
- *Product.* We strive to develop innovative, best-in-class products that deliver real value, are reliable, and stand out from our competitors.
- *Technology and data science.* We are using technology and data science as a differentiator to maximize and optimize our content, expertise, and operations.
- *People.* Our work environment is designed to encourage excitement and pride in the work we do and where our people are constantly learning and feel challenged, respected, and valued.
- *Efficiency.* We expect to achieve operational excellence by consistently improving productivity and efficiency by leveraging technology and operations.
- *Financial strength.* We seek to consistently deliver on our key financial commitments.

We benchmark our progress annually against these objectives using external and internal metrics. For example, to measure customer and employee satisfaction, we use surveys and develop goals based on those metrics.

Our Strategy

Our strategy is to bring together information, research, analytics, and technology to deliver integrated offerings to customers in separate but interconnected industries. We believe that we can best implement our strategy by using our strong foundation of leading assets, talent, and competitive positioning in large growing global markets to achieve the following:

- *Increase in geographic, product, and customer penetration.* We believe there are continued opportunities to add new customers and to increase the use of our products and services by existing customers. We plan to add new customers and build our relationships with existing customers by leveraging our existing sales channels, broad product portfolio, global footprint, and industry expertise to anticipate and respond to the changing demands of our end markets.
- *Introduce innovative offerings and enhancements.* To maintain and enhance our position as a leading information services provider, we introduce enhancements to our products and services, as well as launch new products and services. We maintain an active dialogue with our customers and partners to allow us to understand their needs and anticipate market developments. We also seek to develop innovative uses for our existing products and services to generate incremental revenue, find more cost-effective inputs to support our existing products and services, and facilitate development of profitable new products and services. Our investment priorities are primarily in energy, automotive, and financial services, and we intend to continue to invest across our business to increase our customer value proposition.
- *Balance capital allocation.* We expect to balance capital allocation between returning capital to shareholders (targeting an annual capital return of 50 to 75 percent of our annual capital capacity through a combination of share repurchases and cash dividends) and completing mergers and acquisitions, focused primarily on targeted transactions in our core end markets that will allow us to continue to build out our strategic position. We intend to operate at the high end of our capital policy target leverage ratio of 2.0-3.0x.

Our Global Organizational Structure

To serve our customers, we are organized into the following four industry-focused segments:

- *Financial Services*, which includes our financial Information, Solutions, and Processing product offerings;
- *Transportation*, which includes our Automotive and Maritime & Trade product offerings;
- *Resources*, which includes our Upstream and Downstream product offerings; and
- *Consolidated Markets & Solutions*, which includes our Product Design, Economics & Country Risk, and TMT benchmarking product offerings.

We believe that this sales and operating model helps our customers do business with us by providing a cohesive, consistent, and effective product, sales, and marketing approach by segment.

Our Competitive Strengths

We believe that our competitive strengths include the following:

- *Trusted partner with diversified, global customer base and strong brand recognition.* We believe that our customers trust and rely on us for our consultative approach to product development, dedication to customer satisfaction, and ability to execute and deliver effective product and service offerings. Our industry expertise allows us to effectively anticipate, understand, and address our customers' needs. Our global footprint allows us to serve our customers throughout the world and to introduce our products and services to customers in new markets. Our product offerings are well established and recognized in multiple industries. We also own a number of well-known brands, including CARFAX, CERAWEEK, the Purchasing Managers Index series, and the iBoxx indices.
- *Breadth and depth of information and analytics.* Our customers benefit from a concentration of intellectual wealth and thought leadership in a variety of industries. We believe that our global team of information and industry experts, research analysts, and economists provides our customers with leading strategic information and research. We convert raw data into critical information through a series of transformational steps that reduce the uncertainty that is inherent in unrefined data. Our goal is to ensure that the information we provide through our product offerings is correct, current, complete, and consistent; therefore, we place a high degree of emphasis on the data transformation process. With our process, we believe that we can provide information and analytics that are both useful to our customers and available where and when needed. Our process also provides the foundation for the integration of our products and services into differentiated offerings and advanced analytics for the customers in our target industries.
- *Attractive financial model.* We believe we have an attractive financial model due to our recurring revenue, margin expansion, cash generation, and capital flexibility characteristics.
 - *Significant recurring revenue.* We offer our products and services primarily through recurring fixed and variable fee agreements, and this business model has historically delivered stable revenue and predictable cash flows. For the year ended November 30, 2019, we generated approximately 85 percent of our revenue from recurring revenue streams. Many of our offerings are core to our customers' business operations, and we have long-term relationships with many of our customers.
 - *Solid margin expansion.* Our customer focus and fiscal discipline have permitted us to maintain and progressively increase our margins as we integrate and streamline our operations and leverage our business model to provide valuable customer support.

- High cash generation. Our business has low capital requirements for product enhancement and new product development, allowing us to generate strong cash flow.
- Capital flexibility. Our cash flow model and credit quality provide us with a significant amount of flexibility in decision-making, allowing us to balance internal resource and investment needs, acquisitions, and shareholder return.

Our Customers

We have a diverse customer base, with more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and more than 80 percent of the Fortune U.S. 1000. Our customers operate in global interconnected industries and financial markets, and we continue to build on our existing scale to integrate our comprehensive content, expertise, tools, technology, and research and analysis to produce a differentiated offering that makes us an important part of many of our customers' core workflows. In 2019, no customer or group of affiliated customers represented more than 10 percent of our revenue.

Our Operating Segments

We develop our products and services based on customer needs in the target industries we serve and in the workflows that our customers use. We have organized our business to address the following key industries:

Financial Services

Our Financial Services segment provides pricing and reference data, indices, valuation and trading services, trade processing, enterprise software, and managed services. Financial Services end users include front- and back-office professionals, such as traders, portfolio managers, risk managers, research professionals, and other financial markets participants, as well as operations, compliance, and enterprise data managers. This segment includes our Information, Processing, and Solution offerings.

- *Information.* Our Information offerings provide enriched content consisting of pricing and reference data, indices, and valuation and trading services across multiple asset classes and geographies through both direct and third-party distribution channels. Our Information products and services are used for independent valuations, investor analyses, research, trading, and liquidity and risk assessments. These products and services help our customers price instruments, comply with relevant regulatory reporting and risk management requirements, and analyze financial markets. Some of our key Information offerings include the following:
 - Pricing and Reference Data Services provide independent pricing across major geographies and key asset classes as well as instrument, entity, and reference data products. We price instruments spanning major asset classes, including fixed income, equities, credit, and foreign exchange ("FX"). Customers use our pricing data primarily for independent valuations, risk analytics, and pre-trade analytics, and they use our reference data products in a broad range of valuation, trading, and risk applications in both cash and derivative markets.
 - The Indices product portfolio includes owned and administered indices covering all asset classes. Key proprietary index families include the PMI series, iBoxx, iTraxx, and CDX. In addition, we provide a range of index-related services for custom indices. Our indices are used for benchmarking, risk management, valuation, and trading. They also form the basis of a wide range of financial products, including exchange-traded funds, index funds, structured products, and derivatives.

- Valuation Services provide a broad range of valuations to both derivative and cash market participants, focused on instrument and portfolio valuations. Our portfolio valuation service provides independent valuations for a wide range of derivatives and cash products across all asset classes to a range of financial institutions, including many buy-side firms. Our private equity services provide independent valuation and performance reporting solutions for investors in unlisted equity, private placements, and hard-to-value debt.
- Research, Sales and Trading Services offer investment bank and financial institution customers a range of platforms and tools to perform trading performance and analysis, research aggregation and distribution, investment process and sales workflows, and relationship management.
- Corporate product offerings deliver capital market intelligence, real-time investor analysis and targeting, event management systems, and desktop workflow solutions to senior management and investor relations professionals within the corporate suite.
- *Solutions.* Our Solutions offerings provide configurable enterprise software platforms, managed services, and hosted solutions.
 - Enterprise Software Platforms include both standardized and custom solutions to automate our customers' in-house processing and connectivity for trading and post-trading processing, as well as enterprise data and risk management solutions to enable customers to more effectively manage their data and calculate risk measures. These solutions are also generally offered by us in hosted solution alternatives. Managed services and hosted solutions offerings are targeted at a broad range of financial services industry participants and help our customers capture, organize, process, display, and analyze information; manage risk; reduce fixed costs; and meet regulatory requirements. Some of our primary solutions offerings include the following:
 - Wall Street Office and WSO Services provide a loan portfolio management platform and related services to participants in the syndicated bank loan market across the complete trading lifecycle.
 - Global Markets Group product offerings deliver bookbuilding platforms, investor prospecting solutions, and road show systems to capital markets and financial services firms across multiple asset classes, including municipal bonds, equities, fixed income, and loans.
 - Regulatory Compliance products and services include KYC remediation tools and services, our KY3P vendor management and risk platform, advanced risk and analytics systems, and platforms and services to support counterparty transparency, tax regulations, and regulatory support for Dodd-Frank Act, EMIR, FRTB, SFTR, and other global regulations designed to increase oversight of financial markets.
 - Private Markets product offerings, including iLevel, provide portfolio data management services, analytics, reporting and valuation solutions, and platform services to private and alternatives market participants.
 - Enterprise Data Management ("EDM") software and services provide customers a central hub to manage the acquisition, validation, storage, and distribution of data sets from multiple sources.
 - Digital designs, builds, and hosts custom web solutions for customers in both the retail and institutional financial services markets.
 - Corporate actions solutions, including a managed data service and Information Mosaic, provide a centralized source of validated corporate action data for equities, fixed income, and structured securities across the globe, as well as robust processing solutions for financial institutions.
 - Thinkfolio is an enterprise order management and portfolio modeling system.

- *Processing.* Our Processing offerings provide trade processing products and services globally for over-the-counter (“OTC”) derivatives, FX, and syndicated loans. Our trade processing services enable buy-side and sell-side firms to process transactions rapidly, which increases efficiency by optimizing post-trade workflow, reducing risk, complying with reporting regulations, and improving connectivity. We believe we are among the largest providers of end-to-end multiple asset OTC derivatives trade processing services, as well as the largest providers of syndicated loan processing services.

Transportation

Our Transportation segment includes our Automotive offerings, which represented approximately 85 percent of the segment’s revenue for 2019, our Maritime & Trade offerings, and our recently divested Aerospace & Defense offerings.

- *Automotive.* We serve the full automotive value chain with a focus on original equipment manufacturers (“OEMs”), parts suppliers, and dealers.

Within the new car market, we provide authoritative analysis and forecasts of sales and production for light vehicles, medium and heavy commercial vehicles, powertrain, components, and technology systems across all major markets. Our comprehensive forecast database covers 99 percent of global light vehicle sales and production. We forecast sales and production of more than 50,000 unique vehicle model variants, as well as more than 100 different vehicle systems, sub-systems, and components.

We also provide a wide range of performance measurement and marketing tools for carmakers, dealers, and agencies. We continue to leverage analytics and innovation to develop product and service offerings aimed at addressing needs across the value chain, including strategy and planning, marketing, sales, dealer services, and after sales. In the U.S., our sales and marketing offerings draw on a database of more than 7 billion ownership records, covering 760 million vehicles and more than 240 million U.S. households over a period of 25 years. We also offer a range of vehicle recall solutions to carmakers, including identifying households to be contacted, providing accurate measurement of recall program completion, and in some cases, providing a full turnkey solution that manages the entire fulfillment process for their safety recall campaigns.

Our automotiveMastermind (“aM”) offering provides predictive analytics and marketing automation software for the new car dealer market, enabling dealers to improve their customer retention and extend their customer portfolio through “conquest” campaigns.

Within the used car market, we support dealers, insurers, and consumers through our CARFAX products. These offerings provide critical information for used car dealers and their customers in the used car buying process. For example, CARFAX vehicle history reports provide maintenance, accident, odometer, and commercial use information on cars in the United States. This history, based on more than 23 billion records collected from more than 112,000 data sources, provides confidence to dealers and consumers in the car buying process. We have expanded our product line under CARFAX to include a used car listing service for dealers and vehicle-specific valuation offerings.

- *Maritime & Trade (“M&T”).* We have been gathering data on ships since 1764 when the first Lloyd’s Register of Ships was published. We provide, on behalf of the International Maritime Organization (“IMO”), the unique global ID (the IMO number) for all ocean-going ships over 100 gross tons. Our M&T content and analytics provide comprehensive data on more than 200,000 ships over 100 gross tons, as well as monthly import and export statistics on more than 100 countries and tracking and forecasting approximately 95 percent of international trade by value.
- *Aerospace & Defense (“A&D”).* On December 2, 2019, we completed the sale of our A&D product portfolio to a private equity firm for approximately \$470 million.

Resources

Our Resources segment includes our Upstream offerings, which represent approximately 60 percent of Resources revenue, and our Downstream offerings, which make up approximately 40 percent of Resources revenue.

- *Upstream.* Our Upstream offerings include technical information, analytical tools, and market forecasting and consulting for the upstream industry. We provide critical information and expertise around country exploration and production risk; plays and basins technical information; costs and technologies; and energy company information for approximately 20,000 assets worldwide, including more than 6.5 million oil and gas wells, 5,000 basins, more than 3,400 land rigs and 6,200 marine vessels, and a database of 47,000 merger and acquisition transactions. Strategic planners, geoscientists, and engineers use our insight and leading geotechnical database and analytical tools to facilitate exploration, development, and production of energy assets. Some of our key offerings include the following:
 - Our Global Well, Production, Land, and Subsurface Content provides a comprehensive inventory of current and historical energy data. This content forms the basis for all of our upstream technical research, intelligence, analysis, and software portfolio.
 - The Kingdom/Harmony Suite provides leading-edge analysis of subsurface properties, including seismic interpretation and production estimation, for the geoscience and engineering markets globally.
 - Vantage is a global asset evaluation system that contains more than 23,000 oil and gas assets across the globe, performing forward-looking analysis of an asset's expected return and permitting large-scale asset comparisons from distinct individual regions.
 - Companies and Transactions performs database-driven analysis of roughly 47,000 merger and acquisition transactions, as well as financial analysis of all major oil and gas companies globally.
 - Market analyses and forecasts provide insight and intelligence on market fundamentals.
- *Downstream.* Our Downstream offerings provide market forecasting, midstream market analysis and supply chain data, refining and marketing economics, and oil product pricing information for the chemical, refined products, agriculture, and power industries. We are also a leading provider of bespoke consulting, offering strategic direction and capital investment advisory services. Some of our key offerings include the following:
 - Data for manufacturing processes, as well as capital expenditure, cost, price, production, trade, demand, and capacity industry analysis and forecasts for more than 250 chemicals in more than 110 countries.
 - An extensive library of detailed techno-economic analyses of chemicals and refining process technologies.
 - Actionable intelligence across the value chain from agricultural inputs to agricultural and processed food commodities.
 - Pricing information for refined products on spot, rack, and retail gasoline markets.
 - Global and regional outlooks and forecasts for power, coal, gas, and renewable markets.

In addition, we leverage our market leadership in these industries to convene global industry, government, and regulatory leaders at global and regional events, such as our annual CERAWEEK and World Petrochemical conferences.

Consolidated Markets & Solutions (“CMS”)

Our CMS segment includes our Product Design offerings, which represented approximately 66 percent of the segment's revenue for 2019, our Economics and Country Risk offerings, which represented

approximately 21 percent of the segment's revenue for 2019, and our Technology, Media & Telecom offerings, the majority of which were divested in August 2019.

- *Product Design*. Our Product Design solutions provide technical professionals with the information and insight required to more effectively design products, optimize engineering projects and outcomes, solve technical problems, and address complex supply chain challenges. Our offerings utilize advanced knowledge discovery technologies, research tools, and software-based engineering decision engines to advance innovation, maximize productivity, improve quality, and reduce risk. Our Product Design offerings include the following:
 - Engineering Workbench provides a single interface to surface answers from a curated universe of technical knowledge comprising more than 135 million records. This includes standards, codes, and specifications; applied technical reference; engineering journals, reports, best practices, and other vetted technical reference; and patents and patent applications.
 - BOM Intelligence, including data on more than 500 million electronic components or parts, enables our customers to integrate their bills of materials with obsolescence management, product change notifications (PCNs), end-of-life (EOL) alerts, and research and analysis.
 - Goldfire's cognitive search and other advanced knowledge discovery capabilities help pinpoint answers buried in enterprise systems and unstructured data, enabling engineers and technical professionals to accelerate problem solving and make better decisions more quickly.
- *Economics and Country Risk ("ECR")*. Our ECR team consists of approximately 450 economists, country risk analysts, data management specialists, and consultants monitoring, analyzing, and forecasting developments and risks in 211 countries and regions and 105 industries. We provide a vast range of economic and risk data and analytics, forecasts, and scenario tools to assist customers in their strategic market planning, procurement, and risk management decisions. We assess risks across more than 20 risk perils, help companies with their capital deployment and location decisions, and analyze economic and social impacts of their investments around the world. Specialized teams also monitor and forecast developments in consumer, construction, and life sciences markets.
- *Technology, Media & Telecom ("TMT")*. In August 2019, we sold the majority of our TMT market intelligence assets portfolio to Informa plc for approximately \$150 million. We retained our TMT benchmarking product portfolio, which provides performance and cost benchmarking analysis to the TMT industry.

Sales and Marketing

Our sales teams are located throughout the world and are organized within their respective business lines to align with our customers. In addition to field experience, we also conduct regular customer surveys to understand both current customer satisfaction levels and potential opportunities for product and coverage improvement.

Our financial services and corporate account management teams are part of our overall sales organization and are responsible for the delivery of the full breadth of our products and services to new and existing customers. The account management teams are also responsible for our overall relationship with our larger customers, focusing on developing new business, increasing our sales pipeline, and developing strategic transactions.

Our marketing organization is aligned with our sales organization and defines our marketing strategy and executes marketing programs. A primary focus for marketing strategy is to build IHS Markit brand awareness, revenue acceleration, and market leadership across our key industries for all products and services globally. Functionally, this includes corporate marketing, product marketing, and field marketing.

Competition

We believe the principal competitive factors in our business include the following:

- Depth, breadth, timeliness, and accuracy of information and data provided
- Quality of decision-support tools and services
- Quality and relevance of our analysis and insight
- Ease of use
- Customer support
- Value for price

We believe that we compete favorably on each of these factors. Although we face competition in specific industries and with respect to specific offerings, we do not believe that we have a direct competitor across all of the industries we serve due to the depth and breadth of our offerings. Competitors within specific industries or with respect to specific offerings are described below.

- *Financial Services.* Our Information offerings primarily compete with offerings from Bloomberg, FactSet, IntercontinentalExchange, S&P Global, MSCI, Refinitiv, Nasdaq, and FIS. Our Processing products and services primarily compete with Bloomberg, IntercontinentalExchange, Tradeweb, and Refinitiv. Our Solutions offerings primarily compete with firms such as BlackRock, Bloomberg, Refinitiv, SS&C, State Street, Charles River, Dealogic, Allvue, and AcadiaSoft.
- *Transportation.* In the Automotive market, we primarily compete with offerings from Experian, LMC Automotive, Urban Science, and Auto Alert. In Maritime & Trade markets, we primarily compete with offerings from Informa, Verisk, and S&P Global, as well as niche providers such as Trade Data Monitor, Datamyne, and Kpler.
- *Resources.* Our Upstream and Downstream offerings compete primarily with offerings from Verisk, Enverus, Schlumberger, Halliburton, GeoScout, Reed Elsevier, Bloomberg NEF, Argus, RS Energy, DTN, S&P Global, and Nexant.
- *CMS.* Our Product Design offerings primarily compete with offerings from SAI Global, Clarivate Analytics, and the standards developing organizations (“SDOs”), among others. Our ECR offerings compete primarily with offerings from the Economist Group, Oxford Economics, BMI Research, Fitch Solutions, Moody’s Analytics, McGraw-Hill Education, Control Risks, and Verisk.

Government Contracts

We sell our products to various government agencies and entities. No individual contract is significant to our business. Although some of our government contracts are subject to terms that would allow renegotiation of profits or termination at the election of the government, we believe that no renegotiation or termination of any individual contract or subcontract at the election of the government would have a material adverse effect on our financial results.

Intellectual Property

We rely heavily on intellectual property, including the intellectual property we own and license. We regard our trademarks, copyrights, licenses, and other intellectual property as valuable assets and use intellectual property laws, as well as license and confidentiality agreements with our employees, customers, channel and strategic partners, and others, to protect our rights. In addition, we exercise reasonable measures to protect our intellectual property rights and enforce these rights when we become aware of any potential or actual violation or misuse.

We use intellectual property licensed from third parties, including SDOs, government agencies, public sources, market data providers, financial institutions, and manufacturers, as a component of our offerings and, in many cases, it cannot be independently replaced or recreated by us or others. We have longstanding relationships with most of the third parties from whom we license information. Almost all of the licenses that we rely upon are nonexclusive and expire within one to two years, unless renewed, although we have longer licenses with some of those third parties, particularly in the Financial Services segment.

We maintain registered trademarks and service marks in jurisdictions around the world. In addition, we have obtained patents and applied for patents in the United States. For more information relating to our intellectual property rights, see “Item 1A. Risk Factors – We may not be able to protect our intellectual property rights and confidential information.”

Employees

As of November 30, 2019, we had more than 15,500 employees located in 38 countries around the world.

Seasonality

Our business has seasonal aspects. Our first quarter generally has our lowest quarterly levels of revenue and profit. We also experience event-driven seasonality in our business; for instance, we typically hold our annual CERAWEEK, World Petrochemical, and TPM conferences in the second quarter of each year. Another example is the biennial release of the Boiler Pressure Vessel Code (“BPVC”) engineering standard, which generates revenue for us predominantly in the third quarter of every other year. The most recent BPVC release was in the third quarter of 2019.

Financial Information About Segments

See “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 17” in Part II of this Form 10-K for information with respect to each segment’s revenues, profits, and total assets and for information with respect to our revenues and long-lived assets for the U.S., U.K., and the rest of the world in aggregate. See also “Item 1A. Risk Factors – Our international operations are subject to risks relating to worldwide operations.”

Available Information

IHS Markit files annual, quarterly, and current reports, proxy statements, and other information with the Securities and Exchange Commission (“SEC”). The SEC maintains a website that contains annual, quarterly, and current reports, proxy statements, and other information regarding issuers that file electronically with the SEC (including IHS Markit). The SEC’s website is www.sec.gov.

We maintain an internet website for investors at <http://investor.ihsmarkit.com>. On this website, we make available, free of charge, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Forms 3, 4, and 5 filed on behalf of directors and executive officers, and all amendments to any of those reports or filings, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. Unless specifically incorporated by reference, information on our website is not a part of this Annual Report on Form 10-K.

Also available on the website for investors at <http://investor.ihsmarkit.com> are our Amended and Restated Bye-laws, Corporate Governance Guidelines, Audit Committee Charter, Risk Committee

Charter, Human Resources Committee Charter, Nominating and Governance Committee Charter, Business Code of Conduct, and Compliance Hotline and Reporting Misconduct Policy. Our corporate governance documents are available in print, free of charge to any shareholder who requests them, by contacting IHS Markit Investor Relations and Corporate Communications at 15 Inverness Way East, Englewood, CO 80112 or by calling +1 303 790 0600.

Information About Our Executive Officers

Set forth below is information concerning our executive officers as of December 31, 2019.

Name	Age	Position
Lance Uggla	57	Chairman and Chief Executive Officer
Brian Crotty	57	Executive Vice President, Resources
Jonathan Gear	49	Executive Vice President, President of Resources, Transportation and CMS
Sari Granat	49	Executive Vice President, Chief Administrative Officer and General Counsel
Todd Hyatt	59	Executive Vice President and Chief Financial Officer
Adam Kansler	50	Executive Vice President, President of Financial Services
Eduard Tavernier	46	Executive Vice President, Transportation

Executive officers are appointed by our Board until their resignation or until their appointments are revoked by the Board.

In November 2019, Mr. Hyatt announced that he planned to retire at the end of 2020 and would step down as our Chief Financial Officer in early 2020. We announced that we would appoint Jonathan Gear, currently Executive Vice President and President of Resources, Transportation and CMS, to be our Chief Financial Officer once Mr. Hyatt leaves the role.

As of December 1, 2019, Mr. Crotty and Mr. Tavernier were promoted to the positions of Executive Vice President, Resources and Executive Vice President, Transportation, respectively, and became executive officers.

A brief biography for each of our current executive officers follows.

Lance Uggla

Mr. Uggla is Chairman and CEO of IHS Markit. He served as President from July 2016 to December 2017 and was appointed Chief Operating Officer in October 2017. Prior to the Merger, Mr. Uggla was Chairman and CEO of Markit since January 2003, responsible for leading the Company's strategic development and managing day-to-day operations. He founded Markit in 2003 after spotting an opportunity to bring transparency to the credit default swap market. The Company launched the first daily credit default swap pricing service that year. He oversaw Markit's growth from a startup to a global public company with more than 4,200 employees in 28 offices worldwide, serving more than 3,000 customers. Between 1995 and 2003, Mr. Uggla held a number of executive management positions at Toronto-Dominion Securities, including Vice Chairman and Head of Europe and Asia. Mr. Uggla graduated from the Simon Fraser University in Canada with a BBA and holds a Master of Science from the London School of Economics, U.K.

Brian Crotty

Brian Crotty is Executive Vice President, Resources of IHS Markit, responsible for business lines supporting the upstream and downstream industries. Mr. Crotty joined IHS Markit in 2016 through the

acquisition of OPIS, where he was the Chief Executive Officer since 2002. Mr. Crotty has more than 25 years of experience running database and SaaS platform businesses, with a particular specialty in commodity pricing and supply database models. Before joining OPIS in 2002, Mr. Crotty spent eight years as a vice president of Hart Publications. Mr. Crotty has a master's degree in journalism from American University and an undergraduate degree from Johns Hopkins University.

Jonathan Gear

Jonathan Gear is Executive Vice President and President of Resources, Transportation and CMS of IHS Markit, including business lines supporting the automotive, technology, engineering, digital, upstream, downstream, maritime, and aerospace industries. Mr. Gear was previously Executive Vice President of Resources and Transportation for IHS. Earlier, he served in multiple leadership roles across IHS. Prior to joining IHS in 2005, Mr. Gear held leadership positions at Activant Solutions, smarterwork.com, and Booz Allen Hamilton. He holds a B.A. from the University of California, Berkeley, and an MBA from Stanford Graduate School of Business.

Sari Granat

Sari Granat is Executive Vice President, Chief Administrative Officer and General Counsel of IHS Markit, responsible for the legal, compliance, enterprise risk, information security, and information technology functions. Ms. Granat previously served as head of legal and General Counsel at Markit. Prior to joining Markit in 2012, Ms. Granat was lead counsel and chief administrative officer of TheMarkets.com LLC. She has served in senior legal and strategy positions at media and technology companies including Dow Jones & Company and Kaplan, Inc. Ms. Granat holds a B.A. in English from Yale University and a J.D. from New York University School of Law.

Todd Hyatt

Todd Hyatt is Executive Vice President and Chief Financial Officer of IHS Markit. Mr. Hyatt joined IHS Inc. in 2005 where he most recently served as executive vice president and chief financial officer after previously serving as chief information officer, senior vice president of financial planning & analysis, and leading the finance organization for the company's engineering segment. Prior to joining IHS, Mr. Hyatt also worked for LoneTree Capital, US WEST/MediaOne, AT&T, Arthur Young, and Arthur Andersen. He holds a B.S. in accounting from the University of Wyoming and an M.S. in management from Purdue University.

Adam Kansler

Adam Kansler is Executive Vice President and President of Financial Services of IHS Markit, responsible for our Financial Services segment, which includes pricing and reference data, trade processing, valuations, indices, and economic and country risk products. From April 2015 to July 2016, Mr. Kansler served as global co-head of Markit's information division and head of North American operations. Prior to that, Mr. Kansler was Markit's chief administrative officer and general counsel, leading human resources, legal, corporate communications, risk, regulatory and strategic alliances. Before joining Markit in 2009, Mr. Kansler spent 17 years with Proskauer LLP, becoming a corporate partner. Mr. Kansler holds a B.A. in economics from Hobart College and received his J.D. from Columbia University School of Law.

Edouard Tavernier

Edouard Tavernier is Executive Vice President, Transportation of IHS Markit, responsible for business lines supporting the automotive and maritime industries. Mr. Tavernier was previously senior vice president of transportation and senior vice president of automotive for IHS Inc. He joined the company in 2008 and served in multiple product management, marketing, and commercial leadership roles. Before joining IHS Inc., Mr. Tavernier held management positions at LexisNexis, Global Insight, and United Business Media. He also worked at Goldman Sachs and BNP Paribas. Mr. Tavernier has a Master's Degree in Business Studies from Ecole des Hautes Etudes Commerciales (HEC) in France.

Item 1A. Risk Factors

In addition to the other information provided in this Annual Report on Form 10-K, you should carefully consider the risks described in this section. The risks described below are not the only risks that could adversely affect our business; other risks currently deemed immaterial or additional risks not currently known to us could also adversely affect us. If any of the following risks actually occurs, our business, financial condition, or results of operations could be materially and adversely affected. You should read the section titled “Cautionary Note Regarding Forward-Looking Statements” for a description of the types of statements that are considered forward-looking statements, as well as the significance of such statements in the context of this Annual Report on Form 10-K.

We operate in competitive markets, which may adversely affect our financial results.

While we do not believe that we have a direct competitor across all of the industries we serve, we face competition across all markets for our products and services, including from larger and smaller competitors that may be able to adopt new or emerging technologies to address customer requirements more quickly than we can, from incumbent companies with strong market share in specific markets, or from organizations that have not traditionally competed with us but could adapt their products and services or use their significant resources or expertise to begin competing. We believe that competitors are continuously investing, developing, and enhancing their products, services, and technology, and acquiring new businesses to better serve existing customers and attract new customers. In addition, the internet, widespread availability of sophisticated search engines, and public sources of free or relatively inexpensive information and solutions have simplified the process of locating, gathering, and disseminating data, potentially diminishing the perceived value of our offerings. While we believe our offerings are distinguished by such factors as complex compilation, standardization and analytical processes, currency, accuracy and completeness, and our other added value, our customers could choose to obtain the information and solutions they need from public, regulatory, governmental, or other sources. An increase in our capital investments, price reductions for our offerings, reduced spending, or increased self-sufficiency by our customers due to competition could negatively impact our business, financial condition, and results of operations.

We may be unsuccessful in achieving our guidance, growth and profitability objectives.

We provide public, full-year financial guidance based upon assumptions regarding our expected financial performance, including our ability to grow revenue, our planned expenses and tax rates, and our ability to achieve our profitability targets. We seek to achieve our growth objectives by: organically developing our offerings to meet the needs of our customers; cross selling our products and services to existing customers; acquiring new customers; entering into strategic partnerships and acquisitions; and implementing operational efficiency initiatives. Most of our revenue is recurring, typically based on subscriptions to our offerings, and our operating results depend on our ability to achieve and sustain high renewal rates on our existing subscription base and to enter into new subscriptions at commercially acceptable terms. In addition, a proportion of our revenue in our Financial Services segment is variable and depends upon transaction volumes, investment levels (i.e., assets under management), or the number of positions we value. We devote significant resources to establish relationships with our customers, and our strategies depend on our ability to persuade customers to maintain and grow their relationship with us over time. Many of our products and services, particularly in our resources and financial end-markets, are also dependent upon the robustness of the core end-markets in which we operate, as well as the financial health of the participants in those markets and the general economy. Customers are focused on controlling or reducing their operating costs, and may use strategies that result in a reduction in their spending on our products and services, such as by consolidating their spending with fewer or lower cost vendors, by deferring capital spending, or by internally developing functionality. In addition, mergers or consolidations among our customers could

reduce the number of our customers and potential customers, which could cause them to discontinue or reduce their use of our products and services. All such developments could lower demand or reduce the prices for our products and services or require us to offer additional products or services to compete. If we are unable to successfully execute on our strategies to achieve our growth objectives, retain existing customers, or if we experience higher than expected operating costs or taxes, our growth rates, profitability and operating results could be materially adversely affected and we may fail to meet the full-year financial guidance that we provide, or find it necessary to revise such guidance during the year.

If we are unable to identify opportunities, develop successful new products and services, or adapt to rapidly changing technology, our business could suffer serious harm.

The information services industry is characterized by significant and rapidly changing technology, evolving industry standards, and changing regulatory requirements, and our growth and success depend on our ability to meet our changing customer needs. The process of developing and enhancing our products and services is complex and may become increasingly complex and expensive in the future due to the introduction of new platforms, operating systems, technologies, and customer expectations. Current areas of significant technological change include artificial intelligence, mobility, cloud-based computing, blockchain, speed of availability of data, and the storing, processing, and analysis of large amounts of data. We may find it difficult or costly to enhance our current products and services and to develop new products and services quickly enough to keep the pace with evolving technologies, industry standards or regulations, or to meet our customers' needs, in which case we may not grow our business as quickly as we anticipate.

Fraudulent or unpermitted access to our data, services, or systems, or other cyber-security or privacy breaches may negatively impact our business and harm our reputation.

Many of our products and services and systems involve the collection, storage, use, and transmission of proprietary information and sensitive or confidential data, including data from our employees, customers and suppliers, intellectual property, proprietary business information, personally identifiable information, and information that may be confidential, sensitive, or material and nonpublic. Similar to other global companies that provide services online, we experience cyber-threats, cyber-attacks, and security breaches of varying degrees of severity on our products and our information technology systems and applications, which can include unauthorized attempts to access, disable, improperly modify or degrade our information, systems, and networks, the introduction of computer viruses and other malicious codes, and fraudulent "phishing" e-mails that seek to misappropriate data and information or install malware onto users' computers and our systems generally. Cyber-threats vary in technique and sources, are persistent, and increasingly are more sophisticated, targeted, and difficult to detect and prevent.

We rely on a system of physical and technological security measures, internal processes and controls, contractual precautions and business continuity plans, and policies, procedures, and training to protect the confidentiality of such data. We have dedicated resources at our company that are responsible for maintaining, and training our business teams on, appropriate levels of cyber-security, and we utilize third-party technology products and services to help identify, protect, and remediate our information technology systems and infrastructure against security breaches and cyber-incidents. Our information systems must also be constantly updated, patched, and upgraded to protect against known vulnerabilities and optimize performance. We may be required to incur significant costs to minimize or alleviate the effects of cyber-attacks or other security vulnerabilities and to protect against damage caused by future disruptions, security breaches, or cyber-attacks. However, our responsive and precautionary measures may not be adequate or effective to prevent, identify, or mitigate attacks by hackers, foreign governments, or other actors or breaches, disruptions, slowdowns or misconduct

caused by employee error, malfeasance, or other third parties. In addition, if a customer experiences a data security breach that results in the misappropriation of our proprietary business information, our reputation could be harmed, even if we were not responsible for the breach.

Any fraudulent, malicious, or accidental breach of data security controls can impact our ability to provide our products and services to customers, prevent authorized access to our systems by customers, suppliers, and employees or result in unintentional disclosure of, or unauthorized access to, or misappropriation or misuse of, customer, vendor, employee, or other confidential or sensitive data or information, which could potentially result in additional costs to our company to enhance security or to respond to occurrences, lost sales, loss of confidence in our processes and reliability, damages to our brand and reputation, violations of regulations or laws relating to the privacy of personal or payment card information, sanctions, fines, penalties, or litigation. Similarly, if any confidential or embargoed data is inadvertently disclosed or deliberately misused prior to our authorization, customers and financial markets could be negatively affected, and any resulting need to change our procedures for handling and sharing this data may diminish the value of such offerings. In addition, media or other reports of perceived security vulnerabilities to our systems or those of our third-party suppliers, even if no breach has been attempted or occurred, could also adversely impact our reputation. We are also dependent on security measures that some of our customers and suppliers are taking to protect their own systems and infrastructures. For example, our outsourcing of certain functions requires us to sometimes grant network access to third-party suppliers. If our suppliers do not maintain adequate security measures, do not require their sub-contractors to maintain adequate security measures, do not perform as anticipated and in accordance with contractual requirements, or become targets of cyber-attacks, we may experience the same impacts as described above. If any of these were to occur, it could have a material adverse effect on our business and results of operations. While we maintain what we believe is sufficient insurance coverage that may (subject to certain policy terms and conditions, including deductibles) cover certain aspects of third-party security and cyber-risks and business interruption, our insurance coverage may not always cover all costs or losses.

We could experience system failures or capacity constraints that could negatively impact our business.

Our ability to provide reliable service largely depends on the efficient and uninterrupted operation of complex systems, relying on people, processes, and technology to function effectively. Most of our products and services are delivered electronically, and our customers rely on our ability to process and deliver substantial quantities of information and other services on computer-based networks. Some elements of these systems have been outsourced to third-party providers, including critical data inputs received from third-party suppliers and data systems stored on cloud-based computing infrastructure. Some of our systems have been consolidated for the purpose of enhancing scalability and efficiency, which increases our dependency on a smaller number of systems. Any failure of, or significant interruption, delay, or disruption to, our systems could result in: disruption to our operations; significant expense to repair, replace, or remediate systems, equipment or facilities; a loss of customers; legal or regulatory claims, proceedings, or fines; damage to our reputation; and harm to our business.

System interruptions or failures could result from a wide variety of causes, including: human error, natural disasters (such as hurricanes and floods), infrastructure or network failures (including failures at third-party data centers, by third-party cloud-computing providers, or of aging technology assets), disruptions to the internet, malicious attacks or cyber incidents such as unauthorized access, ransomware, loss or destruction of data (including confidential and/or personal customer information), account takeovers, computer viruses or other malicious code, and the loss or failure of systems over which we have no control. In addition, significant growth of our customer base or increases in the number of products or services or in the speed at which we are required to provide products and services may also strain our systems in the future. We may also face significant increases in our use of

power and data storage and may experience a shortage of capacity and increased costs associated with such usage. We may also face additional strain on our systems and networks due to aging or end-of-life technology that we have not yet updated or replaced. While we generally have disaster recovery and business continuity plans that utilize industry standards and best practices for much of our business, including back-up facilities for our primary data centers, a testing program, and staff training, our systems are not always fully redundant and such plans may not always be sufficient or effective. In the past when we have experienced system interruptions or failures, some of our products or services have been unavailable for a limited period of time, but none of these occurrences have been material to our business. However, any of the above factors could individually or in the aggregate adversely affect our business and results of operations, and our insurance may not be adequate to compensate us for all failures, interruptions, delays, or disruptions.

Our transition to cloud-based technologies could expose us to operational disruptions.

We are transitioning our technology to cloud-based infrastructure, which is complex, time consuming, and can involve substantial expenditures. Our utilization of cloud services is critical to developing and providing products and services to our customers, scaling our business for future growth, accurately maintaining data and otherwise operating our business; any such implementation involves risks inherent in the conversion to a new system, including loss of information and potential disruption to our normal operations. We may discover deficiencies in our design or implementation or maintenance of the new cloud-based systems that could adversely affect our business. Upon implementation of the new cloud-based solutions, failure of cloud infrastructure providers to maintain adequate physical, technical and administrative safeguards to protect the security of our confidential information and data could result in unauthorized access to our systems or a system or network disruption that could lead to improper disclosure of confidential information or data, regulatory penalties and remedial costs. There may also be a discrepancy between the contractual liability profile that the cloud service provider has agreed to and our contractual liability profile with our customers. Any disruption to either the outsourced systems or the communication links between us and the outsourced suppliers could negatively affect our ability to operate our data systems, and could impair our ability to provide services to our customers. As we increase our reliance on these third-party systems, our exposure to damage from service disruptions may increase. We may incur additional costs to remedy the damages caused by these disruptions.

Design defects, errors, failures, or delays associated with our products or services could negatively impact our business.

Software, products, and services that we develop, license, or distribute, or use to develop or provide our products and services, may contain errors or defects when first released or when major new updates or enhancements are released that cause the software, product or service to operate incorrectly or less effectively. We may also experience delays while developing and introducing new products and services for various reasons, such as difficulties in licensing data inputs or adapting to particular operating environments. Defects, errors, or delays in our products or services that are significant, or are perceived to be significant, could result in rejection or delay in market acceptance, damage to our reputation, loss of revenue, a lower rate of license renewals or upgrades, diversion of development resources, product liability claims or regulatory actions, or increases in service and support costs. We may also need to expend significant capital resources to eliminate or work around defects, errors, failures, or delays. In each of these ways, our business, financial condition, or results of operations could be materially adversely impacted.

We depend on externally obtained software, content, and services to support our offerings, and the interruption or cessation of important third-party content or services could prove harmful to our business.

We obtain data from a wide variety of external sources that we transform into critical information and analytics and use to create integrated product and service offerings for our customers. Many of our offerings include content and information that is purchased or licensed from third parties, including from public record sources or parties that are our customers or our competitors, or obtained using independent contractors. For instance, our industry standards offerings that are part of our Product Design workflow rely on information licensed from standards developing organizations, and many of our financial institution customers provide us with data that is a critical input for many of our Financial Services offerings. We believe that the content licensed from many of these third parties might not be able to be obtained from alternate sources on favorable terms, if at all.

Our license agreements with these third parties are often nonexclusive and many are terminable on less than one year's notice. In addition, many of these third parties compete with one another and with us, including by providing data to our competitors, consolidating with each other, or becoming competitors themselves, which may cause them to reduce their willingness to supply, or increase the price of, data and content that are important to our products and services. Our competitors could also enter into exclusive contracts with, or acquire, our data sources, which may preclude us from receiving data from such sources or restrict our use of such data. Our business, data sources, or content could become subject to legislative, regulatory, judicial, or contractual restrictions that limit or prohibit the way we collect, process, or use content or data sources in our products and services. Contracts with third-party content providers are increasingly subject to information and physical security and compliance audits. We also collect data for our products and services through independent service providers. We are limited in our ability to monitor and direct the activities of our independent contractors and customers, but if any actions or business practices of these individuals or entities violate our policies or procedures or are otherwise deemed inappropriate or illegal, we could lose access to content, as well as be subject to litigation, regulatory sanctions, or reputational damage. If we lose access to, or are restricted in receiving, a significant number of data sources and cannot replace the data through alternative sources, or we are unable to obtain information licensed to us consistently, in a timely manner, or on terms commercially reasonable to us, specific products, services, and customer solutions may be impacted or disrupted and our business, reputation, financial condition, operating results, and cash flow could be materially adversely affected.

Our relationships with third-party service providers may change, which could adversely affect our results of operations.

We have commercial relationships with third-party service providers whose capabilities complement our own for integral services, software, and technologies. Many of our products and services are developed or are made available to our customers using integral infrastructure, information, and technology solutions provided by third-party service providers. For example, we outsource certain functions involving our data transformation process and data hosting functions to business partners, including cloud-computing providers, who we believe offer us deep expertise in these areas, as well as scalability and cost-effective services. In addition, we sometimes rely on third-party dealers to sell or distribute some of our offerings, such as in locations where we do not maintain a sales office or sales teams or for methods of distribution to which we do not have direct access. In some cases, these providers are also our competitors or may in the future become our competitors, which could impact our relationships. The priorities and objectives of these providers may differ from ours, which may make us vulnerable to changes in, or terminations of, our third-party relationships and could reduce our access over time to infrastructure, information, and technology. We have little control over these third-party providers, which increases our vulnerability to errors, defects, failures, interruptions, or

disruptions or problems with their services or technologies. We also face risks that one or more service providers may perform work that deviates from our standards or that we may not be able to adequately protect our intellectual property or protect the security of our confidential information and data. Any errors, failures to perform, interruptions, delays, breaches, or terminations of service experienced in connection with these third-party providers, or if we do not obtain the expected benefits from our relationships with third-party service providers, we may be less competitive, our products and services may be negatively affected, and our results of operations could be adversely impacted.

Failure to comply with customer contracts or requirements could adversely affect our business, results of operations, and cash flows.

Contracts with customers increasingly include performance requirements as customers seek to increase the liability profile taken by third-party providers like us. For example, contracts with customers are increasingly subject to audits, which may include a review of performance on contracts, pricing practices, cost structure, information and physical security, and compliance with applicable laws and regulations. Contracts with governmental customers are also generally subject to various procurement regulations and other requirements relating to their performance. Many of our customers, particularly in the financial services sector, are also subject to regulations and requirements to adopt risk management processes commensurate with the level of risk and complexity of their third-party relationships, and provide rigorous oversight of relationships that involve certain “critical activities,” some of which may be deemed to be provided by us. Any failure on our part to comply with the specific provisions in customer contracts, policies or processes, or any violation of government contracting regulations or requirements, could result in the imposition of various penalties, which may include termination of contracts, forfeiture of profits, suspension of payments, and, in the case of government contracts, fines and suspension from future government contracting. Any negative publicity with respect to customer contracts or any related proceedings, regardless of accuracy, may damage our business by harming our ability to compete for new contracts. While no one customer contract is material to our business as a whole, if a significant number of our customer contracts are terminated, or our ability to compete for new contracts is adversely affected, our financial performance could suffer.

The loss of, or the inability to attract and retain, qualified personnel could impair our future success.

Our future success depends to a large extent on the continued service of our highly skilled, educated, and trained employees, including our experts in research and analysis, information technology, and the industries in which we operate, and colleagues in sales, marketing, product development, operations, technology, and management, including our executive officers. We do not carry any “key person” insurance policies that could offset potential loss of service under applicable circumstances. We must maintain our ability to attract, motivate, compensate, and retain highly qualified colleagues in order to support our customers and achieve business results. The markets we serve are highly competitive and competition for skilled employees in our industry is intense for both onshore and offshore locales, and uncertainty around future employment opportunities, facility locations, organizational and reporting structures, acquisitions and divestitures, and other related concerns may impair our ability to attract and retain qualified personnel. The loss of the services of qualified personnel and any inability to recruit effective replacements or to otherwise attract, motivate, train, or retain highly qualified personnel could have a material adverse effect on our business, financial condition, and operating results.

We also must manage leadership development and succession planning throughout our business. Any significant leadership change and accompanying senior management transition involves inherent risk, and any failure to ensure a smooth transition could hinder our strategic planning, execution, and future performance. While we strive to mitigate the negative impact associated with changes to our senior management team, such changes may cause uncertainty among investors, employees, customers,

creditors, and others concerning our future direction and performance. If we fail to effectively manage our leadership changes, including ongoing organizational and strategic changes, our business, financial condition, operating results, and ability to successfully attract, motivate and retain highly qualified colleagues, could be harmed.

We may not be able to protect our intellectual property rights and confidential information.

Our success depends in part on our proprietary technology, processes, methodologies, and information. We rely on a combination of copyright, trademark, trade secret, patent, and other intellectual property laws and nondisclosure, license, assignment, and confidentiality arrangements to establish, maintain, and protect our proprietary rights, as well as the intellectual property rights of third parties whose assets we license. However, the steps we have taken to protect our intellectual property rights, and the rights of those from whom we license intellectual property, may not be adequate to prevent unauthorized use, misappropriation, or theft of our intellectual property. Intellectual property laws differ in various jurisdictions in which we operate and are subject to change at any time, which could further restrict our ability to protect our intellectual property and proprietary rights. In particular, a portion of our revenues is derived from jurisdictions where adequately protecting intellectual property rights may prove more challenging or impossible. We may also not be able to detect unauthorized uses or take timely and effective steps to remedy unauthorized conduct. To prevent or respond to unauthorized uses of our intellectual property, we might be required to engage in costly and time-consuming litigation or other proceedings and we may not ultimately prevail. Courts, in particular, may be reluctant to enforce our proprietary rights against individual employees or contractors. Any failure to establish, maintain, or protect our intellectual property or proprietary rights could have a material adverse effect on our business, financial condition, or results of operations.

We may be exposed to litigation related to products we make available to customers and we may face legal liability or damage to our reputation.

Companies in our industry have increasingly pursued patent and other intellectual property protection for their data, technologies, and business methods. As we do not actively monitor third-party intellectual property, if any of our data, technologies, or business methods are covered or become covered by third-party intellectual property protection and used without license or if we misuse data, technologies or business methods outside the terms of our licenses, we may be subject to claims or threats of infringement, misappropriation, or other violation of intellectual property rights, or have the use of our data, technologies, and business methods otherwise challenged. We have also in the past been, and may in the future be, called upon to defend partners, customers, suppliers, or distributors against such third-party claims under indemnification clauses in our agreements. Responding to such claims or threats, regardless of merit, can consume valuable time and resources, result in costly or unfavorable litigation or settlements that could exceed the limits of applicable insurance coverage, delay operations of our business, require redesign of our products and services, or require new royalty and licensing agreements. It could also damage our reputation for any reason, which could adversely affect our ability to attract and retain customers, employees, and information suppliers. Any such factors could have a material adverse effect on our financial condition or results of operations.

We are subject to litigation and investigation risks which could adversely affect our business, results of operations, and financial condition.

We are from time to time involved in various litigation matters and claims, including regulatory proceedings, administrative proceedings, lawsuits, governmental investigations, and contract disputes, as they relate to our products, services, and business. We may face potential claims or liability for, among other things, breach of contract, defamation, libel, fraud, antitrust, or negligence, with respect to the use of our offerings by our customers, particularly if the information in our offerings was incorrect

for any reason, or if it were misused or used inappropriately. We may also face employment-related litigation and investigations, including claims of age discrimination, sexual harassment, gender discrimination, racial discrimination, immigration violations, or other local, state, and federal labor, environmental, health, and safety violations. In addition, we may receive routine requests for information from governmental agencies in connection with their regulatory or investigatory authority or from private third parties pursuant to subpoena. In the past, certain of our business practices have been investigated by government antitrust or competition agencies, and we have on multiple occasions been sued by private parties for alleged violations of the antitrust and competition laws of various jurisdictions, and there is a risk based upon the leading position of certain of our business operations or the relationships between our customers in using our products and services that we could, in the future, be the target of investigations by government entities or actions by private parties challenging the legality of our business practices. Because of the uncertain nature of litigation, investigations, and insurance coverage decisions, we cannot predict the outcome of these matters, which could have a material adverse effect on our business, results of operations, and financial condition. Litigation and investigations are very costly, and the costs associated with prosecuting and defending litigation and investigation matters could have a material adverse effect on our business, results of operations, and financial condition. Depending on the outcome of future claims or investigations, we may also be required to change the way we offer, and how other parties purchase or interact with, particular products or services, which could result in material disruptions to and costs incurred by our business. In light of the potential time, expense, and uncertainty involved in litigation and investigations, including fines, penalties, damages, or injunctions or other equitable remedies, we may settle matters even when we believe we have a meritorious defense. We are unable to estimate precisely the ultimate dollar amount of exposure to loss or the amounts we actually pay in connection with litigation and investigation matters, due to inherent uncertainties and the inherent shortcomings of the estimation process, the uncertainties involved in litigation, and other factors.

Our use of open source software could result in litigation or impose unanticipated restrictions on our ability to commercialize our products and services.

We use open source software in our technology, most often as small components within a larger product or service. Open source code is also contained in some third-party software we rely on. The terms of many open source licenses are ambiguous and have not been interpreted by U.S. or other courts, and these licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to commercialize our products and services, license the software on unfavorable terms, require us to re-engineer our products and services or take other remedial actions, any of which could have a material adverse effect on our business. We could also be subject to suits by parties claiming breach of the terms of licenses, which could be costly for us to defend.

Our brand and reputation are key assets and competitive advantages of our company and our business may be affected by how we are perceived in the marketplace.

The integrity and external perceptions of our brand and reputation are key to our ability to remain a trusted source of products and services and to attract and retain customers. We also enter into redistribution arrangements that allow other firms to represent certain of our products and services as partners or agents. Reputational damage from negative perceptions or publicity, or actual, alleged, or perceived issues regarding any of our products or services, or misrepresentation of our products and services by third parties, could damage our reputation and relationships with customers, prospects, and the public generally. Although we monitor developments, including social media, for areas of potential risk to our brand and reputation, negative perceptions or publicity or misrepresentations by third parties may adversely impact our credibility as a trusted source for critical information, analytics, and insight and may have a negative impact on our brand, reputation, and our business.

Failure to operate our pricing and valuation services, benchmarks, and indices in a manner that maintains their independence and integrity could adversely affect our reputation and our business.

We operate multiple global pricing and valuation services, benchmark products, and indices across a broad range of commodities and asset classes, many of which depend on contributions or inputs from third parties or market participants. To ensure continued use of such products and services, our customers expect us to be able to demonstrate that they are not readily subject to manipulation. We believe our products and services are designed with appropriate methodologies, processes, and procedures to maintain independence and integrity; however, we may not be able to prevent third parties or market participants from working together or colluding to try to manipulate their inputs and thus the resulting outputs of our products and services. We may also become involved in third-party investigations or litigation related to the commodities and asset classes our products and services serve. Any failures, negative publicity, investigations, or lawsuits that implicate the independence and integrity of our pricing and valuation services, benchmarks, and indices could result in a loss of confidence in the administration of these products and services and could harm our reputation and our business.

Some of our products and services typically face long selling cycles to secure new contracts, which require significant resource commitments and result in long lead times before we receive revenue.

For certain new products and services, and especially for complex products and services, we often face long selling cycles to secure new contracts and customers, and there can be a long preparation period before we commence providing products and services. For instance, some of our Financial Services products and services can require active engagement with potential customers and can take 12 months or more to reach deal closure. Some products' success is also dependent on building a network of users and may not be profitable while such a network is developing. We can incur significant business development expenses during the selling cycle, and we may not succeed in winning a new customer's business, in which case we receive no revenue and may receive no reimbursement for such expenses. Selling cycle periods could lengthen, causing us to incur even higher business development expenses with no guarantee of winning a new customer's business. Even if we succeed in developing a relationship with a potential new customer, we may not be successful in obtaining contractual commitments after the selling cycle or in maintaining contractual commitments after the implementation cycle, and our business, financial condition, and results of operations could be adversely affected.

Changes in the legislative, regulatory, and commercial environments in which we operate may adversely impact our ability to collect, compile, use, transfer, publish, or sell data, subject us to increased regulation or decreased demand of our products and services, or prevent us from offering certain products or services, which could adversely affect our financial condition and operating results.

Certain types of information we collect, compile, store, use, transfer, publish and/or sell, and certain of our products and services, are subject to regulation by law and governmental authorities in various jurisdictions in which we operate. There is an increasing public concern regarding, and resulting regulations of, privacy, data, and consumer protection issues. Certain types of information, including offerings in our Automotive businesses, are subject to laws and regulations by governmental authorities in jurisdictions in which we operate. These laws and regulations pertain primarily to personally identifiable information relating to individuals, and constrain the collection, use, storage, and transfer of that data, as well as other obligations with which we must comply. If we fail to comply with these laws or regulations, we could be subject to significant litigation and civil or criminal penalties

(including monetary damages, regulatory enforcement actions or fines) in one or more jurisdictions and reputational damage resulting in the loss of data, brand equity and business. To conduct our operations, we also move data across national borders and consequently are subject to a variety of continuously evolving and developing laws and regulations regarding privacy, data protection, and data security in an increasing number of jurisdictions. Many jurisdictions have passed laws in this area, such as the European Union General Data Protection Regulation (the “GDPR”), the cyber-security law adopted by China in 2017, and the 2020 California Privacy Act, and other jurisdictions are considering imposing additional restrictions. These laws and regulations are increasing in complexity and number, change frequently, and increasingly conflict among the various countries in which we operate, which has resulted in greater compliance risk and cost for us. It is possible that we could be prohibited or constrained from collecting or disseminating certain types of data or from providing certain products or services. If we fail to comply with these laws or regulations, we could be subject to significant litigation, civil or criminal penalties, monetary damages, regulatory enforcement actions or fines in one or more jurisdictions. For example, a failure to comply with the GDPR could result in fines up to the greater of €20 million or 4% of annual global revenues.

Many of our customers rely on our products and services to meet their operational, regulatory, or compliance needs. Our financial industry customers, for example, operate within a highly regulated environment and must comply with governmental and quasi-governmental legislation, regulations, directives, and standards. In addition, our benchmark administration services have recently become regulated by the U.K. Financial Conduct Authority and the Dutch Authority for the Financial Markets, and we have been developing new products and services that will require regulatory approval and oversight in various jurisdictions. Complex and ever-evolving legislative and regulatory changes around the world that impact our customers’ industries may impact how we provide products and services to our customers and may affect the development, structure and regulation of, and possibly the demand for, products and services we offer or develop, such as indices, benchmark administration, settlement, intermediating and clearing services, and offerings in which we function as a “third-party service provider.” Changes in laws, rules, regulations or standards may have a material adverse effect on our business, financial condition, or results of operations. If we fail to comply with applicable laws, rules, regulations, or standards, or fail to obtain regulatory approval to conduct certain operations or provide certain products or services, we could be limited in the types of products and services we provide or subject to fines or other penalties. Additionally, we may be required to comply with multiple and potentially conflicting laws, rules, or regulations in various jurisdictions, or investigate, defend, or remedy actual or alleged violations, which could, individually or in the aggregate, result in materially higher compliance costs to us. New legislation, or a significant change in laws, rules, regulations, or standards could also result in some of our products and services becoming obsolete or prohibited, reduce demand for our products and services, increase expenses as we modify or develop products and services to comply with new requirements and retain relevancy, impose limitations on our operations, and increase compliance or litigation expense, each of which could have a material adverse effect on our business, financial condition, and results of operations.

Our operations are subject to risks relating to worldwide operations, and our compliance and risk management methods might not be effective and may result in outcomes that could adversely affect our reputation, financial condition, and operating results.

Operating in many jurisdictions around the world, we may be affected by numerous, and sometimes conflicting, legal and regulatory regimes, including: changes in law or their interpretation (including trade protection laws, policies and measures, and other regulatory requirements affecting trade and investment, including export controls and economic sanctions laws); changes in tax rates, holidays, incentives and laws, or their interpretation; unexpected changes in regulatory requirements; and political conditions and events. Different liability standards and legal systems, that may be less developed and less predictable than those in the United States and the United Kingdom, could limit our

ability to provide services in specific countries and subject us to potential noncompliance with a wide variety of laws and regulations. We must also manage social, political, labor, or economic conditions in a specific country or region; restrictive actions by governments, including embargoes; difficulties in staffing and managing local operations; difficulties with local or grassroots activism; difficulties in penetrating new markets because of established and entrenched competitors; uncertainties of obtaining data and creating products and services that are relevant to particular geographic markets; lack of recognition of our brands, products, or services; unavailability of local joint venture partners; restrictions or limitations on outsourcing contracts or services abroad; potential adverse tax consequences on the repatriation of funds and from taxation reform affecting multinational companies; and exposure to adverse government action in countries where we may conduct reporting activities. Because of the varying degrees of development of the legal systems of the countries in which we operate, local laws might be insufficient to protect our rights. Compliance with diverse legal and regulatory requirements is costly and time-consuming, and requires significant resources. Violations could result in significant fines or monetary damages, criminal and civil sanctions, including the restriction, suspension or revocation of an authorization, regulatory approval, license, recognition, exemption or registration that we rely on in order to conduct our business, and damage to our reputation.

As we operate our business around the world, we must manage the potential conflicts between locally accepted business practices in any given jurisdiction and our obligations to comply with laws and regulations, including anti-corruption laws or regulations applicable to us, such as the U.K. Bribery Act 2010, the U.S. Foreign Corrupt Practices Act and regulations established by the U.S. Office of Foreign Assets Control. Government agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against companies for violations of export controls, anti-corruption laws or regulations, and other laws, rules, sanctions, embargoes, and regulations. For example, the United States, the European Union, and other countries have imposed significant sanctions measures targeting the energy, defense, and financial sectors of Russia's economy and specific Russian officials and businesses. There is also significant uncertainty about the future relationship between the United States and various other countries, most significantly China, with respect to trade policies, treaties, government regulations and tariffs. Although we believe all our business activities are permissible under all current applicable laws, rules, sanctions, embargoes, and regulations, we may be required to discontinue or limit our business activities in the future. Further, the implementation of new trade policies, treaties, tariffs, legislation or regulations, or changes in or unfavorable interpretations of existing regulations by courts or regulatory bodies, could require us to incur significant compliance costs and impede our ability to operate, expand, and enhance our products and services as necessary to remain competitive and grow our business.

Our ability to comply with applicable complex and changing laws and rules, including anti-corruption laws, is largely dependent on our establishment and maintenance of compliance, surveillance, audit, and reporting systems, as well as our ability to attract and retain qualified compliance and other risk management personnel. We have developed and instituted a corporate compliance program intended to promote and facilitate compliance with all applicable laws, which includes employee training and the creation of appropriate policies and procedures defining employee behavior. We also have policies, procedures, and controls designed to comply with all applicable laws, rules, sanctions, embargoes, and regulations and measure the compliance of our third-party providers. However, these measures may not always be effective, and we may fail to appropriately monitor or evaluate the risks to which we are or may be exposed or identify business activities that violate laws, rules, sanctions, embargoes, and regulations. In addition, we may not always be successful in detecting if our employees, contractors, agents, and suppliers, including independent companies to which we outsource certain business operations, are engaging in misconduct, fraud, or otherwise taking actions in violation of our policies, procedures, and controls. In addition, some of our risk management methods depend upon evaluation of public information that may not be accurate, complete, up-to-date, or properly evaluated. In such

cases, we could be subject to investigations and proceedings that may be very expensive to defend and may result in criminal enforcement actions, penalties for non-compliance, or civil actions or lawsuits, including by customers, for damages that could be significant.

Any of these outcomes could adversely affect our business, reputation, financial condition, and operating results.

Legal, political, and economic uncertainty surrounding the planned exit of the United Kingdom from the European Union are a source of instability and uncertainty.

The referendum in the United Kingdom in favor of the United Kingdom leaving the European Union (“E.U.”), commonly referred to as “Brexit,” could cause disruption to our business, including affecting relationships with existing and future customers, suppliers, and employees. The United Kingdom held an election in December 2019, resulting in a majority government that is expected to complete Brexit whether or not a formal withdrawal agreement is in place with the European Union. We are headquartered and tax domiciled in the United Kingdom and conduct business throughout the European Union primarily through our U.K. subsidiaries. The United Kingdom will cease to be a member state of the European Union by January 31, 2020, if not delayed, and will lose access to the E.U. single market and to E.U. trade deals negotiated with other jurisdictions at that time, so the long-term effects of Brexit will depend on the agreements or arrangements with the European Union for the United Kingdom to retain access to E.U. markets either during a transitional period or more permanently. Depending on the final terms of Brexit and the agreements or arrangements negotiated with the European Union, we could face new regulatory costs and challenges. For instance, we may be required to move certain operations to other E.U. member states to maintain access to the E.U. single market and to E.U. trade deals. A decline in trade could affect the attractiveness of the United Kingdom as a global investment center and have a detrimental impact on U.K. growth. Although we have an international customer base, we could be adversely affected by reduced growth and greater currency and economic volatility in the United Kingdom. Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which E.U. laws to replace or replicate, including U.K. competition laws. Changes to U.K. immigration policy related to Brexit could also affect our business. Although the United Kingdom would likely retain its diverse pool of talent, London’s role as a global financial center may decline, particularly if financial institutions shift their operations to the European Union as the United Kingdom loses the E.U. financial services passport. Any adjustments we make to our business and operations as a result of Brexit could result in significant time and expense to complete. Any of the foregoing factors could have a material adverse effect on our business, results of operations, or financial condition.

Our international operations are subject to exchange rate fluctuations.

We operate in many countries around the world and a significant part of our revenue comes from international sales. In 2019, we generated approximately 40 percent of our revenues from sales outside the United States and approximately 20 percent of our revenue was transacted in currencies other than the U.S. dollar. We earn revenues, pay expenses, own assets, and incur liabilities in countries using currencies other than the U.S. dollar, including, but not limited to, the British Pound, the Euro, the Canadian Dollar, the Singapore Dollar, and the Indian Rupee. As we continue to leverage our global delivery model, more of our expenses will likely be incurred in currencies other than those in which we bill for the related products and services. An increase in the value of certain currencies against the U.S. dollar could increase costs for delivery of services at offshore sites by increasing labor and other costs that are denominated in local currency. Because our consolidated financial statements are presented in U.S. dollars, we must translate revenues, income, expenses, and the value of assets and liabilities into U.S. dollars at exchange rates in effect during or at the end of each reporting period. We may use derivative financial instruments to reduce our net exposure to currency exchange rate

fluctuations. Nevertheless, increases or decreases in the value of the U.S. dollar against other major currencies can materially affect our net operating revenues, operating income, and the value of balance sheet items denominated in other currencies.

International hostilities, terrorist or cyber-terrorist activities, natural disasters, pandemics, and infrastructure disruptions could prevent us from effectively serving our customers and thus adversely affect our results of operations.

Acts of terrorism, cyber-terrorism, political unrest, war, civil disturbance, armed regional and international hostilities and international responses to these hostilities, natural disasters (including hurricanes or floods), global health risks or pandemics, or the threat of or perceived potential for these events could have a negative impact on us. These events could adversely affect our customers' levels of business activity and precipitate sudden significant changes in regional and global economic conditions and cycles. These events also pose significant risks to our employees, information systems, and our physical facilities and operations around the world, whether the facilities are ours or those of our third-party service providers or customers. By disrupting communications and travel and increasing the difficulty of obtaining and retaining highly skilled and qualified personnel, these events could make it difficult or impossible for us to deliver products and services to our customers. Extended disruptions of electricity, other public utilities, or network services at our facilities, as well as system failures at our facilities or otherwise, could also adversely affect our ability to serve our customers. We may be unable to protect our employees, facilities, and systems against all such occurrences. We generally do not have insurance for losses and interruptions caused by terrorist attacks, conflicts, and wars. If these disruptions prevent us from effectively serving our customers, our results of operations could be adversely affected.

Acquisitions, joint ventures, or similar strategic relationships, or dispositions of our businesses, and the related integration or separation risks, may require significant resources or result in unanticipated costs or liabilities or fail to deliver anticipated benefits, and may disrupt or otherwise have a material adverse effect on our business and financial results.

As part of our business strategy, we pursue selective acquisitions of complementary businesses, products or technologies, or joint ventures, partnerships, alliances, or similar strategic transactions and relationships with third parties, to support our business. We may also undertake dispositions of certain of our businesses or products. We seek to be disciplined in a highly competitive market and we may not be able to identify suitable candidates on favorable terms to successfully complete acquisitions, joint ventures, partnerships, alliances or strategic relationships, or dispositions. In addition, we typically fund our acquisitions through our credit facilities. Although we have capacity under our credit facilities, those may not be sufficient. Therefore, future acquisitions or strategic relationships may require us to obtain additional financing through debt or equity, which may not be available on favorable terms or at all and could result in shareholder dilution.

If such acquisitions or other strategic transactions are completed, the anticipated growth and other strategic objectives of such transactions may not be fully realized, and a variety of factors may adversely affect any anticipated benefits. Their success depends on, among other things, our ability to integrate businesses in a manner that realizes anticipated synergies and exceeds cost savings and revenue growth trends we have identified, which is a complex, costly, and time-consuming process. We expect to benefit from cost synergies driven by a number of strategies, such as integrating corporate functions, using cost-competitive locations, optimizing IT infrastructure, real estate, and other costs, as well as greater tax efficiencies from global cash movement. We may also enjoy revenue synergies, including cross-selling of products and services, an expanded product offering, and balance across geographic regions. We may not be successful in integrating acquired businesses, and

completed strategic transactions may not perform at the levels we anticipate or achieve our expected cost or revenue synergies.

The completion of such transactions may have material unanticipated risks, difficulties, costs, liabilities, competitive response, and diversion of management focus and attention, such as: difficulties, delays, and expenses in integrating or remediating operations, systems, and technology and maintaining institutional knowledge and procedures; challenges in conforming standards, controls, procedures, accounting and other policies, business cultures, and compensation structures; challenges in keeping and developing business relationships; difficulties in managing the expanded operations of the company; impairments of goodwill and other intangible assets; disruption of operations; unexpected regulatory and operating difficulties and expenditures; contingent liabilities (including contingent tax liabilities) that are larger than expected; and adverse tax consequences pursuant to changes in applicable tax laws, regulations, or other administrative guidance. The anticipated benefits from strategic transactions may take longer to realize than expected or may not be realized fully. We may also have difficulty integrating and operating businesses in countries and geographies where we do not currently have a significant presence, and could increase our exposure to risks of conducting operations in international markets. Similarly, any divestitures will be accompanied by risks commonly encountered in the sale of businesses or assets. As a result, the failure of acquisitions, dispositions, and other strategic transactions to perform as expected could have a material adverse effect on our business, financial condition, or results of operations.

Our indebtedness could adversely affect our business, financial condition, and results of operations.

Our indebtedness could have significant consequences on our future operations, including: making it more difficult for us to satisfy our indebtedness obligations and our other ongoing business obligations, which may result in defaults; events of default if we fail to comply with the financial and other covenants contained in the agreements governing our debt instruments, which could result in all of our debt becoming immediately due and payable or require us to negotiate an amendment to financial or other covenants that could cause us to incur additional fees and expenses; sensitivity to interest rate increases on our variable rate outstanding indebtedness, which could cause our debt service obligations to increase significantly; reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions, and other general corporate purposes, and limiting our ability to obtain additional financing for these purposes; limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industries in which we operate, and the overall economy; placing us at a competitive disadvantage compared to any of our competitors that have less debt or are less leveraged; and increasing our vulnerability to the impact of adverse economic and industry conditions.

Our ability to meet our payment and other obligations under our debt instruments depends on our ability to generate significant cash flow in the future. This, to some extent, is subject to general economic, financial, competitive, legislative, and regulatory factors as well as other factors that are beyond our control. We cannot be certain that our business will generate cash flow from operations, or that future borrowings will be available to us under our existing or any future credit facilities or otherwise, in an amount sufficient to enable us to meet our indebtedness obligations and to fund other liquidity needs. We may incur substantial additional indebtedness, including secured indebtedness, for many reasons, including to fund acquisitions. If we add additional indebtedness or other liabilities, the related risks that we face could intensify.

A downgrade to our credit ratings would increase our cost of borrowing under our credit facility and adversely affect our ability to access the capital markets.

We are party to a \$1.25 billion senior unsecured revolving credit agreement that matures in November 2024 (the “Senior Credit Facility”). The cost of borrowing under the Senior Credit Facility and our ability to, and the terms under which we may, access the credit markets are affected by credit ratings assigned to us by the major credit rating agencies. These ratings are premised on our performance under assorted financial metrics and other measures of financial strength, business and financial risk, and other factors determined by the credit rating agencies. Our current ratings have served to lower our borrowing costs and facilitate access to a variety of lenders. However, there can be no assurance that our credit ratings or outlook will not be lowered in the future in response to adverse changes in these metrics and factors caused by our operating results or by actions that we take that reduce our profitability, or that require us to incur additional indebtedness for items such as substantial acquisitions, significant increases in costs and capital spending in security and IT systems, significant costs related to settlements of litigation or regulatory requirements, or by returning excess cash to shareholders through dividends or under our share repurchase program. A downgrade of our credit ratings would increase our cost of borrowing under the Senior Credit Facility, negatively affect our ability to access the capital markets on advantageous terms, or at all, negatively affect the trading price of our securities, and have a significant negative impact on our business, financial condition, and results of operations.

We cannot provide any guaranty of future dividend payments or that we will continue to repurchase our common shares pursuant to our share repurchase program.

In October 2019, the Board approved the initiation of a quarterly cash dividend beginning in the first quarter of 2020. In addition, the Board terminated our previous share repurchase program and authorized a new share repurchase program of up to \$2.5 billion in common shares with a termination date of November 30, 2021. Under the share repurchase program, we are authorized to repurchase our common shares on the open market from time to time, in privately negotiated transactions, or through accelerated share repurchase agreements, subject to availability of common shares, price, market conditions, alternative uses of capital, and applicable regulatory requirements, at management’s discretion. Quarterly cash dividends and share repurchases under our share repurchase program constitute components of our capital allocation strategy, which we fund with free operating cash flow and borrowings. However, we are not required to declare dividends or to make any share repurchases under our share repurchase program. Any determination by the Board to pay cash dividends on our common shares in the future will be based upon our financial condition, results of operations, business requirements, and the continuing determination from the Board that the declaration of dividends complies with all applicable laws and agreements. As a result, in the future we may not choose or be able to declare or pay a cash dividend, and we may not achieve an annual dividend rate in any particular amount. Furthermore, the share repurchase program does not obligate us to repurchase any set dollar amount or number of shares and may be modified, suspended, or terminated at any time without prior notice. The reduction or elimination of our cash dividend or share repurchase program could adversely affect the market price of our common shares. Additionally, the existence of a share repurchase program could cause the market price of our common shares to be higher than it would be in the absence of such a program and could potentially reduce the market liquidity for our shares. As a result, any repurchase program may not ultimately result in enhanced value to our shareholders and may not prove to be the best use of our cash resources.

The U.S. Internal Revenue Service (the “IRS”) may not agree that, after the 2016 merger of IHS Inc. and Markit Ltd., IHS Markit should be treated as a foreign corporation for U.S. federal income tax purposes, and/or that we are not subject to certain other adverse U.S. federal income tax laws relating to certain transactions that we may undertake in the future. In addition, future changes to U.S. tax laws could adversely affect us.

Because IHS Markit is organized under the laws of Bermuda and is and has been treated as tax resident in the United Kingdom, we believe that we are, and have taken the position on our U.S. and non-U.S. tax returns, a foreign corporation for U.S. federal income tax purposes. However, the IRS may assert that we should be treated as a U.S. corporation (and, therefore, a U.S. tax resident) for U.S. federal income tax purposes pursuant to Section 7874 of the Code (referred to as “Section 7874”). Section 7874 provides that if, following an acquisition of a U.S. corporation by a non-U.S. corporation, at least 80% of the acquiring non-U.S. corporation’s stock (by vote or value) is considered to be held by former shareholders of the U.S. corporation by reason of holding stock of such U.S. corporation (such percentage referred to as the “ownership percentage” and such test referred to as the “ownership test”) and the “expanded affiliated group” that includes the acquiring non-U.S. corporation does not have substantial business activities in the country in which the acquiring non-U.S. corporation is created or organized, then the non-U.S. corporation would be treated as a U.S. corporation for U.S. federal income tax purposes even though it is a corporation created and organized outside the United States. In addition, if the ownership percentage is at least 60% but less than 80%, while the non-U.S. corporation will be respected as a non-U.S. corporation for U.S. federal income tax purposes, certain adverse U.S. tax rules would apply with respect to certain intercompany transactions and income.

Based on the rules for determining the ownership percentage for purposes of the ownership test under Section 7874, we believe that the former IHS Inc. shareholders held less than 60% of our stock (by vote and value) after the merger by reason of holding IHS common stock, and therefore that IHS Markit should not be treated as a U.S. corporation for U.S. federal income tax purposes and should not be subject to the adverse U.S. tax rules described above. However, there is limited guidance regarding the application of Section 7874, including the application of the ownership test. If we were to be treated as a U.S. corporation for U.S. federal tax purposes or otherwise subject to the adverse U.S. tax rules described above, we could be subject to substantially greater U.S. income tax liability than if our status as a non-U.S. corporation were respected. In addition, if we were to be treated as a U.S. corporation for U.S. federal income tax purposes, any dividends we pay to non-U.S. shareholders would be subject to U.S. withholding tax at the rate of 30% (or a reduced rate under an applicable tax treaty).

Audits, investigations, tax proceedings and future changes in tax laws could have a material adverse effect on our results of operations and financial condition.

We are subject to direct and indirect taxes in numerous jurisdictions, and tax laws, including tax rates, in the jurisdictions in which we operate may change as a result of macroeconomic, political, or other factors.

We calculate and provide for such taxes in each tax jurisdiction in which we operate. The amount of tax we pay is subject to our interpretation of applicable tax laws in the jurisdictions in which we file. In complex transactions or jurisdictions, we regularly utilize third-party advisers to help us make judgments about the proper application of tax law. We have taken and will continue to take tax positions based on our interpretation of tax laws, but tax accounting often involves complex matters and judgment is required in determining our worldwide provision for taxes and other tax liabilities. Although we believe that we have complied with all applicable tax laws, we have been and expect to continue to be subject to ongoing tax audits in various jurisdictions, and tax authorities have disagreed, and may in the future disagree, with some of our interpretations of applicable tax law. We regularly assess the likely outcomes of these audits to determine the appropriateness of our tax provisions.

However, our judgments may not be sustained on completion of these audits, and the amounts ultimately paid could be different from the amounts previously recorded.

Our tax liabilities and effective tax rate in the future could be adversely affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, and changes in tax laws. For example, the U.S. Congress, the Organisation for Economic Co-operation and Development (“OECD”), and other government agencies have had an extended focus on issues related to the taxation of multinational corporations, such as the comprehensive plan set forth by the OECD to create an agreed set of international rules for fighting base erosion and profit shifting. The tax laws in the United States, the United Kingdom, and other countries in which we operate could change on a prospective or retroactive basis, and changes in tax laws, treaties, or regulations, or their interpretation or enforcement, may be unpredictable, particularly in less developed markets, and could become more stringent. Any of these occurrences could materially adversely affect our tax position and have a material adverse effect on our results of operations and financial condition.

Bermuda law differs from the laws in effect in the United States and may afford less protection to holders of our common shares, including enforcing judgments against us or our directors and executive officers.

We are organized under the laws of Bermuda as a Bermuda exempted company. As a result, our corporate affairs and the rights of holders of our common shares are governed by Bermuda law, including the Companies Act 1981 (the “Companies Act”), which differs in some material respects from laws typically applicable to U.S. corporations and shareholders, including the provisions relating to interested directors, amalgamations, mergers and acquisitions, takeovers, shareholder lawsuits, and indemnification of directors. Generally, the duties of directors and officers of a Bermuda company are owed to the company only. Shareholders of Bermuda companies typically do not have rights to take action against directors or officers of the company and may only do so in limited circumstances. Class actions are not available under Bermuda law. The circumstances in which derivative actions may be available under Bermuda law are substantially more proscribed and less clear than they would be to shareholders of U.S. corporations. The Bermuda courts, however, would ordinarily be expected to permit a shareholder to commence an action in the name of a company to remedy a wrong to the company where the act complained of is alleged to be beyond the corporate power of the company or illegal, or would result in the violation of the company’s memorandum of association or bye-laws. Furthermore, consideration would be given by a Bermuda court to acts that are alleged to constitute a fraud against the minority shareholders or, for instance, where an act requires the approval of a greater percentage of the company’s shareholders than that which actually approved it.

When the affairs of a company are being conducted in a manner that is oppressive or prejudicial to the interests of some shareholders, one or more shareholders may apply to the Supreme Court of Bermuda, which may make such order as it sees fit, including an order regulating the conduct of the company’s affairs in the future or ordering the purchase of the shares of any shareholders by other shareholders or by the company. Additionally, under our bye-laws and as permitted by Bermuda law, each shareholder has waived any claim or right of action against our directors or officers for any action taken by directors or officers in the performance of their duties, except for actions involving fraud or dishonesty. In addition, the rights of holders of our common shares and the fiduciary responsibilities of our directors under Bermuda law are not as clearly established as under statutes or judicial precedent in existence in jurisdictions in the United States, particularly the State of Delaware. It is also doubtful whether courts in Bermuda will enforce judgments obtained in other jurisdictions, including the United States, against us or our directors or officers under the securities laws of those jurisdictions or entertain actions in Bermuda against us or our directors or officers under the securities laws of other jurisdictions. Therefore, holders of our common shares may have more difficulty protecting their

interests than would shareholders of a corporation incorporated in a jurisdiction within the United States.

We have anti-takeover provisions in our bye-laws that may discourage a change of control.

Our bye-laws contain provisions that could make it more difficult for a third party to acquire us without the consent of our Board of Directors. These provisions provide for: directors only to be removed for cause; restrictions on the time period in which directors may be nominated; our Board of Directors to determine the powers, preferences, and rights of our preference shares and to issue the preference shares without shareholder approval; and an affirmative vote of 66-2/3% of our voting shares for certain “business combination” transactions which have not been approved by our Board of Directors.

These provisions could make it more difficult for a third party to acquire us, even if the third party’s offer may be considered beneficial by many shareholders. As a result, shareholders may be limited in their ability to obtain a premium for their shares.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our Facilities

Our colleagues work in offices at 119 locations around the world, comprising 59 offices in the Americas (47 in the United States); 38 offices in Europe, the Middle East, and Africa; and 22 offices in the Asia Pacific region. We own the buildings at three of our locations. All of our other facilities are leased with terms ranging from month-to-month at some locations to an expiration date in 2032 for one of our facilities. We believe that our properties, taken as a whole, are in good operating condition, are suitable and adequate for our current business operations, and that additional or alternative space will be available on commercially reasonable terms for future use and expansion.

Item 3. Legal Proceedings

See “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 13” in Part II of this Form 10-K for information about legal proceedings.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Our common shares are traded on the New York Stock Exchange under the symbol "INFO."

As of December 31, 2019, we had 72 holders of record of our common shares and approximately 220,000 beneficial holders of our common shares.

Our authorized share capital of \$30 million consists of 3,000,000,000 shares of common shares, par value \$0.01 per share, and undesignated shares, par value \$0.01 per share, that our Board of Directors is authorized to designate from time to time as common shares or as preference shares. As of November 30, 2019, no preference shares were issued and outstanding. The holders of our common shares are entitled to one vote per share.

Exchange Controls

Under Bermuda law, there are currently no restrictions on the export or import of capital, including foreign exchange controls or restrictions that affect the remittance of dividends, interest or other payments to non-resident holders of our common shares.

We have been designated by the Bermuda Monetary Authority as a non-resident for Bermuda exchange control purposes. This designation allows us to engage in transactions in currencies other than the Bermuda dollar, and there are no restrictions on our ability to transfer funds (other than funds denominated in Bermuda dollars) in and out of Bermuda or to pay dividends to U.S. residents who are holders of our common shares.

Under Bermuda law, "exempted" companies are companies formed for the purpose of conducting business outside Bermuda from a principal place of business in Bermuda. As an exempted company, we may not carry on certain business in Bermuda without a license or consent granted by the Minister responsible for the Companies Act 1981.

Dividend Policy

We have not previously paid a dividend, but on October 17, 2019, the Board of Directors reviewed our capital allocation policy and approved a plan to initiate a regular quarterly cash dividend, beginning in the first quarter of 2020, to all of our common shareholders of record (except for common shares held by the Markit Group Holdings Limited Employee Benefit Trust, which has, subject to certain limited exceptions, waived its right to receive dividends), subject to the quarterly declaration by the Board of Directors as to the amount and timing of any dividend.

On January 17, 2020, our Board of Directors declared a quarterly cash dividend in an amount of \$0.17 per common share, to be paid on February 14, 2020 to common shareholders of record as of the close of trading on February 6, 2020 (other than the Markit Group Holdings Limited Employee Benefit Trust as a result of the waiver described above).

The declaration and payment of future dividends will be determined by the Board of Directors in light of conditions then existing, including our earnings, financial condition and capital requirements, business conditions, corporate law requirements, and other factors.

The Transfer Agent and Registrar for our common shares is Computershare Inc.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth information as of November 30, 2019, the last day of fiscal year 2019, with respect to compensation plans under which equity securities are authorized for issuance.

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (in millions) (a)	Weighted-average exercise price of outstanding options, warrants, and rights (b)	Number of securities remaining available for issuance under equity compensation plans (excluding securities reflected in column (a)) (in millions) (c)
Equity compensation plans approved by security holders	18.3(1)	\$26.81(2)	17.5(3)
Equity compensation plans not approved by security holders	N/A	N/A	N/A
Total	18.3	N/A	17.5

(1) Includes (a) 9.0 million stock options, (b) 5.6 million restricted share units and 1.7 million performance share units at target performance levels that were issued with no exercise price or other consideration, (c) 1.7 million shares reserved for issuance if maximum performance on performance share units is met, and (d) 0.3 million deferred share units payable to non-employee directors upon their termination of service.

Our 2014 Equity Plan contains a provision that increases the authorized maximum share amount by (a) the number of shares granted and outstanding under the Key Employee Incentive Program, the 2013 Share Option Plan, and the 2014 Share Option Plan as of June 24, 2014 that terminate by expiration, forfeiture, cancellation or otherwise without the issuance of our common shares, and (b) on January 1 of each year through January 1, 2024, in an amount equal to the lesser of: (x) 2.5 percent of the total number of IHS Markit's common shares issued and outstanding on a fully diluted basis as of December 31 of the immediately preceding calendar year and (y) such number of common shares determined by our Board of Directors.

(2) The weighted-average exercise price is reported for the outstanding stock options reported in the first column. There are no exercise prices for the restricted share units, performance share units, or deferred share units included in the first column. There are no other outstanding warrants or rights.

(3) Includes shares repurchased by the Company upon vesting of restricted share units and performance share units for tax withholding obligations. The total number of securities remaining available for issuance under equity compensation plans may be issued under the 2014 Equity Plan.

Issuer Purchases of Equity Securities

The following table provides detail about our share repurchases during the three months ended November 30, 2019. See “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 14” in Part II of this Form 10-K for information regarding our stock repurchase programs.

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (in millions)
September 1 – September 30, 2019:				
Employee transactions(1)	3,683	\$67.10	N/A	N/A
Accelerated share repurchase program(2)	3,657,979	\$67.39	3,657,979	\$ 506.9
October 1 – October 31, 2019:				
Employee transactions(1)	1,029	\$68.92	N/A	N/A
November 1 – November 30, 2019:				
Employee transactions(1)	131,282	\$71.36	N/A	N/A
Accelerated share repurchase program(2)	793,503	\$67.39	793,503	\$2,500.0
Total share repurchases	4,587,476	\$67.50	4,451,482	

For the fourth quarter of 2019, we repurchased approximately \$310 million of common shares, including \$300 million in open market share repurchases (described in note (2) below), and approximately \$10 million in employee transactions (described in note (1) below).

- (1) Amounts represent common shares repurchased from employees in an amount equal to the statutory tax liability associated with the vesting of their equity awards. We then pay the statutory tax on behalf of the employee. Our Board of Directors has approved this program in an effort to reduce the dilutive effects of employee equity grants. This program is separate and additional to the repurchase program described in note (2).
- (2) In October 2019, our Board of Directors authorized a new share repurchase program of up to \$2.5 billion of IHS Markit common shares from October 17, 2019 through November 30, 2021, to be funded using our existing cash, cash equivalents, marketable securities, and future cash flows, or through the incurrence of short- or long-term indebtedness, at management’s discretion. This new program replaced the previous share repurchase program that was originally set to terminate on November 30, 2019, but was early terminated by our Board of Directors. This October 2019 share repurchase program does not obligate us to repurchase any set dollar amount or number of shares and may be modified, suspended, or terminated at any time without prior notice. Under the repurchase program, we are authorized to repurchase our common shares on the open market from time to time, in privately negotiated transactions, or through accelerated repurchase agreements, subject to availability of common shares, price, market conditions, alternative uses of capital, and applicable regulatory requirements, at management’s discretion.

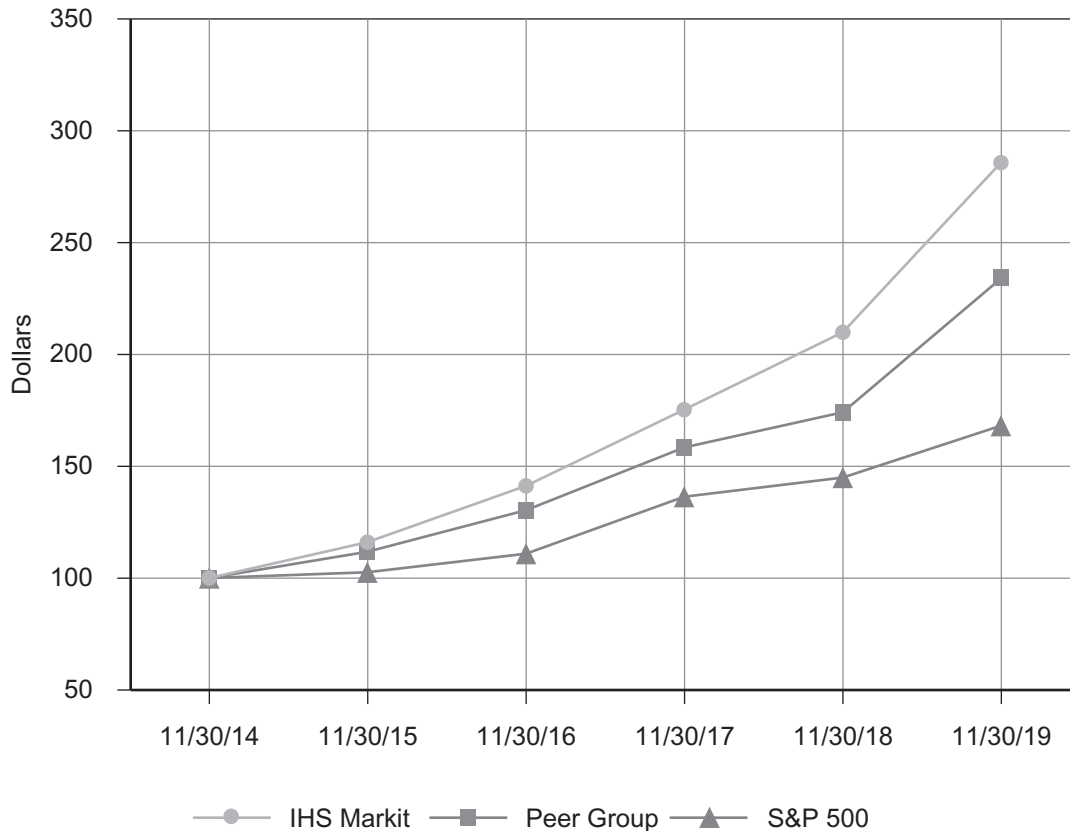
In September 2019, we funded a \$300 million accelerated share repurchase (“ASR”) agreement with a scheduled termination date in the fourth quarter of 2019. Upon funding of the ASR, we received an initial delivery of 3.658 million shares. At the completion of the ASR in November 2019, we received an additional 0.794 million shares. The average price paid per share presented above reflects the average price for the 4.451 million total shares repurchased through the ASR.

Performance Graph

The following graph compares our total cumulative stockholder return with the Standard & Poor's Composite Stock Index ("S&P 500") and a peer index representing the total price change of Equifax Inc.; FactSet Research Systems Inc.; Gartner, Inc.; Moody's Corporation; MSCI Inc.; Nielsen Holdings N.V.; S&P Global Inc.; TransUnion; Thomson Reuters Corporation; and Verisk Analytics, Inc.

The graph assumes a \$100 cash investment on November 28, 2014 and the reinvestment of all dividends, where applicable. This graph is not indicative of future financial performance.

Comparison of Cumulative Total Return Among IHS Markit, S&P 500 Index, and Peer Group



Taxation

The following sets forth material Bermuda and U.K. income tax consequences of owning and disposing of our common shares. It is based upon laws and relevant interpretations thereof as of the date of this Form 10-K, all of which are subject to change. This discussion does not address all possible tax consequences relating to an investment in our common shares, such as the tax consequences under U.S. federal, state, local, and other tax laws.

Bermuda Tax Considerations

At the present time, there is no Bermuda income or profits tax, withholding tax, capital gains tax, capital transfer tax, estate duty, or inheritance tax payable by us or by our shareholders in respect of our shares. We have obtained an assurance from the Minister of Finance of Bermuda under the Exempted Undertakings Tax Protection Act 1966 that, in the event that any legislation is enacted in Bermuda

imposing any tax computed on profits or income, or computed on any capital asset, gain, or appreciation or any tax in the nature of estate duty or inheritance tax, such tax shall not, until March 31, 2035, be applicable to us or to any of our operations or to our shares, debentures, or other obligations except insofar as such tax applies to persons ordinarily resident in Bermuda or is payable by us in respect of real property owned or leased by us in Bermuda.

United Kingdom Taxation

General

The following is a description of the material U.K. tax consequences of an investment in our common shares. It is intended only as a general guide to the position under current U.K. tax law and what is understood to be the current published practice of HMRC and may not apply to certain classes of investors, such as dealers in securities, persons who acquire (or are deemed to acquire) their securities by reason of an office or employment, insurance companies, and collective investment schemes. It is written on the basis that IHS Markit Ltd does not derive 75% or more of its qualifying asset value, directly or indirectly, from U.K. land. Rates of tax, thresholds, and allowances are given for the U.K. tax year 2019-20. Any person who is in doubt as to his tax position is strongly recommended to consult his own professional tax adviser. To the extent this description applies to U.K. residents and, if individuals, domiciled shareholders, it applies only to those shareholders who beneficially hold their shares as an investment (unless expressly stated otherwise) and hold less than 5 percent of the shares. This description does not apply to shareholders to whom split-year treatment applies.

The Company

It is the intention of the directors to conduct the affairs of IHS Markit Ltd. so that the central management and control of IHS Markit Ltd. is exercised in the United Kingdom such that IHS Markit Ltd. is treated as resident in the United Kingdom for U.K. tax purposes.

Taxation of dividends

Withholding tax

We will not be required to withhold U.K. tax at source on any dividends paid to shareholders in respect of our common shares.

U.K. resident shareholders

Individuals resident in the United Kingdom for taxation purposes will pay no tax on the first £2,000 of dividend income received in a tax year (the “nil rate amount”). The rates of income tax on dividends received above the nil rate amount for the 2019-20 tax year are: (a) 7.5 percent for dividends taxed in the basic rate band; (b) 32.5 percent for dividends taxed in the higher rate band; and (c) 38.1 percent for dividends taxed in the additional rate band. Dividend income that is within the nil rate amount counts towards an individual’s basic or higher rate limits. In calculating into which tax band any dividend income over the nil rate amount falls, dividend income is treated as the highest part of an individual’s income.

A U.K. resident shareholder who holds common shares in an individual savings account will be exempt from income tax on dividends in respect of such shares. Subject to certain exceptions, including for traders in securities and insurance companies, dividends paid by us and received by a corporate shareholder resident in the United Kingdom for tax purposes should be within the provisions set out in Part 9A of the Corporation Tax Act 2009, which exempt certain classes of dividend from corporation tax. Each shareholder’s position will depend on its own individual circumstances, although it would normally be expected that the dividends paid by us would fall into an exempt class and will not be subject to corporation tax.

Non-U.K. resident shareholders

Non-U.K. resident shareholders are not subject to tax (including withholding tax) in the United Kingdom on dividends received on our common shares unless they carry on a trade, profession, or vocation in the United Kingdom through a branch or agency (or, in the case of a non-U.K. resident corporate shareholder, a permanent establishment) to which the common shares are attributable.

Taxation of capital gains

U.K. resident shareholders

A disposal of common shares by an individual shareholder who is (at any time in the relevant U.K. tax year) resident in the United Kingdom for tax purposes, may give rise to a chargeable gain or an allowable loss for the purposes of U.K. taxation of chargeable gains, depending on the shareholder's circumstances and subject to any allowable deductions and any available exemption or relief including the annual exempt amount (being £12,000 for 2019-20). Capital gains tax is charged on chargeable gains at a rate of 10 percent or 20 percent (or a combination of both rates) depending on whether the individual is a basic rate taxpayer or a higher or additional rate taxpayer.

For shareholders within the charge to U.K. corporation tax on chargeable gains in respect of the common shares, indexation allowance, frozen with effect from December 31, 2017, may be available to reduce the amount of any chargeable gain realized on a disposal of common shares (but not to create or increase any loss).

Non-resident shareholders

A shareholder who is not resident in the United Kingdom for tax purposes will not be subject to U.K. taxation of capital gains on the disposal or deemed disposal of common shares unless they carry on a trade, profession, or vocation in the United Kingdom through a branch or agency (or, in the case of a non-U.K. resident corporate shareholder, a permanent establishment) to which the common shares are attributable, in which case they will be subject to the same rules which apply to U.K. resident shareholders.

A shareholder who is an individual and who is temporarily resident for tax purposes outside the United Kingdom at the date of disposal of common shares may also be liable, on his return, to U.K. taxation of chargeable gains (subject to any available exemption or relief).

Stamp duty and stamp duty reserve tax ("SDRT")

The statements below summarize the current law and are intended as a general guide only to stamp duty and SDRT. Special rules apply to agreements made by broker dealers and market makers in the ordinary course of their business and to transfers, agreements to transfer, or issues to certain categories of person (such as depositaries and clearance services) which may be liable to stamp duty or SDRT at a higher rate.

No stamp duty reserve tax will be payable on any agreement to transfer the common shares, provided that the common shares are not registered in a register kept in the United Kingdom. It is not intended that such a register will be kept in the United Kingdom. Further, no stamp duty will be payable on transfer of the common shares provided that: (i) any instrument of transfer is not executed in the United Kingdom; and (ii) such instrument of transfer does not relate to any property situated, or any matter or thing done or to be done, in the United Kingdom.

Inheritance tax

U.K. inheritance tax may be chargeable on the death of, or on a gift of common shares by, a U.K. domiciled shareholder. For inheritance tax purposes, a transfer of assets at less than full market value

may be treated as a gift and particular rules apply to gifts where the donor reserves or retains some benefit. Special rules also apply to the trustees of settlements who hold common shares. Potential investors should consult an appropriate professional adviser if they make a gift or transfer at less than full market value or they intend to hold common shares through trust arrangements.

ISA

The common shares are eligible for inclusion in the stocks and shares component of an ISA, subject, where applicable, to the annual subscription limits for new investments into an ISA (for the tax year 2019-20, this is £20,000). Sums received by a shareholder on a disposal of common shares will not count towards the shareholder's annual limit, but a disposal of common shares held in an ISA will not serve to make available again any part of the annual subscription limit that has already been used by the shareholder in that tax year.

Item 6. Selected Financial Data

You should read the following selected consolidated financial data in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes appearing in Part II of this Form 10-K.

	Years Ended November 30,				
	2019	2018	2017	2016	2015
	(in millions, except for per share amounts)				
Statement of Operations Data:					
Revenue	\$ 4,414.6	\$ 4,009.2	\$ 3,599.7	\$ 2,734.8	\$ 2,184.3
Income from continuing operations					
attributable to IHS Markit Ltd.	\$ 502.7	\$ 542.3	\$ 416.9	\$ 143.6	\$ 188.9
Income from discontinued operations	—	—	—	9.2	51.3
Net income attributable to IHS Markit Ltd.	\$ 502.7	\$ 542.3	\$ 416.9	\$ 152.8	\$ 240.2
Basic earnings per share:					
Income from continuing operations					
attributable to IHS Markit Ltd.	\$ 1.26	\$ 1.38	\$ 1.04	\$ 0.46	\$ 0.78
Income from discontinued operations	—	—	—	0.03	0.21
Net income attributable to IHS Markit Ltd.	\$ 1.26	\$ 1.38	\$ 1.04	\$ 0.49	\$ 0.99
Diluted earnings per share:					
Income from continuing operations					
attributable to IHS Markit Ltd.	\$ 1.23	\$ 1.33	\$ 1.00	\$ 0.45	\$ 0.77
Income from discontinued operations	—	—	—	0.03	0.21
Net income attributable to IHS Markit Ltd.	\$ 1.23	\$ 1.33	\$ 1.00	\$ 0.48	\$ 0.97
Balance Sheet Data (as of period end):					
Cash and cash equivalents	\$ 111.5	\$ 120.0	\$ 133.8	\$ 138.9	\$ 291.6
Total assets	\$16,087.2	\$16,062.3	\$14,554.4	\$13,936.6	\$5,577.5
Total long-term debt and capital leases	\$ 4,874.4	\$ 4,889.2	\$ 3,617.3	\$ 3,279.3	\$ 2,071.5
Total stockholders' equity	\$ 8,415.8	\$ 8,020.5	\$ 8,004.4	\$ 8,084.4	\$ 2,200.9

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

The following discussion of our financial condition and operating results should be read in conjunction with other information and disclosures elsewhere in this Form 10-K, including “Selected Financial Data,” our consolidated financial statements and accompanying notes, and “Website and Social Media Disclosure.” The following discussion includes forward-looking statements as described in “Cautionary Note Regarding Forward-Looking Statements” in this Form 10-K. A detailed discussion of risks and uncertainties that could cause actual results and events to differ materially from such forward-looking statements is outlined under “Item 1A. Risk Factors” in this Form 10-K.

Executive Summary

Business Overview

We are a world leader in critical information, analytics, and solutions for the major industries and markets that drive economies worldwide. We deliver next-generation information, analytics, and solutions to customers in business, finance, and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. We have more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and the world’s leading financial institutions. Headquartered in London, we are committed to sustainable, profitable growth.

To best serve our customers, we are organized into the following four industry-focused segments:

- *Financial Services*, which includes our financial Information, Solutions, and Processing product offerings;
- *Transportation*, which includes our Automotive and Maritime & Trade product offerings;
- *Resources*, which includes our Upstream and Downstream product offerings; and
- *Consolidated Markets & Solutions*, which includes our Product Design, Economics & Country Risk (“ECR”), and TMT benchmarking product offerings.

We believe that this sales and operating model helps our customers do business with us by providing a cohesive, consistent, and effective product, sales, and marketing approach by segment.

Our recurring fixed revenue and recurring variable revenue represented approximately 85 percent of our total revenue in 2019. Our recurring revenue is generally stable and predictable, and we have long-term relationships with many of our customers.

Our business has seasonal aspects. Our first quarter generally has our lowest quarterly levels of revenue and profit. We also experience event-driven seasonality in our business; for instance, we typically hold our annual CERAWEEK, World Petrochemical, and TPM conferences in the second quarter of each year. Another example is the biennial release of the BPVC engineering standard, which generates revenue for us predominantly in the third quarter of every other year. The most recent BPVC release was in the third quarter of 2019.

During 2019, we focused our efforts on increasing revenue and Adjusted EBITDA profit margin, innovating and developing new product offerings, rebalancing our asset portfolio, and updating our capital allocation policy. We delivered 6 percent organic revenue growth during 2019 and increased our Adjusted EBITDA profit margin by 130 basis points. We continued to introduce or enhance many of our product offerings, and we strengthened our product portfolio by acquiring Agribusiness. We divested the majority of our TMT market intelligence assets portfolio in August 2019, and we divested our A&D business line on December 2, 2019. During 2019, we termed out most of our debt,

repurchased \$500 million of our common shares, and de-levered to a 2.9x leverage ratio, which is within our capital policy target leverage ratio of 2.0-3.0x.

For 2020, we expect to focus our efforts on the following actions:

- *Increase in geographic, product, and customer penetration.* We believe there are continued opportunities to add new customers and to increase the use of our products and services by existing customers. We plan to add new customers and build our relationships with existing customers by leveraging our existing sales channels, broad product portfolio, global footprint, and industry expertise to anticipate and respond to the changing demands of our end markets.
- *Introduce innovative offerings and enhancements.* In recent years, we have launched several new product offerings addressing a wide array of customer needs, and we expect to continue to innovate using our existing data sets and industry expertise, converting core information to higher value advanced analytics. Our investment priorities are primarily in energy, automotive, and financial services, and we intend to continue to invest across our business to increase our customer value proposition.
- *Balance capital allocation.* We will continue to manage to our capital policy target leverage ratio, and we have updated our capital policy to reflect our intent to return 50 to 75 percent of our annual capital capacity to shareholders through share repurchases and a quarterly dividend. We will continue to evaluate the long-term potential and strategic fit of our asset portfolio, and we will also continue to evaluate potential mergers and acquisitions, focused primarily on targeted transactions in our core end markets that will allow us to continue to build out our strategic position.

Key Performance Indicators

We believe that revenue growth, Adjusted EBITDA (both in dollars and margin), and free cash flow are key financial measures of our success. Adjusted EBITDA and free cash flow are financial measures that are not recognized terms under U.S. generally accepted accounting principles (“non-GAAP”).

Revenue growth. We review year-over-year revenue growth in our segments as a key measure of our success in addressing customer needs. We measure revenue growth in terms of organic, acquisitive, and foreign currency impacts. We define these components as follows:

- *Organic* – We define organic revenue growth as total revenue growth from continuing operations for all factors other than acquisitions and foreign currency movements. We drive this type of revenue growth through value realization (pricing), expanding wallet share of existing customers through up-selling and cross-selling efforts, securing new customer business, and through the sale of new or enhanced product offerings.
- *Acquisitive* – We define acquisitive revenue as the revenue generated from acquired products and services from the date of acquisition to the first anniversary date of that acquisition. This type of growth comes as a result of our strategy to purchase, integrate, and leverage the value of assets we acquire. We also include the impact of divestitures in this metric.
- *Foreign currency* – We define the foreign currency impact on revenue as the difference between current revenue at current exchange rates and current revenue at the corresponding prior period exchange rates. Due to the significance of revenue transacted in foreign currencies, we believe it is important to measure the impact of foreign currency movements on revenue.

In addition to measuring and reporting revenue by segment, we also measure and report revenue by transaction type. Understanding revenue by transaction type helps us identify and address broad changes in product mix. We summarize our transaction type revenue into the following three categories:

- *Recurring fixed revenue* represents revenue generated from contracts specifying a relatively fixed fee for services delivered over the life of the contract. The initial term of these contracts is typically

annual (with some longer-term arrangements) and non-cancellable for the term of the subscription. The fixed fee is typically paid annually or more periodically in advance, and may contain provisions for minimum monthly payments. These contracts typically consist of subscriptions to our various information offerings and software maintenance, which provide continuous access to our platforms and associated data over the contract term. Subscription revenue is usually recognized ratably over the contract term or, for term-based software license arrangements, annually on renewal.

- *Recurring variable revenue* represents revenue from contracts that specify a fee for services, which is typically not fixed. The variable fee is usually paid monthly in arrears. Recurring variable revenue is based on, among other factors, the number of trades processed, assets under management, or the number of positions we value. Most of these contracts have an initial term ranging from one to five years, with auto-renewal periods thereafter. Recurring variable revenue was derived entirely from the Financial Services segment for all periods presented.
- *Non-recurring revenue* represents consulting, services, single-document product sales, perpetual license sales and associated services, conferences and events, and advertising. Our non-recurring products and services are an important part of our business because they complement our recurring business in creating strong and comprehensive customer relationships.

Non-GAAP measures. We use non-GAAP financial measures such as EBITDA, Adjusted EBITDA, and free cash flow in our operational and financial decision-making. We believe that such measures allow us to focus on what we deem to be more reliable indicators of ongoing operating performance (Adjusted EBITDA) and our ability to generate cash flow from operations (free cash flow). We also believe that investors may find these non-GAAP financial measures useful for the same reasons, although we caution readers that non-GAAP financial measures are not a substitute for U.S. GAAP financial measures or disclosures. None of these non-GAAP financial measures are recognized terms under U.S. GAAP and do not purport to be an alternative to net income or operating cash flow as an indicator of operating performance or any other U.S. GAAP measure. Throughout this MD&A, we provide reconciliations of these non-GAAP financial measures to the most directly comparable U.S. GAAP measures.

EBITDA and Adjusted EBITDA. EBITDA and Adjusted EBITDA are used by securities analysts, investors, and other interested parties to assess our operating performance. For example, a measure similar to Adjusted EBITDA is required by the lenders under our revolving credit agreement. We define EBITDA as net income plus or minus net interest, plus provision for income taxes, depreciation, and amortization. Our definition of Adjusted EBITDA further excludes primarily non-cash items and other items that we do not consider to be useful in assessing our operating performance (e.g., stock-based compensation expense, restructuring charges, acquisition-related costs and performance compensation, exceptional litigation, net other gains and losses, pension mark-to-market, settlement, and other expense, the impact of joint ventures and noncontrolling interests, and discontinued operations).

Free Cash Flow. We define free cash flow as net cash provided by operating activities less capital expenditures.

Non-GAAP measures are frequently used by securities analysts, investors, and other interested parties in their evaluation of companies comparable to us, many of which present non-GAAP measures when reporting their results. These measures can be useful in evaluating our performance against our peer companies because we believe the measures provide users with valuable insight into key components of U.S. GAAP financial disclosures. For example, a company with higher U.S. GAAP net income may not be as appealing to investors if its net income is more heavily comprised of gains on asset sales. Likewise, excluding the effects of interest income and expense moderates the impact of a company's capital structure on its performance. However, non-GAAP measures have limitations as an analytical tool. Because not all companies use identical calculations, our presentation of non-GAAP financial

measures may not be comparable to other similarly titled measures of other companies. They are not presentations made in accordance with U.S. GAAP, are not measures of financial condition or liquidity, and should not be considered as an alternative to profit or loss for the period determined in accordance with U.S. GAAP or operating cash flows determined in accordance with U.S. GAAP. As a result, these performance measures should not be considered in isolation from, or as a substitute analysis for, results of operations as determined in accordance with U.S. GAAP.

Strategic Acquisitions

Acquisitions have historically been an important part of our growth strategy. We completed three acquisitions during the year ended November 30, 2019 for a total purchase price of approximately \$0.1 billion, offset by one divestiture for approximately \$0.2 billion. We also completed the A&D divestiture on December 2, 2019, for approximately \$0.5 billion. We completed three acquisitions during the year ended November 30, 2018 for a total purchase price of approximately \$1.9 billion. In 2017, we completed two acquisitions for a total purchase price of approximately \$0.4 billion. Our consolidated financial statements include the results of operations and cash flows for these business combinations beginning on their respective dates of acquisition. For a more detailed description of our recent acquisition activity, see “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 3” in Part II of this Form 10-K.

Global Operations

Approximately 40 percent of our revenue is transacted outside of the United States; however, only about 20 percent of our revenue is transacted in currencies other than the U.S. dollar. As a result, a strengthening U.S. dollar relative to certain currencies has historically resulted in a negative impact on our revenue; conversely, a weakening U.S. dollar has historically resulted in a positive impact on our revenue. The largest foreign currency exposures for revenue are the British Pound, Euro, and Canadian Dollar.

The impact of foreign currency movements on operating income is mitigated due to offsetting revenue and operating expense exposures denominated in currencies other than the U.S. dollar. Our largest net foreign currency exposures are the Indian Rupee, Euro, Canadian Dollar, and Singapore Dollar. See “Quantitative and Qualitative Disclosures About Market Risk – Foreign Currency Exchange Rate Risk” for additional discussion of the impacts of foreign currencies on our operations.

Pricing information

We customize many of our sales offerings to meet individual customer needs and base our pricing on a number of factors, including various price segmentation models which utilize customer attributes, value attributes, and other data sources. Attributes can include a proxy for customer size (e.g., barrels of oil equivalent and annual revenue), industry, users, usage, breadth of the content to be included in the offering, and multiple other factors. Because of the level of offering customization we employ, it is difficult for us to evaluate pricing impacts on a period-to-period basis with absolute certainty. This analysis is further complicated by the fact that the offering sets purchased by customers are often not constant between periods. As a result, we are not able to precisely differentiate between pricing and volume impacts on changes in revenue comprehensively across the business.

Other Items

Cost of operating our business. We incur our cost of revenue primarily through acquiring, managing, and delivering our offerings. These costs include personnel, information technology, data acquisition, and occupancy costs, as well as royalty payments to third-party information providers. Our sales,

general, and administrative expense includes wages and other personnel costs, commissions, corporate occupancy costs, and marketing costs. A large portion of our operating expenses are not directly commensurate with volume sold, particularly in our recurring revenue business model.

Stock-based compensation expense. We issue equity awards to our employees primarily in the form of restricted stock units and performance stock units, for which we record cost over the respective vesting periods. The typical vesting period is three years. As of November 30, 2019, we had approximately 8.2 million unvested RSUs/RSAs and 0.4 million unvested stock options outstanding.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with U.S. GAAP. In applying U.S. GAAP, we make significant estimates and judgments that affect our reported amounts of assets, liabilities, revenue, and expense, as well as disclosure of contingent assets and liabilities. We believe that our accounting estimates and judgments are reasonable when made, but in many instances, alternative estimates and judgments would also be acceptable. In addition, changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from our estimates. To the extent that there are material differences between these estimates and actual results, our financial condition or results of operations will be affected. We base our estimates on historical experience and other assumptions that we believe are reasonable, and we evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as critical accounting policies and estimates, which are discussed further below.

Revenue Recognition. Most of our offerings are provided under agreements containing standard terms and conditions. Approximately 85 percent of our 2019 revenue was derived from recurring revenue arrangements, which generally are initially deferred and then recognized ratably over the contract term. These recurring revenue arrangements typically do not require any significant judgments about when revenue should be recognized.

A limited number of recurring revenue arrangements and certain non-recurring revenue arrangements contain multiple performance obligations. We apply judgment in identifying the separate performance obligations to be delivered under the arrangement and allocating the transaction price based on the estimated standalone selling price of each performance obligation.

Business Combinations. We apply the purchase method of accounting to our business combinations. All of the assets acquired, liabilities assumed, and contingent consideration are allocated based on their estimated fair values. Fair value determinations involve significant estimates and assumptions about several highly subjective variables, including future cash flows, discount rates, and expected business performance. There are also different valuation models and inputs for each component, the selection of which requires considerable judgment. Our estimates and assumptions may be based, in part, on the availability of listed market prices or other transparent market data. These determinations will affect the amount of amortization expense recognized in future periods. We base our fair value estimates on assumptions we believe are reasonable, but recognize that the assumptions are inherently uncertain. Depending on the size of the purchase price of a particular acquisition, the mix of intangible assets acquired, and expected business performance, the purchase price allocation could be materially impacted by applying a different set of assumptions and estimates. In 2019, 2018, and 2017, we recorded approximately \$61.5 million, \$745.3 million, and \$113.8 million, respectively, of intangible assets associated with business combinations.

The structure of certain business combinations may also require the application of significant assumptions and estimates. For example, in 2017, we acquired 78 percent of aM; in exchange for the remaining 22 percent, we issued equity interests in aM's immediate parent holding company to aM's

founders and certain employees. The acquisition of these interests over the five years post-acquisition is based on put/call provisions that tie the valuation to the underlying adjusted EBITDA performance of aM. Since the purchase of these interests requires continued service of the founders and employees, we are accounting for the arrangement as compensation expense that is remeasured based on changes in the fair value of the equity interests. We had preliminarily estimated a range of \$200 million to \$225 million of unrecognized compensation expense related to this transaction, to be recognized over a weighted-average remaining recognition period of approximately four years. In the third quarter of 2018, upon reassessment of near-term financial expectations and their impact on the earn-out calculations, we reduced our estimated compensation expense range to \$150 million to \$175 million, to be recognized over a weighted-average recognition period of approximately 3.5 years. This change did not significantly impact 2018 expense. In November 2019, the option holders exercised 62.5 percent of their remaining 22 percent for \$76 million, which was paid in December 2019, and we estimate the compensation expense associated with the remaining equity interests to be approximately \$70 to \$75 million, of which approximately \$30 million had been recognized as of November 30, 2019, with the remaining amount to be recognized through September 2022. We will acquire the remaining 8 percent of aM no later than December 2022 based on an earn-out mechanic tied to preceding year Adjusted EBITDA performance.

Goodwill and Other Intangible Assets. We make various assumptions about our goodwill and other intangible assets, including their estimated useful lives and whether any potential impairment events have occurred. We perform impairment analyses on the carrying values of goodwill and other intangible assets at least annually. Additionally, we review the carrying value of goodwill and other intangible assets whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. Examples of such events or changes in circumstances, many of which are subjective in nature, include the following:

- Significant negative industry or economic trends;
- A significant change in the manner of our use of the acquired assets or our strategy;
- A significant divestiture or other disposition activity;
- A significant decrease in the market value of the asset;
- A significant change in legal factors or in the business climate that could affect the value of the asset; and
- A change in segments.

If an impairment indicator is present, we perform an analysis to confirm whether an impairment has actually occurred and if so, the amount of the required charge.

As of November 30, 2019 and 2018, we had approximately \$4.2 billion and \$4.5 billion, respectively, of finite-lived intangible assets. For finite-lived intangible assets, we review the carrying amount at least annually to determine whether current events or circumstances indicate a triggering event which could require an adjustment to the carrying amount. A finite-lived intangible asset is considered to be impaired if its carrying value exceeds the estimated future undiscounted cash flows to be derived from it. We exercise judgment in selecting the assumptions used in the estimated future undiscounted cash flows analysis. Any impairment is measured by the amount that the carrying value of such assets exceeds their fair value.

As of November 30, 2019 and 2018, we had approximately \$9.8 billion of goodwill. For goodwill, we use both qualitative and quantitative analysis to determine whether we believe it is more likely than not that goodwill has been impaired. In 2019 and 2018, we used a qualitative analysis for each reporting unit with goodwill in determining that no impairment indicators were present. That determination

requires a number of significant assumptions and judgments, including assumptions about future economic conditions, revenue growth, and operating margins, among other factors. The use of different estimates or assumptions could result in significantly different fair values for our goodwill and other intangible assets.

Income Taxes. We exercise significant judgment in determining our provision for income taxes, current tax assets and liabilities, deferred tax assets and liabilities, future taxable income (for purposes of assessing our ability to realize future benefit from our deferred tax assets), our permanent reinvestment assertion regarding foreign earnings, and recorded reserves related to uncertain tax positions. A valuation allowance is established to reduce our deferred tax assets to the amount that is considered more likely than not to be realized through the generation of future taxable income and other tax planning opportunities. To the extent that a determination is made to establish or adjust a valuation allowance, the expense or benefit is recorded in the period in which the determination is made.

If actual results differ from estimates we have used, or if we adjust these estimates in future periods, our operating results and financial position could be materially affected.

We monitor and evaluate tax law changes; for example, the Tax Cuts and Jobs Act significantly changed existing U.S. tax law and included numerous provisions that affect our business. Subsequent regulations and interpretations can change our initial estimates and assumptions. We assess the impact of new guidance or regulations from U.K., U.S., and other tax authorities on our corporate structure and transactions between our consolidated entities. Adjustments to our consolidated financial statements are recognized as discrete income tax expense or benefit in the period the guidance is issued.

Stock-Based Compensation. Our stock plans provide for the grant of various equity awards, including performance-based awards. For time-based restricted stock unit grants, we calculate stock-based compensation cost by multiplying the grant date fair market value by the number of shares granted, reduced for estimated forfeitures. For time-based stock option grants, we calculate stock-based compensation cost by multiplying the grant date fair market value by the number of option shares granted, reduced for estimated forfeitures. The estimated forfeiture rate is based on historical experience, and we periodically review our forfeiture assumptions based on actual experience.

For performance-based restricted stock unit grants, including those with a market-based adjustment factor, we calculate stock-based compensation cost by multiplying the grant date fair market value by the number of shares granted, reduced for estimated forfeitures. Each quarter, we evaluate the probability of the number of shares that are expected to vest and adjust our stock-based compensation expense accordingly.

Results of Operations

Total Revenue

Total revenue for 2019 increased 10 percent compared to the same period of 2018. Total revenue for 2018 increased 11 percent compared to the same period of 2017. The table below displays the percentage point change in revenue due to organic, acquisitive, and foreign currency factors when comparing 2019 to 2018 and 2018 to 2017.

(All amounts represent percentage points)	Increase (Decrease) in Total Revenue		
	Organic	Acquisitive	Foreign Currency
2019 vs. 2018	6%	5%	(1)%
2018 vs. 2017	6%	5%	1%

Organic revenue growth in 2019 and 2018 was attributable to both recurring and nonrecurring revenue growth. The recurring-based business represented 85 percent of total revenue in 2019, compared to 84 percent and 83 percent of total revenue in 2018 and 2017, respectively. The recurring-based business increased 6 percent organically in 2019 and 2018, led in each year by Financial Services and Transportation offerings, with Resources also contributing to the organic growth. The non-recurring business increased 6 percent organically in 2019 and 2018, led by Transportation and Resources offerings, with Financial Services offerings also contributing to the organic growth in 2019. The non-recurring revenue increase in 2019 was also partially due to the timing of the biennial cycle of the BPVC standard, which contributed approximately \$8 million of growth in the 2019 results.

Acquisition-related revenue growth for 2019 was primarily due to the Ipreo acquisition in the third quarter of 2018, as well as the Agribusiness acquisition in the third quarter of 2019, partially offset by the TMT market intelligence assets divestiture in the third quarter of 2019. Acquisition-related revenue growth for 2018 was primarily due to the Ipreo acquisition in the third quarter of 2018 and the aM acquisition in the fourth quarter of 2017.

Foreign currency movements had a slightly negative effect on our 2019 revenue growth and a slightly positive impact on our 2018 revenue growth. Due to the extent of our global operations, foreign currency movements could continue to positively or negatively affect our results in the future.

Revenue by Segment

(In millions, except percentages)	Year ended November 30,			% Change 2019 vs. 2018	% Change 2018 vs. 2017
	2019	2018	2017		
Revenue:					
Financial Services	\$1,701.5	\$1,419.7	\$1,232.9	20%	15%
Transportation	1,246.1	1,160.2	991.6	7%	17%
Resources	933.8	876.5	839.3	7%	4%
CMS	533.2	552.8	535.9	(4)%	3%
Total revenue	\$4,414.6	\$4,009.2	\$3,599.7	10%	11%

The percentage change in revenue for each segment is due to the factors described in the following table.

(All amounts represent percentage points)	2019 vs. 2018			2018 vs. 2017		
	Organic	Acquisitive	Foreign Currency	Organic	Acquisitive	Foreign Currency
Financial Services revenue	6%	15%	(1)%	6%	8%	1%
Transportation revenue	8%	— %	(1)%	11%	6%	1%
Resources revenue	5%	2%	— %	4%	— %	— %
CMS revenue	1%	(4)%	(1)%	2%	1%	1%

Financial Services revenue experienced strong total organic growth in both 2019 and 2018. Within our Information product offerings, we experienced 4 percent organic growth in 2019 and 7 percent organic growth in 2018, primarily due to the solid performance of our pricing, indices, and valuation services offerings. Solutions organic revenue growth of 8 percent in 2019 and 9 percent in 2018 benefitted from broad-based growth across the portfolio, led by our managed loan services and EDM product offerings. Our Processing offerings declined 2 percent organically in 2019 and 1 percent organically in 2018. The 2019 Processing decline was due to lower loan processing revenue, partially offset by improved derivative processing revenue, while the 2018 Processing decline was due to both lower loan processing and derivative processing organic revenue. The Ipreo acquisition in the third quarter of

2018 accounted for the acquisitive growth in 2018 and 2019, as well as providing a strong contribution to organic revenue growth in the last four months of 2019.

Transportation revenue increases for 2019 and 2018 were driven by continued solid organic recurring and non-recurring growth, primarily in our various automotive product offerings. We continue to see strong organic growth in our automotive product category due to continued growth in our used car product offerings and benefits from ongoing innovation in new car product offerings as a result of the increasing use of new automotive technologies. The aM acquisition in the fourth quarter of 2017 accounted for the acquisitive growth in 2018.

Resources revenue for 2019 and 2018 increased both in the recurring and non-recurring categories. Recurring organic revenue growth was 5 percent in 2019 and 4 percent in 2018. Total and recurring organic revenue growth benefited by less than 1 percentage point as a result of the adoption of ASC Topic 606. On a constant currency basis, our Resources annual contract value (“ACV”), which represents the annualized value of recurring revenue contracts, increased 3 percent in both 2019 and 2018. Non-recurring organic revenue growth was 8 percent in both 2019 and 2018. The Agribusiness acquisition in the third quarter of 2019 accounted for the acquisitive Resources revenue growth in 2019.

CMS organic revenue growth for 2019 was due to recurring revenue growth in our Product Design offerings and the BPVC release in the current year, partially offset by the non-renewal of a contract in our TMT benchmarking product offerings. The acquisitive decline was due to the TMT market intelligence assets divestiture. CMS organic revenue growth in 2018 was primarily due to recurring organic revenue growth in our Product Design offerings, as well as recurring and non-recurring revenue growth in our ECR and TMT product offerings; our non-recurring organic revenue decline in Product Design in 2018 was primarily due to the BPVC release in 2017.

Revenue by Transaction Type

(In millions, except percentages)	Year ended November 30,			% Change 2019 vs. 2018		% Change 2018 vs. 2017	
	2019	2018	2017	Total	Organic	Total	Organic
Revenue:							
Recurring fixed	\$3,162.4	\$2,861.5	\$2,550.0	11%	6%	12%	6%
Recurring variable	572.9	506.3	449.0	13%	4%	13%	6%
Non-recurring	679.3	641.4	600.7	6%	6%	7%	6%
Total revenue	\$4,414.6	\$4,009.2	\$3,599.7	10%	6%	11%	6%
As a percent of total revenue:							
Recurring fixed	72%	71%	71%				
Recurring variable	13%	13%	12%				
Non-recurring	15%	16%	17%				

Recurring revenue represents a steady and predictable source of revenue for us. Recurring fixed revenue increased 6 percent organically for 2019 and 2018. Recurring variable revenue was comprised entirely of Financial Services revenue for all periods, and grew 4 percent organically in 2019 and 6 percent organically in 2018, with the decelerating growth largely due to lower loan processing volumes in 2019. Transportation recurring revenue offerings provided the largest contribution to the growth, at 10 percent organic growth for 2019 and 11 percent organic growth for 2018. Financial Services recurring revenue provided 5 percent organic growth in 2019 and 7 percent organic growth in 2018. Resources recurring offerings increased 5 percent organically in 2019 and 4 percent organically in 2018. CMS recurring offerings were flat in 2019, compared to 3 percent organic growth in 2018, with Product Design increases offset by TMT decreases for 2019.

Non-recurring revenue grew 6 percent organically in 2019 and 2018. The 2019 increase was primarily driven by continued growth in our automotive and Resources product offerings, as well as positive contributions from Financial Services and the benefit from the 2019 BPVC release, while the 2018 increase was primarily driven by strength in our automotive and Resources product offerings.

Operating Expenses

The following table shows our operating expenses and the associated percentages of revenue.

(In millions, except percentages)	Year ended November 30,			% Change	% Change
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Operating expenses:					
Cost of revenue	\$1,657.0	\$1,495.7	\$1,348.4	11%	11%
SG&A expense	1,197.9	1,192.8	1,096.0	— %	9%
Total cost of revenue and SG&A expense	\$2,854.9	\$2,688.5	\$2,444.4	6%	10%
Depreciation and amortization expense	\$ 573.1	\$ 541.2	\$ 492.5	6%	10%
As a percent of revenue:					
Total cost of revenue and SG&A expense	65%	67%	68%		
Depreciation and amortization expense	13%	13%	14%		

Cost of Revenue and SG&A Expense

In managing our business, we evaluate our costs by type (e.g., salaries and benefits, facilities, IT) rather than by income statement classification. The increase in absolute total costs in 2019 and 2018 was primarily due to recent acquisitions. As a percent of revenue, cost of revenue and SG&A expense have been steadily decreasing, primarily because of the solid organic growth in 2019, as well as ongoing cost management and rationalization efforts associated with acquisition integration.

Within our cost of revenue and SG&A expense, stock-based compensation expense as a percentage of revenue was 5 percent, 6 percent, and 7 percent for the years ended November 30, 2019, 2018, and 2017, respectively. The higher stock-based compensation percentages in 2018 and 2017 are primarily due to the assumption and revaluation of legacy outstanding awards at the Merger date and the acceleration of certain share awards associated with severance activities post-Merger. We continue to manage our stock-based compensation expense to be a smaller percentage of revenue.

Depreciation and Amortization Expense

Depreciation expense has been increasing primarily as a result of increases in capital expenditures for our various infrastructure and software development initiatives, as well as assets acquired through the Merger. Amortization expense has increased primarily because of intangible assets associated with the Merger and subsequent acquisitions.

Acquisition-Related Costs

In 2019, 2018, and 2017, we incurred \$70 million, \$135 million, and \$113 million, respectively, of costs associated with acquisitions, including employee severance charges and retention costs, contract termination costs for facility consolidations, legal and professional fees, and compensation costs of

\$42 million in 2019, \$54 million in 2018, and \$10 million in 2017 related to the performance awards granted in connection with the purchase of aM. We expect to incur an additional \$40 to \$45 million of acquisition-related costs related to the aM performance awards over the next three years.

Segment Adjusted EBITDA

(In millions, except percentages)	Year ended November 30,			% Change	% Change
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Adjusted EBITDA:					
Financial Services	\$ 786.2	\$ 636.9	\$ 553.7	23%	15%
Transportation	520.9	479.3	408.6	9%	17%
Resources	403.5	369.4	360.2	9%	3%
CMS	121.1	127.4	125.2	(5)%	2%
Shared services	(52.8)	(48.1)	(57.8)	10%	(17)%
Total Adjusted EBITDA	\$1,778.9	\$1,564.9	\$1,389.9	14%	13%
As a percent of segment revenue:					
Financial Services	46.2%	44.9%	45.0%		
Transportation	41.8%	41.3%	41.0%		
Resources	43.2%	42.1%	43.0%		
CMS	22.7%	23.0%	23.0%		

For 2019 and 2018, Adjusted EBITDA increased due to recent acquisitions and the leverage in our business model, as incremental revenue drives higher margins. We continue to focus our efforts on organic revenue growth, cost management, and acquisition integration to improve overall margins.

As a percent of segment revenue, segment Adjusted EBITDA margins in 2019 increased primarily due to organic revenue growth and the associated leverage benefits. Segment Adjusted EBITDA margin growth in 2018 was partially offset by lower aM and lpreo margins.

Provision for Income Taxes

Our effective tax rate for continuing operations for the year ended November 30, 2019 was 32.7 percent, compared to negative 27.2 percent in 2018 and negative 13.4 percent in 2017. The increase in our tax rate for 2019, compared to 2018, is primarily due to net tax expense associated with U.S. treasury regulations retroactive to 2018 of approximately \$150 million. The reduction in our tax rate for 2018, compared to 2017, is primarily due to net tax benefits associated with U.S. tax reform of \$141 million.

EBITDA and Adjusted EBITDA (non-GAAP measure)

(In millions, except percentages)	Year ended November 30,			% Change 2019 vs. 2018	% Change 2018 vs. 2017
	2019	2018	2017		
Net income attributable to IHS Markit					
Ltd.	\$ 502.7	\$ 542.3	\$ 416.9	(7)%	30%
Interest income	(1.9)	(3.1)	(2.2)		
Interest expense	259.7	225.7	154.3		
Provision (benefit) for income taxes	242.6	(115.4)	(49.9)		
Depreciation	196.1	175.1	157.0		
Amortization	377.0	366.1	335.5		
EBITDA	\$1,576.2	\$1,190.7	\$1,011.6	32%	18%
Stock-based compensation expense	223.8	241.7	261.9		
Restructuring charges	17.3	1.7	—		
Acquisition-related costs	28.8	80.7	103.1		
Acquisition-related performance compensation	41.5	54.1	9.9		
Loss on debt extinguishment	7.0	4.7	—		
Gain on sale of assets	(115.3)	—	—		
Pension mark-to-market and settlement (gain) expense	1.8	(6.5)	5.4		
Share of joint venture results not attributable to Adjusted EBITDA	0.9	0.5	(1.2)		
Adjusted EBITDA attributable to noncontrolling interest	(3.1)	(2.7)	(0.8)		
Adjusted EBITDA	\$1,778.9	\$1,564.9	\$1,389.9	14%	13%
Adjusted EBITDA as a percentage of revenue	40.3%	39.0%	38.6%		

As a percentage of revenue, Adjusted EBITDA increased 130 basis points in 2019 and 40 basis points in 2018, primarily as a result of strengthening revenue results and the associated business leverage benefit. The 2019 Adjusted EBITDA increase was positively impacted by 30 basis points due to foreign currency movements, while the 2018 Adjusted EBITDA increase was negatively impacted by 60 basis points due to foreign currency movements and the recent Ipreo acquisition. Adjusted EBITDA margin performance also improved as a result of our ongoing integration and cost management efforts. We expect to continue to drive margin improvement through leveraging our business model and continued focus on efficiency and cost management efforts.

Financial Condition

(In millions, except percentages)	As of	As of	Dollar change	Percent change
	November 30, 2019	November 30, 2018		
Accounts receivable, net	\$890.7	\$792.9	\$97.8	12%
Accrued compensation	\$215.2	\$214.1	\$ 1.1	1%
Deferred revenue	\$879.7	\$886.8	\$(7.1)	(1)%

The increase in our accounts receivable balance was primarily due to increased billing activity in 2019 and the impacts of the adoption of ASC Topic 606. The decrease in deferred revenue was primarily

due to the transition adjustment to ASC Topic 606, the reclassification of A&D deferred revenue to the held-for-sale category, and the decrease associated with the TMT market intelligence assets divestiture, partially offset by increased billings and the Agribusiness acquisition in 2019.

Liquidity and Capital Resources

As of November 30, 2019, we had cash and cash equivalents of \$112 million. Our principal sources of liquidity include cash generated by operating activities, cash and cash equivalents on the balance sheet, and amounts available under a revolving credit facility. We had approximately \$5.13 billion of debt as of November 30, 2019, consisting primarily of \$237 million of revolving facility debt, \$250 million of term loan debt, and \$4.68 billion of senior notes. As of November 30, 2019, we had approximately \$1.0 billion available under our revolving credit facility.

In 2019, we completed the following activities related to our debt structure:

- We repaid the \$250 million term loan that was used to help fund the Ipreo acquisition, using cash on hand and borrowings under the revolving credit facility.
- We issued \$400 million aggregate principal amount of senior unsecured notes at a 3.625 percent interest rate, due 2024, and \$600 million aggregate principal amount of senior unsecured notes at a 4.250 percent interest rate, due 2029. Net proceeds from this offering, along with minor additional borrowings under the revolving credit facility, were used to repay all of our term loan debt.
- We issued an additional \$350 million aggregate principal amount of the 4.250 percent senior unsecured notes due 2029 at an effective 3.25 percent interest rate and used the proceeds to repay borrowings under the revolving credit facility.
- We entered into a new \$250 million 364-day credit agreement for a term loan credit facility to reduce our revolving credit facility borrowings.
- We terminated our previous revolving credit facility and entered into a new revolving credit facility agreement with a total borrowing capacity of \$1.25 billion.

Our interest expense in each of 2017, 2018, and 2019 increased primarily because of a higher average debt balance as a result of acquisitions and share repurchases, a higher effective interest rate due to an increased amount of fixed-rate debt, and higher short-term interest rates.

Our Board of Directors terminated our previous share repurchase program and has authorized a new share repurchase program of up to \$2.5 billion of IHS Markit common shares through November 30, 2021, to be funded using our existing cash, cash equivalents, marketable securities, and future cash flows, or through the incurrence of short- or long-term indebtedness, at management's discretion. This repurchase program does not obligate us to repurchase any set dollar amount or number of shares and may be modified, suspended, or terminated at any time without prior notice. Under this program, we are authorized to repurchase our common shares on the open market from time to time, in privately negotiated transactions, or through accelerated share repurchase agreements, subject to availability of common shares, price, market conditions, alternative uses of capital, and applicable regulatory requirements, at management's discretion. In December 2019, we entered into an ASR to repurchase \$500 million under this authorization.

Our Board of Directors has separately authorized, subject to applicable regulatory requirements, the repurchase of our common shares surrendered by employees in an amount equal to the exercise price, if applicable, and statutory tax liability associated with the vesting of their equity awards, for which we pay the statutory tax on behalf of the employee and forgo receipt of the exercise price of the award from the employee, if applicable. Such repurchases have been authorized in addition to the share repurchase program described above.

Based on our cash, debt, and cash flow positions, we believe that we will have sufficient liquidity to meet our ongoing working capital and capital expenditure needs. Our future capital requirements will depend on many factors, including the number and magnitude of future acquisitions, amount of share repurchases and cash dividends, the need for additional facilities or facility improvements, the timing and extent of spending to support product development efforts, information technology infrastructure investments, investments in our internal business applications, and the continued market acceptance of our offerings. We could be required, or could elect, to seek additional funding through public or private equity or debt financings; however, additional funds may not be available on terms acceptable to us.

See “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 8” in Part II of this Form 10-K for additional information about our debt obligations.

Cash Flows

(In millions, except percentages)	Year ended November 30,			% Change 2019 vs. 2018	% Change 2018 vs. 2017
	2019	2018	2017		
Net cash provided by operating activities	\$1,251.3	\$ 1,289.5	\$ 961.5	(3)%	34%
Net cash used in investing activities	\$ (271.5)	\$(2,112.1)	\$(646.3)	(87)%	227%
Net cash (used in) provided by financing activities	\$ (958.0)	\$ 873.0	\$(329.3)	(210)%	(365)%

Net cash provided by operating activities in 2019 decreased primarily due to a one-time tax payment associated with U.S. treasury regulations that were retroactive to 2018. In 2018, net cash provided by operating activities increased primarily because of better operating performance and working capital improvements.

Net cash used in investing activities for 2019 decreased from 2018 primarily due to the net inflow of proceeds from acquisition and divestiture activity compared to the cash outflow in 2018 for the purchase of Ipreo. Net cash used in investing activities for 2018 increased from 2017 primarily due to the Ipreo acquisition, partially offset by lower capital expenditures compared to the prior year.

Net cash used in financing activities decreased in 2019 primarily due to the repayment of borrowings made for the Ipreo acquisition, partially offset by fewer share repurchases. Net cash provided by financing activities increased in 2018 primarily due to borrowings to fund the Ipreo acquisition and lower share repurchases, partially offset by lower proceeds from stock option exercises in 2018 as compared to 2017.

Free Cash Flow (non-GAAP measure)

The following table reconciles our non-GAAP free cash flow measure to net cash provided by operating activities.

(In millions, except percentages)	Year ended November 30,			% Change 2019 vs. 2018	% Change 2018 vs. 2017
	2019	2018	2017		
Net cash provided by operating activities	\$1,251.3	\$1,289.5	\$ 961.5		
Capital expenditures on property and equipment	(278.1)	(222.7)	(260.2)		
Free cash flow	\$ 973.2	\$1,066.8	\$ 701.3	(9)%	52%

The decrease in 2019 free cash flow was primarily due to lower net cash provided by operating activities due to higher tax payments and higher capital expenditure activity. The increase in free cash flow in 2018 was primarily due to higher net cash provided by operating activities and lower capital expenditure activity, as 2017 cash flow was partially used to pay for Merger-related consolidation and integration activities. Our free cash flow has historically been positive due to the robust cash generation attributes of our business model, and we expect that it will continue to be a significant source of funding for our business strategy of growth through organic and acquisitive means.

Credit Facility and Other Debt

Please refer to “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 8” in Part II of this Form 10-K for a discussion of the current status of our debt arrangements.

Share Repurchase Programs

Please refer to Part II, Item 5 and “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 14” in Part II of this Form 10-K for a discussion of our share repurchase programs.

Dividends

Please refer to Part II, Item 5 of this Form 10-K for a discussion of our dividend policy.

Off-Balance Sheet Transactions

We have no off-balance sheet transactions.

Contractual Obligations and Commercial Commitments

We have various contractual obligations and commercial commitments that are recorded as liabilities in our consolidated financial statements. Other items, such as certain purchase commitments and other executory contracts, are not recognized as liabilities in our consolidated financial statements but are required to be disclosed. The following table summarizes our contractual obligations and commercial commitments as of November 30, 2019, along with the obligations associated with our term loans and notes, and the future periods in which such obligations are expected to be settled in cash (in millions):

Contractual Obligations and Commercial Commitments	Total	Payment due by period			
		Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Term loans, notes, and interest	\$6,487.0	\$471.9	\$1,177.6	\$1,464.3	\$3,373.2
Operating lease obligations	412.0	63.2	108.2	81.2	159.4
Unconditional purchase obligations	96.6	49.8	41.0	5.6	0.2
Total	\$6,995.6	\$584.9	\$1,326.8	\$1,551.1	\$3,532.8

We do not expect to contribute a significant amount to our pension plans in 2020, although we believe we will need to pay a premium to annuitize the remaining obligations under the U.S. Retirement Income Plan that we terminated in December 2018. We have taken initial steps to terminate the U.K. Retirement Income Plan and expect to complete the termination by the end of 2020.

In 2022, we expect to pay cash to acquire the remaining aM equity interests. The amount of cash to be paid is based on put/call provisions that tie the valuation to underlying adjusted EBITDA performance of aM. Based on our current estimates, we believe that the purchase price for the remaining equity interests will be approximately \$70-\$75 million.

In addition to the term loans and notes, as of November 30, 2019, we also had \$237 million of outstanding borrowings under our 2019 revolving facility at a current annual interest rate of 2.95 percent. The facility has a five-year term ending in June 2023. We also had approximately \$7 million in capital lease obligations as of November 30, 2019.

Recent Accounting Pronouncements

Please refer to “Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note 2” in Part II of this Form 10-K for a discussion of recent accounting pronouncements and their anticipated effect on our business.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk refers to potential losses from adverse changes in market rates and prices. We are exposed to market risk primarily in the form of interest rate, foreign currency exchange rate, and credit risk. We actively monitor these exposures. In order to manage these exposures, we use derivative financial instruments, including interest rate swaps and foreign currency forwards. Our objective is to reduce fluctuations in revenue, earnings, and cash flows resulting from changes in interest rates and foreign currency rates. We do not use derivatives for speculative purposes.

Interest Rate Risk

As of November 30, 2019, we had no significant investments other than cash and cash equivalents and therefore we were not exposed to material interest rate risk on investments.

Our 2019 revolving facility and our 364-day credit agreement are subject to variable interest rates. We use interest rate swaps in order to fix a portion of our variable rate debt as part of our overall interest rate risk management strategy. As of November 30, 2019, we had \$487 million of floating-rate debt at a 2.73 percent weighted-average interest rate. A hypothetical increase in interest rates of 100 basis points applied to our floating rate indebtedness would increase annual interest expense by approximately \$1 million (\$5 million without giving effect to any of our interest rate swaps).

Foreign Currency Exchange Rate Risk

Our consolidated financial statements are expressed in U.S. dollars, but a portion of our business is conducted in currencies other than U.S. dollars. Changes in the exchange rates for such currencies into U.S. dollars can affect our revenues, earnings, and the carrying values of our assets and liabilities in our consolidated balance sheet, either positively or negatively. Fluctuations in foreign currency rates increased (decreased) our revenues by approximately \$34 million, \$24 million, and \$(27) million for the years ended November 30, 2019, 2018, and 2017, respectively, and had no material impact on operating income for the same respective periods. The translation effects of changes in exchange rates in our consolidated balance sheet are recorded within the cumulative translation adjustment component of our shareholders' equity. In 2019, we recorded a cumulative translation gain of \$46 million, reflecting changes in exchange rates of various currencies compared to the U.S. dollar.

A hypothetical 10 percent change in the currencies that we are primarily exposed to would have impacted our 2019 revenue by approximately \$93 million and our 2019 operating income by approximately \$12 million. Approximately 80 percent of total revenue was earned in subsidiaries with the U.S. dollar as the functional currency.

Credit Risk

We are exposed to credit risk associated with cash equivalents, foreign currency and interest rate derivatives, and trade receivables. We do not believe that our cash equivalents or foreign currency and interest rate derivatives present significant credit risks because the counterparties to the instruments consist of major financial institutions that are financially sound, and we manage the notional amount of contracts entered into with any one counterparty. Substantially all trade receivable balances are unsecured. The concentration of credit risk with respect to trade receivables is limited by the large number of customers in our customer base and their dispersion across various industries and geographic areas. We perform ongoing credit evaluations of our customers and maintain an allowance for potential credit losses.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and the Shareholders of IHS Markit Ltd.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of IHS Markit Ltd. (the Company) as of November 30, 2019 and 2018, the related consolidated statements of operations, comprehensive income, cash flows, and changes in equity for each of the three years in the period ended November 30, 2019 and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at November 30, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended November 30, 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 November 30, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated January 17, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter 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 matter below providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Measurement of the Income Tax Provision

Description of the Matter

As more fully described in Notes 2 and 10 to the consolidated financial statements, the Company operates in domestic and international markets and is subject to tax law in the U.K., U.S., and foreign tax jurisdictions. The income tax provision is based on current enacted tax laws and tax rates of each tax jurisdiction. The Company's accounting for income taxes involves the application of complex and changing tax regulations in multiple jurisdictions. The Company utilizes judgment in the interpretation of tax regulations as they apply to its tax positions. For the year ended November 30, 2019, income tax expense was \$242.6 million.

Auditing the calculation of the provision for income taxes was complex because the provision for income taxes involved significant audit judgment. This significant judgment was due to the interpretation of recent tax laws as well as due to the tax implications related to the Company's legal structure and transactions between consolidated entities that required evaluation of tax laws across multiple jurisdictions and evaluation of the application of such tax laws to the Company's tax positions.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls relating to the provision for income taxes, inclusive of management's review of the provision for income taxes and interpretation of tax laws. For example, we tested the Company's controls over management's review of the underlying data used in the provision for income tax calculations and controls over management's review of the analysis provided by advisors utilized in the application of tax law to the Company's tax positions.

We evaluated the Company's calculation of the provision for income taxes. Among other audit procedures performed, we assessed the Company's evaluation of tax laws and tested the provision for income tax calculations including the completeness and accuracy of underlying data used in the calculations. We involved our tax matter professionals to evaluate the application of tax law to the Company's tax positions. This included evaluating advice obtained by the Company. We have also evaluated the Company's income tax disclosures included in Notes 2 and 10 of the consolidated financial statements in relation to these matters.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2001.
Denver, Colorado
January 17, 2020

IHS MARKIT LTD.
CONSOLIDATED BALANCE SHEETS

(In millions, except for per-share amount)

	As of November 30, 2019	As of November 30, 2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 111.5	\$ 120.0
Accounts receivable, net	890.7	792.9
Deferred subscription costs	72.1	77.3
Assets held for sale	115.3	—
Other current assets	118.2	109.2
Total current assets	1,307.8	1,099.4
Non-current assets:		
Property and equipment, net	658.2	579.6
Intangible assets, net	4,169.0	4,484.8
Goodwill	9,836.3	9,836.0
Deferred income taxes	17.8	14.6
Other	98.1	47.9
Total non-current assets	14,779.4	14,962.9
Total assets	\$16,087.2	\$16,062.3
Liabilities and equity		
Current liabilities:		
Short-term debt	\$ 251.1	\$ 789.9
Accounts payable	59.7	42.2
Accrued compensation	215.2	214.1
Other accrued expenses	479.1	379.3
Income tax payable	58.5	8.0
Deferred revenue	879.7	886.8
Liabilities held for sale	25.9	—
Total current liabilities	1,969.2	2,320.3
Long-term debt, net	4,874.4	4,889.2
Deferred income taxes	667.2	699.9
Other liabilities	145.5	126.5
Commitments and contingencies		
Redeemable noncontrolling interests	15.1	5.9
Shareholders' equity:		
Common shares, \$0.01 par value, 3,000.0 authorized, 476.3 and 472.9 issued, and 398.3 and 397.1 outstanding at November 30, 2019 and November 30, 2018, respectively	4.8	4.7
Additional paid-in capital	7,769.4	7,680.4
Treasury shares, at cost: 78.0 and 75.8 at November 30, 2019 and November 30, 2018, respectively	(2,391.8)	(2,108.8)
Retained earnings	3,295.0	2,743.1
Accumulated other comprehensive loss	(261.6)	(298.9)
Total shareholders' equity	8,415.8	8,020.5
Total liabilities and equity	\$16,087.2	\$16,062.3

See accompanying notes.

IHS MARKIT LTD.
CONSOLIDATED STATEMENTS OF OPERATIONS

(In millions, except for per-share amounts)

	Year ended November 30,		
	2019	2018	2017
Revenue	\$4,414.6	\$4,009.2	\$3,599.7
Operating expenses:			
Cost of revenue	1,657.0	1,495.7	1,348.4
Selling, general and administrative	1,197.9	1,192.8	1,096.0
Depreciation and amortization	573.1	541.2	492.5
Restructuring charges	17.3	1.7	—
Acquisition-related costs	70.3	134.8	113.0
Other (income) expense, net	(104.5)	1.7	18.7
Total operating expenses	3,411.1	3,367.9	3,068.6
Operating income	1,003.5	641.3	531.1
Interest income	1.9	3.1	2.2
Interest expense	(259.7)	(225.7)	(154.3)
Net periodic pension and postretirement (expense) income	(2.8)	5.6	(6.9)
Non-operating expense, net	(260.6)	(217.0)	(159.0)
Income from continuing operations before income taxes and equity in loss of equity method investees	742.9	424.3	372.1
(Provision) benefit for income taxes	(242.6)	115.4	49.9
Equity in loss of equity method investees	(0.9)	(0.5)	(5.0)
Net income	\$ 499.4	\$ 539.2	\$ 417.0
Net loss (income) attributable to noncontrolling interest	3.3	3.1	(0.1)
Net income attributable to IHS Markit Ltd.	\$ 502.7	\$ 542.3	\$ 416.9
Basic earnings per share attributable to IHS Markit Ltd.	\$ 1.26	\$ 1.38	\$ 1.04
Weighted average shares used in computing basic earnings per share	399.5	394.4	400.3
Diluted earnings per share attributable to IHS Markit Ltd.	\$ 1.23	\$ 1.33	\$ 1.00
Weighted average shares used in computing diluted earnings per share	409.2	406.9	416.2

See accompanying notes.

IHS MARKIT LTD.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)

	Year ended November 30,		
	2019	2018	2017
Net income	\$499.4	\$ 539.2	\$417.0
Other comprehensive income (loss), net of tax:			
Net hedging activities(1)	(3.2)	7.6	6.6
Net pension liability adjustment(2)	(5.7)	4.8	1.4
Foreign currency translation adjustment	46.2	(220.4)	345.8
Total other comprehensive income (loss)	37.3	(208.0)	353.8
Comprehensive income	\$536.7	\$ 331.2	\$770.8
Comprehensive loss (income) attributable to noncontrolling interest	3.3	3.1	(0.1)
Comprehensive income attributable to IHS Markit Ltd.	\$540.0	\$ 334.3	\$770.7

(1) Net of tax benefit (expense) of \$0.7, \$(1.8), and \$(1.7) for the years ended November 30, 2019, 2018, and 2017, respectively.

(2) Net of tax benefit (expense) of \$1.7, \$(1.1) and \$(1.2) for the years ended November 30, 2019, 2018, and 2017, respectively.

See accompanying notes.

IHS MARKIT LTD.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Year ended November 30,		
	2019	2018	2017
Operating activities:			
Net income	\$ 499.4	\$ 539.2	\$ 417.0
Reconciliation of net income to net cash provided by operating activities:			
Depreciation and amortization	573.1	541.2	492.5
Stock-based compensation expense	223.8	241.7	261.9
Gain on sale of assets	(115.3)	—	—
Net periodic pension and postretirement expense (income)	2.8	(5.6)	6.9
Undistributed loss (income) of affiliates, net	0.4	(0.8)	5.2
Pension and postretirement contributions	(2.0)	(2.6)	(5.7)
Deferred income taxes	(49.6)	(211.7)	(100.1)
Change in assets and liabilities:			
Accounts receivable, net	(67.9)	(11.8)	(27.5)
Other current assets	(79.9)	(2.2)	(34.6)
Accounts payable	30.9	32.5	(20.0)
Accrued expenses	39.7	82.5	(42.8)
Income tax	88.7	23.5	(14.7)
Deferred revenue	38.8	26.6	4.7
Other liabilities	68.4	37.0	18.7
Net cash provided by operating activities	1,251.3	1,289.5	961.5
Investing activities:			
Capital expenditures on property and equipment	(278.1)	(222.7)	(260.2)
Acquisitions of businesses, net of cash acquired	(136.5)	(1,876.2)	(401.1)
Proceeds from sale of assets	163.5	—	—
Change in other assets	(18.3)	(6.2)	0.5
Settlements of forward contracts	(2.1)	(7.0)	14.5
Net cash used in investing activities	(271.5)	(2,112.1)	(646.3)
Financing activities:			
Proceeds from borrowings	2,631.7	4,617.0	3,194.5
Repayment of borrowings	(3,188.9)	(3,122.6)	(2,381.2)
Payment of debt issuance costs	(13.2)	(30.8)	(14.4)
Payments for purchase of noncontrolling interests	—	(10.1)	(57.0)
Proceeds from noncontrolling interests	12.5	—	7.5
Contingent consideration payments	(2.2)	(43.0)	(2.6)
Repurchases of common shares	(500.0)	(672.5)	(1,317.8)
Payments related to tax withholding for stock-based compensation	(75.6)	(95.0)	(89.9)
Proceeds from the exercise of employee stock options	177.7	230.0	331.6
Net cash (used in) provided by financing activities	(958.0)	873.0	(329.3)
Foreign exchange impact on cash balance	(30.3)	(64.2)	9.0
Net decrease in cash and cash equivalents	(8.5)	(13.8)	(5.1)
Cash and cash equivalents at the beginning of the period	120.0	133.8	138.9
Cash and cash equivalents at the end of the period	\$ 111.5	\$ 120.0	\$ 133.8

See accompanying notes.

IHS MARKIT LTD. CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions)

	Common Shares Shares Outstanding	Amount	Additional Paid-In Capital	Treasury Shares	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity	Redeemable Noncontrolling Interests
Balance at November 30, 2016	415.0	\$4.5	\$7,210.9	\$ (499.1)	\$1,806.9	\$(438.8)	\$ 8,084.4	\$ 57.7
Repurchases of common shares	(32.3)	—	—	(1,317.8)	—	—	(1,317.8)	—
Share-based award activity	2.3	0.1	68.7	71.9	—	—	140.7	—
Option exercises	14.2	0.1	332.5	—	416.9	—	332.6	0.1
Net income	—	—	—	—	—	—	416.9	—
Issuance of noncontrolling interests	—	—	—	—	—	—	—	10.0
Purchase of noncontrolling interests	—	—	—	—	—	—	—	(57.0)
Other noncontrolling interest activity	—	—	—	—	(6.2)	—	(6.2)	8.3
Other comprehensive income	—	—	—	—	—	353.8	353.8	—
Balance at November 30, 2017	399.2	4.7	7,612.1	(1,745.0)	2,217.6	(85.0)	8,004.4	19.1
Repurchases of common shares	(14.2)	—	—	(672.5)	—	—	(672.5)	—
Share-based award activity	2.5	—	(162.9)	308.7	(22.7)	—	123.1	—
Option exercises	9.6	—	231.2	—	—	—	231.2	—
Net income (loss)	—	—	—	—	542.3	—	542.3	(3.1)
Impact of the Tax Cuts and Jobs Act of 2017	—	—	—	—	5.9	(5.9)	—	—
Purchase of noncontrolling interests	—	—	—	—	—	—	—	(10.1)
Other comprehensive loss	—	—	—	—	—	(208.0)	(208.0)	—
Balance at November 30, 2018	397.1	4.7	7,680.4	(2,108.8)	2,743.1	(298.9)	8,020.5	5.9
Repurchases of common shares	(7.6)	—	—	(500.0)	—	—	(500.0)	—
Share-based award activity	2.1	0.1	(86.5)	217.0	(6.8)	—	123.8	—
Option exercises	6.7	—	175.5	—	—	—	175.5	—
Net income (loss)	—	—	—	—	502.7	—	502.7	(3.3)
Adjustment to opening retained earnings related to adoption of ASC Topic 606	—	—	—	—	—	—	—	—
Issuance of noncontrolling interests	—	—	—	—	56.0	—	56.0	12.5
Other comprehensive loss	—	—	—	—	—	37.3	37.3	—
Balance at November 30, 2019	398.3	\$4.8	\$7,769.4	\$(2,391.8)	\$3,295.0	\$(261.6)	\$ 8,415.8	\$ 15.1

See accompanying notes.

IHS MARKIT LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business

IHS Markit Ltd. (“IHS Markit” or “we” or “us” or “our”) was formed in 2016 through a merger of IHS Inc., which had been in business since 1959 and was publicly traded since 2005, and Markit Ltd., which was founded in 2003 and was publicly traded since 2014 (“Merger”).

We are a world leader in critical information, analytics, and solutions for the major industries and markets that drive economies worldwide. We deliver next-generation information, analytics, and solutions to customers in business, finance, and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions.

Our segments are organized to address customer needs by industry, as follows:

- *Financial Services*, which includes our financial Information, Solutions, and Processing product offerings;
- *Transportation*, which includes our Automotive and Maritime & Trade product offerings;
- *Resources*, which includes our Upstream and Downstream product offerings; and
- *Consolidated Markets & Solutions*, which includes our Product Design, Economics & Country Risk, and TMT benchmarking product offerings.

We offer the majority of our products and services through recurring fixed and variable fee arrangements, and this business model has historically delivered stable revenue and predictable cash flows.

Our business has seasonal aspects. Our first quarter generally has our lowest quarterly levels of revenue and profit. We also experience event-driven seasonality in our business; for instance, we typically hold our annual CERAWEEK, World Petrochemical, and TPM conferences in the second quarter of each year. Another example is the biennial release of the Boiler Pressure Vessel Code (“BPVC”) engineering standard, which generates revenue for us predominantly in the third quarter of every other year. The most recent BPVC release was in the third quarter of 2019.

2. Significant Accounting Policies

Fiscal Year End

Our fiscal year ends on November 30 of each year. References herein to individual years mean the year ended November 30. For example, 2019 means the year ended November 30, 2019.

Consolidation Policy

The consolidated financial statements include the accounts of all wholly owned and majority-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

In July 2014, Markit acquired a controlling stake in Compliance Technologies International LLP (“CTI”). At the time of the acquisition, a back-to-back put/call option for the shares held by the noncontrolling interest was established, with the earliest exercise date being July 2017. Subsequent to the Merger,

the put/call option was accounted for as mezzanine equity, with current income or loss being recorded as an adjustment to the mezzanine equity balance and the mezzanine equity balance accreting value up to the earliest redemption date. In October 2017, we purchased a majority of the remaining noncontrolling interest for approximately \$57 million, and in December 2017, we purchased the remaining noncontrolling interest for approximately \$10 million.

In May 2017 and again in February 2019, we sold redeemable noncontrolling interests in a small limited liability company we own. The units issued to the noncontrolling interests include put/call options, and we have determined that the noncontrolling interests should be reported as mezzanine equity. The carrying value for these interests as of November 30, 2019 approximates fair value.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expense during the reporting period. Significant estimates have been made in areas that include valuation of acquired long-lived and intangible assets and goodwill, income taxes, long-term compensation arrangements, and stock-based compensation. Actual results could differ from those estimates.

Concentration of Credit Risk

We are exposed to credit risk associated with cash equivalents, foreign currency and interest rate derivatives, and trade receivables. We do not believe that our cash equivalents or derivatives present significant credit risks because the counterparties to the instruments consist of major financial institutions that are financially sound or have been capitalized by the U.S. government, and we manage the notional amount of contracts entered into with any counterparty. Substantially all trade receivable balances are unsecured. The concentration of credit risk with respect to trade receivables is limited by the large number of customers in our customer base and their dispersion across various industries and geographic areas. We perform ongoing credit evaluations of our customers and maintain an allowance for probable credit losses. The allowance is based upon management's assessment of known credit risks, as well as general industry and economic conditions. Specific accounts receivable are written off upon notification of bankruptcy or once the account is significantly past due and our collection efforts are unsuccessful.

Fair Value Measurements

Fair value is determined based on the assumptions that market participants would use in pricing the asset or liability. We utilize the following fair value hierarchy in determining fair values:

Level 1 – Quoted prices for identical assets or liabilities in active markets.

Level 2 – Inputs other than quoted prices within Level 1 that are observable either directly or indirectly, including quoted prices in markets that are not active, quoted prices in active markets for similar assets or liabilities, and observable inputs other than quoted prices such as interest rates or yield curves.

Level 3 – Unobservable inputs reflecting our view about the assumptions that market participants would use in pricing the asset or liability.

Our cash, accounts receivable, and accounts payable are all short-term in nature; therefore, the carrying value of these items approximates their fair value. The carrying value of our debt instruments other than our senior notes approximate their fair value because of the variable interest rate associated

with those instruments. The fair value of the senior notes is included in Note 8, and is measured using observable inputs in markets that are not active; consequently, we have classified the senior notes within Level 2 of the fair value hierarchy. Our derivatives, as further described in Note 7, are measured at fair value on a recurring basis by reference to similar transactions in active markets and observable inputs other than quoted prices; consequently, we have classified those financial instruments within Level 2 of the fair value hierarchy. Our pension plan assets, as further described in Note 11, are measured at fair value on a recurring basis by reference to similar assets in active markets and are therefore also classified within Level 2 of the fair value hierarchy.

Revenue Recognition

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, which establishes a comprehensive new revenue recognition model designed to depict the transfer of goods or services to a customer in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. In March, April, and May 2016, the FASB issued ASU 2016-08, ASU 2016-10, and ASU 2016-12, respectively, which provide further revenue recognition guidance related to principal versus agent considerations, performance obligations and licensing, and narrow-scope improvements and practical expedients. These standards have all been codified in the FASB’s Accounting Standards Codification (“ASC”) Topic 606, “Revenue from Contracts with Customers.”

On December 1, 2018, we adopted ASC Topic 606 using the modified retrospective transition method applied to our customer revenue contracts as of the adoption date. Revenue results for periods beginning after December 1, 2018 are presented in accordance with ASC Topic 606, while prior year amounts continue to be reported in accordance with ASC Topic 605, “Revenue Recognition.”

The following table shows the cumulative effect of the changes made to the December 1, 2018 consolidated balance sheet for the adoption of ASC Topic 606 related to contracts that were in effect at the time of adoption (in millions):

	November 30, 2018	Adjustments due to adoption of ASC Topic 606	December 1, 2018
Accounts receivable, net	\$ 792.9	\$ 29.8	\$ 822.7
Other current assets	88.4	4.2	92.6
Other non-current assets	47.9	9.5	57.4
Deferred revenue	886.8	(28.8)	858.0
Deferred income taxes	699.9	16.3	716.2
Retained earnings	2,743.1	56.0	2,799.1

The net cumulative effect adjustment to retained earnings was primarily related to (1) the change in accounting for the license rights associated with certain term-based software license arrangements, which were historically recognized over the term of the contract, but are now recognized at contract inception based on estimated stand-alone selling price, and (2) the change in accounting for commission costs incurred to obtain a portion of our contracts, which costs were historically expensed as incurred, but are now deferred at contract inception and recognized over the expected customer life.

For the year ended November 30, 2019, the adoption of ASC Topic 606 did not result in a material difference between what we reported under ASC Topic 606 and what we would have reported under ASC Topic 605.

We disaggregate our revenue by segment (as described in Note 17) and by transaction type according to the following categories:

- *Recurring fixed revenue* represents revenue generated from contracts specifying a relatively fixed fee for services delivered over the life of the contract. The initial term of these contracts is typically

annual (with some longer-term arrangements) and non-cancellable for the term of the subscription. The fixed fee is typically paid annually or more periodically in advance, and may contain provisions for minimum monthly payments. These contracts typically consist of subscriptions to our various information offerings and software maintenance, which provide continuous access to our platforms and associated data over the contract term. Subscription revenue is usually recognized ratably over the contract term or, for term-based software license arrangements, annually on renewal.

- *Recurring variable revenue* represents revenue from contracts that specify a fee for services, which is typically not fixed. The variable fee is usually paid monthly in arrears. Recurring variable revenue is based on, among other factors, the number of trades processed, assets under management, or the number of positions we value, and revenue is recognized based on the specific factor used (e.g., for usage-based contracts, we recognize revenue in line with usage in the period). Most of these contracts have an initial term ranging from one to five years, with auto-renewal periods thereafter. Recurring variable revenue was derived entirely from the Financial Services segment for all periods presented.
- *Non-recurring revenue* represents consulting, services, single-document product sales, perpetual license sales and associated services, conferences and events, and advertising. Revenue for services and other non-recurring revenue is recognized upon completion of the associated performance obligation.

The following table presents our revenue by transaction type (in millions):

	2019	2018	2017
Recurring fixed revenue	\$3,162.4	\$2,861.5	\$2,550.0
Recurring variable revenue	572.9	506.3	449.0
Non-recurring revenue	679.3	641.4	600.7
Total revenue	\$4,414.6	\$4,009.2	\$3,599.7

Our customer contracts may include multiple performance obligations; for example, we typically sell software licenses with maintenance and other associated services. For these transactions, we recognize revenue based on the estimated standalone selling price to the customer of each performance obligation as each performance obligation is completed.

We record a receivable when a customer is billed or when revenue is recognized prior to billing a customer. Contract assets include unbilled amounts for multi-year customer contracts where payment is not yet due and where services have been provided up-front but have not yet been billed. Contract assets were approximately \$39.8 million as of November 30, 2019 and \$29.8 million as of December 1, 2018, and are recorded in accounts receivable, net, in the consolidated balance sheets.

Contract liabilities primarily include our obligations to transfer goods or services for which we have received consideration (or an amount of consideration is due) from the customer. We record our contract liabilities as deferred revenue in the consolidated balance sheets. The following table provides a reconciliation of our contract liabilities as of November 30, 2019 (in millions):

Balance at December 1, 2018	\$ 858.0
Billings	3,470.6
Revenue recognized	(3,414.9)
Acquisition and divestiture activity	(34.0)
Balance at November 30, 2019	\$ 879.7

Billings represent amounts that were paid in advance or due from customers. Acquisition and divestiture activity represents the addition, reduction, or reclassification of contract liabilities associated

with the Agribusiness acquisition; the Technology, Media, & Telecom (“TMT”) market intelligence assets divestiture; and the Aerospace & Defense divestiture, all as described in Note 3.

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to exceed one year and commensurate commissions are not paid on renewal. Certain sales commission programs are designed to promote the sale of products and services to new customers, and we therefore defer the incremental costs related to these programs over the expected customer life related to those products underlying the contracts. We record these costs as selling, general and administrative expense within the consolidated statements of operations.

Cash and Cash Equivalents

We consider all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. Cash equivalents are carried at cost, which approximates fair value.

Deferred Subscription Costs

Deferred subscription costs represent royalties associated with customer subscriptions. These costs are deferred and amortized to expense over the period of the subscriptions.

Property and Equipment

Property and equipment is stated at cost. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets as follows:

Buildings and improvements	7 to 30 years
Capitalized software	3 to 7 years
Computers and office equipment	3 to 10 years

Leasehold improvements are depreciated over the shorter of their estimated useful life or the life of the lease. Maintenance, repairs, and renewals of a minor nature are expensed as incurred. Betterments and major renewals that extend the useful lives of buildings, improvements, and equipment are capitalized. We also capitalize certain software development costs in accordance with ASC 350-40, “Accounting for Costs of Computer Software Developed or Obtained for Internal Use” and ASC 985-20, “Software to Be Sold, Leased or Otherwise Marketed.”

We review the carrying amounts of long-lived assets such as property and equipment whenever current events or circumstances indicate their value may be impaired. A long-lived asset with a finite life is considered to be impaired if its carrying value exceeds the estimated future undiscounted cash flows to be derived from it. Any impairment is measured by the amount that the carrying value of such assets exceeds their fair value, primarily based on estimated discounted cash flows. Considerable management judgment is necessary to estimate the fair value of assets. Assets to be disposed of are carried at the lower of their financial statement carrying amount or fair value, less cost to sell.

Leases

In certain circumstances, we enter into leases with free rent periods, tenant improvement allowances, and rent escalations over the term of the lease. In such cases, we calculate the total payments over the term of the lease and record them ratably as rent expense over that term.

Intangible Assets and Goodwill

We account for our business combinations using the purchase method of accounting. We allocate the total cost of an acquisition to the underlying net assets based on their respective estimated fair values.

As part of this allocation process, we must identify and attribute values and estimated lives to the intangible assets acquired.

Finite-lived intangible assets

Identifiable intangible assets with finite lives are generally amortized on a straight-line basis over their respective lives, as follows:

Information databases	5 to 15 years
Customer relationships	5 to 25 years
Developed technology	5 to 15 years
Developed computer software	9 to 10 years
Trademarks	3 to 15 years
Other	3 to 5 years

We review the carrying amount of finite-lived intangible assets at least annually to determine whether current events or circumstances indicate a triggering event which could require an adjustment to the carrying amount. A finite-lived intangible asset is considered to be impaired if its carrying value exceeds the estimated future undiscounted cash flows to be derived from it. We exercise judgment in selecting the assumptions used in the estimated future undiscounted cash flows analysis. Any impairment is measured by the amount that the carrying value of such assets exceeds their fair value. We did not identify any impairment in the fiscal years ended November 30, 2019, 2018, and 2017.

Goodwill

We review the carrying amount of goodwill at least annually, or more frequently as required, to determine whether current events or circumstances indicate a triggering event that could require an adjustment to the carrying amount. We test goodwill for impairment on a reporting unit level. A reporting unit is a group of businesses (i) for which discrete financial information is available and (ii) that have similar economic characteristics. We determined that we have six reporting units for 2019. We use both qualitative and quantitative analysis to determine whether we believe it is more likely than not that goodwill has been impaired. For the fiscal years ended November 30, 2019, 2018, and 2017, we used a qualitative analysis in determining that no impairment indicators were present.

Income Taxes

Deferred income taxes are provided using tax rates enacted for periods of expected reversal on all temporary differences. Temporary differences relate to differences between the book and tax basis of assets and liabilities, principally intangible assets, property and equipment, deferred revenue, pension and other postretirement benefits, accruals, and stock-based compensation. Valuation allowances are established to reduce deferred tax assets to the amount that will more likely than not be realized. To the extent that a determination is made to establish or adjust a valuation allowance, the expense or benefit is recorded in the period in which the determination is made.

Judgment is required in determining the worldwide provision for income taxes. Additionally, the income tax provision is based on calculations and assumptions that are subject to examination by many different tax authorities and to changes in tax law and rates in many jurisdictions. We record tax benefits when it is more likely than not that the tax benefits will be sustained upon examination by tax authorities. We adjust our income tax provision in the period in which it becomes probable that actual results will differ from our estimates.

Pension Accounting

During the fourth quarter of each fiscal year (or upon any other remeasurement date), we immediately recognize net actuarial gains or losses in excess of a corridor in our operating results. The corridor amount is equivalent to 10 percent of the greater of the market-related value of plan assets or the plan's benefit obligation at the beginning of the year. We use the actual fair value of plan assets at the measurement date as the measure of the market-related value of plan assets.

Treasury Shares

Treasury share purchases, whether through share withholdings for taxes or repurchase programs and transactions, are recorded at cost. Issuances from treasury shares are recorded using the weighted-average cost method.

Earnings per Share

Basic earnings per share ("EPS") is computed by dividing net income by the weighted-average number of common shares outstanding during the period. Diluted EPS is computed using the weighted-average number of common shares and dilutive potential common shares outstanding during the period. Diluted EPS reflects the potential dilution that could occur if securities were exercised or converted into common shares.

Advertising Costs

Production costs are expensed as of the first date that the advertisements take place. Advertising expense was approximately \$64.9 million, \$59.7 million, and \$55.5 million for the years ended November 30, 2019, 2018, and 2017, respectively, and was primarily comprised of advertising for CARFAX.

Foreign Currency

The functional currency of each of our foreign subsidiaries is typically such subsidiary's local currency. Assets and liabilities are translated at period-end exchange rates. Income and expense items are translated at weighted-average rates of exchange prevailing during the year. Any translation adjustments are included in other comprehensive income. Transactions executed in currencies other than a subsidiary's functional currency (which result in exchange adjustments) are remeasured at spot rates and resulting foreign-exchange-transaction gains and losses are included in the results of operations.

Stock-based Compensation

All stock-based awards are recognized in the income statement based on their grant date fair values. Compensation expense is recognized net of estimated forfeitures. We adjust compensation expense in future periods if actual forfeitures differ from our estimates. Our forfeiture rate is based upon historical experience as well as anticipated employee turnover considering certain qualitative factors. We amortize the value of stock-based awards to expense over the vesting period on a straight-line basis. For awards with performance conditions, we evaluate the probability of the number of shares that are expected to vest, and compensation expense is then adjusted to reflect the number of shares expected to vest and the cumulative vesting period met to date.

Reclassifications

Certain reclassifications have been made to prior period amounts to conform to the current year presentation.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, which requires that lease assets and lease liabilities be recognized on the balance sheet, and that key information about leasing arrangements be disclosed. In July 2018, the FASB issued ASU 2018-11, which provides targeted improvements to ASU 2016-02 by providing an additional optional transition method and a lessor practical expedient for lease and nonlease components. The standard will be effective for us in the first quarter of our fiscal year 2020, although early adoption is permitted. We have determined that we will adopt this standard using the modified retrospective approach and will use the transition relief package of practical expedients. We will not adopt the hindsight practical expedient in determining a lease term and impairment of the right-of-use assets at the adoption date. We are currently finalizing our inventory of leasing arrangements that will be subject to the new standard and applying assumptions and processes to use at the transition date and on an ongoing basis. We are still evaluating the impact of this standard on our consolidated financial statements, but believe that the most significant impact of adoption will be the recognition of right-of-use assets and lease liabilities associated with our operating leases.

In June 2016, the FASB issued ASU No. 2016-13, which replaces the existing incurred loss impairment model with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The standard will be effective for us in the first quarter of our fiscal year 2021. We do not expect that the adoption of this ASU will have a significant impact on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, which removes Step 2 from the goodwill impairment test. The standard will be effective for us in the first quarter of our fiscal year 2021, although early adoption is permitted. We do not expect that the adoption of this ASU will have a significant impact on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, which addresses the accounting for implementation costs associated with a hosted service. The standard provides that implementation costs be evaluated for capitalization using the same criteria as that used for internal-use software development costs, with amortization expense being recorded in the same income statement expense line as the hosted service costs and over the expected term of the hosting arrangement. The standard will be effective for us in the first quarter of our fiscal year 2021, although early adoption is permitted. The amendments will be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We do not expect that the adoption of this ASU will have a significant impact on our consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, which enhances and simplifies various aspects of the income tax accounting guidance, including requirements such as tax basis step-up in goodwill obtained in a transaction that is not a business combination, ownership changes in investments, and interim-period accounting for enacted changes in tax law. The standard will be effective for us in the first quarter of our fiscal year 2022, although early adoption is permitted. We do not expect that the adoption of this ASU will have a significant impact on our consolidated financial statements.

3. Business Combinations and Divestitures

During the year ended November 30, 2019, we completed the following acquisitions:

Agribusiness Intelligence. In June 2019, we acquired the Agribusiness Intelligence group from Informa plc for approximately \$128 million. The acquisition of the Agribusiness Intelligence group helps strengthen our Resources core end-market by building on our existing data, pricing, insights, forecasting, and news services within our Downstream product offerings, and expands our capability into fertilizers and chemical crop protection while expanding our capabilities in biofuels.

We also completed two small acquisitions in 2019. The purchase price allocation for the 2019 acquisitions is preliminary and may change upon completion of the determination of fair value of assets acquired and liabilities assumed. The following table summarizes the preliminary purchase price allocation, net of acquired cash, for our 2019 acquisitions (in millions):

	Total
Assets:	
Current assets	\$ 9.2
Property and equipment	0.6
Intangible assets	61.5
Goodwill	96.0
Total assets	\$167.3
Liabilities:	
Current liabilities	\$ 2.2
Deferred revenue	12.2
Deferred taxes	9.4
Total liabilities	\$ 23.8
Purchase price	\$143.5

Of the goodwill recorded for the 2019 business combinations, approximately \$8.6 million is tax deductible.

During the year ended November 30, 2019, we completed or announced the following divestitures:

Technology, Media & Telecom (“TMT”). On August 1, 2019, we sold the majority of our TMT market intelligence assets portfolio to Informa plc for approximately \$150 million. Prior to the sale, the TMT assets were included in our CMS segment. We recognized a gain of approximately \$112 million on the sale, which is recorded in other (income) expense, net. The transaction resulted in the divestiture of the following assets and liabilities (in millions):

Current assets	\$ 10.3
Property and equipment	\$ 0.9
Intangible assets	\$ 14.1
Goodwill	\$ 33.4
Current liabilities	\$ (0.8)
Deferred revenue	\$(21.5)

Aerospace & Defense (“A&D”). In September 2019, we entered into a definitive agreement to sell our A&D business line to Montagu Private Equity for approximately \$470 million. Up to the date of sale, the A&D business line has been included in our Transportation segment. We completed the sale on December 2, 2019. As the transaction closed immediately after our fiscal year-end, we have classified the A&D assets and liabilities as held-for-sale as of November 30, 2019. The following table provides the components of those held-for-sale assets and liabilities (in millions):

Current assets	\$ 18.9
Property and equipment	4.5
Intangible assets	4.2
Goodwill	87.7
Total assets held for sale	\$115.3
Current liabilities	\$ (1.1)
Deferred revenue	(24.8)
Total liabilities held for sale	\$(25.9)

During the year ended November 30, 2018, we completed the following acquisitions:

Ipreo. In August 2018, we completed our acquisition of Ipreo, a leading financial services solutions and data provider, for approximately \$1.86 billion. Ipreo supports market participants in the capital-raising process, including banks, public and private companies, and institutional and individual investors, as well as research, asset management, and wealth management firms. The acquisition of Ipreo helps us expand our core businesses and provides us with the potential to grow in the alternatives segment with a focus on delivering tools for greater transparency and efficiency. This acquisition is included in our Financial Services segment.

We also completed two small acquisitions in 2018. The following table summarizes the purchase price allocation, net of acquired cash, for our 2018 acquisitions (in millions):

	Total
Assets:	
Current assets	\$ 98.8
Property and equipment	11.8
Intangible assets	745.3
Goodwill	1,184.9
Other assets	5.2
Total assets	\$2,046.0
Liabilities:	
Current liabilities	\$ 35.6
Deferred revenue	79.9
Deferred taxes	53.4
Total liabilities	\$ 168.9
Purchase price	\$1,877.1

Of the goodwill recorded for the 2018 business combinations, approximately \$636.3 million is tax deductible.

During the year ended November 30, 2017, we completed the following acquisitions:

automotiveMastermind Inc. (“aM”). On September 25, 2017, we acquired automotiveMastermind Inc., a leading provider of predictive analytics and marketing automation software for the automotive industry. The purchase price consisted of initial cash consideration of approximately \$432 million for 78 percent of aM, which included an estimated \$43 million contingent consideration payment based on underlying business performance through January 2018; this amount was paid in the second quarter of 2018. The acquisition of aM helps to fill out our existing automotive offerings by leveraging predictive analytics to improve the buyer experience in the new car dealer market. This acquisition is included in our Transportation segment.

In exchange for the remaining 22 percent of aM, we issued equity interests in aM’s immediate parent holding company to aM’s founders and certain employees. We will pay cash to acquire these interests over the five years post-acquisition based on put/call provisions that tie the valuation to the underlying adjusted EBITDA performance of aM. Since the purchase of the remaining 22 percent of the business requires continued service of the founders and employees, we are accounting for the arrangement as compensation expense that is remeasured based on changes in the fair value of the equity interests. We have classified this expense as acquisition-related costs within the consolidated statements of operations and we have classified the associated accrued liability within other accrued expenses and other liabilities within the consolidated balance sheets. In November 2019, the option holders exercised 62.5 percent of their remaining 22 percent for \$75.9 million, which was paid in December 2019, and we estimate the compensation expense associated with the remaining equity interests to be approximately \$70 to \$75 million, of which approximately \$30.2 million had been recognized as of November 30, 2019, with the remaining amount to be recognized through September 2022.

We also completed one small acquisition in 2017. The following table summarizes the purchase price allocation, net of acquired cash, for our 2017 acquisitions (in millions):

	Total
Assets:	
Current assets	\$ 7.3
Property and equipment	1.1
Intangible assets	113.8
Goodwill	363.0
Other long-term assets	0.9
Total assets	\$486.1
Liabilities:	
Current liabilities	\$ 4.4
Deferred revenue	1.4
Deferred taxes	36.2
Total liabilities	\$ 42.0
Purchase price	\$444.1

Of the goodwill recorded for the 2017 business combinations, approximately \$8.4 million is tax deductible.

4. Accounts Receivable

Our accounts receivable balance consists of the following as of November 30, 2019 and 2018 (in millions):

	2019	2018
Accounts receivable	\$916.3	\$823.3
Less: Accounts receivable allowance	(25.6)	(30.4)
Accounts receivable, net	\$890.7	\$792.9

We record an accounts receivable allowance when it is probable that the accounts receivable balance will not be collected. The amounts comprising the allowance are based upon management's estimates and historical collection trends. The activity in our accounts receivable allowance consists of the following for the years ended November 30, 2019, 2018, and 2017, respectively (in millions):

	2019	2018	2017
Balance at beginning of year	\$ 30.4	\$ 23.2	\$16.0
Provision for bad debts	14.9	15.6	13.9
Other additions	4.6	7.9	2.9
Write-offs and other deductions	(24.3)	(16.3)	(9.6)
Balance at end of year	\$ 25.6	\$ 30.4	\$23.2

5. Property and Equipment

Property and equipment consists of the following as of November 30, 2019 and 2018 (in millions):

	2019	2018
Land, buildings and improvements	\$ 181.1	\$ 208.0
Capitalized software	1,019.5	822.2
Computers and office equipment	378.4	334.0
Property and equipment, gross	1,579.0	1,364.2
Less: Accumulated depreciation	(920.8)	(784.6)
Property and equipment, net	\$ 658.2	\$ 579.6

Depreciation expense was \$196.1 million, \$175.1 million, and \$157.0 million for the years ended November 30, 2019, 2018, and 2017, respectively.

6. Intangible Assets

The following table presents details of our acquired intangible assets, other than goodwill (in millions):

	As of November 30, 2019			As of November 30, 2018		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Intangible assets subject to amortization:						
Customer relationships	\$3,476.1	\$ (628.7)	\$2,847.4	\$3,458.8	\$ (473.3)	\$2,985.5
Developed technology	949.6	(208.9)	740.7	928.8	(133.1)	795.7
Information databases	591.6	(310.9)	280.7	671.0	(329.6)	341.4
Trademarks	487.0	(203.0)	284.0	493.8	(153.6)	340.2
Developed computer software	76.3	(62.9)	13.4	85.0	(63.0)	22.0
Other	4.1	(1.3)	2.8	1.1	(1.1)	—
Total intangible assets	\$5,584.7	\$(1,415.7)	\$4,169.0	\$5,638.5	\$(1,153.7)	\$4,484.8

Intangible asset amortization expense was \$377.0 million, \$366.1 million, and \$335.5 million for the years ended November 30, 2019, 2018, and 2017, respectively. Estimated future amortization expense related to intangible assets held as of November 30, 2019 is as follows (in millions):

Year	Amount
2020	\$ 374.4
2021	\$ 369.5
2022	\$ 352.6
2023	\$ 340.3
2024	\$ 321.6
Thereafter	\$2,410.6

Changes in our goodwill and gross intangible assets from November 30, 2018 to November 30, 2019 were primarily the result of our recent acquisition and divestiture activities, as described in Note 3, as well as foreign currency translation effects. The change in net intangible assets was primarily due to current year amortization, as well as recent acquisition and divestiture activities. Goodwill, gross intangible assets, and net intangible assets were all subject to foreign currency translation effects.

7. Derivatives

Our business is exposed to various market risks, including interest rate and foreign currency risks. We utilize derivative instruments to help us manage these risks. We do not hold or issue derivatives for speculative purposes.

Interest Rate Swaps

To mitigate interest rate exposure on our outstanding revolving facility debt, we utilize interest rate derivative contracts that effectively swap \$400 million of floating rate debt at a 2.86 percent weighted-average fixed interest rate, plus the applicable spread on our floating rate debt. We entered into these swap contracts in November 2013 and January 2014, and the contracts expire between May and November 2020.

Because the terms of these swaps and the variable rate debt (as amended or extended over time) coincide, we do not expect any ineffectiveness. We have designated and accounted for these

instruments as cash flow hedges, with changes in fair value being deferred in accumulated other comprehensive income/loss (“AOCI”) in our consolidated balance sheets.

Foreign Currency Forwards

To mitigate foreign currency exposure, we utilize short-term foreign currency forward contracts that manage market risks associated with fluctuations in balances that are denominated in currencies other than the local functional currency. We account for these forward contracts at fair value and recognize the associated realized and unrealized gains and losses in other expense (income), net, on the consolidated statements of operations, since we have not designated these contracts as hedges for accounting purposes. The notional amount of these outstanding foreign currency forward contracts was \$695.0 million and \$500.1 million as of November 30, 2019 and 2018, respectively.

Fair Value of Derivatives

Since our derivative instruments are not listed on an exchange, we have evaluated fair value by reference to similar transactions in active markets; consequently, we have classified all of our derivative instruments within Level 2 of the fair value measurement hierarchy. As of November 30, 2019 and 2018, we had assets of \$3.5 million and \$0.2 million, respectively, which were classified within other current assets, and we had liabilities of \$3.9 million and \$1.6 million, respectively, which were classified within other accrued expenses and other liabilities.

8. Debt

The following table summarizes total indebtedness as of November 30, 2019 and 2018 (in millions):

	Maturity Date	November 30, 2019		November 30, 2018	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Credit Facilities:					
2019 revolving facility	November 2024	237.0	237.0	—	—
2018 revolving facility		—	—	1,108.0	1,108.0
2019 credit agreement	September 2020	250.0	250.0	—	—
2018 credit agreement		—	—	250.0	250.0
2018 term loan:					
Tranche A-1		—	—	574.0	574.0
Tranche A-2		—	—	481.3	481.3
Senior Unsecured Notes:					
5% senior notes due 2022	November 1, 2022	748.2	798.2	750.0	764.6
4.125% senior notes due 2023	August 1, 2023	498.9	528.8	498.6	494.7
3.625% senior notes due 2024	May 1, 2024	398.9	416.4	—	—
4.75% senior notes due 2025	February 15, 2025	811.8	873.6	813.8	794.3
4.00% senior notes due 2026	March 1, 2026	500.0	530.2	500.0	471.5
4.75% senior notes due 2028	August 1, 2028	747.6	838.4	747.3	731.3
4.25% senior notes due 2029	May 1, 2029	974.2	1,026.7	—	—
Debt issuance costs		(47.7)		(51.2)	
Capital leases		6.6		7.3	
Total debt		\$5,125.5		\$5,679.1	
Current portion		(251.1)		(789.9)	
Total long-term debt		\$4,874.4		\$4,889.2	

2019 revolving facility. On November 29, 2019, we terminated the 2018 revolving facility and entered into a new \$1.25 billion senior unsecured revolving credit agreement (“2019 revolving facility”). Subject

to certain conditions, the 2019 revolving facility may be expanded by up to an aggregate of \$750 million in additional commitments. Borrowings under the 2019 revolving facility mature in November 2024. The interest rates for borrowings under the 2019 revolving facility are the applicable LIBOR plus a spread of 1.00 percent to 1.625 percent, depending upon our corporate credit rating. A commitment fee on any unused balance is payable periodically and ranges from 0.10 percent to 0.25 percent based upon our corporate credit rating. As a result of the termination of the 2018 revolving facility, the outstanding letters of credit under that facility were transferred to the 2019 revolving facility. We had approximately \$1.2 million of outstanding letters of credit under the 2019 revolving facility as of November 30, 2019, which reduced the available borrowing under the facility by an equivalent amount.

2018 revolving facility. On June 25, 2018, we entered into a \$2.0 billion senior unsecured revolving credit agreement (“2018 revolving facility”). Borrowings under the 2018 revolving facility were set to mature in June 2023. The interest rates for borrowings under the 2018 revolving facility were the applicable LIBOR plus a spread of 1.00 percent to 1.75 percent, depending upon our corporate credit rating. A commitment fee on any unused balance was payable periodically and ranged from 0.125 percent to 0.30 percent based upon our corporate credit rating.

2019 credit agreement. In September 2019, we entered into a 364-day credit agreement (the “2019 credit agreement”) for a term loan credit facility in an aggregate principal amount of \$250.0 million. The interest rate for borrowing under the 2019 credit agreement is the applicable LIBOR plus a spread of 0.75 percent.

2018 credit agreement. On June 25, 2018, we entered into a 364-day credit agreement (the “2018 credit agreement”) for a term loan credit facility in an aggregate principal amount of \$1.855 billion, which became available to be borrowed upon the satisfaction of certain conditions precedent, including the concurrent completion of our acquisition of Ipreo. On August 2, 2018, concurrent with the completion of our acquisition of Ipreo, we borrowed \$250.0 million under the 2018 credit agreement. The interest rates for borrowings under the 2018 credit agreement were the applicable LIBOR plus a spread of 1.00 percent to 1.75 percent, depending upon our corporate credit rating. On January 7, 2019, we repaid the 2018 credit agreement using cash on hand and borrowings under the 2018 revolving credit facility.

2018 term loan. Coincident with entering into the 2018 revolving facility, we entered into a new senior unsecured amortizing term loan agreement (“2018 term loan”). The 2018 term loan had a final maturity date of July 2021, but we repaid both tranches of the 2018 term loan in April 2019 using proceeds from our April 2019 debt offering and borrowings under the 2018 revolving facility. The interest rates for borrowings under the 2018 term loan were the same as those under the 2018 revolving facility.

All of the revolving facilities, credit agreements, and term loan are or were subject to certain financial and other covenants, including a maximum Leverage Ratio and a minimum Interest Coverage Ratio, which is defined as the ratio of Consolidated EBITDA to Consolidated Interest Expense, as such terms are defined in the agreements.

As of November 30, 2019, we had approximately \$237.0 million of outstanding borrowings under the 2019 revolving facility at a current annual interest rate of 2.95 percent and approximately \$250.0 million of outstanding borrowings under the 2019 credit agreement at a current weighted average annual interest rate of 2.52 percent.

Senior Unsecured Notes. All of our senior unsecured notes (“Senior Notes”) are unsecured and bear interest at a fixed rate payable semiannually. The Senior Notes were issued in registered offerings under the Securities Act or in offerings not subject to the registration requirements of the Securities

Act, and all the Senior Notes have been admitted for trading to the official list of The International Stock Exchange in the Channel Islands. The indentures governing the Senior Notes all provide that, at the option of the respective holders of the Senior Notes, we may be required to purchase all or a portion of such Senior Notes upon occurrence of a change of control triggering event as defined in the respective indentures indenture, at a price equal to 101 percent of the principal amount thereof, plus accrued and unpaid interest to the date of purchase. All the indentures also contain (i) covenants that limit our ability to, among other things, incur or create liens and enter into sale and leaseback transactions, (ii) covenants that limit our ability to consolidate or merge with another entity or to sell all or substantially all of our assets to another entity, and (iii) customary default provisions.

As of November 30, 2019, we were in compliance with all of our debt covenants. We have classified short-term debt based on scheduled loan payments and intended repayments on our revolving facility based on expected cash availability over the next 12 months.

The carrying value of our variable rate debt instruments approximate their fair value because of the variable interest rates associated with those instruments. The fair values of the senior notes were measured using observable inputs in markets that are not active; consequently, we have classified those notes within Level 2 of the fair value hierarchy.

Maturities of outstanding borrowings under the revolving facility, credit agreement, and senior notes as of November 30, 2019 are as follows (in millions):

Year	Amount
2020	\$ 250.0
2021	—
2022	748.0
2023	500.0
2024	637.0
Thereafter	3,000.0
	\$5,135.0

9. Acquisition-Related Costs

During 2019, we incurred approximately \$70.3 million in costs associated with acquisitions and divestitures, of which \$41.5 million was performance compensation expense related to the aM acquisition described in Note 3, and the remainder was associated with employee severance charges and retention costs, contract termination costs for facility consolidations, and legal and professional fees. Approximately \$4.4 million of the total charge was allocated to shared services, with \$11.8 million of the charge recorded in the Financial Services segment, \$4.5 million in the Resources segment, \$48.4 million in the Transportation segment, and the remainder in the CMS segment.

During 2018, we incurred approximately \$134.8 million in costs associated with acquisitions, including performance compensation expense related to the aM acquisition described in Note 3, employee severance charges and retention costs, contract termination costs for facility consolidations, and legal and professional fees. Approximately \$19.4 million of the total charge was allocated to shared services, with \$49.2 million of the charge recorded in the Financial Services segment, \$3.5 million in the Resources segment, \$59.0 million in the Transportation segment, and \$3.7 million in the CMS segment.

During 2017, we incurred approximately \$113.0 million in costs associated with acquisitions, including employee severance charges and retention costs, contract termination costs for facility consolidations,

legal and professional fees, and performance compensation expense related to the aM acquisition described in Note 3. We eliminated 378 positions in 2017 related to integration efforts associated with the Merger. Approximately \$53.9 million of the total charge was allocated to shared services, with \$31.3 million of the charge recorded in the Financial Services segment, \$11.1 million in the Resources segment, \$12.8 million in the Transportation segment, and \$3.9 million in the CMS segment.

The following table provides a reconciliation of the acquisition-related costs accrued liability as of November 30, 2019 (in millions):

	Employee Severance and Other Termination Benefits	Contract Termination Costs	Performance Compensation and Other	Total
Balance at November 30, 2016	\$ 24.7	\$ 8.6	\$ 16.7	\$ 50.0
Add: Costs incurred	53.6	18.1	34.0	105.7
Revision to prior estimates	(3.0)	10.4	(0.1)	7.3
Less: Amount paid	(61.4)	(19.5)	(26.9)	(107.8)
Balance at November 30, 2017	\$ 13.9	\$ 17.6	\$ 23.7	\$ 55.2
Add: Costs incurred	25.2	19.8	88.3	133.3
Revision to prior estimates	—	2.1	(0.6)	1.5
Less: Amount paid	(36.6)	(22.7)	(42.7)	(102.0)
Balance at November 30, 2018	\$ 2.5	\$ 16.8	\$ 68.7	\$ 88.0
Add: Costs incurred	4.3	0.4	68.0	72.7
Revision to prior estimates	—	(0.1)	(2.3)	(2.4)
Less: Amount paid	(6.8)	(10.9)	(19.8)	(37.5)
Balance at November 30, 2019	\$ —	\$ 6.2	\$114.6	\$ 120.8

As of November 30, 2019, the \$120.8 million remaining liability was primarily in the Transportation and Financial Services segments. Approximately \$106.1 million of the remaining liability in the Other category is associated with the aM acquisition-related performance compensation liability, of which approximately \$75.9 million was paid in December 2019 as a result of the option exercise described in Note 3. We expect that substantially all of the remaining acquisition-related costs accrued liability will be paid in 2020 except for the long-term portion of the aM performance compensation liability, which was approximately \$30.2 million as of November 30, 2019.

10. Income Taxes

The amounts of income from continuing operations before income taxes and equity in loss of equity method investees for the years ended November 30, 2019, 2018, and 2017, respectively, is as follows (in millions):

	2019	2018	2017
U.K.	\$ (33.7)	\$ 75.8	\$ (67.0)
U.S.	206.1	(167.5)	28.7
Foreign	570.5	516.0	410.4
Income from continuing operations before income taxes and equity in loss of equity method investees	\$742.9	\$ 424.3	\$372.1

The provision (benefit) for income taxes from continuing operations for the years ended November 30, 2019, 2018, and 2017, respectively, is as follows (in millions):

	2019	2018	2017
Current:			
U.K.	\$ 52.1	\$ 12.1	\$ 0.4
U.S.	185.8	24.4	(0.5)
Foreign	54.3	59.8	50.3
Total current	292.2	96.3	50.2
Deferred:			
U.K.	(70.6)	(21.1)	(25.7)
U.S.	21.5	(155.9)	(35.3)
Foreign	(0.5)	(34.7)	(39.1)
Total deferred	(49.6)	(211.7)	(100.1)
Provision (benefit) for income taxes	\$242.6	\$(115.4)	\$(49.9)

The following table presents the reconciliation of the benefit for income taxes between the U.K. rate and our effective tax rate for the years ended November 30, 2019, 2018, and 2017, respectively (in millions):

	2019	2018	2017
Statutory tax at U.K. rate (19%, 19% and 19.3%, respectively)	\$141.1	\$ 80.6	\$ 71.9
Foreign rate differential	(53.8)	(38.9)	(45.5)
Stock-based compensation	(43.7)	(39.2)	(61.2)
Tax law change	179.6	(178.3)	1.2
Transition tax	—	31.4	—
Valuation allowance	4.2	5.5	(32.6)
Transaction costs	8.7	13.0	4.5
Uncertain tax positions	5.4	1.1	2.5
Other	1.1	9.4	9.3
Provision (benefit) for income taxes	\$242.6	\$(115.4)	\$(49.9)
Effective tax rate expressed as a percentage of pre-tax earnings	32.7%	(27.2)%	(13.4)%

The tax law change and transition tax amounts for 2019 and 2018 in the above table primarily relate to the tax effect of U.S. tax reform enacted in fiscal year 2018 and subsequent tax regulations issued during fiscal year 2019, retroactive to fiscal year 2018, as further described below.

In December 2017, a law commonly known as the Tax Cuts and Jobs Act (“TCJA”) was enacted in the United States. The TCJA enacted significant changes affecting our fiscal year 2018, including, but not limited to, (1) reducing the U.S. federal corporate income tax rate to 21 percent and (2) imposing a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries of U.S. companies that had not been previously taxed in the U.S.

The TJCA also established new tax provisions affecting our fiscal year 2019 and future years, including, but not limited to, (1) creating a new provision designed to tax global intangible low-tax income (“GILTI”), which we account for using the period cost method; (2) generally eliminating U.S. federal taxes on dividends from foreign subsidiaries; (3) eliminating the corporate alternative minimum tax (“AMT”); (4) creating the base erosion anti-abuse tax (“BEAT”); (5) establishing a deduction for

foreign derived intangible income (“FDII”); (6) repealing domestic production activity deduction; and (7) establishing new limitations on deductible interest expense and certain executive compensation.

On June 14, 2019, the U.S. Treasury Department and the U.S. Internal Revenue Service released final temporary regulations related to the TCJA (“temporary tax regulations”) related to the foreign dividends received deduction and global intangible low-taxed income. The temporary tax regulations contained language that modified certain provisions of the TCJA and previously issued guidance. The temporary tax regulations are effective retroactive to our 2018 tax year and purport to cause certain intercompany transactions we engaged in during 2018 to produce taxable income as “subpart F income” for our U.S. subsidiary.

We have not provided a deferred tax liability on approximately \$4.7 billion of temporary differences related to investments in foreign subsidiaries that are essentially permanent in duration. This amount includes \$2.8 billion of U.S. earnings and \$1.9 billion of non-U.S. earnings at November 30, 2019. Those earnings are considered to be indefinitely reinvested, and do not include earnings from certain subsidiaries which are considered distributed. Accordingly, no provision has been provided for those earnings. If we were to repatriate those earnings, in the form of dividends or otherwise, we would be subject to income taxes (subject to an adjustment for foreign tax credits) and withholding taxes payable to the various countries. Determination of the amount of unrecognized deferred income tax liability is not practicable due to the complexity associated with the hypothetical calculation.

The significant components of deferred tax assets and liabilities as of November 30, 2019 and 2018 are as follows (in millions):

	2019	2018
Deferred tax assets:		
Deferred stock-based compensation	\$ 59.7	\$ 67.1
Interest carryforward	116.8	30.5
Loss and other carryforwards	57.3	111.8
Other	80.2	100.3
Gross deferred tax assets	314.0	309.7
Valuation allowance	(16.3)	(22.4)
Realizable deferred tax assets	297.7	287.3
Deferred tax liabilities:		
Property and equipment	(63.8)	(57.5)
Intangible assets	(850.8)	(877.7)
Other	(32.5)	(37.4)
Gross deferred tax liabilities	(947.1)	(972.6)
Net deferred tax liability	\$(649.4)	\$(685.3)

A significant portion of the net deferred tax liability included above relates to the tax effect of the step-up in value of intangible assets as a result of the Merger.

As of November 30, 2019, we had loss carryforwards for tax purposes totaling approximately \$250.8 million, comprising \$80.6 million of U.S. net operating loss carryforwards, \$96.1 million of U.K. net operating loss carryforwards, and \$74.1 million of foreign net operating loss carryforwards. If not used, the U.S. net operating loss carryforwards will begin to expire in 2020 and the U.K. and foreign net operating loss carryforwards generally may be carried forward indefinitely. We have analyzed the net operating losses and placed valuation allowances on those where we have determined the realization is not more likely than not to occur.

The valuation allowance for deferred tax assets decreased by \$6.1 million in 2019. The decrease is primarily due to changes in loss carryovers in non-U.S. tax jurisdictions.

We have provided what we believe to be an appropriate amount of tax for items that involve interpretation of the tax law. However, events may occur in the future that will cause us to reevaluate our current reserves and may result in an adjustment to the reserve for taxes.

A summary of the activities associated with our reserve for unrecognized tax benefits, interest, and penalties follows (in millions):

	Unrecognized Tax Benefits	Interest and Penalties
Balance at November 30, 2018	\$11.5	\$ 1.8
Additions:		
Current year tax positions	8.6	0.7
Prior year tax positions	2.5	1.0
Decreases:		
Lapse of statute of limitations	(0.6)	—
Prior year tax positions	(0.2)	(0.2)
Balance at November 30, 2019	\$21.8	\$ 3.3

As of November 30, 2019, the total amount of unrecognized tax benefits was \$25.1 million, of which \$3.3 million related to interest and penalties. We include accrued interest and accrued penalties related to amounts accrued for unrecognized tax benefits in our provision for income taxes. The entire amount of unrecognized benefits at November 30, 2019 may affect the annual effective tax rate if the benefits are eventually recognized.

It is reasonably possible that we will experience a \$2.0 million decrease in the reserve for unrecognized tax benefits within the next 12 months. We would experience this decrease in relation to uncertainties associated with the expiration of applicable statutes of limitation.

We and our subsidiaries file federal, state, and local income tax returns in multiple jurisdictions around the world. With few exceptions, we are no longer subject to income tax examinations by tax authorities for years before 2015.

11. Pensions and Postretirement Benefits

Defined Benefit Plans

We sponsor the following defined benefit plans:

- A frozen, non-contributory defined-benefit retirement plan (the “U.S. RIP”) for certain of our U.S. employees. In connection with this plan, we also sponsor a frozen, unfunded Supplemental Income Plan (“SIP”), which is a non-qualified pension plan, for certain U.S. employees who earn over a federally stipulated amount. We terminated both of these plans in December 2018 and have begun final distribution procedures for each plan, which we expect to complete by mid-2020.
- A frozen defined-benefit pension plan (the “U.K. RIP”) that covers certain employees of a subsidiary based in the United Kingdom. We have taken initial steps to terminate this plan and expect to complete the termination by the end of 2020.

Benefits for all three plans are generally based on years of service and either average or cumulative base compensation, depending on the plan. Plan funding strategies are influenced by employee benefit laws and tax laws. The U.K. RIP includes a provision for employee contributions and inflation-based benefit increases for retirees.

We have applied pension termination accounting to the U.S. RIP and SIP for 2019, and we expect that all benefit payments, including a premium to transfer annuity liability to a third party, will be paid out during 2020.

Our net periodic pension expense for the pension plans consisted of the following (in millions):

	Year Ended November 30,		
	2019	2018	2017
Service costs incurred	\$ 1.5	\$ 1.7	\$ 1.6
Interest costs on projected benefit obligation	7.6	7.4	7.7
Expected return on plan assets	(8.3)	(8.4)	(8.2)
Settlements	0.9	0.8	0.5
Fourth quarter expense recognition of actuarial loss in excess of corridor	1.1	—	4.9
Net periodic pension expense	\$ 2.8	\$ 1.5	\$ 6.5

The changes in the projected benefit obligation, plan assets, and the funded status of the pension plans were as follows (in millions):

	2019	2018
Change in projected benefit obligation:		
Net benefit obligation, beginning of year	\$192.8	\$222.2
Service costs incurred	1.5	1.7
Interest costs on projected benefit obligation	7.6	7.4
Actuarial loss (gain)	36.4	(18.8)
Gross benefits paid	(14.1)	(16.5)
Foreign currency exchange rate change	0.8	(3.2)
Net benefit obligation, end of year	\$225.0	\$192.8
Change in plan assets:		
Fair value of plan assets, beginning of year	\$175.4	\$198.8
Actual return on plan assets	35.3	(5.7)
Employer contributions	2.0	1.9
Gross benefits paid	(14.1)	(16.5)
Foreign currency exchange rate change	0.8	(3.1)
Fair value of plan assets, end of year	\$199.4	\$175.4
Funded status (underfunded)	\$ (25.6)	\$ (17.4)
Amounts in Accumulated Other Comprehensive Income not yet recognized as components of net periodic pension and postretirement expense, pretax		
Net actuarial loss	\$ 20.0	\$ 12.6

The net underfunded status of the plans is recorded in other accrued expenses and other liabilities in the consolidated balance sheets. Any future reclassification of actuarial loss from AOCI to income would only be recognized if the cumulative actuarial loss exceeds the corridor or upon settlement, and the reclassification would be recognized as a fourth quarter mark-to-market adjustment or as a settlement.

Amounts reclassified from AOCI to income related to net pension liability are recorded in net periodic pension and postretirement expense.

Pension expense is actuarially calculated annually based on data available at the beginning of each year. We determine the expected return on plan assets by multiplying the expected long-term rate of

return on assets by the market-related value of plan assets. The market-related value of plan assets is the fair value of plan assets. Assumptions used in the actuarial calculation include the discount rate selected and disclosed at the end of the previous year as well as the expected rate of return on assets detailed in the table below, as of the years ended November 30, 2019 and 2018:

	U.S. RIP		U.K. RIP	
	2019	2018	2019	2018
Weighted-average assumptions as of year-end				
Discount rate	1.60%	4.50%	1.90%	2.90%
Expected long-term rate of return on assets	1.60%	5.00%	3.90%	4.60%

Fair Value of Pension Assets

Due to the expected 2020 distribution of pension assets associated with plan termination, as of November 30, 2019, the U.S. RIP plan assets consist primarily of fixed-income securities and cash. In 2018, the U.S. RIP plan assets consisted primarily of fixed-income securities, with a moderate amount of equity securities. As of November 30, 2019, the U.K. RIP plan assets consist of fixed-income securities, equity securities, and cash, compared to 2018, when the U.K. RIP plan assets comprised primarily equity securities, with smaller holdings of bonds and other assets. Equity assets are diversified between international and domestic investments, with additional diversification in the domestic category through allocations to large-cap, mid-cap, and growth and value investments.

The U.S. RIP's historical investment policy sought to align the expected rate of return with the discount rate, while allowing for some equity variability to allow for upside market potential that would strengthen the overall asset position of the plan; as a result of the upcoming asset distribution, the equity portion of the assets has been largely liquidated and is now held in cash. The U.K. RIP's established investment policy is to match the liabilities for active and deferred members with equity investments and match the liabilities for pensioner members with fixed-income investments. The increased cash position in the U.K. RIP as of November 30, 2019, was to fund enhanced transfer value payments in early 2020.

All of our pension plan assets are measured at fair value on a recurring basis by reference to similar assets in active markets and are therefore classified within Level 2 of the fair value hierarchy. Plan assets as of November 30, 2019 and 2018 were classified in the following categories (in millions):

	2019	2018
Interest-bearing cash	\$ 60.4	\$ 5.6
Collective trust funds:		
Fixed income funds	112.7	113.9
Equity funds	26.3	55.9
	<u>\$199.4</u>	<u>\$175.4</u>

Postretirement Benefits

During the third quarter of 2018, we terminated our contributory postretirement medical plan, which resulted in a \$7.1 million curtailment gain associated with the reduction in postretirement benefit liability.

Defined Contribution Plans

Employees of certain subsidiaries may participate in defined contribution plans, and we provide matching contributions as part of the plans. Benefit expense relating to these plans was approximately

\$26.8 million, \$21.1 million, and \$24.8 million for the years ended November 30, 2019, 2018, and 2017, respectively.

12. Stock-based Compensation

The 2014 Equity Incentive Award Plan (“2014 Equity Plan”) provides for the grant of non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units, performance units and performance shares, cash-based awards, other share-based awards, and covered employee annual incentive awards. Upon vesting of an award, we may either issue new shares or reissue treasury shares. As of November 30, 2019, we have an authorized maximum of 37.2 million shares under the 2014 Equity Plan, and that amount will be increased by (a) the number of shares granted and outstanding under the Key Employee Incentive Program, the 2013 Share Option Plan, and the 2014 Share Option Plan as of June 24, 2014 that terminate by expiration, forfeiture, cancellation or otherwise without the issuance of our common shares, and (b) on January 1 of each year through January 1, 2024, in an amount equal to the lesser of: (x) 2.5 percent of the total number of IHS Markit’s common shares issued and outstanding on a fully diluted basis as of December 31 of the immediately preceding calendar year and (y) such number of common shares determined by our Board of Directors. As of November 30, 2019, 17.5 million shares were available for future grant under the 2014 Equity Plan.

Total unrecognized compensation expense related to all nonvested awards was \$205.7 million as of November 30, 2019, with a weighted-average recognition period of approximately 1.5 years.

Restricted Stock Units (“RSUs”) and Restricted Stock Awards (“RSAs”). RSUs and RSAs typically vest from one to three years and are generally subject to either cliff vesting or graded vesting. RSUs and RSAs do not have nonforfeitable rights to dividends or dividend equivalents. The fair value of RSUs and RSAs is typically based on the fair value of our common shares on the date of grant, and in the case of performance-based RSUs, the fair value also includes a component for a relative total shareholder return market condition. We amortize the value of these awards to expense over the vesting period on a straight-line basis. For performance-based RSUs, an evaluation is made each quarter about the likelihood that the performance criteria will be met. As the number of performance-based RSUs expected to vest increases or decreases, compensation expense is also adjusted up or down to reflect the number expected to vest and the cumulative vesting period met to date.

The following table summarizes RSU/RSA activity for the year ended November 30, 2019:

	Shares (in millions)	Weighted- Average Grant Date Fair Value
Balance at November 30, 2018	8.8	\$41.77
Granted	3.9	\$52.60
Vested	(3.9)	\$39.82
Forfeited	(0.6)	\$48.55
Balance at November 30, 2019	8.2	\$47.41

The weighted-average grant date fair value for awards granted during the years ended November 30, 2019, 2018, and 2017 was \$52.60, \$48.24, and \$40.50, respectively. The total fair value of RSUs that vested during the years ended November 30, 2019, 2018, and 2017 was \$211.2 million, \$259.5 million, and \$235.9 million, respectively.

Stock Options. Stock options under the 2014 Equity Plan generally vest over one to three years, and expire seven years from the date of grant. We issue treasury shares in satisfaction of all stock

option exercises. The following table summarizes stock option award activity through November 30, 2019, as well as stock options that are vested and expected to vest and stock options exercisable as of November 30, 2019:

	Shares (in millions)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Balance at November 30, 2018	15.7	\$26.61		
Exercised	(6.7)	\$26.34		
Forfeited	—	\$ —		
Balance at November 30, 2019	9.0	\$26.81	0.9	412.8
Vested and expected to vest at November 30, 2019 ..	9.0	\$26.81	0.9	412.6
Exercisable at November 30, 2019	8.6	\$26.74	0.8	395.4

The aggregate intrinsic value amounts in the table above represent the difference between the closing price of our common shares on November 30, 2019 and the exercise price, multiplied by the number of in-the-money stock options as of that date. This represents the value that would have been received by stock option holders if they had all exercised their stock options on November 30, 2019. In future periods, this amount will change depending on fluctuations in our share price. The total intrinsic value of stock options exercised during the years ended November 30, 2019, 2018, and 2017 was approximately \$238.6 million, \$248.2 million, and \$275.1 million, respectively.

Stock-based compensation expense for the years ended November 30, 2019, 2018, and 2017, respectively, was as follows (in millions):

	2019	2018	2017
Cost of revenue	\$ 64.9	\$ 70.0	\$ 76.3
Selling, general and administrative	158.9	171.7	185.6
Total stock-based compensation expense	\$223.8	\$241.7	\$261.9

Total income tax benefits recognized for stock-based compensation arrangements were as follows (in millions):

	2019	2018	2017
Income tax benefits	\$96.2	\$106.2	\$72.3

No stock-based compensation cost was capitalized during the years ended November 30, 2019, 2018, or 2017.

13. Commitments and Contingencies

Commitments

Rental charges in 2019, 2018, and 2017 approximated \$66.1 million, \$65.0 million and \$65.6 million, respectively. Minimum rental commitments under non-cancelable operating leases in effect at November 30, 2019, are as follows:

Year	Amount (in millions)
2020	\$ 63.2
2021	59.4
2022	48.8
2023	41.7
2024	39.5
Thereafter	159.4
	<hr/> \$412.0

We also had outstanding letters of credit and bank guarantees in the aggregate amount of approximately \$10.6 million and \$10.4 million at November 30, 2019 and 2018, respectively.

Indemnifications

In the normal course of business, we are party to a variety of agreements under which we may be obligated to indemnify the other party for certain matters. These obligations typically arise in contracts where we customarily agree to hold the other party harmless against losses arising from a breach of representations or covenants for certain matters such as title to assets and intellectual property rights associated with the sale of products. We also have indemnification obligations to our officers and directors. The duration of these indemnifications varies, and in certain cases, is indefinite. In each of these circumstances, payment by us depends upon the other party making an adverse claim according to the procedures outlined in the particular agreement, which procedures generally allow us to challenge the other party's claims. In certain instances, we may have recourse against third parties for payments that we make.

We are unable to reasonably estimate the maximum potential amount of future payments under these or similar agreements due to the unique facts and circumstances of each agreement and the fact that certain indemnifications provide for no limitation to the maximum potential future payments under the indemnification. We have not recorded any liability for these indemnifications in the accompanying consolidated balance sheets; however, we accrue losses for any known contingent liability, including those that may arise from indemnification provisions, when the obligation is both probable and reasonably estimable.

Litigation

From time to time, in the ordinary course of our business, we are involved in various legal, regulatory or administrative proceedings, lawsuits, government investigations, and other claims, including employment, commercial, intellectual property, and environmental, safety, and health matters. In addition, we may receive routine requests for information from governmental agencies in connection with their regulatory or investigatory authority. We review such proceedings, lawsuits, investigations, claims, and requests for information and take appropriate action as necessary. At the present time, we can give no assurance as to the outcome of any such pending proceedings, lawsuits, investigations, claims, or requests for information and we are unable to determine the ultimate resolution of or provide a reasonable estimate of the range of possible loss attributable to these matters or the effect they may

have on us. However, we do not expect the outcome of such proceedings, lawsuits, claims, or requests for information to have a material adverse effect on our results of operations or financial condition. We have and will continue to vigorously defend ourselves in all matters.

14. Common Shares and Earnings per Share

Weighted average common shares outstanding for the years ended November 30, 2019, 2018, and 2017, respectively, were calculated as follows (in millions):

	2019	2018	2017
Weighted-average shares outstanding:			
Shares used in basic EPS calculation	399.5	394.4	400.3
Effect of dilutive securities:			
RSUs/RSAs	2.9	3.4	5.0
Stock options	6.8	9.1	10.9
Shares used in diluted EPS calculation	409.2	406.9	416.2

Share Repurchase Programs

In October 2019, our Board of Directors authorized a share repurchase program of up to \$2.5 billion of IHS Markit common shares from October 17, 2019 through November 30, 2021, to be funded using our existing cash, cash equivalents, marketable securities, and future cash flows, or through the incurrence of short- or long-term indebtedness, at management's discretion. This new program replaced the previous share repurchase program that was originally set to terminate on November 30, 2019, but was early terminated by our Board of Directors. This October 2019 share repurchase program does not obligate us to repurchase any set dollar amount or number of shares and may be modified, suspended, or terminated at any time without prior notice. Under the repurchase program, we are authorized to repurchase our common shares on the open market from time to time, in privately negotiated transactions, or through accelerated repurchase agreements, subject to availability of common shares, price, market conditions, alternative uses of capital, and applicable regulatory requirements, at management's discretion. As of November 30, 2019, we had \$2.5 billion remaining available to repurchase under the program.

In August 2016, our Board of Directors separately and additionally authorized, subject to applicable regulatory requirements, the repurchase of our common shares surrendered by employees in an amount equal to the exercise price, if applicable, and statutory tax liability associated with the vesting of their equity awards, for which we pay the statutory tax on behalf of the employee and forgo receipt of the exercise price of the award from the employee, if applicable.

In July 2019, we entered into and funded a \$200 million accelerated share repurchase ("ASR") agreement with a scheduled termination date in August 2019. Upon funding of the ASR, we received an initial delivery of 2.478 million shares. At the completion of the ASR in August 2019, we received an additional 0.637 million shares.

In September 2019, we funded a \$300 million ASR agreement with a scheduled termination date in the fourth quarter of 2019. Upon funding of the ASR, we received an initial delivery of 3.658 million shares. At the completion of the ASR in November 2019, we received an additional 0.794 million shares.

In December 2019, we funded a \$500 million ASR agreement with a scheduled termination date in the first quarter of 2020. Upon funding of the ASR, we received an initial delivery of 5.547 million

shares. The total number of shares ultimately to be repurchased under the ASR will generally be based on the daily volume-weighted average price of the shares during the calculation period for the ASR, less an agreed discount. At final settlement of the ASR, we may be entitled to receive additional shares, or, under certain limited circumstances, be required to deliver shares to the relevant ASR counterparty.

Employee Benefit Trust (“EBT”) Shares

We have approximately 25.2 million outstanding common shares that are held by the Markit Group Holdings Limited Employee Benefit Trust. The trust is under our control using the variable interest entity model criteria; consequently, we have consolidated and classified the trust shares as treasury shares within our consolidated balance sheets.

15. Accumulated Other Comprehensive Income (Loss)

AOCI consists of foreign currency translation adjustments, net pension and postretirement liability adjustments, and net gain (loss) on hedging activities. Each item is reported net of the related income tax effect. The following table summarizes the changes in AOCI by component, net of tax, for the year ended November 30, 2019 (in millions):

	Foreign currency translation	Net pension and postretirement liability	Unrealized losses on hedging activities	Total
Balance at November 30, 2016	\$(413.9)	\$(14.4)	\$(10.5)	\$(438.8)
Other comprehensive income (loss) before reclassifications	345.8	(0.1)	1.0	346.7
Reclassifications from AOCI to income	—	1.5	5.6	7.1
Balance at November 30, 2017	\$ (68.1)	\$(13.0)	\$ (3.9)	\$ (85.0)
Other comprehensive (loss) income before reclassifications	(220.4)	3.6	4.8	(212.0)
Reclassifications from AOCI to income	—	1.2	2.8	4.0
Reclassifications from AOCI to retained earnings	—	(1.7)	(4.2)	(5.9)
Balance at November 30, 2018	\$(288.5)	\$ (9.9)	\$ (0.5)	\$(298.9)
Other comprehensive income (loss) before reclassifications	46.2	(7.1)	(4.4)	34.7
Reclassifications from AOCI to income	—	1.4	1.2	2.6
Balance at November 30, 2019	\$(242.3)	\$(15.6)	\$ (3.7)	\$(261.6)

Amounts reclassified from AOCI to income related to net pension and postretirement liability are recorded in net periodic pension and postretirement expense.

16. Supplemental Cash Flow Information

Net cash provided by operating activities reflects cash payments for interest and income taxes as shown below, for the years ended November 30, 2019, 2018, and 2017, respectively (in millions):

	2019	2018	2017
Interest paid	\$244.4	\$188.5	\$137.2
Income tax payments, net	\$191.2	\$ 64.1	\$ 59.3

Interest paid during 2018 and 2019 increased primarily due to a higher average debt balance as a result of acquisitions and share repurchases, a higher effective interest rate due to an increased amount of fixed-rate debt, and higher short-term interest rates. Income tax payments in 2019 increased primarily due to the impact of U.S. tax regulations that were retroactive to 2018.

Cash and cash equivalents amounting to approximately \$111.5 million and \$120.0 million reflected on the consolidated balance sheets at November 30, 2019 and 2018, respectively, are maintained primarily in U.S. Dollars, Indian Rupee, Chinese Yuan, and Canadian Dollars.

17. Segment Information

Our Chief Executive Officer is our chief operating decision maker (“CODM”). Our CODM reviews operating results at the Financial Services, Resources, Transportation, and Consolidated Markets & Solutions (“CMS”) segment level when determining how to allocate resources and assess performance. Our CODM evaluates segment performance based primarily on revenue and segment Adjusted EBITDA, as described below. The accounting policies of our segments are the same as those described in the summary of significant accounting policies (see Note 2).

No single customer accounted for 10 percent or more of our total revenue for the years ended November 30, 2019, 2018, or 2017. There are no material inter-segment revenues for any period presented. Our shared services function includes corporate transactions that are not allocated to the reportable segments, including net periodic pension and postretirement expense, as well as certain corporate functions such as investor relations, procurement, corporate development, and portions of finance, legal, and marketing.

We evaluate segment operating performance at the Adjusted EBITDA level for each of our segments. We define Adjusted EBITDA as net income plus or minus net interest, provision for income taxes, depreciation and amortization, stock-based compensation expense, restructuring charges, acquisition-related costs and performance compensation, exceptional litigation, net other gains and losses, pension mark-to-market, settlement, and other expense, the impact of joint ventures and noncontrolling interests, and discontinued operations. Information about the operations of our four segments is set forth below (in millions).

	Year ended November 30,		
	2019	2018	2017
Revenue			
Financial Services	\$1,701.5	\$1,419.7	\$1,232.9
Transportation	1,246.1	1,160.2	991.6
Resources	933.8	876.5	839.3
CMS	533.2	552.8	535.9
Total revenue	\$4,414.6	\$4,009.2	\$3,599.7
Adjusted EBITDA			
Financial Services	\$ 786.2	\$ 636.9	\$ 553.7
Transportation	520.9	479.3	408.6
Resources	403.5	369.4	360.2
CMS	121.1	127.4	125.2
Shared services	(52.8)	(48.1)	(57.8)
Total Adjusted EBITDA	\$1,778.9	\$1,564.9	\$1,389.9
Reconciliation to the consolidated statements of operations:			
Interest income	1.9	3.1	2.2
Interest expense	(259.7)	(225.7)	(154.3)
(Provision) Benefit for income taxes	(242.6)	115.4	49.9
Depreciation	(196.1)	(175.1)	(157.0)
Amortization related to acquired intangible assets	(377.0)	(366.1)	(335.5)
Stock-based compensation expense	(223.8)	(241.7)	(261.9)
Restructuring charges	(17.3)	(1.7)	—
Acquisition-related costs	(28.8)	(80.7)	(103.1)
Acquisition-related performance compensation	(41.5)	(54.1)	(9.9)
Loss on debt extinguishment	(7.0)	(4.7)	—
Gain on sale of assets	115.3	—	—
Pension mark-to-market and settlement (expense) gain	(1.8)	6.5	(5.4)
Share of joint venture results not attributable to Adjusted EBITDA	(0.9)	(0.5)	1.2
Adjusted EBITDA attributable to noncontrolling interest	3.1	2.7	0.8
Net income attributable to IHS Markit	\$ 502.7	\$ 542.3	\$ 416.9

Total assets by segment were as follows:

	Year ended November 30,	
	2019	2018
Total Assets		
Financial Services	\$ 9,435.6	\$ 9,474.9
Transportation	3,018.2	3,144.7
Resources	2,831.3	2,681.1
CMS	686.8	761.6
Shared services	115.3	—
Total assets	\$16,087.2	\$16,062.3

The table below provides information about revenue and long-lived assets for the U.S., the U.K., and the rest of the world for 2019, 2018, and 2017. Revenue by country is generally based on where the customer contract is signed. Long-lived assets include net property and equipment.

(in millions)	2019		2018		2017	
	Revenue	Long-lived assets	Revenue	Long-lived assets	Revenue	Long-lived assets
U.S.	\$2,804.6	\$494.2	\$2,406.1	\$415.4	\$2,152.0	\$362.4
U.K.	486.5	126.3	452.2	127.9	435.4	128.9
Rest of world	1,123.5	37.7	1,150.9	36.3	1,012.3	40.0
Total	\$4,414.6	\$658.2	\$4,009.2	\$579.6	\$3,599.7	\$531.3

Activity in our goodwill account was as follows:

(in millions)	Financial Services	Transportation	Resources	CMS	Consolidated Total
Balance at November 30, 2017	\$4,335.5	\$2,055.6	\$2,026.0	\$361.4	\$8,778.5
Acquisitions	1,179.3	—	5.6	—	1,184.9
Adjustments to purchase price	—	(7.3)	—	(0.4)	(7.7)
Foreign currency translation	(83.5)	(16.7)	(16.6)	(2.9)	(119.7)
Balance at November 30, 2018	5,431.3	2,031.6	2,015.0	358.1	9,836.0
Acquisitions	—	9.0	87.0	—	96.0
Adjustments to purchase price	7.0	—	0.2	—	7.2
Asset sale	—	—	—	(33.4)	(33.4)
Reclassification to assets held for sale ...	—	(87.7)	—	—	(87.7)
Foreign currency translation	11.8	0.2	5.9	0.3	18.2
Balance at November 30, 2019	\$5,450.1	\$1,953.1	\$2,108.1	\$325.0	\$9,836.3

The 2019 asset sale relates to the goodwill allocated to the TMT market intelligence assets that were sold on August 1, 2019. The 2019 reclassification to assets held for sale relates to the A&D business line divestiture, which was subsequently sold on December 2, 2019.

18. Quarterly Results of Operations (Unaudited)

The following table summarizes certain quarterly results of operations (in millions, except per share data):

	Three Months Ended			
	February 28	May 31	August 31	November 30
2019				
Revenue	\$1,046.4	\$1,135.5	\$1,112.3	\$1,120.4
Net income attributable to IHS Markit Ltd.	\$ 109.7	\$ 149.8	\$ 40.1	\$ 203.1
Earnings per share:				
Basic	\$ 0.28	\$ 0.37	\$ 0.10	\$ 0.51
Diluted	\$ 0.27	\$ 0.37	\$ 0.10	\$ 0.50
2018				
Revenue	\$ 932.1	\$1,008.3	\$1,001.0	\$1,067.8
Net income attributable to IHS Markit Ltd.	\$ 241.3	\$ 114.7	\$ 104.5	\$ 81.8
Earnings per share:				
Basic	\$ 0.61	\$ 0.29	\$ 0.26	\$ 0.21
Diluted	\$ 0.59	\$ 0.28	\$ 0.26	\$ 0.20

First quarter 2018 net income attributable to IHS Markit Ltd. included a one-time tax benefit of approximately \$136 million associated with U.S. tax reform. Third quarter 2019 net income attributable to IHS Markit Ltd. included a one-time tax expense of approximately \$200 million associated with U.S. Treasury regulations related to U.S. tax reform retroactive to 2018, and fourth quarter 2019 net income attributable to IHS Markit Ltd. included an offsetting one-time tax benefit of approximately \$50 million associated with the same regulations.

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this Form 10-K. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act are effective to ensure that information required to be disclosed in the reports required to be filed or submitted under the Exchange Act is (i) recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our Chief Executive Officer and our Chief Financial Officer are responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel, 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 and includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) 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. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. In addition, 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.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of November 30, 2019 using the *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 November 30, 2019.

Our independent registered public accounting firm has audited and issued a report on the effectiveness of our internal control over financial reporting. Their report appears on the following page.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended November 30, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and the Shareholders of IHS Markit Ltd.

Opinion on Internal Control over Financial Reporting

We have audited IHS Markit Ltd.'s internal control over financial reporting as of November 30, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, IHS Markit Ltd. (the Company) maintained, in all material respects, effective internal control over financial reporting as of November 30, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of November 30, 2019 and 2018, the related consolidated statements of operations, comprehensive income, cash flows, and changes in equity for each of the three years in the period ended November 30, 2019 and the related notes and our report dated January 17, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Denver, Colorado
January 17, 2020

Item 9B. Other Information

Iran Threat Reduction and Syria Human Rights Act Disclosure

Under the Iran Threat Reduction and Syrian Human Rights Act of 2012, which added Section 13(r) of the Exchange Act, we are required to include certain disclosures in our periodic reports if we or any of our affiliates knowingly engaged in certain specified activities during the period covered by the report. Disclosure is generally required even if the transactions or dealings were conducted in compliance with applicable law and regulations. During the third quarter of 2014, we acquired Global Trade Information Services, a Virginia corporation (“GTIS”). GTIS publishes the Global Trade Atlas (the “GTA”), an online trade data system offering global merchandise trade statistics such as import and export data from official sources in more than 90 countries. Included in the GTA is certain trade data sourced from Iran for which GTIS pays an annual fee of approximately \$40,000. The procurement of this information is exempt from applicable economic sanctions laws and regulations as a funds transfer related to the exportation or importation of information and informational materials. Sales attributable to this Iranian trade data represented approximately \$50,000 in gross revenue for GTIS in the fourth quarter of 2019 and would have represented less than 0.01 percent of our company’s fourth quarter 2019 consolidated revenues and approximately 0.1 percent of our fourth quarter 2019 gross profits. Subject to any changes in the exempt status of such activities, we intend to continue these business activities as permissible under applicable export control and economic sanctions laws and regulations.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

We incorporate by reference the information responsive to this Item appearing in our definitive Proxy Statement on Schedule 14A for our 2020 Annual General Meeting of Shareholders (“Proxy Statement”), which will be filed no later than 120 days after November 30, 2019.

We have adopted a code of ethics, referred to as our Business Code of Conduct, which applies to our directors, officers and employees. Information regarding our Business Code of Conduct is incorporated herein by reference from our Proxy Statement, which will be filed no later than 120 days after November 30, 2019. Our Business Code of Conduct is available on the Investor Relations page of our website at <http://investor.ihsmarkit.com>. If we approve any substantive amendment to our Business Code of Conduct, or if we grant any waiver of our Business Code of Conduct to our directors or executive officers, we will post an update on the Investor Relations page of our website (<http://investor.ihsmarkit.com>) within four business days following the date of the amendment or waiver describing the nature and date of the amendment or the nature of the waiver, the name of the person to whom it was granted, and the date of the waiver, as the case may be. The information on our website is not and should not be considered a part of this Form 10-K.

Item 11. Executive Compensation

We incorporate by reference the information responsive to this Item appearing in our Proxy Statement, which will be filed no later than 120 days after November 30, 2019.

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

We incorporate by reference the information responsive to this Item appearing in our Proxy Statement, which will be filed no later than 120 days after November 30, 2019. The information provided under Part II, Item 5. “Market for the Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities” of this Annual Report on Form 10-K is incorporated by reference herein.

Item 13. Certain Relationships and Related Transactions, and Director Independence

We incorporate by reference the information responsive to this Item appearing in our Proxy Statement, which will be filed no later than 120 days after November 30, 2019.

Item 14. Principal Accountant Fees and Services

We incorporate by reference the information responsive to this Item appearing in our Proxy Statement, which will be filed no later than 120 days after November 30, 2019.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Index of Financial Statements

The financial statements listed in the Index to Consolidated Financial Statements are filed as part of this report on Form 10-K (see Part II, Item 8 – Financial Statements and Supplementary Data).

(b) Index of Exhibits

The following exhibits are filed as part of this report:

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated as of March 20, 2016, by and among IHS Inc., Markit Ltd., and Marvel Merger Sub, Inc. (Incorporated by reference to Exhibit 99.1 to the Markit Ltd. Report of Foreign Private Issuer on Form 6-K (file no. 001-36495) furnished on March 21, 2016 (second Form 6-K))
2.2	Agreement and Plan of Merger, dated as of May 19, 2018, by and among Infinity Intermediate Holdings, LLC, Ipreo Parent Holdco LLC, Markit North America, Inc., Iredell Holdings LLC and, solely for the limited purposes set forth therein, IHS Markit Ltd. (Incorporated by reference to Exhibit 2.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on May 23, 2018)
3.1	Certificate of Incorporation (Incorporated by reference to Exhibit 3.1 of the IHS Markit Ltd. registration statement on Form F-1 (file no. 333-195687), filed on May 5, 2014)
3.2	Memorandum of Association (Incorporated by reference to Exhibit 3.2 of Amendment No. 2 of the IHS Markit Ltd. registration statement on Form F-1 (file no. 333-195687), filed on June 3, 2014)
3.3	Memorandum of Increase of Share Capital (Incorporated by reference to Exhibit 1.3 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2015 (file no. 001-36495) filed on March 11, 2016)
3.4	Certificate of Incorporation on Change of Name (Incorporated by reference to Exhibit 3.1 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on October 7, 2016)
3.5	Amended and Restated Bye-laws of IHS Markit Ltd. (Effective as of April 11, 2019) (Incorporated by reference to Exhibit 3.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495), filed on April 12, 2019)
3.6*	Descriptions of Share Capital
4.1*	Form of certificate of common shares
4.2	Director Nomination Agreement between IHS Markit Ltd. (f/k/a Markit Ltd.) and Canada Pension Plan Investment Board (Incorporated by reference to Exhibit 2.2 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)
4.3	Registration Rights Agreement among IHS Markit Ltd. (f/k/a Markit Ltd.) and the shareholders party thereto (Incorporated by reference to Exhibit 2.3 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)

Exhibit Number	Description
4.4	Amendment No. 1 to the Registration Rights Agreement among IHS Markit Ltd. (f/k/a Markit Ltd.) and the Shareholders party thereto (Incorporated by reference to Exhibit 2.5 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2015 (file no. 001-36495) filed on March 11, 2016)
4.5	Senior Notes Indenture, dated as of October 28, 2014, among IHS Inc., the Guarantors and Wells Fargo Bank, National Association as trustee (Incorporated by reference to Exhibit 4.1 to the IHS Inc. Current Report on Form 8-K (file no. 001-32511) filed with the Securities and Exchange Commission on October 28, 2014)
4.6	First Supplemental Indenture, dated as of July 11, 2016, by and between IHS Inc., the subsidiary guarantors party thereto and Wells Fargo Bank, National Association, as trustee. (Incorporated by reference to Exhibit 4.1 to the IHS Inc. Current Report on Form 8-K (file no. 001-32511) filed with the Securities and Exchange Commission on July 13, 2016 (second Form 8-K))
4.7	Senior Notes Indenture, dated as of July 28, 2016, among IHS Markit Ltd., the Guarantors and Wells Fargo Bank, National Association, as trustee (including the form of 5.000% Senior Notes due 2022) (Incorporated by reference to Exhibit 4.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on July 28, 2016)
4.8	Senior Notes Indenture, dated as of February 9, 2017, among IHS Markit Ltd., the Guarantors (as defined therein) and Wells Fargo, National Association, as trustee (including the form of 4.75% Senior Notes due 2025) (Incorporated by reference to Exhibit 4.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on February 9, 2017)
4.9	Supplemental Indenture No. 1, dated as of July 13, 2017, among IHS Markit Ltd., the Guarantors (as defined therein) and Wells Fargo Bank, National Association, as trustee (including the form of 4.75% Senior Notes due 2025) (Incorporated by reference to Exhibit 4.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on July 13, 2017)
4.10	Senior Notes Indenture, dated as of December 1, 2017, among IHS Markit Ltd., the Guarantors (as defined therein) and Wells Fargo Bank, National Association, as trustee (including the form of 4.00% Senior Notes due 2026) (Incorporated by reference to Exhibit 4.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on December 1, 2017)
4.11	Base Indenture, dated as of July 23, 2018, between the Company and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on July 23, 2018)
4.12	First Supplemental Indenture, dated as of July 23, 2018, between the Company and Wells Fargo Bank, National Association, as trustee (including the form of 4.125% Senior Note due 2023) (Incorporated by reference to Exhibit 4.2 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on July 23, 2018)
4.13	Second Supplemental Indenture, dated as of July 23, 2018, between the Company and Wells Fargo Bank, National Association, as trustee (including the form of 4.750% Senior Notes due 2028) (Incorporated by reference to Exhibit 4.4 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on July 23, 2018)

Exhibit Number	Description
4.14	Third Supplemental Indenture, dated as of April 8, 2019, between the Company and Wells Fargo Bank, National Association, as trustee (including the form of 3.625% Senior Note due 2024)(Incorporated by reference to Exhibit 4.2 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on April 8, 2019)
4.15	Fourth Supplemental Indenture, dated as of April 8, 2019, between the Company and Wells Fargo Bank, National Association, as trustee (including the form of 4.250% Senior Note due 2029) (Incorporated by reference to Exhibit 4.4 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on April 8, 2019)
10.1+	Amended and Restated 2013 Markit Share Option Plan (Incorporated by reference to Exhibit 4.21 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)
10.2+	Amended and Restated 2013 Markit Share Option Plan (mid-year awards April through December 2013) (Incorporated by reference to Exhibit 4.22 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)
10.3+	Amended and Restated 2014 Markit Share Option Plan (Incorporated by reference to Exhibit 4.24 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)
10.4+	Amended and Restated Markit Key Employee Incentive Program (KEIP) (Incorporated by reference to Exhibit 4.25 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)
10.5+	Amendment #1 to Amended and Restated Key Employee Incentive Program (Incorporated by reference to Exhibit 10.2 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on October 7, 2016)
10.6+	Amendment #2 to Amended and Restated Key Employee Incentive Program (Incorporated by reference to Exhibit 10.23 to the IHS Markit Ltd. Annual Report on Form 10-K for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on January 27, 2017)
10.7+	Form of Indemnification Agreement between IHS Markit Ltd. and its Directors and Executive Officers (Incorporated by reference to Exhibit 10.4 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on October 7, 2016)
10.8+	IHS Markit Ltd. Amended and Restated 2014 Equity Incentive Award Plan (Incorporated by reference to Exhibit 10.1 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 26, 2019)
10.9+*	IHS Markit Ltd. Equity Retirement Policy (December 2019)
10.10+	Executive Retirement Policy (Incorporated by reference to Exhibit 10.3 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on September 24, 2019)
10.11+	IHS Markit Ltd. Policy on Recovery of Incentive Compensation (Incorporated by reference to Exhibit 10.38 to the IHS Markit Ltd. Annual Report on Form 10-K for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on January 27, 2017)
10.12+	IHS Markit Ltd. Non-Employee Director Equity Compensation Policy (Incorporated by reference to Exhibit 10.28 to the IHS Markit Ltd. Annual Report on Form 10-K for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on January 27, 2017)

Exhibit Number	Description
10.13+	IHS Markit Ltd. Summary of 2017 Non-Employee Director Compensation Program (April 2017) (Incorporated by reference to Exhibit 10.1 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on June 27, 2017)
10.14+	IHS Markit Ltd. Non-Employee Director Equity Compensation Policy (Effective December 1, 2019) (Incorporated by reference to Exhibit 10.1 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on September 24, 2019)
10.15+	IHS Markit Ltd. Summary of 2020 Non-Employee Director Compensation Program (Effective December 1, 2019) (Incorporated by reference to Exhibit 10.2 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on September 24, 2019)
10.16+*	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2020 Form of Restricted Share Unit Agreement (Time Based)
10.17+*	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2020 Form of Performance Share Unit Agreement
10.18+*	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2020 Form of Performance Share Unit Agreement (PUP)
10.19+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2019 Form of Restricted Share Unit Agreement (Non-Employee Directors) (Incorporated by reference to Exhibit 4.7 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on June 26, 2019)
10.20+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2019 Form of Deferred Share Unit Agreement (Non-Employee Directors) (Incorporated by reference to Exhibit 4.8 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on June 26, 2019)
10.21+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2019 Form of Restricted Share Unit Agreement (Time Based) (Incorporated by reference to Exhibit 10.2 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 26, 2019)
10.22+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2019 Form of Performance Share Unit Agreement (Incorporated by reference to Exhibit 10.3 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 26, 2019)
10.23+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2018 Form of Restricted Share Unit Agreement (Time Based) (Incorporated by reference to Exhibit 10.4 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 27, 2018)
10.24+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2018 Form of Performance Share Unit Agreement (Incorporated by reference to Exhibit 10.5 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 27, 2018)
10.25+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2016 Form of Restricted Share Unit Agreement (Incorporated by reference to Exhibit 10.30 to the IHS Markit Ltd. Annual Report on Form 10-K for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on January 27, 2017)
10.26+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2016 Form of Performance Share Unit Agreement (Incorporated by reference to Exhibit 10.31 to the IHS Markit Ltd. Annual Report on Form 10-K for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on January 27, 2017)

Exhibit Number	Description
10.27+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2016 Form of Performance Share Unit Agreement (Incorporated by reference to Exhibit 10.4 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 28, 2017)
10.28+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2016 Form of Performance Share Unit Agreement (Incorporated by reference to Exhibit 10.5 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 28, 2017)
10.29+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2016 Form of Restricted Share Unit Agreement (Incorporated by reference to Exhibit 10.6 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 28, 2017)
10.30+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2014 Form of Restricted Share Agreement (Incorporated by reference to Exhibit 4.27 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) as filed on March 10, 2015)
10.31+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2014 Form of Non-Qualified Share Option Agreement (Incorporated by reference to Exhibit 4.28 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) as filed on March 10, 2015)
10.32+	IHS Markit Ltd. 2014 Equity Incentive Award Plan – 2014 Form of Restricted Share Unit Agreement (Incorporated by reference to Exhibit 4.29 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) as filed on March 10, 2015)
10.33+	Markit Ltd. Non-Employee Director Compensation Policy (Incorporated by reference to Exhibit 4.30 of the IHS Markit Ltd. Annual Report on Form 20-F for the year ended December 31, 2014 (file no. 001-36495) filed on March 10, 2015)
10.34+	Amended and Restated IHS Inc. 2004 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.1 to the IHS Inc. Annual Report on Form 10-K for the period ended November 30, 2014 (file no. 001-32511) filed with the Securities and Exchange Commission on January 16, 2015)
10.35+	Amendment #1 to the Amended and Restated IHS Inc. 2004 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.40 to the IHS Markit Ltd. Annual Report on Form 10-K for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on January 27, 2017)
10.36+	Amended and Restated IHS Inc. 2004 Directors Stock Plan (Incorporated by reference to Exhibit 10.1 to the IHS Inc. Quarterly Report on Form 10-Q for the period ended August 31, 2014 (file no. 001-32511) filed with the Securities and Exchange Commission on September 22, 2014)
10.37+	Form of Indemnification Agreement between IHS Inc. and its Directors (Incorporated by reference to Exhibit 10.30 to Amendment No. 4 to the IHS Inc. Registration Statement on Form S-1/A (No. 333-122565) filed with the Securities and Exchange Commission on May 20, 2005)
10.38+	Contract of Employment for Lance Ugglá dated as of July 1, 2014 (Incorporated by reference to Exhibit 10.66 to Amendment No. 1 on Form 10-K/A for IHS Markit Ltd. for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on February 21, 2017)

Exhibit Number	Description
10.39+	First Amendment dated March 19, 2016 to contract of employment for Lance Uggla (Incorporated by reference to Exhibit 10.1 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 28, 2017)
10.40+	Second Amendment dated January 24, 2017 to contract of employment for Lance Uggla (Incorporated by reference to Exhibit 10.2 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 27, 2017)
10.41+	Amended and Restated Terms of Employment for Lance Uggla (Incorporated by reference to Exhibit 4.6 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on June 26, 2019)
10.42+	Letter Agreement for Todd Hyatt dated October 31, 2013 (Incorporated by reference to Exhibit 10.67 to Amendment No. 1 on Form 10-K/A for IHS Markit Ltd. for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on February 21, 2017)
10.43+	Letter Agreement Amendment for Todd Hyatt dated July 8, 2016 (Incorporated by reference to Exhibit 10.68 to Amendment No. 1 on Form 10-K/A for IHS Markit Ltd. for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on February 21, 2017)
10.44+	Second Amendment dated February 3, 2017 to letter agreement for Todd Hyatt (Incorporated by reference to Exhibit 10.3 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 28, 2017)
10.45+	Letter of Assignment for Todd Hyatt dated July 8, 2016 (Incorporated by reference to Exhibit 10.69 to Amendment No. 1 on Form 10-K/A for IHS Markit Ltd. for the period ended November 30, 2016 (file no. 001-36495) filed with the Securities and Exchange Commission on February 21, 2017)
10.46+	Amended and Restated Terms of Employment for Adam Kansler (Incorporated by reference to Exhibit 10.2 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 27, 2018)
10.47+	Amended and Restated Terms of Employment for Jonathan Gear (Incorporated by reference to Exhibit 10.3 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 27, 2018)
10.48+	Amended and Restated Terms of Employment for Sari Granat dated July 16, 2018 (Incorporated by reference to Exhibit 10.4 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 26, 2019)
10.49+	Amended and Restated Terms of Employment for Daniel Yergin dated June 14, 2018 (Incorporated by reference to Exhibit 10.9 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 26, 2019)
10.50	Amendment dated February 14, 2019 to Amended and Restated Terms of Employment for Daniel Yergin dated June 14, 2018 (Incorporated by reference to Exhibit 10.10 of the IHS Markit Ltd. Quarterly Report on Form 10-Q (file no. 001-36495) filed on March 26, 2019)
10.51	Credit Agreement dated as of November 29, 2019 by and among IHS Markit Ltd., the lenders from time to time party thereto and Bank of America, N.A., as administrative agent (Incorporated by reference to Exhibit 10.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on December 2, 2019)

Exhibit Number	Description
10.52	Credit Agreement, dated as of September 13, 2019, by and among IHS Markit Ltd., as the Borrower, the lenders party thereto and PNC Bank, National Association, as Administrative Agent and certain lenders party thereto (Incorporated by reference to Exhibit 10.1 of the IHS Markit Ltd. Current Report on Form 8-K (file no. 001-36495) filed on September 19, 2019)
21.1*	List of subsidiaries
23.1*	Consent of Ernst & Young LLP
24.1*	Power of Attorney
31.1*	Certification of the Chief Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act
31.2*	Certification of the Chief Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act
32*	Certification of the Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	The cover page from this Annual Report on Form 10-K, formatted as Inline XBRL.

* Filed herewith.

+ Compensatory plan or arrangement.

Item 16. Form 10-K Summary

None.

Signature

*

Deborah K. Orida

*

Richard W. Roedel

*

James A. Rosenthal

Title

Director

Director

Director

*By: /s/ Todd S. Hyatt
Todd S. Hyatt
Attorney-in-Fact

Information

Corporate Leadership

Lance Uggla*
Chairman of the Board
and Chief Executive Officer

Shane Akeroyd
President, IHS Markit Asia Pte. Ltd. and
Global Head of Account Management

Brian Crotty*
Executive Vice President, Resources

Jonathan Gear*
Executive Vice President,
Chief Financial Officer

Sari Granat*
Executive Vice President,
Chief Administrative Officer
and General Counsel

Todd Hyatt*
Executive Vice President

Adam Kansler*
Executive Vice President,
President, Financial Services

Will Meldrum
Chief of Staff

Sally Moore
Executive Vice President,
Strategic Alliances

Yaacov Mutnikas
Chief Technology Officer
and Chief Data Scientist

Edouard Tavernier*
Executive Vice President, Transportation

Ronnie West
Executive Vice President
and Chief People Officer

Daniel Yergin
Vice Chairman

* Executive Officer

Board of Directors

Lance Uggla
Chairman of the Board
and Chief Executive Officer
IHS Markit Ltd.

John Browne (HR, NG)
(The Lord Browne Madingley)
Executive Chairman
L1 Energy (UK)

Dinyar S. Devitre (A, NG, R)
Retired Chief Financial Officer
Altria Group, Inc.

Ruann F. Ernst (NG, R)
Former Chair and CEO
Digital Island, Inc.

William E. Ford (HR)
Chief Executive Officer
General Atlantic LLC

Nicoletta Giadrossi (A)
Senior Advisor
Bain Capital Partners

Robert P. Kelly (HR, NG)
Lead Director
Retired Chairman
and Chief Executive Officer
The Bank of New York Mellon

Deborah Doyle McWhinney (R)
Retired Chief Executive Officer
and Chief Operating Officer
Global Enterprise Payments
at Citigroup Inc.

Jean-Paul Montupet (HR, NG)
Retired Executive Vice President
Emerson Electric Co.

Deborah Orida (HR)
Senior Managing Director and
Global Head of Active Equities
Canada Pension Plan Investment Board

Richard W. Roedel (A, R)
Retired Chairman and
Chief Executive Officer
BDO Seidman, LLP

James A. Rosenthal (HR, R)
Chief Executive Officer
BlueVoyant

(A) Audit
(HR) Human Resources
(NG) Nominating and Governance
(R) Risk

Non-GAAP measures

Non-GAAP financial information is presented only as a supplement to IHS Markit's financial information based on U.S. GAAP. Non-GAAP financial information is provided to enhance the reader's understanding of the financial performance of IHS Markit, but none of these non-GAAP financial measures are recognized terms under U.S. GAAP and should not be considered in isolation from, or as a substitute for, financial measures calculated in accordance with U.S. GAAP. Definitions of IHS Markit non-GAAP measures and reconciliations to the most directly comparable U.S. GAAP measures are provided with the schedules to the most recent IHS Markit quarterly earnings release and are available on IHS Markit's website (investor.ihsmarkit.com). This report also includes certain forward-looking non-GAAP financial measures. IHS Markit is unable to present a reconciliation of this forward-looking non-GAAP financial information because management cannot reliably predict all of the necessary components of such measures. Accordingly, investors are cautioned not to place undue reliance on this information. IHS Markit uses non-GAAP measures in its operational and financial decision making. IHS Markit believes that such measures allow it to focus on what it deems to be more reliable indicators of ongoing operating performance and its ability to generate cash flow from operations. IHS Markit also believes that investors may find these non-GAAP financial measures useful for the same reasons, although investors are cautioned that non-GAAP financial measures are not a substitute for U.S. GAAP financial measures or disclosures. None of these non-GAAP financial measures are recognized terms under U.S. GAAP and do not purport to be an alternative to any other U.S. GAAP measure. Non-GAAP measures are frequently used by securities analysts, investors and other interested parties in their evaluation of companies comparable to IHS Markit, many of which present non-U.S. GAAP measures when reporting their results. These measures can be useful in evaluating IHS Markit's performance against its peer companies because it believes the measures provide users with valuable insight into key components of U.S. GAAP financial disclosures. However, non-GAAP measures have limitations as an analytical tool. Because not all companies use identical calculations, IHS Markit's presentation of non-GAAP financial measures may not be comparable to other similarly titled measures of other companies. They are not presentations made in accordance with U.S. GAAP, are not measures of financial condition or liquidity and should not be considered as an alternative to profit or loss for the period determined in accordance with U.S. GAAP or operating cash flows determined in accordance with U.S. GAAP. As a result, these performance measures should not be considered in isolation from, or as a substitute analysis for, results of operations as determined in accordance with U.S. GAAP.

General Information

Headquarters

IHS Markit Ltd.
4th floor, Ropemaker Place
25 Ropemaker Street
London EC2Y 9LY
United Kingdom
Tel: +44 20 7260 2000

Website

www.ihsmarkit.com

Investor Relations

Securities analysts and investor professionals should contact:

Investor Relations
+1 303 397 2969
investor_relations@ihsmarkit.com

The company's annual report, press releases and filings with the U.S. Securities Exchange Commission may be obtained from the Investor Relations section of the IHS Markit website located at investor.ihsmarkit.com.

Independent Auditors

Ernst & Young LLP
Denver, CO

Transfer Agent & Registrar

Reports about share ownership, transfer requirements, changes of address, lost stock certificates, account status and sale of shares should be directed to:

Computershare Trust Company, N.A.

Toll-Free: +1 877 373 6374

Int'l. Toll: +1 781 575 2879

Email requests:

web.queries@computershare.com

Shareholder inquiries:

computershare.com/investor

Written requests:

By Regular Mail
PO BOX 505000
Louisville, KY 40233-5000
United States

By Overnight Delivery
462 South 4th Street
Suite 1600
Louisville, KY 40233-5000
United States

Annual Meeting

The annual general meeting of shareholders will be held on April 16, 2020 in London, United Kingdom

Security Listing

IHS Markit common shares are listed on the New York Stock Exchange under the symbol "INFO".

Cautionary Note Regarding Forward-Looking Statements

This report contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. These statements, which express management's current views concerning future business, events, trends, contingencies, financial performance, or financial condition, appear at various places in this report and use words like "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "future," "goal," "intend," "likely," "may," "might," "plan," "potential," "predict," "project," "see," "seek," "should," "strategy," "strive," "target," "will," and "would" and similar expressions, and variations or negatives of these words. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on management's current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict and many of which are outside of our control. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements are more fully discussed under the caption "Risk Factors" in our Annual Report on Form 10-K, along with our other filings with the U.S. Securities and Exchange Commission ("SEC"). However, those factors should not be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Consequences of material differences in results as compared with those anticipated in the forward-looking statements could include, among other things, business disruption, operational problems, financial loss, legal liability to third parties and similar risks, any of which could have a material adverse effect on our consolidated financial condition, results of operations, credit rating, or liquidity. Therefore, you should not rely on any of these forward-looking statements. Any forward-looking statement made by us in this report is based only on information currently available to our management and speaks only as of the date of this report. We do not assume any obligation to publicly provide revisions or updates to any forward-looking statements, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by securities and other applicable laws. Please consult our public filings at www.sec.gov or investor.ihsmarkit.com.

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