



Dear Shareholders, Customers, Partners and Associates:

I am pleased to report that TransUnion delivered very good results in a year highlighted by strong financial performance, outstanding execution and meaningful strategic actions. Revenue, adjusted EBITDA and adjusted earnings per share grew double-digits as a result of strong growth from each of our three business segments—USIS, International and Consumer Interactive.

We continue to execute on our strategy and deploy cash for internal investments that drive operational efficiencies and long-term organic growth, as well as acquisitions, such as the Colombian credit bureau CIFIN, and Auditiz and RTech in our Healthcare vertical.

As our leverage ratio has now dropped below our target of 3.5x net debt to adjusted EBITDA and we have real conviction in our long-term growth plans, we're in the enviable position to continue to invest in our business and begin to return capital to our shareholders. To that end, we announced a 3-year share repurchase program to buy back up to \$300 million of TransUnion stock.

These impressive results are a reflection of the transformation we've made into a leading information services company. This transformation is evident in our significantly more diversified portfolio compared to just five years ago when we started this journey.

As we look ahead, we're focused on five core growth themes designed to maximize the growth potential of our very unique and powerful business model.

The first is to **drive growth through innovation**. In recent years, we've placed a heightened emphasis on delivering industry-leading innovation and have successfully done so across our portfolio. Our trended data product, CreditVision®, has enabled a fundamental change in lenders' ability to score and understand credit behavior in the U.S., Canada and Hong Kong. CreditVision will be rolled out in India, Colombia and South Africa in 2017.

We have also seen successful innovation in Insurance with our DriverRiskSM product, in Rental Screening with SmartMove 2.0® and in Collections with TLOxp®. Each of these products adds significant value for our customers and has helped drive our impressive growth.

Our innovation capability has been meaningfully improved with the completion of our next-generation technology platform, which enhances our ability to quickly and efficiently work with the full breadth of our data assets to provide unique and powerful customer solutions.

The second theme is to **expand in our vertical markets**, which include Healthcare, Insurance, Collections, Rental Screening and Government. Growth is coming from delivering innovation in each vertical and we continue to enhance our capabilities through acquisitions like Auditiz and RTech in Healthcare, Drivers History Information in Insurance and TLO as a means of acquiring valuable public records data. Taken together, these growth verticals provide attractive diversification and are delivering consistent double-digit, top line growth that we expect to continue in the future.

The third theme is to **drive growth across our diversified international footprint**. Like our growth verticals, the International segment has been producing double-digit, constant currency, top line growth with an attractive sales mix of two-thirds emerging market and one-third developed markets.

In addition to the compelling underlying market trends, we continue to layer innovation and our growth verticals into these markets. For instance, the launch of CreditVision in Canada helped drive 20% constant currency revenue growth in 2016. Similarly, we're seeing incremental growth from the introduction of insurance products and direct-to-consumer offerings in many of our international markets.

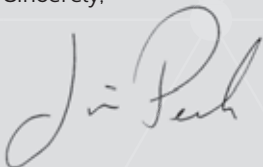
The fourth theme is to **deliver growth in Consumer Interactive and empower consumers**. Through strategic partnerships, we continue to expand our position in the direct-to-consumer market. In 2016, to reach the largely untapped credit union market, we both enhanced our commercial agreement with and made an investment in SavvyMoney. And, to expand our capabilities, we made an investment in password and ID protection company Dashlane. We continue to expand our presence in the financial services market with the addition of one of the largest banks, which is offering all consumers free access to their TransUnion credit report and score. We're also leveraging best practices from the U.S. to expand our consumer business globally. With each move, we position the Consumer Interactive business for the long term, while also helping empower consumers.

And, finally, our fifth theme is to **leverage global operating excellence**. Our global, next-generation technology transformation was a foundational move to drive innovation and efficiency across the company. Additionally, we're building global sales and marketing capabilities to fully leverage our scale.

Taking all these strategies together, I am more confident in the future of TransUnion than ever before. We have the right people executing against aggressive and focused strategies to fully leverage our powerful business model.

I want to conclude by thanking our shareholders for their ongoing support and our employees for the amazing work they do every day to make TransUnion a great company.

Sincerely,



JIM PECK
President and Chief Executive Officer



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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2016

- 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 001-37470

TransUnion

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

61-1678417
(I.R.S. Employer
Identification Number)

555 West Adams, Chicago, Illinois
(Address of principal executive offices)

60661
(Zip Code)

312-985-2000

(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class

Name of Each Exchange on Which Registered

Common Stock, par value \$0.01 per share

New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act:

None

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232-405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES NO

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately \$2.4 billion as of June 30, 2016 (based on the closing stock price of such stock as quoted on the New York Stock Exchange).

As of January 31, 2017, there were 183.3 million shares of TransUnion common stock outstanding, par value \$0.01 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement of TransUnion for the Annual Meeting of Stockholders to be held May 3, 2017 are incorporated by reference to the extent specified in Part III of this Form 10-K.

TRANSUNION
ANNUAL REPORT ON FORM 10-K
YEAR ENDED DECEMBER 31, 2016
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Cautionary Notice Regarding Forward-Looking Statements

This Annual Report on Form 10-K, including the exhibits hereto, contains “forward-looking statements” within the meaning of federal securities laws. Any statements made in this report that are not statements of historical fact, including statements about our beliefs and expectations, are forward-looking statements. Forward-looking statements include information concerning possible or assumed future results of operations, including descriptions of our business plans and strategies. These statements often include words such as “anticipate,” “expect,” “suggest,” “plan,” “believe,” “intend,” “estimate,” “target,” “project,” “should,” “could,” “would,” “may,” “will,” “forecast” and other similar expressions.

Although we believe that these forward-looking statements are based on reasonable assumptions, you should be aware that factors affecting our actual financial results could cause actual results to differ materially from those expressed in the forward-looking statements. Factors that could materially affect our financial results or such forward-looking statements include, among others, the risks, uncertainties and factors set forth below under “Risk Factors,” and the following factors:

- macroeconomic and industry trends and adverse developments in the debt, consumer credit and financial services markets;
- our ability to provide competitive services and prices;
- our ability to retain or renew existing agreements with large or long-term customers;
- our ability to maintain the security and integrity of our data;
- our ability to deliver services timely without interruption;
- our ability to maintain our access to data sources;
- government regulation and changes in the regulatory environment;
- litigation or regulatory proceedings;
- regulatory oversight of certain “critical activities”;
- our ability to effectively manage our costs;
- economic and political stability in the United States and international markets where we operate;
- our ability to effectively develop and maintain strategic alliances and joint ventures;
- our ability to timely develop new services and the market’s willingness to adopt our new services;
- our ability to manage and expand our operations and keep up with rapidly changing technologies;
- our ability to make acquisitions and integrate the operations of acquired businesses;
- our ability to protect and enforce our intellectual property, trade secrets and other forms of unpatented intellectual property;
- our ability to defend our intellectual property from infringement claims by third parties;
- the ability of our outside service providers and key vendors to fulfill their obligations to us;
- further consolidation in our end-customer markets;
- the increased availability of free or inexpensive consumer information;
- losses against which we do not insure;
- our ability to make timely payments of principal and interest on our indebtedness;
- our ability to satisfy covenants in the agreements governing our indebtedness;
- our ability to maintain our liquidity;
- share repurchase plans;
- our reliance on key management personnel; and
- our controlling stockholders.

There may be other factors, many of which are beyond our control, that may cause our actual results to differ materially from the forward-looking statements, including factors disclosed under the sections entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this report. You should evaluate all forward-looking statements made in this report in the context of these risks and uncertainties.

The forward-looking statements contained in this report speak only as of the date of this report. We undertake no obligation to publicly release the result of any revisions to these forward-looking statements, to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

PART I

Unless the context indicates otherwise, any reference to the “Company,” “we,” “us,” and “our” refers to TransUnion (formerly known as TransUnion Holding Company, Inc.) and its direct and indirect subsidiaries.

ITEM 1. BUSINESS

Overview

TransUnion is a leading global risk and information solutions provider to businesses and consumers. We provide consumer reports, risk scores, analytical services and decisioning capabilities to businesses. Businesses embed our solutions into their process workflows to acquire new customers, assess consumer ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and investigate potential fraud. Consumers use our solutions to view their credit profiles and access analytical tools that help them understand and manage their personal information and take precautions against identity theft. We are differentiated by our comprehensive and unique datasets, our next-generation technology and our analytics and decisioning capabilities, which enable us to deliver insights across the entire consumer lifecycle. We believe we are the largest provider of risk and information solutions in the United States to possess both nationwide consumer credit data and comprehensive, diverse public records data, which allows us to better predict behaviors, assess risk and address a broader set of business issues for our customers. We have deep domain expertise across a number of attractive industries, sometimes referred to as verticals, including financial services, specialized risk, insurance and healthcare. We have a global presence in over 30 countries across North America, Africa, Latin America and Asia.

Our addressable market includes the big data and analytics market, which continues to grow as companies around the world recognize the benefits of building an analytical enterprise where decisions are made based on data and insights, and as consumers recognize the importance that data and analytics play in their ability to procure goods and services and protect their identities. International Data Corporation (“IDC”) estimates worldwide spending on big data and analytics services is projected to continue to grow at a CAGR of approximately 15% through 2019. There are several underlying trends supporting this market growth, including the creation of large amounts of data, advances in technology and analytics that enable data to be processed more quickly and efficiently to provide business insights, and growing demand for these business insights across industries and geographies. Leveraging our 49 year operating history and our established position as a leading provider of risk and information solutions, we have evolved our business by investing in a number of strategic initiatives, such as transitioning to the latest big data and analytics technologies, expanding the breadth and depth of our data, strengthening our analytics capabilities and enhancing our business processes. As a result, we believe we are well positioned to expand our share within the markets we currently serve and capitalize on the larger big data and analytics opportunity.

We believe that we have the capabilities and assets, including comprehensive and unique datasets, advanced technology and analytics to provide differentiated solutions to our customers. We have over 40 petabytes of data, growing at an average rate of over 25% each year since 2010, representing over one billion consumers globally. Our solutions are based on a foundation of financial, credit, alternative credit, identity, bankruptcy, lien, judgment, insurance claims, healthcare, automotive and other relevant information from 90,000 data sources, including financial institutions, private databases and public records repositories. We refine, standardize and enhance this data using sophisticated algorithms to create proprietary databases. Our next-generation technology allows us to quickly and efficiently integrate our data with our analytics and decisioning capabilities to create and deliver innovative solutions to our customers and to quickly adapt to changing customer needs. Our deep analytics expertise, which includes our people as well as tools such as predictive modeling and scoring, customer segmentation, benchmarking and forecasting, enables businesses and consumers to gain better insights into their risk and financial data. Our decisioning capabilities, which are generally delivered on a software-as-a-service platform, allow businesses to interpret data and apply their specific qualifying criteria to make decisions and take actions. Collectively, our data, analytics and decisioning capabilities allow businesses to authenticate the identity of consumers, effectively determine the most relevant products for consumers, retain and cross-sell to existing

consumers, identify and acquire new consumers and reduce loss from fraud. Similarly, our capabilities allow consumers to see how their credit profiles have changed over time, understand the impact of financial decisions on their credit scores, manage their personal information and take precautions against identity theft.

We leverage our differentiated capabilities in order to serve a broad set of customers across multiple geographies and industry verticals. We have a global customer base of over 65,000 businesses and millions of consumers use our data to help manage their personal finances and take precautions against identity theft. We offer our solutions to business customers in financial services, insurance, healthcare and other industries. Our customer base includes many of the largest companies in each of the primary industries we serve. For example, in the United States, we contract with eight of the ten largest banks, all of the top ten credit card issuers, all of the top twenty-five auto lenders, fourteen of the fifteen auto insurance carriers, thousands of healthcare providers and federal, state and local government agencies. We have been successful in leveraging our brand, our expertise and our solutions in our global operations and have a leading presence in several high-growth international markets.

We believe we have an attractive business model that has highly recurring and diversified revenue streams, low capital requirements, significant operating leverage and strong and stable cash flows. The proprietary and embedded nature of our solutions and the integral role that we play in our customers' decision-making processes have historically translated into high customer retention and revenue visibility. For example, our top ten financial institution customers have an average tenure of over ten years. We continue to demonstrate organic growth by further penetrating existing customers, innovating new solutions and gaining new customers. We have a diversified portfolio of businesses across our segments, reducing our exposure to cyclical trends in any particular industry or geography. We operate primarily on a contributory data model in which we typically obtain updated information at little or no cost and own most of our data. We augment this data with a growing set of public record and alternative data as we develop new solutions and expand into new industries and geographies. We also directly manage and control our technology, which provides us with an efficient cost structure and allows us to benefit from economies of scale. Additionally, our technology investments enable us to grow and expand our business with low incremental cost, providing significant operating leverage.

Our total revenues increased from \$1,506.8 million for the year ended December 31, 2015 to \$1,704.9 million for the year ended December 31, 2016, representing year-over-year growth of 13.1%. Our net income attributable to the Company increased from \$5.9 million for the year ended December 31, 2015 to \$120.6 million for the year ended December 31, 2016. Our Adjusted EBITDA increased from \$526.7 million for the year ended December 31, 2015 to \$636.8 million for the year ended December 31, 2016, representing year-over-year growth of 20.9%. As of December 31, 2016, the book value of our debt was approximately \$2,375.6 million.

Our Evolution

Our business has a 49 year operating history and a long track record of providing risk and information solutions to businesses and consumers while continuing to innovate to meet their changing needs. Since our founding as a provider of regional credit reporting services, we have built a comprehensive database of U.S. consumers, which created a unique and highly valuable base to build solutions that span many industry verticals and customer processes. From this base, we expanded our operations by targeting new customers, industry verticals and geographies and also entering into the consumer space. We have strengthened our analytics and decisioning capabilities and acquired complementary datasets enabling us to enhance our solutions, diversify our revenue base and expand into high-growth verticals, such as healthcare and insurance. We have grown our global presence to over 30 countries, creating credit reporting agencies in new geographies and establishing strong international footholds from which we could expand into other emerging markets. We also expanded the reach of our consumer solutions by partnering with other market leaders and innovators.

As part of our continued evolution, we have invested in a number of strategic initiatives that we believe will allow us to cater to the growing demand for data and analytics, provide differentiated solutions and better serve our customers. These initiatives include:

- ***Investing in our Technology:*** Technology is at the core of the solutions we provide to our customers. We have made significant investments since 2012 to modernize our infrastructure and to transition to the latest big data and analytics technologies which enable us to be quicker, more efficient and more cost-effective. Our next-generation technology enhances our ability to organize and handle high volumes of disparate data, improves delivery speeds, provides better availability and strengthens product development capabilities, while lowering our overall cost structure and allowing us to maintain our focus on information security. Our investment strategy has been to build capabilities and leverage them across multiple geographies and industry verticals.
- ***Expanding our Data:*** We have continued to invest in the breadth and depth of our data. We introduced the concept of trended data to provide the trajectory of a consumer's risk profile, used public records data to enhance the scope of business issues we can address and incorporated alternative data into our databases to better assess risk for banked and unbanked consumers. We believe we are the only provider of scale in the United States to possess both nationwide consumer credit data and comprehensive, diverse public records data. All of these initiatives improve the quality of our data, provide deeper insights into risk and allow us to create differentiated solutions for our customers.
- ***Strengthening our Analytics Capabilities:*** We have strengthened our analytics capabilities by leveraging our next-generation technology and expanded data, utilizing more advanced tools and growing our analytics team. This has allowed us to create solutions that produce greater insights and more predictive results, which help our customers make better decisions. In addition, our strengthened analytics capabilities have shortened our time-to-market to create and deliver these solutions to our customers.
- ***Broadening our Target Markets:*** We have grown our target markets by establishing a presence in attractive high-growth international markets such as India, Colombia and the Philippines, entering new verticals such as government and investigative services in the United States and expanding the reach of our consumer offerings by partnering with traditional and emerging providers in new verticals. Our capabilities enable us to develop scalable products that we are able to deploy across new markets and verticals.
- ***Enhancing our Business Processes and Capabilities:*** We have enhanced our business processes and capabilities to support our growth. We have hired additional industry experts, which has allowed us to create and sell new vertical-specific solutions that address our customers' needs. Our global sales force effectiveness program reallocates our sales resources more effectively and increases our sales team's coverage of customers across our target markets. In conjunction with our other initiatives, we have also recently refreshed our company brand to reinforce our global position as a trusted, consumer-friendly company.

We believe that our ongoing focus on evolving with the market and with our customers' needs ensures continued improvement in our overall services to businesses and consumers. Leveraging our trusted brand, global scale and strong market position in the verticals we serve will allow us to capitalize on business opportunities worldwide and contribute to our long-term growth.

Our Market Opportunity

We believe there is a long-term trend of businesses and consumers using data and analytics to make more informed decisions and manage risk more effectively, resulting in a large and rapidly growing market. According to a November 2015 report from IDC, spending on business analytics services worldwide is projected to continue to grow at a CAGR of approximately 15% through 2019.

We believe there are several key trends in the global macroeconomic environment affecting the geographies and industry verticals we serve that will create increasing demand for our solutions:

- ***Rapid Growth in Data Creation and Application:*** Larger and more diversified datasets are now assembled faster while the breadth of analytical applications and solutions has expanded. Companies are increasingly relying on business analytics and big data technologies to help process this data in a cost-efficient manner. In addition, non-traditional sources of structured and unstructured data have become important in deriving alternative metrics. The proliferation of smartphones and other mobile devices also generates enormous amounts of data tied to consumers, activities and locations. We believe that the demand for targeted data and sophisticated analytical solutions will continue to grow meaningfully as businesses seek real-time access to more granular views of consumer populations and more holistic views on individual consumers.
- ***Advances in Technology and Analytics Unlocking the Value of Data:*** Ongoing advances in data collection, storage and analytics technology have contributed to the greater use and value of data and analytics in decision making. As businesses have gained the ability to rapidly aggregate and analyze data, they increasingly expect access to real-time data and analytics from their information providers as well as solutions that fully integrate into their workflows. We believe this has made sophisticated technology critical for gaining and retaining business in the risk and information services industry.
- ***Greater Adoption of Big Data Solutions across New and Existing Industry Verticals:*** With the proliferation of data, we believe companies across new and existing industry verticals recognize the value of risk information and analytical tools, particularly when tailored to their specific needs.
 - ***Financial Services Industry:*** The combination of increased regulatory capital, additional compliance costs and the overhang of legacy assets is pushing large segments of small-to-medium-sized business and consumer lending out of the banking sector, and resulting in the creation of new specialty finance companies, such as peer-to-peer lending platforms and online balance sheet lenders, which are actively filling the void. These technology-enabled lending platforms provide access to credit in a fast and efficient manner by utilizing sophisticated risk assessment tools that leverage data, such as behavioral data, transactional data and employment and credit information. At the same time, traditional financial services companies are also increasing the use of applications and data in order to address regulatory requirements, lower operating costs and better serve their customers.
 - ***Insurance Industry:*** As consumers increasingly obtain quotes from multiple insurers in an effort to lower their costs, insurers are trying to improve the accuracy of their risk assessments and initial quotes. For example, insurance carriers are using driver violation data to uncover offenses that will impact pricing earlier in the quoting process so consumers have a more accurate view of the premiums they will be charged.
 - ***Healthcare Industry:*** Greater patient financial responsibility, focus on cost management and regulatory supervision are driving healthcare providers to use data and related analytics tools to better manage their revenue cycle. For example, to reduce collection risks, healthcare providers seek information about their patients' insurance coverage and ability to pay at the time of registration. In addition, insurance discovery tools are being utilized to optimize accounts receivable management, maximize collections and minimize uncompensated care.
- ***Increasing Lending Activity in Emerging International Markets:*** As economies in emerging markets continue to develop and mature, we believe there will continue to be favorable socio-economic trends, such as an increase in the size of the middle class and a significant increase in the use of financial services by under-served and under-banked consumers. In addition, credit penetration is relatively low in emerging markets when compared to developed markets. For example, using our database of information compiled from financial institutions as a benchmark of credit activity, we estimate that less than 20% of the adult population in India is currently credit active. Furthermore, the widespread

adoption and use of mobile phones in emerging markets have enabled greater levels of financial inclusion and access to banking and credit. We expect the populations in emerging markets to continue to become more credit active, resulting in increased demand for our services.

- ***Increased Management and Monitoring of Personal Financial Information and Identity Protection by Consumers:*** Demand for consumer solutions is rising with greater consumer awareness of the importance and usage of their credit information, increased risk of identity theft due to data breaches and more readily available free credit information. The number of consumers subscribing to a credit monitoring or identity protection service has more than doubled from 2014 to 2016. In addition, the proliferation of mobile devices has made data much more accessible, enabling consumers to manage their finances and monitor their information in real-time. We believe these trends will continue to drive growth for our consumer business.

Our Competitive Strengths

Comprehensive and Unique Datasets

Our long operating history and leadership in the industry have allowed us to build comprehensive and unique data assets that would be difficult for a new market entrant to replicate. We have over 40 petabytes of data, growing at an average rate of over 25% each year since 2010, representing over one billion consumers globally. Our solutions are based on a foundation of financial, credit, alternative credit, identity, bankruptcy, lien, judgment, insurance claims, healthcare, automotive and other relevant information from 90,000 data sources, including financial institutions, private databases and public records repositories. We refine, standardize and enhance this data using sophisticated algorithms to create proprietary databases. We keep our data current by processing approximately 3.8 billion updates each month, and we continue to identify opportunities to acquire additional data. We believe that our data is unique and differentiates us from our competitors. We own several proprietary datasets such as consumer credit information, driver violation history, healthcare eligibility information, business data and rental payment history. Internationally, our data assets also encompass alternative data, such as the voter registry in India with approximately 750 million records and the vehicle information database in South Africa with over 18 million vehicle records. We have also acquired public record datasets, which are time consuming and difficult for others to obtain and associate with the correct person. We believe we are the only provider of scale in the United States to possess both nationwide consumer credit data and comprehensive, diverse public records data, which allows us to better predict behaviors, assess risk and address a broader set of business issues for our customers.

Next-generation Technology

Our next-generation technology allows us to continually improve our overall services to businesses and consumers and ensures that we are well positioned to differentiate our datasets and capabilities. We believe our next-generation technology capabilities has resulted in increased throughput, improved data matching, greater efficiency, advanced platform flexibility and lower operating costs.

- ***Powerful Big Data Capabilities:*** Our technology gives us the ability to process, organize and analyze high volumes of data across multiple operating systems, databases and file types as well as to deal with both structured and unstructured data that changes frequently. We process billions of transactions and trillions of data transformations on a daily basis.
- ***Enhanced Linking and Matching:*** Because our data matching technology is able to interrelate data across disparate sources, industries and time periods, we believe that we are able to create differentiated datasets and provide our customers with comprehensive insights that allow them to better evaluate risk. For example, our *TLOxp* solution leverages these data matching capabilities across various datasets to identify and investigate relationships among people, assets, locations and businesses, allowing us to offer enhanced due diligence, threat assessment, identity authentication and fraud prevention and detection solutions.

- **Greater Efficiency:** From ingestion of data to distribution of analytics and insights, our next-generation technology enables a faster time to market. For example, a portion of our platform now allows for data profiling, cleansing and ingestion of data significantly faster and can be done in a self-service approach by non-IT power users, allowing us to significantly reduce overall production times for new products.
- **Advanced Platform Flexibility:** Our technology offers a high degree of flexibility, speed and customization of our solutions, via capabilities like graphical development and business rules environments, and allows easy integration with our customers' workflows. We manage and control our technology instead of outsourcing it, which provides us with the flexibility to prioritize changes and to quickly implement any updates to our applications and solutions.
- **Lower Operating Costs:** Our technology investments have lowered our overall cost to maintain and develop our systems, allowing us to redeploy significantly more resources to support revenue generating initiatives, such as vertical expansion and new product development.

Sophisticated and Flexible Analytics and Decisioning Capabilities

We have developed sophisticated and flexible analytics and decisioning capabilities by investing in technology, tools and people. Our technology allows us to quickly build sophisticated analytics and decisioning functionality that caters to our customers' evolving needs. Our analysts leverage our next-generation technology and data matching capabilities to gain real-time access to our entire dataset across different data sources and run analyses across this data while remaining compliant with permitted data use. Our analysts are typically able to create data samples for model development, model validations and custom analyses in less than one day using self-serve data access. Our analysts are equipped with a diverse modeling and analytical toolkit, such as visualization and machine learning, which allows them to quickly build and deploy these capabilities. For example, our team was able to build a new loan consolidation model in our *CreditVision* solution in less than one day using our advanced tools, instead of a typical development time of four to five weeks with legacy tools and technology. We have an experienced analytics team with substantial industry experience, complemented by a deep knowledge of consumer credit data. Our team is highly qualified with advanced degrees or doctorates in statistics, math, finance or engineering, and is instrumental in understanding customer requirements, sourcing raw data and turning that data into solutions that provide insights and decisions to solve our customers' problems.

Innovative and Differentiated Solutions

We consistently focus on innovation to develop new and enhanced solutions that meet the evolving needs of our customers. We believe our specialized data, analytics and decisioning services and collaborative approach with our customers differentiate us from our competitors. Our solutions are often scalable across different customers, geographies and verticals. Recent examples of our innovative and differentiated solutions include:

- **AdFuel:** *AdFuel* powers digital media campaigns with highly targeted audiences for the financial services and insurance industries. TransUnion *AdFuel* audiences are found across the online advertising ecosystem on the industry's leading publishers and platforms. Our audiences leverage TransUnion data, delivering actionable data and insights to financial services and insurance companies and helping organizations identify new opportunities and assess risk.
- **CreditView:** *CreditView* is a first-to-market interactive dashboard that provides consumers with credit education and information in a comprehensive, user-friendly format. Consumers are able to easily see how their credit profiles have changed over time, receive alerts on key credit changes, and simulate the impact of financial decisions on their credit score.
- **CreditVision:** We continue to enhance our credit data by including new data fields, enriching values in existing data fields and expanding account history. Our enhanced credit data has been combined with hundreds of algorithms to produce *CreditVision* and *CreditVision Link*, market-leading solutions that provide greater granularity and evaluate consumer behavior patterns over time. This results in a more predictive view of the consumer, increases the total population of consumers who can effectively be scored and helps consumers gain improved pricing.

- **DecisionEdge:** *DecisionEdge* is a software-as-a-service decisioning offering which allows businesses to identify and authenticate customers, interpret data and predictive model results, and apply customer-specific criteria to facilitate real-time, automated decisions at the point of consumer interaction.
- **DriverRisk:** Leveraging our driver violation database, we developed *DriverRisk*, a data and analytic solution that helps auto insurance carriers cost effectively validate driving records and assess risk during the underwriting and renewal process to improve returns.
- **Insurance Coverage Discovery and Other Health Insurance:** For our healthcare customers, we offer insurance coverage discovery, coordination of benefits, and third party liability solutions, which enables the discovery of previously unidentified health insurance coverage to help both our provider and payer customers receive appropriate payment for uncompensated care and coordination of benefits payments. Our proprietary technology identifies patient accounts covered by Disproportionate Share Hospitals (DSH), Medicare, TRICARE and commercial insurance benefits at the time of service and monitors an account for up to three years for retroactive eligibility that providers may have missed.
- **Prama:** *Prama Insights* provides customers with on-demand, 24/7 customer access to massive, depersonalized data sets and key analytics for portfolio understandings, benchmarking and peer analysis. *Prama Studio* offers an environment for customers to create, test and manage attributes that support model development to achieve growth, risk and compliance goals.
- **SmartMove:** *SmartMove* allows independent landlords to screen applicants on a real-time basis by pushing the screening information of the individual renter to the landlord, based on the consent of the renter. The solution is delivered through our mobile channel and through our partners and provides independent landlords with convenient access to the same quality information provided to large property management firms.
- **TLOxp:** *TLOxp* leverages our data matching capabilities across thousands of data sources to identify and investigate relationships among specific people, assets, locations and businesses. This allows us to offer enhanced due diligence, threat assessment, identity authentication and fraud prevention and detection solutions and to expand our solutions into new verticals such as government and law enforcement.

Deep and Specialized Industry Expertise

We have deep expertise in a number of attractive industry verticals including financial services, insurance and healthcare. Our expertise has allowed us to develop sophisticated vertical-specific solutions within these targeted industries that play an integral role in our customers' decision-making processes and are often embedded into their workflows. Our team includes industry experts with significant experience in the verticals that we target and relationships with leading companies in those verticals. We also possess regulatory compliance expertise across the industries that we serve. Together, this provides us with a comprehensive understanding of business trends and insights for customers in these verticals, allowing us to build solutions that cater to these customers' specific requirements. We have been able to apply our industry knowledge, data assets, technology and analytics capabilities to develop new solutions and revenue opportunities within key verticals. For example, in financial services, our differentiated position allowed us to anticipate the increased demand for alternative consumer lending providers such as peer-to-peer lending platforms, and we created solutions that catered to these emerging providers. In insurance, we partnered with a vehicle history data provider to launch a vehicle history score that helps insurance carriers further segment risk based on the attributes of a specific automobile. In healthcare, we developed a solution that allows healthcare providers to search for additional health insurance coverage and recover additional uncompensated care costs, lowering their overall cost of operation.

Leading Presence in Attractive International Markets

We have been operating internationally for over 30 years and have strong global brand recognition. We have strategically targeted attractive markets in both developed and emerging economies and have a diversified global

presence in over 30 countries and a leading presence in several attractive international markets across North America, Africa, Latin America and Asia. We have local, senior management in many of our international markets, and we believe this provides us with deeper insights into these markets and stronger relationships with our customers. We have leveraged our brand, operating history, global footprint and technology infrastructure to establish new credit bureaus in several international markets, such as Canada in 1989, India in 2001 and the Philippines in 2011. Once established, our model is to expand the services we offer within these markets and then move into adjacent emerging markets. For example, we have used our operations in Hong Kong to expand into other Asia Pacific countries and provide analytic scoring models in the Philippines, Singapore, Malaysia and Thailand. We have used our operations in South Africa to expand into neighboring African countries. We have also entered new markets through strategic acquisitions, including Colombia in 2016, and Brazil in 2011. In addition, we have been able to leverage our technology and experience from our U.S. operations to develop and grow our international operations. For example, we have expanded our *CreditVision* product into Canada and Hong Kong and have begun to roll it out in South Africa and India. We have also expanded our direct-to-consumer business into Canada, India and Hong Kong and have implemented *DecisionEdge* across more than 600 active solutions in over 10 countries.

Proven and Experienced Management Team

Our senior management team has a track record of strong performance and significant expertise in the markets we serve, with an average of over twenty years of industry experience. We continue to attract and retain experienced management talent for our businesses. Our team has deep knowledge of the data and analytics sector and expertise across the various industries that we serve. Our team has overseen our expansion into new industries and geographies while managing ongoing strategic initiatives, including our significant technology investments. As a result of the sustained focus of our management team, we have been successful in consistently driving growth, both organically and through acquiring and integrating businesses.

Our Growth Strategy

Enhance Underlying Data, Technology and Analytics Capabilities to Develop Innovative Solutions

As the demand for big data and analytics solutions grows across industries and geographies, we will continue to expand the scope of our underlying data, improve our tools and technology and enhance our analytics and decisioning capabilities to provide innovative solutions that address this demand. As the needs of businesses and consumers evolve, we plan to continue to help them meet their challenges, which our recent investments in data, technology and analytics enable us to do more quickly and efficiently. For example, we enhanced our solutions with incremental data such as rental trade lines, additional contact data and auto asset data in order to address a broader set of customer requirements. Our recent technology investments have also reduced the time to market for new solutions, in certain instances from several weeks to a few days, which allow us to react quickly to customer requirements. We also intend to continue to take advantage of strategic partnerships to develop innovative services that differentiate us from our competitors.

Further Penetrate Existing Industry Verticals with Current and New Solutions

We are a leading provider of risk and information solutions in several industry verticals today, including financial services, insurance and healthcare. We believe there is significant opportunity for further growth within these industries by expanding the number of customers to whom we sell our current solutions as well as by creating innovative new solutions that we can use to grow our presence in these industries. We focus on developing new solutions that address evolving customer needs within our industry verticals. For example, in the financial services vertical, we launched *Prima*, an analytic workbench that enables access to massive anonymized data sets for benchmarking and attribute development. We also developed *CreditVision*, which provides customers with a time-based risk trend and increases the total eligible population of consumers. Similarly, in the insurance vertical, we introduced the *DriverRisk* solution that leverages our driver violation

database to cost effectively identify drivers with ratable violations, resulting in unique insights into driver risk and reduced costs and higher returns for insurance carriers. In order to more effectively address these opportunities, we have redeployed and reallocated our sales resources to focus either on new customer opportunities or on selling additional services and solutions to existing customers. With our leading market positions, existing strong relationships in financial services, insurance and healthcare verticals and with our consumer partners, we believe we have the opportunity to further penetrate our existing customer base and capture a greater proportion of their spending across the consumer lifecycle.

Establish Positions in New, Adjacent Industry Verticals

In addition to increasing penetration in industries where we have a substantial presence, we also intend to create solutions that address customer needs in attractive new industries. Our strategy is to develop new solutions for a specific application, industry vertical or geography and then deploy them to other markets where they may be applicable. We believe that our capabilities allow us to quickly create and deliver solutions to new industries and geographies where information-based analytics and decisioning capabilities are currently underutilized. For example, our strong position in financial services and insurance verticals has allowed us to establish a presence in the healthcare vertical to capitalize on the increasing demand for data and analytics solutions. We have created innovative solutions that automate the insurance and payment processes at the beginning of the revenue cycle, help payers analyze claims-related data, facilitate performance reporting and help patients make informed decisions. Similarly, we are targeting other verticals such as government, rental screening and investigative services, where we see an opportunity to leverage our existing data, analytics and decisioning capabilities.

Expand our Presence in Attractive International Markets

We believe international markets present a significant opportunity for growth, as these economies continue to develop and their populations become more credit active. We have significant scale in some of the world's fastest growing markets, which positions us well to take advantage of the favorable dynamics in these regions. We leverage solutions developed in the United States and deploy them to international markets, after localizing them to individual market requirements. For example, after launching *CreditVision* in the United States, we have expanded our offerings with similar solutions in Canada and Hong Kong and have begun to implement it in other international markets. In markets where we have established a presence in a particular vertical, we will expand further into adjacent verticals, such as insurance and consumer solutions. We intend to continue to expand into new geographic markets by forming alliances with financial services institutions, industry associations and other local partners, and by pursuing strategic acquisitions. Across all our international expansion initiatives, we will continue to leverage our next-generation technology to drive speed to market, scale and differentiation.

Continue to Broaden Reach in Consumer Market through Direct and Indirect Channels

Our consumer business has delivered market leading growth, driven by our innovative solutions and flexible and collaborative partnership model that has expanded the market for consumer services, along with greater consumer awareness of the value of their credit information and increased risk of identity theft. Our strategy is to grow our own member base in the direct channel as well as expand our reach through partnerships in the indirect channel. Across both channels, our focus is on delivering value-added solutions and features while continuing to improve the consumer experience with more user-friendly interfaces and better customer service and educational tools. Within our indirect channel, we will continue to leverage and enhance our flexible technology platform to expand our relationship with existing partners as well as develop relationships with new partners and enter new verticals. We believe that partnerships not only enable us to grow our own business, but they also expand the overall market and provide us access to new consumer segments. We will also continue to leverage our approach in the U.S. consumer market to expand our consumer operations globally.

Pursue Strategic Acquisitions

We will continue to pursue acquisitions to accelerate growth within our existing businesses and diversify into new businesses. We are focused primarily on opportunities that are strategic to us, including opportunities that

expand our geographic footprint, increase the breadth and depth of our datasets, enhance our services, provide us with industry expertise in our key verticals and deepen our presence in our international markets. For example, we expanded into new countries such as Brazil and Chile and in Colombia during 2016 with our acquisition of Central de Informacion Financiera S.A. (“CIFIN”). CIFIN is one of two primary credit bureaus in Colombia, a country with a population greater than 48 million. We have also enhanced our domestic healthcare offerings through various acquisitions over the past few years. Other recent examples include our December 2013 acquisition of TLO’s assets, providing data solutions leveraging proprietary public records data for identity authentication, fraud prevention and debt recovery, our November 2014 acquisition of DHI, a provider of traffic violations and criminal court data, our October 2014 acquisition of L2C, an innovator in predictive analytics using alternative data that is able to provide risk perspectives on non-traditional and non-credit active consumers, our December 2015 acquisition of Trustev, Ltd., a provider of digital verification technology to multiple industries and our 2016 acquisitions of RTech Healthcare Revenue Technologies, Inc. (“RTech”) and Auditz, LLC, (“Auditz”), two entities with propriety technology that helps healthcare providers protect revenue and identify and recover payments. From time to time, we may also seek to increase our investments in foreign entities in which we have less than a 100% equity interest, as we did with Credit Information Bureau (India) Limited (“CIBIL”) in India in 2014 through 2016, increasing our ownership to over 82%. We have a strong track record of integrating acquisitions and driving long-term value creation, and we will continue to maintain a disciplined approach to pursuing acquisitions.

Segment Overview

We manage our business and report our financial results in three reportable segments: USIS, International and Consumer Interactive. We also report expenses for Corporate, which provides shared services and conducts enterprise functions. See Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Part II, Item 8 “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 16, “Reportable Segments,” for further information about our reportable segments.

USIS

USIS provides consumer reports, risk scores, analytical services and decisioning capabilities to businesses. These businesses use our services to acquire new customers, assess consumer ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and investigate potential fraud.

USIS leverages our comprehensive data assets, data matching expertise and predictive analytics to develop and deliver solutions across multiple vertical markets.

- **Comprehensive Data Assets:** Our credit database contains the name and address of substantially all of the U.S. credit-active population, a listing of their existing credit relationships and their timeliness in repaying debt obligations. The information in our database is voluntarily provided by thousands of credit-granting institutions and other data furnishers. We enhance our data assets with alternative credit sources such as rental payments and utility payments. We also actively source information from courts, government agencies and other public records including suits, liens, judgments, bankruptcies, professional licenses, real property, vehicle ownership, other assets, driver violations, criminal records and contact information. Our databases are updated, reviewed and monitored on a regular basis.
- **Predictive Analytics:** Our predictive analytics capabilities allow us to analyze our proprietary datasets and provide insights to our customers to allow them to drive better business decisions. Our tools allow customers to investigate past behavior, reasonably predict the likelihood of future events and strategize actions based on those predictions. We have numerous tools such as predictive modeling and scoring, customer segmentation, benchmarking, forecasting, fraud modeling and campaign optimization, all of which caters to specific customer requirements. Our predictive analytics capabilities are developed by an analytics team with deep industry experience and a broad array of specialized qualifications.

Our core capabilities leverage our next-generation technology, which has a common code base and allows us to build solutions once and deploy them multiple times across different verticals. We use varying combinations of these core capabilities and provide services to our customers through three delivery platforms, which are Online Data Services, Marketing Services and Decision Services.

Online Data Services

Online Data Services encompass services delivered in real-time, using both credit and public record datasets. These services include credit reports and predictive scores delivered to qualified businesses to help them assess the risk of prospective consumers seeking to access credit or insurance. We also provide online reports that link public record datasets for qualified businesses that seek to locate consumers or specific assets, or investigate relationships among consumers, businesses and locations. Collectively, the reports, characteristics and scores, with variations tailored for specific industries, form the basis of Online Data Services. We also provide online services to help businesses manage fraud and authenticate a consumer's identity when they initiate a new business relationship. Our fraud database, which is updated daily, contains data elements such as addresses and Social Security numbers from multiple sources that alert businesses to identities associated with known or suspected fraudulent activity. Additionally, we provide data to businesses to help them satisfy "know your customer" compliance requirements and to confirm an individual's identity. Revenue from Online Data Services accounted for approximately 65% of our USIS revenue in 2016.

Marketing Services

Marketing Services help businesses proactively acquire new customers, cross-sell to existing customers and monitor and manage risk in their existing portfolios. We help our customers develop marketing lists of prospects via direct mail, web and mobile. Our databases are used by our customers to contact individuals to extend firm offers of credit or insurance. We provide portfolio review services, which are periodic reviews of our customers' existing accounts, to help our customers develop cross-selling offers to their existing customers and monitor and manage risk in their existing consumer portfolios. We also provide trigger services which are daily notifications of changes to a consumer profile. Revenue from Marketing Services accounted for approximately 15% of our USIS revenue in 2016.

Decision Services

Decision Services, our software-as-a-service offerings, include a number of platforms that help businesses interpret data, visualize insights, predict model results and apply their customer-specific criteria to facilitate real-time automated decisions at the time of customer interaction. Our customers use Decision Services to evaluate business risks and opportunities, including those associated with new consumer credit and checking accounts, insurance applications, account collection, patient registrations and apartment rental requests. Revenue from Decision Services accounted for approximately 20% of our USIS revenue in 2016.

These core capabilities and delivery platforms in our USIS segment allow us to serve a broad set of customers and business issues. We offer our services to customers in the financial services, insurance, healthcare and other industries. In financial services we serve eight of the top ten banks in all facets of the customer lifecycle from acquisition through account management to collections. For example, our customers use our *CreditVision* solutions, which is based on 30 months of time series data and delivered across all our platforms, to bring insight to the velocity and magnitude of change in consumer risk over time, allowing them to segment risk with greater precision. They use *CreditVision Link* to evaluate risk in consumer populations who have little or no traditional financial behavioral data. We also recently introduced *Prama*, a portfolio of tools that provide customer access to massive analytic datasets for gaining insights into market trends and portfolio performance. In addition, our *AdFuel* capabilities power digital media campaigns with highly targeted audiences for the financial services and insurance industries. In insurance, fourteen of the top fifteen auto insurance carriers use TransUnion services to improve the speed and accuracy of quoting and underwriting policies, improving the consumer shopping

experience and lowering costs for the carriers. We do this by providing pre-fill services that use our data assets to populate an application once basic identity information is supplied by the consumer, then use our driver violation data, insurance and asset risk scores, and fraud detection tools to provide a quote that is more consistent with the final premium than previous methods used. In healthcare, thousands of healthcare providers and over 1,000 hospitals use our revenue cycle management solutions to verify patients' identity, check insurance eligibility and the patients' capacity to pay, estimate patient payment amounts and if needed, qualify patients for federal, state and local entitlement programs.

International

The International segment provides services similar to our USIS segment to businesses in select regions outside the United States. Depending on the maturity of the credit economy in each country, services may include credit reports, analytics and decisioning services and other value-added risk management services. In addition, we have insurance, business and automotive databases in select geographies. These services are offered to customers in a number of industries including financial services, retail credit, insurance, automotive, collections, government and communications, and are delivered through both direct and indirect channels. The International segment also provides consumer solutions similar to those offered by our Consumer Interactive segment to help consumers proactively manage their personal finances. The two market groups in the International segment are as follows:

Developed Markets

We offer online data services, marketing services and decision services in Canada and Hong Kong. Revenue from these developed markets accounted for approximately 35% of our International revenue in 2016.

Canada: We have operated in Canada since 1989 and are one of only two nationwide consumer reporting agencies in the Canadian market. We operate across multiple verticals in Canada with leading positions in insurance, collections and automotive and a strong and growing presence in financial services. Our Canadian customer base encompasses some of the largest companies in their verticals, including the top five largest banks, the top seven credit card issuers, eight of the top ten insurance companies and the top nine auto manufacturer lenders. We have recently grown our operations in Canada by acquiring new customers and we expect to continue to grow by introducing innovative new solutions, such as *CreditVision* and *DecisionEdge*, by increasing our presence with existing customers and by growing our market share with businesses and consumers.

Hong Kong: We have had a majority ownership interest in the principal consumer credit reporting company in Hong Kong since 1998. We are a primary supplier of consumer credit data and value-added solutions to the top ten banks in Hong Kong. Additionally, we use our established operations in Hong Kong as a base to expand into other emerging markets in the Asia Pacific region. We expect to continue to grow and transform the Hong Kong business by offering analytics, identity management, decisioning and consumer solutions.

Emerging Markets

Together with our unconsolidated subsidiaries, we also provide online data services, marketing services and decision services in emerging markets, such as South Africa, Brazil, India and other countries in the Africa, Latin America and Asia Pacific regions. Once credit databases are established in these markets, we can introduce services that have demonstrated success in developed markets. We believe that our flexible approach to forming local partnerships has allowed us to establish a foothold in certain emerging markets where our major competitors have not, such as in India and the Philippines. We also believe that our presence in emerging markets helps foster the growth and development of economies in these markets, thereby resulting in an accelerated demand for credit information services and analytics. Revenue from emerging markets accounted for approximately 65% of our International revenue in 2016.

Africa: We launched our operations in Africa by entering South Africa in 1993. We are highly diversified and serve a variety of industries through traditional consumer credit reporting services, insurance solutions, auto

information solutions, commercial credit information services and consumer solutions in South Africa. We are a primary risk and information solutions provider in South Africa for three of the top four banks, the top ten retailers, six of the seven top dealer groups and the top six insurers. We manage the database of all personal claims, policy and vehicle information on behalf of the South African Insurance Association and offer innovative solutions throughout the policy lifecycle. Our extensive vehicle information database in South Africa, which has over 18 million vehicle records and includes unique vehicle identifier codes, differentiates us from other providers. Our leading presence in South Africa has allowed us to expand into surrounding countries including Kenya, Namibia, Swaziland, Botswana, Zambia, Rwanda, and Malawi. We are currently rolling out our next-generation technology to our South African operations, which will make us the only provider with a big data platform in Africa and will provide us with further competitive advantages.

Latin America: We have been active in Latin America since 1985 when we entered the Puerto Rican market, and we have operations in numerous Central and South American countries, including a strong presence in Colombia, where in February 2016 we acquired CIFIN, one of two primary credit bureaus in Colombia. CIFIN collects data from more than 2,700 traditional and alternate data sources, processes over 230 million transactions annually and can provide credit reports and scores on nearly all individuals and 2.4 million businesses. CIFIN has over three thousand customers across multiple industries, including the top five private banks and telecommunications companies and seven of the top ten nonlife insurance companies. In Brazil, we are a leading provider in decisioning with over 100 customers and over 35 million transactions processed monthly across key industry verticals. We believe we have the most extensive alternative database in Brazil with information on over 200 million consumers and 30 million companies. Our customer base in Brazil includes three of the top four private banks, sixteen of the top twenty automotive insurance carriers, three of the top five telecommunications groups and the largest Latin America online sales site. We also have a significant credit bureau business in the Dominican Republic and a 25.69% ownership interest in Trans Union de México, S.A., the primary credit reporting agency in Mexico. In Guatemala, we maintain a centralized database that services Guatemala, Honduras, Nicaragua and Costa Rica. We also acquired a Chilean credit reporting agency in 2010.

India: In 2001, we partnered with prominent Indian financial institutions to create CIBIL, the first consumer and business credit reporting agency in India. In 2014, we acquired a majority interest in CIBIL and further increased our ownership interest to over 82% in 2016. We now include their results in our consolidated financial statements. We are CIBIL's sole technology, analytics and decision services provider for its consumer risk information services business. In the absence of a comprehensive national ID, we created an innovative matching algorithm that allowed us to create the most extensive consumer credit database in India. Our credit database includes information on over 270 million consumers and over 13 million business entities.

In addition, we own or have access to several non-credit data sources that we use to enhance our solutions. These include the national voters registry with over 750 million records and the national ID database with over 1.1 billion records, as well as other sources such as the confirmed and suspected fraud registry, property registry and tax ID database. We offer a suite of risk and information solutions across the credit lifecycle for banks, telecommunication companies and insurance companies. Our suite of offerings includes analytics and decisioning solutions that enable our customers to make faster decisions. We are the primary risk and information solutions provider for financial institutions in India and our customers include all of the top fifteen banks. We developed and launched the first generic credit score for India in 2007, which is the most widely used and adopted credit score across the financial services industry in India. In addition to our business solutions, we also offer consumer solutions such as online credit reports and scores.

Asia Pacific: Our operations in Asia Pacific include markets such Thailand, Singapore, Malaysia, China and the Philippines. Asia Pacific is a growing market with increasing demand for credit driven by a rising middle class that offers significant growth potential in analytics and decisioning. Using Hong Kong as a base, we have leveraged our global intellectual property to expand to other countries in the Asia Pacific region. For example, we launched the first consumer credit reporting agency in the Philippines in 2011 in partnership with the top-five credit card issuers in that market. We leverage our global intellectual property to scale very quickly and our

solutions are now used for lending decisions by over 30% of the major banks in the Philippines. We have built credit risk scores for the National Credit Bureau of Thailand, in which we have a 12% ownership interest, Credit Bureau of Singapore and Credit Bureau of Malaysia. We also have a presence in China, where we currently provide fraud and authentication solutions to financial institutions.

Consumer Interactive

Consumer Interactive offers solutions that help consumers manage their personal finances and take precautions against identity theft. Services in this segment include credit reports and scores, credit monitoring, fraud protection and resolution and financial management. Our products are provided through user friendly online and mobile interfaces and are supported by educational content and customer support. Our Consumer Interactive segment serves consumers through both direct and indirect channels.

Direct: We provide services directly to consumers, primarily on a subscription basis through websites and mobile applications. Product features include credit reports, credit scores and analysis, alerts to changes in credit information, debt analysis, debt and retirement calculators, identity protection services, insurance scores and the ability to restrict third-party access to a consumer’s TransUnion credit report. We complement these features with educational content that explains how credit and financial data is used in various industries to evaluate consumers and how a consumer’s financial choices impact this evaluation. Our integrated, data-driven marketing strategy spans multiple channels including paid search, online display and email, which allows us to efficiently acquire and retain high quality consumers.

Indirect: We also provide our services to partners who may offer them on a stand-alone basis or with their own or other branded services as a bundle to consumers, governmental agencies and businesses in support of fraud or credit protection, credit monitoring, identity authentication, insurance or credit underwriting and collections. We offer a broad suite of solutions that include many of the features, educational content and customer support available in our direct channel. We have taken a proactive and flexible partnership approach, which has resulted in long-term strategic relationships with some of the largest providers of credit information or identity protection services in the U.S. consumer market as well as with several large financial institutions. Through these partnerships, we have significantly expanded the overall market as well as the reach of our business.

Corporate

Corporate provides support services to each segment, holds investments and conducts enterprise functions. Certain costs incurred in Corporate that are not directly attributable to one or more of the segments remain in Corporate. These costs are primarily enterprise-level costs and are administrative in nature.

Markets and Customers

We have a highly diversified customer base, with our largest customer accounting for approximately 5% of revenue in 2016 and 4% of revenue in 2015. Our top ten customers accounted for approximately 20% of revenue in 2016 and 20% in 2015. Our customers include companies across multiple industries, including financial services, insurance and healthcare. A substantial portion of our revenue is derived from companies in the financial services industry.

We have a presence in over 30 countries including the United States, South Africa, Brazil, Canada, Hong Kong, India, and other countries in Africa, Asia and Latin America. The following table summarizes our revenue based on the region where the revenue was earned:

	Twelve months ended December 31,		
	2016	2015	2014
Domestic	82%	82%	80%
International	18%	18%	20%

The following table summarizes our assets based on the segment in which such assets are held as of the dates shown below:

(in millions)	December 31,		
	2016	2015	2014
U.S. Information Services	\$2,762.8	\$2,762.9	\$2,817.4
International	1,460.1	1,169.0	1,268.1
Consumer Interactive	417.7	404.0	385.4
Corporate	140.6	106.9	162.9
Total	<u>\$4,781.2</u>	<u>\$4,442.8</u>	<u>\$4,633.8</u>

We market our services primarily through our own sales force. We have dedicated sales teams for our largest customers focused by industry group and geography. These dedicated sales teams provide strategic account management and direct support to customers. We use shared sales teams to sell our services to mid-size customers. These sales teams are based in our headquarters office and in field offices strategically located throughout the United States and abroad. Smaller customers' sales needs are serviced primarily through call centers. We also market our services through indirect channels such as resellers, who sell directly to businesses and consumers. Our interactive direct-to-consumer services are sold primarily through our website.

Seasonality

Seasonality in the USIS segment is correlated to volumes of online credit data purchased by our financial services and mortgage customers, and our sales have generally been higher during the second and third quarters. Seasonality in our International segment is driven by local economic conditions and relevant macroeconomic market trends. In our Consumer Interactive segment, demand for our products is usually higher in the first half of the year, impacted by seasonality and our advertising spend.

Competition

The market for our services is highly competitive. We compete primarily on the basis of differentiated solutions, datasets, analytics capabilities, ease of integration with our customers' technology, stability of services, customer relationships, innovation and price. We believe that we compete favorably in each of these categories. Our competitors vary based on the business segment, industry vertical and geographical market that our solutions address.

In our USIS segment, our competition generally includes Equifax, Experian and LexisNexis, in addition to certain competitors whom we only compete with in specific verticals. For example, we compete with FICO in the financial services vertical, with Solera and Verisk in the insurance vertical, with Experian Health, IMS Health, Inovalon and Trizetto in the healthcare vertical and with LifeLock and Experian in the fraud solutions market.

In our International segment, we generally compete with Equifax and Experian directly or indirectly through their subsidiaries or investments. We also compete with other competitors that may focus on a particular vertical, country or region.

In our Consumer Interactive segment, we generally compete with Equifax, Experian, FICO and LifeLock as well as emerging businesses, some of whom offer free credit information.

In addition to these competitors, we also compete with a number of other companies that may offer niche solutions catering to more specific customer requirements.

We believe the services we provide to our customers reflect our understanding of our customers' businesses, the depth and breadth of our data and the quality of our analytics and decisioning capabilities. By integrating our

services into our customers' workflows, we ensure efficiency, continuous improvement and long-lasting relationships.

Information Technology

Technology

The continuous operation of our information technology systems is fundamental to our business. Our information technology systems collect, refine, access, process, deliver and store the data that is used to provide our solutions. Customers connect to our systems using a number of different technologies, including secured internet connections, virtual private networks and dedicated network connections. Control and management of the technology that operates our business is critical to our success and to this end, we directly control and manage all of our technology and infrastructure. Our technology relies on several third-party best-of-breed solutions as well as proprietary software and tools which we integrate into our platforms. Our control of our technology and infrastructure allows us to prioritize any changes and manage the roll-out of any upgrades or changes. We contract with various third-party providers to help us maintain and support our systems.

We have established technology Centers-of-Excellence that utilize similar tools and technology in order to provide scale and efficiency in modifying existing applications and developing new applications for our businesses. We deploy new development methodologies globally to enable rapid delivery of solutions and increase our speed-to-market. Our technology team includes both our own employees as well as additional resources from third-party providers.

We believe that our technology is at the core of our innovative solutions, and we continually invest in our technology and thought leaders to be a market leader. We have recently made significant investments to transition our technology infrastructure to the latest big data and analytics technologies, which we effectively completed in the United States in 2016. We believe that our next-generation platform enables us to be quicker, more efficient and more cost-effective across each step of our process chain, including receiving, consolidating and updating data, implementing analytics and decisioning capabilities, creating innovative solutions, delivering those solutions to our customers and incorporating customer feedback. Our platform has significant scale and capacity and enables us to deliver actionable information immediately to our customers. Our next-generation technology infrastructure gives us the ability to organize and handle high volumes of disparate data, maintain and improve our delivery speeds, increase availability and enhance our product development capabilities, while at the same time lowering our overall cost structure.

Data Centers and Business Continuity

In order to create redundancy and increase resiliency, we utilize multiple data centers in all of our major markets. We generally employ similar technologies and infrastructures in each data center to enable the optimal sharing of technical resources across geographies.

We maintain a framework for business continuity that includes written policies requiring each business and operating unit to identify critical functions. Our businesses and operating units have processes in place that are designed to maintain such functions in case there is a disruptive event. We also have a specific disaster recovery plan that will take effect if critical infrastructure or systems fail or become disabled.

As part of our program, each business unit's continuity plan is periodically updated and stored in a centralized database. These plans are monitored and reviewed by our compliance team. From time to time, our compliance team tests one or more of these plans using desktop exercises or in connection with actual events. We also periodically confirm the state of preparedness of our most critical disaster recovery procedures. We maintain systems redundancy plans for our primary U.S. data centers that allow for the transfer of capacity between geographically disbursed environments in the event there is a failure of computer hardware or a loss of our primary telecommunications lines or power sources. On an enterprise basis, our systems are designed to recover most of our operational capacity in a scenario where our primary data centers become inoperable.

Security

The security and protection of non-public consumer information is one of our highest priorities. We have a written information security program based on the ISO/IEC 27001:2013 standard with dedicated personnel charged with overseeing that program. Our information security program incorporates continuous improvement methodology and evaluates threats, industry events and asset values to help us appropriately adjust security controls. We employ a wide range of physical and technical safeguards that are designed to provide security around the collection, storage, use, access and delivery of information we have in our possession. These safeguards include firewalls, intrusion protection and monitoring, anti-virus and malware protection, vulnerability threat analysis, management and testing, advanced persistent threat monitoring, forensic tools, encryption technologies, data transmission standards, contractual provisions, customer credentialing, identity and access management, data loss, access and anomaly reports and training programs for associates. We, with other global financial services organizations, including U.S. nationwide consumer credit reporting companies, share cyber threat and attack information through our participation in the Financial Information Sharing and Analysis Council (“FS-ISAC”) and other forums that may be targeted at our industry to better understand and monitor our systems and our connectivity to our customers, as well as how specific solutions that were implemented to protect against such attacks are performing. We undergo SSAE 16 reviews annually, and several of our major customers routinely audit our security controls. We conduct an annual Payment Card Industry Data Security Standard (PCI-DSS) compliance program and remain PCI certified. Additionally, we also hire third parties to conduct independent information security assessments.

Intellectual Property and Licensing Agreements

Our intellectual property is a strategic advantage and protecting it is critical to our business. Because of the importance of our intellectual property, we treat our brand, software, technology, know-how, concepts and databases as proprietary. We attempt to protect our intellectual property rights under the trademark, copyright, patent, trade secret and other intellectual property laws of the United States and other countries, as well as through the use of licenses and contractual agreements, such as nondisclosure agreements. While we hold various patents, we do not rely primarily on patents to protect our core intellectual property. Through contractual arrangements, disclosure controls and continual associate training programs, our principal focus is to treat our key proprietary information and databases as trade secrets. Also, we have registered certain trademarks, trade names, service marks, logos, internet URLs and other marks of distinction in the United States and foreign countries, the most important of which is the trademark TransUnion name and logo. This trademark is used in connection with most of the services we sell and we believe it is a known mark in the industry.

We own proprietary software that we use to maintain our databases and to develop and deliver our services. We develop and maintain business-critical software that transforms data furnished by various sources into databases upon which our services are built. We also develop and maintain software to manage our consumer interactions, including providing disclosures and resolving disputes. In all business segments, we develop and maintain software applications that we use to deliver services to our customers, through a software-as-a-service model. In particular, we develop and maintain decisioning technology infrastructure that we host and integrate into our customers’ workflow systems to improve the efficiency of their operations.

We license certain data and other intellectual property to other companies on arms-length terms that are designed to protect our rights to our intellectual property. We generally use standard licensing agreements and do not provide our intellectual property to third parties without a nondisclosure and license agreement in place.

We also license certain intellectual property that is important for our business from third parties. For example, we license credit-scoring algorithms and the right to sell credit scores derived from those algorithms from third parties for a fee.

Employees

As of December 31, 2016, we employed approximately 4,700 employees throughout the world. Other than certain employees in Brazil, none of our employees is currently represented by a labor union or have terms of employment that are subject to a collective bargaining agreement. We consider our relationships with our employees to be good and have not experienced any work stoppages.

Our History

TransUnion Corp. was spun-off from its parent, Marmon Holdings, Inc. in 2005 to the Pritzker family. On June 15, 2010, an affiliate of Madison Dearborn Partners, LLC, on behalf of certain of its investment funds, acquired 51.0% of our outstanding common stock from the Pritzker family and certain employee and director stockholders of TransUnion Corp. On April 30, 2012, TransUnion Corp. was acquired by TransUnion Holding Company, Inc., substantially all the common stock of which was and is owned by Advent-TransUnion Acquisition Limited Partnership (the “Advent Investor”), and GS Capital Partners VI Fund, L.P., GS Capital Partners VI Parallel, L.P., Spartan Shield Holdings, GS Capital Partners Offshore Fund, L.P., GS Capital Partners VI GmbH & Co. KG, MBD 2011 Holding, L.P., Opportunity Partners Offshore-B Co-Invest AIV, L.P. (the “GS Investors” and, together with the Advent Investor, the “Sponsors”), and became TransUnion Holding Company, Inc.’s wholly-owned subsidiary. On March 26, 2015, TransUnion Holding Company, Inc. was renamed TransUnion and TransUnion Corp. was renamed TransUnion Intermediate Holdings, Inc. On June 30, 2015, we completed the initial public offering of 33,977,273 shares of our common stock, including shares sold to the underwriters pursuant to their over-allotment option, at a public offering price of \$22.50 per share. Our stock trades on the New York Stock Exchange under the ticker “TRU.”

Legal and Regulatory Matters

Compliance with legal and regulatory requirements is a top priority. Numerous laws govern the collection, protection, dissemination and use of the non-public personal information we have in our possession. These laws are enforced by federal, state and local regulatory agencies, foreign regulatory authorities and, in some instances, through private civil litigation.

We proactively manage our compliance with laws and regulations through a dedicated legal and compliance team that is generally locally sourced and tasked to ensure that enterprise standards are followed. To that end, we have legal and compliance personnel situated at business operations in the United States, Brazil, Canada, Colombia, Hong Kong, India and South Africa. All such personnel report to the functional department leaders, who are located in our corporate offices in Chicago, Illinois. Through the legal and compliance functions, we provide training to our associates, monitor all material laws and regulations, establish compliance policies, routinely review internal processes to determine whether business practice changes are warranted, assist in the development of new services, and promote regular meetings with principal regulators and legislators to establish transparency of our operations and create a means to understand and react should any issues arise. In addition, as a controlled financial company of a U.S. bank holding company, we have committed to implement certain compliance programs as directed by that bank holding company pursuant to the Amended and Restated Major Stockholders’ Agreement (as later defined) entered into by the Company and our principal stockholders.

U.S. Data and Privacy Protection

Our U.S. operations are subject to numerous laws that regulate privacy, data security and the use of consumer credit or an individual’s healthcare information. Certain of these laws provide for civil and criminal penalties for the unauthorized release of, or access to, this protected information. The laws and regulations that affect our U.S. business include, but are not limited to, the following:

- *Fair Credit Reporting Act (the “FCRA”)*: FCRA applies to consumer credit reporting agencies, including us, as well as data furnishers and users of consumer reports. FCRA promotes the accuracy,

fairness and privacy of information in the files of consumer reporting agencies that engage in the practice of assembling or evaluating information relating to consumers for certain specified purposes. FCRA limits what information may be reported by consumer reporting agencies, limits the distribution and use of consumer reports, establishes consumer rights to access and dispute their own credit files, requires consumer reporting agencies to make available to consumers a free annual credit report and imposes many other requirements on consumer reporting agencies, data furnishers and users of consumer report information. Violation of FCRA can result in civil and criminal penalties. The law contains an attorney fee shifting provision to provide an incentive to consumers to bring individual or class action lawsuits against a consumer reporting agency for violations of FCRA. Regulatory enforcement of FCRA is under the purview of the FTC, the Consumer Financial Protection Bureau (the “CFPB”) and state attorneys general, acting alone or in concert with one another.

- *State Fair Credit Reporting Acts*: Many states have enacted laws with requirements similar to FCRA. Some of these state laws impose additional, or more stringent, requirements than FCRA. FCRA preempts some of these state laws but the scope of preemption continues to be defined by the courts.
- *The Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”)*: A central purpose of the Dodd-Frank Act is to “protect consumers from abusive financial services practices, and for other purposes.” An important new regulatory body created by Title X of the Dodd-Frank Act is the CFPB. The CFPB, through rulemaking, confirmed that the Company is subject to the examination and supervision of the CFPB, and such examinations began in 2012. In addition to transferring authority under certain existing laws to the CFPB and providing it with examination and supervisory authority, the Dodd-Frank Act also prohibits unfair, deceptive or abusive acts or practices (“UDAAP”) with respect to consumer financial products and provides the CFPB with authority to enforce those provisions. The CFPB has stated that its UDAAP authority may allow it to find statutory violations even where a specific regulation does not prohibit the relevant conduct, or prior published regulatory guidance or judicial interpretation has found the activity to be in accordance with law.
- *State unfair practices acts*: Many state have enacted statutes that prohibit unfair and deceptive marketing acts and practices within the state. The Company and others in the industry may be subject to these acts with respect to the marketing of consumer credit information products.
- *Gramm-Leach Bliley Act (the “GLBA”)* The GLBA regulates the receipt, use and disclosure of non-public personal information of consumers that is held by financial institutions, including us. Several of our datasets are subject to GLBA provisions, including limitations on the use or disclosure of the underlying data and rules relating to the technological, physical and administrative safeguarding of non-public personal information. Violation of the GLBA can result in civil and criminal liability. Regulatory enforcement of the GLBA is under the purview of the FTC, the federal prudential banking regulators, the SEC and state attorneys general, acting alone or in concert with each other.
- *Drivers’ Privacy Protection Act (the “DPPA”)*: The DPPA requires all states to safeguard certain personal information included in licensed drivers’ motor vehicle records from improper use or disclosure. Protected information includes the driver’s name, address, phone number, Social Security Number, driver identification number, photograph, height, weight, gender, age, certain medical or disability information and, in some states, fingerprints, but does not include information on vehicular accidents, driving violations and driver’s status. The DPPA limits the use of this information sourced from State departments of motor vehicles to certain specified purposes, and does not apply if a driver has consented to the release of their data. The DPPA imposes criminal fines for non-compliance and grants individuals a private right of action, including actual and punitive damages and attorneys’ fees. The DPPA provides a federal baseline of protections for individuals, and is only partially preemptive, meaning that except in a few narrow circumstances, state legislatures may pass laws to supplement the protections made by the DPPA. Many States are more restrictive than the federal law.
- *Data security breach laws*: Most states have adopted data security breach laws that require notice be given to affected consumers in the event of a breach of personal information, and in some cases the

provision of additional benefits such as free credit monitoring to affected individuals. Some of these laws require additional data protection measures over and above the GLBA data safeguarding requirements. If data within our system is compromised by a breach, we may be subject to provisions of various state security breach laws.

- *Identity theft laws*: In order to help reduce the incidence of identity theft, most states and the District of Columbia have passed laws that give consumers the right to place a security freeze on their credit reports to prevent others from opening new accounts or obtaining new credit in their name. Generally, these state laws require us to respond to requests for a freeze within a certain period of time, to send certain notices or confirmations to consumers in connection with a security freeze and to unfreeze files upon request within a specified time period.
- *Federal Trade Commission Act (the “FTC Act”)*: The FTC Act prohibits unfair methods of competition and unfair or deceptive acts or practices. We must comply with the FTC Act when we market our services, such as consumer credit monitoring services through our Consumer Interactive segment. The security measures we employ to safeguard the personal data of consumers could also be subject to the FTC Act, and failure to safeguard data adequately may subject us to regulatory scrutiny or enforcement action. There is no private right of action under the FTC Act.
- *The Credit Repair Organizations Act (“CROA”)*: CROA regulates companies that claim to be able to assist consumers in improving their credit standing. Some courts have applied CROA to credit monitoring services offered by consumer reporting agencies and others. CROA allows for a private right of action and permits consumers to recover all money paid for alleged “credit repair” services in the event of violation. We, and others in our industry, have settled purported consumer class actions alleging violations of CROA without admitting or denying liability.
- *The Health Insurance Portability and Accountability Act of 1996, as amended by the American Recovery and Reinvestment Act of 2009 (“HIPAA”) and the Health Information Technology for Economic and Clinical Health Act (“HITECH”)*: HIPAA and HITECH require companies to implement reasonable safeguards to prevent intentional or unintentional misuse or wrongful disclosure of protected health information. In connection with receiving data from and providing services to healthcare providers, we may handle data subject to HIPAA and HITECH requirements. We obtain protected health information from healthcare providers and payers of healthcare claims that are subject to the privacy, security and transactional requirements imposed by HIPAA. We are frequently required to secure HIPAA-compliant “business associate” agreements with the providers and payers who supply data to us. As a business associate, we are obligated to limit our use and disclosure of health-related data to certain statutorily permitted purposes, HIPAA regulations, as outlined in our business associate agreements, and to preserve the confidentiality, integrity and availability of this data. HIPAA and HITECH also require, in certain circumstances, the reporting of breaches of protected health information to affected individuals and to the United States Department of Health and Human Services. A violation of any of the terms of a business associate agreement or noncompliance with HIPAA or HITECH data privacy or security requirements could result in administrative enforcement action and/or imposition of statutory penalties by the United States Department of Health and Human Services or a state Attorney General. HIPAA and HITECH requirements supplement but do not preempt state laws regulating the use and disclosure of health-related information; state law remedies, which can include a private right of action, remain available to individuals affected by an impermissible use or disclosure of health-related data.

We are also subject to federal and state laws that are generally applicable to any U.S. business with national or international operations, such as antitrust laws, the Foreign Corrupt Practices Act, the Americans with Disabilities Act and various employment laws. We continuously monitor federal and state legislative and regulatory activities that involve credit reporting, data privacy and security to identify issues in order to remain in compliance with all applicable laws and regulations.

International Data and Privacy Protection

We are subject to data protection, privacy and consumer credit laws and regulations in the foreign countries where we conduct business. These laws and regulations include, but are not limited to, the following:

- *South Africa:* National Credit Act of 2005 (the “NCA”)—The NCA and its implementing regulations govern credit bureaus and consumer credit information. The NCA sets standards for filing, retaining and reporting consumer credit information. The Act also defines consumers’ rights with respect to accessing their own information and addresses the process for disputing information in a credit file. The NCA is enforced by The National Credit Regulator who has authority to supervise and examine credit bureaus.
- *Canada:* Personal Information Protection and Electronic Documents Act of 2000 (“PIPEDA”)—The PIPEDA and substantially similar provincial laws govern how private sector organizations collect, use and disclose personal information in the course of commercial activities. The PIPEDA gives individuals the right to access and request correction of their personal information collected by such organizations. The PIPEDA requires compliance with the Canadian Standard Association Model Code for the Protection of Personal Information. Most Canadian provinces also have laws dealing with consumer reporting. These laws typically impose an obligation on credit reporting agencies to have reasonable processes in place to maintain the accuracy of the information, place limits on the disclosure of the information and give consumers the right to have access to, and challenge the accuracy of, the information.
- *India:* Credit Information Companies Regulation Act of 2005 (“CICRA”)—The CICRA requires entities that collect and maintain personal credit information to ensure that it is complete, accurate and protected. Entities must adopt certain privacy principles in relation to collecting, processing, preserving, sharing and using credit information. In addition, India has privacy legislation that would allow individuals to sue for damages in the case of a data breach, if the entity negligently failed to implement “reasonable security practices and procedures” to protect personal data.
- *Hong Kong:* Personal Data (Privacy) Ordinance (“PDPO”) and The Code of Practice on Consumer Credit Data (“COPCCD”)—The PDPO and the COPCCD regulate the operation of consumer credit reference agencies. They prescribe the methods and security controls under which credit providers and credit reference agencies may collect, access and manage credit data. In April 2011, the COPCCD was amended to permit credit providers to share limited positive mortgage payment data. In June 2012, the PDPO was amended to increase penalties and create criminal liabilities for repeat contravention of PDPO under which enforcement notices have been served.
- *Colombia:* The Colombian Financial Data Protection Regime (Law 1266 of 2008) regulates the collection, use and transfer of personal data pertaining to financial services, including credit reporting. The Colombian General Data Protection Regime (Law 1581 of 2012 and Decree 1377 of 2013) covers regulation of all other personal data. Both of these regimes have applicability to credit reporting services in Colombia and together address obligations of information furnishers, database owners, consumer right of access, consumer consent and permitted information disclosures. Regulatory enforcement primarily rests with the Financial Superintendence of Colombia and the Colombia Data Protection Authority (Superintendence of Industry and Commerce).

We are also subject to various laws and regulations generally applicable to all businesses in the other countries where we operate.

Additional Information

Through our corporate website under the heading “Investors,” at <http://www.transunion.com>, you can access electronic copies of our governing documents free of charge, including our Board of Directors’ Corporate Governance Guidelines and the charters of the committees of our Board of Directors. In addition, through our

website, you can access the documents we file with the U.S. Securities and Exchange Commission (SEC), including our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and all amendments thereto, as soon as reasonably practicable after we file or furnish them. You also may request printed copies of our SEC filings or governance documents, free of charge, by writing to our corporate secretary at the address on the cover of this report. Information contained on our website is not incorporated herein by reference and should not be considered part of this report.

In addition, the public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site (www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Our corporate headquarters are located at 555 West Adams Street, Chicago, Illinois 60661, and our telephone number is (312) 985-2000.

ITEM 1A. RISK FACTORS

You should carefully consider the following risks as well as the other information included in this report, including “Selected Financial Data,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes. Any of the following risks could materially and adversely affect our business, financial condition or results of operations. However, the selected risks described below are not the only risks facing us. Additional risks and uncertainties not currently known to us or those we currently view to be immaterial may also materially and adversely affect our business, financial condition or results of operations.

We have a substantial amount of debt which could adversely affect our financial position and prevent us from fulfilling our obligations under the debt instruments.

As of December 31, 2016, the book value of our debt was approximately \$2.4 billion consisting of outstanding borrowings under Trans Union LLC’s senior secured credit facility. We may also incur significant additional indebtedness in the future. Our substantial indebtedness may:

- make it difficult for us to satisfy our financial obligations, including with respect to our indebtedness;
- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions or other general business purposes;
- limit our ability to use our cash flow or obtain additional financing for future working capital, capital expenditures, acquisitions or other general business purposes;
- require us to use a substantial portion of our cash flow from operations to make debt service payments;
- expose us to the risk of increased interest rates as certain of our borrowings, including Trans Union LLC’s senior secured credit facility, are at variable rates of interest;
- limit our flexibility to plan for, or react to, changes in our business and industry;
- place us at a competitive disadvantage compared with our less-leveraged competitors; and
- increase our vulnerability to the impact of adverse economic and industry conditions.

In addition, the credit agreement governing Trans Union LLC’s senior secured credit facility contains restrictive covenants that may limit our ability to engage in activities that may be in our long-term best interest. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of substantially all of our debt.

Despite our current level of indebtedness, we may still be able to incur additional indebtedness. This could further the risks associated with our substantial indebtedness.

We and our subsidiaries may be able to incur substantial additional indebtedness in the future. The terms of the credit agreement governing our debt limit, but do not prohibit, us or our subsidiaries from incurring additional indebtedness, and the additional indebtedness incurred in compliance with these restrictions could be substantial. If we incur any additional debt, the priority of that debt may impact the ability of existing debt holders to share ratably in any proceeds distributed in connection with any insolvency, liquidation, reorganization, dissolution or other winding-up of us, subject to collateral arrangements. These restrictions will also not prevent us from incurring obligations that do not constitute indebtedness. In addition, the capacity under the Trans Union LLC senior secured credit facility may be increased by an additional \$450.0 million so long as certain financial conditions are met, subject, in each case, to certain conditions and receipt of commitments by existing or additional financial institutions or institutional lenders. If new indebtedness is added to our current debt levels, the related risks that we and our subsidiaries now face could intensify.

We may not be able to generate sufficient cash to service all of our indebtedness, and may be forced to take other actions to satisfy our obligations under our indebtedness, which may not be successful.

Our ability to make scheduled payments due on our debt obligations or to refinance our debt obligations depends on our financial condition and operating performance, which are subject to prevailing economic, industry and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond our control as discussed above. Our total principal repayments of debt made in 2016 and 2015 were \$49.3 million and \$38.2 million, respectively. Our total interest expense for 2016 and 2015 was \$85.5 million and \$134.2 million, respectively. We may be unable to maintain a level of cash flow from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness.

If our cash flow and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures or to dispose of material assets or operations, seek additional debt or equity capital or restructure or refinance our indebtedness. We may not be able to implement any such alternative measures on commercially reasonable terms or at all and, even if successful, those alternative actions may not allow us to meet our scheduled debt service obligations. The credit agreement governing Trans Union LLC's senior secured credit facility restricts our ability to dispose of assets and use the proceeds from those dispositions and may also restrict our ability to raise debt or equity capital to be used to repay other indebtedness when it becomes due. We may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations then due. In addition, under the covenants of the credit agreement governing our senior secured credit facility, TransUnion Intermediate is restricted from making certain payments, including dividend payments to TransUnion.

Our inability to generate sufficient cash flow to satisfy our debt obligations, or to refinance our indebtedness on commercially reasonable terms or at all, would materially and adversely affect our financial position and results of operations and our ability to satisfy our obligations.

If we cannot make our scheduled debt payments, we will be in default and all outstanding principal and interest on our debt may be declared due and payable, the lenders under Trans Union LLC's senior secured credit facility could terminate their commitments to loan money, Trans Union LLC's secured lenders (including the lenders under Trans Union LLC's senior secured credit facility) could foreclose against the assets securing their borrowings and we could be forced into bankruptcy or liquidation.

Our revenues are concentrated in the U.S. consumer credit and financial services industries. When these industries or the broader financial markets experience a downturn, demand for our services and revenues may be adversely affected.

Our largest customers, and therefore our business and revenues, depend on favorable macroeconomic conditions and are impacted by the availability of credit, the level and volatility of interest rates, inflation, employment levels, consumer confidence and housing demand. In addition, a significant amount of our revenues are concentrated among certain customers and in distinct geographic regions, particularly in the United States. Our product offerings are also concentrated by varying degrees across different industries, particularly the financial services and insurance industries in the United States where we derived approximately 73.4% of our USIS segment revenues in 2016. Our customer base suffers when financial markets experience volatility, illiquidity and disruption, which has occurred in the past and which could reoccur, and the potential for increased and continuing disruptions going forward, present considerable risks to our business and revenue. Changes in the economy have resulted, and may continue to result, in fluctuations in volumes, pricing and operating margins for our services. If businesses in these industries experience economic hardship, we cannot assure you that we will be able to generate future revenue growth. In addition, if consumer demand for financial services and products and the number of credit applications decrease, the demand for our services could also be materially reduced. These types of disruptions could lead to a decline in the volumes of services we provide our customers and could negatively impact our revenue and results of operations.

We are subject to significant competition in the markets in which we operate and we may face significant competition in the new markets that we plan to enter.

The market for our services is highly competitive, and we may not be able to compete successfully against our competitors, which could impair our ability to sell our services. We compete on the basis of differentiated solutions, datasets, analytics capabilities, ease of integration with our customers' technology, stability of services, customer relationships, innovation and price. Our regional and global competitors vary in size, financial and technical capability, and in the scope of the products and services they offer. Some of our competitors may be better positioned to develop, promote and sell their products. Larger competitors may benefit from greater cost efficiencies and may be able to win business simply based on pricing. We consistently face downward pressure on the pricing of our products, which could result in reduced prices for certain products, or a loss of market share. Our competitors may also be able to respond to opportunities before we do, by taking advantage of new technologies, changes in customer requirements or market trends.

Our Consumer Interactive segment experiences competition from emerging companies. For example, prior to 2008, Equifax and Experian were our top competitors for direct-to-consumer credit services, such as credit reports and identity theft protection services. In the past few years, there has been an influx of other companies offering similar services, some of whom leverage the free services mandated by law to be provided by nationwide credit reporting agencies. These developments have resulted in increased competition.

Many of our competitors have extensive customer relationships, including relationships with our current and potential customers. New competitors, or alliances among competitors, may emerge and gain significant market share. Existing or new competitors may develop products and services that are superior to ours or that achieve greater market acceptance. If we are unable to respond to changes in customer requirements as quickly and effectively as our competition, our ability to expand our business and sell our services may be adversely affected.

Our competitors may be able to sell services at lower prices than us, individually or as part of integrated suites of several related services. This ability may cause our customers to purchase from our competitors rather than from us. Price reductions by our competitors could also negatively impact our operating margins or harm our ability to obtain new long-term contracts or renewals of existing contracts on favorable terms. Additionally, some of our customers may develop products of their own that replace the products they currently purchase from us, which would result in lower revenue.

We also expect that there will be significant competition in the new markets that we plan to enter. We cannot assure you that we will be able to compete effectively against current and future competitors. If we fail to successfully compete, our business, financial condition and results of operations may be adversely affected.

Our relationships with key long-term customers may be materially diminished or terminated.

We have long-standing relationships with a number of our customers, many of whom could unilaterally terminate their relationship with us or materially reduce the amount of business they conduct with us at any time. Our customer agreements relating to our core credit reporting service offered through our USIS segment are terminable upon advance written notice (typically ranging from 30 days to six months) by either us or the customer, which provides our customers with the opportunity to renegotiate their contracts with us or to award more business to our competitors.

We also provide our services to business partners who may combine them with their own or other branded services to be offered as a bundle to consumers, governmental agencies and businesses in support of fraud or credit protection, credit monitoring, identity authentication, insurance or credit underwriting, and collections. Some of these partners are the largest providers of credit information or identity protection services to the U.S. consumer market.

Market competition, business requirements, financial condition and consolidation through mergers or acquisitions, could adversely affect our ability to continue or expand our relationships with our customers and business partners. There is no guarantee that we will be able to retain or renew existing agreements, maintain relationships with any of our customers or business partners on acceptable terms or at all, or collect amounts owed to us from insolvent customers or business partners. The loss of one or more of our major customers or business partners could adversely affect our business, financial condition and results of operations.

Data security and integrity are critically important to our business, and breaches of security, unauthorized access to or disclosure of confidential information, disruption, including distributed denial of service (“DDoS”) attacks or the perception that confidential information is not secure, could result in a material loss of business, substantial legal liability or significant harm to our reputation.

We own and host a large amount of sensitive and confidential consumer information including financial information, personally identifiable information and protected health information. This data is often accessed through secure transmissions over public and private networks, including the internet. Despite our physical security, implementation of technical controls and contractual precautions to identify, detect and prevent the unauthorized access to and alteration and disclosure of our data, we cannot assure you that systems that access our services and databases will not be compromised or disrupted, whether as a result of criminal conduct, DDoS attacks or other advanced persistent attacks by malicious actors, including hackers, nation states and criminals, breaches due to employee error or malfeasance, or other disruptions during the process of upgrading or replacing computer software or hardware, power outages, computer viruses, telecommunication or utility failures or natural disasters or other catastrophic events. We must continually monitor and develop our information technology networks and infrastructure to prevent, detect, address and mitigate the risk of unauthorized access, misuse, computer viruses and other events that could have a security impact. Several recent, highly publicized data security breaches and DDoS attacks have heightened consumer awareness of this issue and may embolden individuals or groups to target our systems. Unauthorized disclosure, loss or corruption of our data or inability of our customers to access our systems could disrupt our operations, subject us to substantial legal liability, result in a material loss of business and significantly harm our reputation.

As a nationwide consumer credit reporting company in the United States and a global provider of risk and information solutions, we collect, store and transmit files on over one billion consumers. These files may contain non-public personal information, public health information and other information, and we have implemented technical and physical security policies, procedures and systems we believe are reasonably designed to protect this information from unauthorized access. However, due to the sensitive nature of the information we collect, store and transmit, it is not unusual for efforts to occur (coordinated or otherwise) by unauthorized persons to attempt to obtain access to our systems or data, or to inhibit our ability to deliver products or services to a consumer or a business customer.

Due to concerns about data security and integrity, a growing number of legislative and regulatory bodies have adopted consumer notification and other requirements in the event that consumer information is accessed by unauthorized persons and additional regulations regarding the use, access, accuracy and security of such data are possible. In the United States, federal and state laws provide for over 40 disparate notification regimes, all of which we are subject to. Complying with such numerous and complex regulations in the event of unauthorized access would be expensive and difficult, and failure to comply with these regulations could subject us to regulatory scrutiny and additional liability.

If we experience system failures, personnel disruptions or capacity constraints, or our customers do not modify their systems to accept new releases of our distribution programs, the delivery of our services to our customers could be delayed or interrupted, which could harm our business and reputation and result in the loss of revenues or customers.

Our ability to provide reliable service largely depends on our ability to maintain the efficient and uninterrupted operation of our computer network, systems and data centers, some of which have been outsourced to third-party

providers. In addition, we generate a significant amount of our revenues through channels that are dependent on links to telecommunications providers. Our systems, personnel and operations could be exposed to damage or interruption from fire, natural disasters, power loss, war, terrorist acts, civil disobedience, telecommunication failures, computer viruses, DDoS attacks or human error. We may not have sufficient redundant operations to cover a loss or failure of our systems in a timely manner. Any significant interruption could severely harm our business and reputation and result in a loss of revenue and customers. Additionally, from time to time we send our customers new releases of our distribution programs, some of which contain security updates. Any failure by our customers to install these new releases could expose our customers to computer security risks.

We could lose our access to data sources which could prevent us from providing our services.

Our services and products depend extensively upon continued access to and receipt of data from external sources, including data received from customers, strategic partners and various government and public records repositories. In some cases, we compete with our data providers. Our data providers could stop providing data, provide untimely data or increase the costs for their data for a variety of reasons, including a perception that our systems are insecure as a result of a data security breach, budgetary constraints, a desire to generate additional revenue or for regulatory or competitive reasons. We could also become subject to increased legislative, regulatory or judicial restrictions or mandates on the collection, disclosure or use of such data, in particular if such data is not collected by our providers in a way that allows us to legally use the data. If we were to lose access to this external data or if our access or use were restricted or were to become less economical or desirable, our ability to provide services could be negatively impacted, which would adversely affect our reputation, business, financial condition and results of operations. We cannot provide assurance that we will be successful in maintaining our relationships with these external data source providers or that we will be able to continue to obtain data from them on acceptable terms or at all. Furthermore, we cannot provide assurance that we will be able to obtain data from alternative sources if our current sources become unavailable.

Our business is subject to various governmental regulations, laws and orders, compliance with which may cause us to incur significant expenses or reduce the availability or effectiveness of our solutions, and the failure to comply with which could subject us to civil or criminal penalties or other liabilities.

Our businesses are subject to regulation under the FCRA, the GLBA, the DPPA, HIPAA, the Dodd-Frank Act, the FTC Act and various other international, federal, state and local laws and regulations. See “Business-Legal and Regulatory Matters” for a description of select regulatory regimes to which we are subject. These laws and regulations, which generally are designed to protect the privacy of the public and to prevent the misuse of personal information available in the marketplace, are complex, change frequently and have tended to become more stringent over time. We already incur significant expenses in our attempt to ensure compliance with these laws. Currently, public concern is high with regard to the operation of credit reporting agencies in the United States, as well as the collection, use, accuracy, correction and sharing of personal information, including Social Security numbers, dates of birth, financial information, medical information, department of motor vehicle data and other behavioral data. In addition, many consumer advocates, privacy advocates, legislatures and government regulators believe that existing laws and regulations do not adequately protect privacy and have become increasingly concerned with the use of this type of personal information. As a result, they are lobbying for further restrictions on the dissemination or commercial use of personal information to the public and private sectors. Additional legislative or regulatory efforts in the United States, or action by Executive Order of the President of the United States, could further regulate credit reporting agencies and the collection, use, communication, access, accuracy, obsolescence, sharing, correction and security of this personal information. Similar initiatives are underway in various other countries in which we do business. In addition, any perception that our practices or products are an invasion of privacy, whether or not consistent with current or future regulations and industry practices, may subject us to public criticism, private class actions, reputational harm, or claims by regulators, which could disrupt our business and expose us to increased liability.

Public concern regarding identity theft also has led to more transparency for consumers as to what is in their credit reports. We provide credit reports and scores and monitoring services to consumers for a fee, and this

income stream could be reduced or restricted by legislation that requires us to provide these services to consumers free of charge. For example, under U.S. federal law today, we are required to provide consumers with one credit report per year free of charge. Legislation has been introduced from time to time that would require us to provide credit scores to consumers without charge.

The following legal and regulatory developments also could have a material adverse effect on our business, financial condition or results of operations:

- amendment, enactment or interpretation of laws and regulations that restrict the access and use of personal information and reduce the availability or effectiveness of our solutions or the supply of data available to customers;
- changes in cultural and consumer attitudes in favor of further restrictions on information collection and sharing, which may lead to regulations that prevent full utilization of our solutions;
- failure of data suppliers or customers to comply with laws or regulations, where mutual compliance is required;
- failure of our solutions to comply with current laws and regulations; and
- failure of our solutions to adapt to changes in the regulatory environment in an efficient, cost-effective manner.

Changes in applicable legislation or regulations that restrict or dictate how we collect, maintain, combine and disseminate information, or that require us to provide services to consumers or a segment of consumers without charge, could adversely affect our business, financial condition or results of operations. In the future, we may be subject to significant additional expense to ensure continued compliance with applicable laws and regulations and to investigate, defend or remedy actual or alleged violations. Any failure by us to comply with applicable laws or regulations could also result in significant liability to us, including liability to private plaintiffs as a result of individual or class action litigation, or may result in the cessation of our operations or portions of our operations or impositions of fines and restrictions on our ability to carry on or expand our operations. Moreover, our compliance with privacy laws and regulations and our reputation depend in part on our customers' adherence to privacy laws and regulations and their use of our services in ways consistent with consumer expectations and regulatory requirements. Certain of the laws and regulations governing our business are subject to interpretation by judges, juries and administrative entities, creating substantial uncertainty for our business. We cannot predict what effect the interpretation of existing or new laws or regulations may have on our business. See "Business-Legal and Regulatory Matters."

The Consumer Financial Protection Bureau has supervisory and examination authority over our business and may initiate enforcement actions with regard to our compliance with federal consumer financial laws.

The CFPB, which was established under the Dodd-Frank Act and commenced operations in July 2011, has broad authority over our business. This includes authority to issue regulations under federal consumer financial protection laws, such as under FCRA and other laws applicable to us and our financial customers. The CFPB is authorized to prevent "unfair, deceptive or abusive acts or practices" through its regulatory, supervisory and enforcement authority.

In 2012, credit reporting companies like us became subject to a federal supervision program for the first time under the CFPB's authority to supervise and examine certain non-depository institutions that are "larger participants" of the consumer credit reporting market. The CFPB conducts examinations and investigations, and may issue subpoenas and bring civil actions in federal court for violations of the federal consumer financial laws including FCRA. In these proceedings, the CFPB can seek relief that includes: rescission or reformation of contracts, restitution, disgorgement of profits, payment of damages, limits on activities and civil money penalties of up to \$1.0 million per day for knowing violations. The CFPB conducts periodic examinations of us and the consumer credit reporting industry, which could result in new regulations or enforcement actions or proceedings.

There continues to be uncertainty as to how the CFPB's strategies and priorities, including in both its examination and enforcement processes, will impact our business and our results of operations going forward. Actions by the CFPB could result in requirements to alter or cease offering affected products and services, making them less attractive and restricting our ability to offer them. In December 2016, as part of an agreed settlement with the CFPB, we agreed among other things, to implement certain agreed practice changes in the way we advertise, market and sell products and services offered directly to consumers. See "Legal Proceedings—CFPB Investigation."

Although we have committed resources to enhancing our compliance programs, actions by the CFPB or other regulators against us could result in reputational harm. Our compliance costs and legal and regulatory exposure could increase materially if the CFPB or other regulators enact new regulations, change regulations that were previously adopted, modify through supervision or enforcement past regulatory guidance, or interpret existing regulations in a manner different or stricter than have been previously interpreted.

We are subject to banking regulations that may limit our business activities.

The Goldman Sachs Group, Inc. ("Goldman"), affiliates of which own approximately 30.3% of the voting and economic interest in our business, is regulated as a bank holding company that has elected to be treated as a financial holding company under the Bank Holding Company Act of 1956, as amended (the "BHC Act"). The BHC Act imposes regulations and requirements on Goldman and on any company that is deemed to be "controlled" by Goldman for purposes of the BHC Act and the regulations of the Board of Governors of the Federal Reserve System (the "Federal Reserve") promulgated thereunder. Due to the size of its voting and economic interest in us, we are deemed to be controlled by Goldman and, therefore, are considered to be a "subsidiary" of Goldman under the BHC Act. We will remain subject to this regulatory regime until Goldman is no longer deemed to control us for purposes of the BHC Act, which we do not have the ability to control and which will not occur until Goldman has significantly reduced its voting and economic interest in us.

As a deemed subsidiary of Goldman under the BHC Act, we are restricted from engaging in activities that are not permissible for financial holding companies to engage in under the BHC Act, or the regulations promulgated thereunder. Permitted activities for a financial holding company or any of its controlled subsidiaries generally include activities that the Federal Reserve has previously determined to be financial in nature, closely related to banking, incidental to a financial activity, or complementary to a financial activity if the activity does not pose a safety and soundness risk, such as those that we provide. Restrictions placed on Goldman as a result of supervisory or enforcement actions under the BHC Act or otherwise may restrict us or our activities in certain circumstances, even if these actions are unrelated to our conduct or business. The Federal Reserve could exercise its power to restrict us from engaging in any activity that, in the Federal Reserve's opinion, is unauthorized for us or constitutes an unsafe or unsound business practice. To the extent that the Federal Reserve's regulations impose limitations on our business, we may be at a competitive disadvantage to those of our competitors that are not subject to such regulations. Additionally, any failure of Goldman to maintain its status as a financial holding company could result in further limitations on our activities and our growth.

As a deemed subsidiary of Goldman under the BHC Act, we are subject to examination by the Federal Reserve and required to provide information and reports for use by the Federal Reserve under the BHC Act. The Federal Reserve may also impose substantial fines and other penalties for violations of applicable banking laws, regulations and orders. In addition, as a subsidiary of Goldman under the BHC Act, we are considered a "banking entity" and subject to the restrictions of Section 13 of the BHC Act, otherwise known as the "Volcker Rule." As such, we are restricted (subject to certain exemptions and exclusions) from engaging in proprietary trading and from acquiring or retaining any ownership interest in, or sponsoring, a covered fund (which includes most private equity funds and hedge funds), subject to satisfying certain conditions, and, in certain circumstances, from engaging in credit related and other transactions with such funds.

We have agreed to certain covenants in the Amended and Restated Major Stockholders' Agreement, dated June 23, 2015 (as amended, the "Amended and Restated Major Stockholders' Agreement"), by and among

TransUnion, Advent-TransUnion Acquisition Limited Partnership (the “Advent Investor”), and GS Capital Partners VI Fund, L.P., GS Capital Partners VI Parallel, L.P., Spartan Shield Holdings, GS Capital Partners Offshore Fund, L.P., GS Capital Partners VI GmbH & Co. KG, MBD 2011 Holding, L.P., Opportunity Partners Offshore-B Co-Invest AIV, L.P. (the “GS Investors” and, together with the Advent Investor, the “Sponsors”), for the benefit of Goldman that are intended to facilitate its compliance with the BHC Act, but that may impose certain obligations on us. In particular, Goldman has rights to conduct audits on us, and access certain information of ours, and has certain rights to review the policies and procedures that we implement to comply with the laws and regulations that relate to our activities. In addition, we are obligated to provide Goldman with notice of certain events and business activities and cooperate with Goldman to mitigate potential adverse consequences resulting therefrom, as well as seek consent from them prior to expanding the nature of our activities.

Regulatory oversight of our contractual relationships with certain of our customers may adversely affect our business.

The Office of the Comptroller of the Currency’s (the “OCC”) guidance to national banks and federal savings associations on assessing and managing risks associated with third-party relationships, which include all business arrangements between a bank and another entity, by contract or otherwise, requires banks to exercise comprehensive oversight throughout each phase of a bank’s business arrangement with third-party service providers, and instructs banks to adopt risk management processes commensurate with the level of risk and complexity of its third-party relationships. The OCC expects especially rigorous oversight of third-party relationships that involve certain “critical activities.” In light of this guidance, our existing or potential financial services customers subject to OCC regulation may continue to revise their third-party risk management policies and processes and the terms on which they do business with us, which may adversely affect our relationship with such customers.

The outcome of litigation, inquiries, investigations, examinations or other legal proceedings in which we are involved, in which we may become involved, or in which our customers or competitors are involved could subject us to significant monetary damages or restrictions on our ability to do business.

Legal proceedings arise frequently as part of the normal course of our business. These may include individual consumer cases, class action lawsuits and inquiries, investigations, examinations, regulatory proceedings or other actions brought by federal (e.g., the CFPB and the United States Federal Trade Commission (“FTC”)) or state (e.g., state attorneys general) authorities or by consumers. The scope and outcome of these proceedings is often difficult to assess or quantify. Plaintiffs in lawsuits may seek recovery of large amounts and the cost to defend such litigation may be significant. There may also be adverse publicity and uncertainty associated with investigations, litigation and orders (whether pertaining to us, our customers or our competitors) that could decrease customer acceptance of our services or result in material discovery expenses. In addition, a court-ordered injunction or an administrative cease-and-desist order or settlement may require us to modify our business practices or may prohibit conduct that would otherwise be legal and in which our competitors may engage. Many of the technical and complex statutes to which we are subject, including state and federal credit reporting, medical privacy and financial privacy requirements, may provide for civil and criminal penalties and may permit consumers to maintain individual or class action lawsuits against us and obtain statutorily prescribed damages. Additionally, our customers might face similar proceedings, actions or inquiries, which could affect their business and, in turn, our ability to do business with those customers. While we do not believe that the outcome of any pending or threatened legal proceeding, investigation, examination or supervisory activity will have a material adverse effect on our financial position, such events are inherently uncertain and adverse outcomes could result in significant monetary damages, penalties or injunctive relief against us.

See “Legal Proceedings” for further information regarding other material pending litigation or investigations.

Our ability to expand our operations in, and the portion of our revenue derived from, markets outside the United States is subject to economic, political and other inherent risks, which could adversely impact our growth rate and financial performance.

Over the last several years, we have derived a growing portion of our revenues from customers outside the United States, and it is our intent to continue to expand our international operations. We have sales and technical support personnel in numerous countries worldwide. We expect to continue to add personnel internationally to expand our abilities to deliver differentiated services to our international customers. Expansion into international markets will require significant resources and management attention and will subject us to new regulatory, economic and political risks. Moreover, the services we offer in developed and emerging markets must match our customers' demand for those services. Due to price, limited purchasing power and differences in the development of consumer credit markets, there can be no assurance that our services will be accepted in any particular developed or emerging market, and we cannot be sure that our international expansion efforts will be successful. The results of our operations and our growth rate could be adversely affected by a variety of factors arising out of international commerce, some of which are beyond our control. These factors include:

- currency exchange rate fluctuations;
- foreign exchange controls that might prevent us from repatriating cash to the United States;
- difficulties in managing and staffing international offices;
- increased travel, infrastructure, legal and compliance costs of multiple international locations;
- foreign laws and regulatory requirements;
- terrorist activity, natural disasters and other catastrophic events;
- restrictions on the import and export of technologies;
- difficulties in enforcing contracts and collecting accounts receivable;
- longer payment cycles;
- failure to meet quality standards for outsourced work;
- unfavorable tax rules;
- political and economic conditions in foreign countries, particularly in emerging markets;
- the presence and acceptance of varying level of business corruption in international markets;
- varying business practices in foreign countries; and
- reduced protection for intellectual property rights.

For example, in 2016 and 2015, the revenues from our International segment were negatively impacted by 6.3% and 14.1%, respectively, primarily as a result of the weakening South African rand and the Canadian dollar. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-Twelve Months Ended December 31, 2016, 2015 and 2014-Revenue-International Segment." As we continue to expand our business, our success will partially depend on our ability to anticipate and effectively manage these and other risks. Our failure to manage these risks could adversely affect our business, financial condition and results of operations.

We depend, in part, on strategic alliances, joint ventures and acquisitions to grow our business. If we are unable to make strategic acquisitions and develop and maintain these strategic alliances and joint ventures, our growth may be adversely affected.

An important focus of our business is to identify business partners who can enhance our services and enable us to develop solutions that differentiate us from our competitors. We have entered into several alliance agreements or license agreements with respect to certain of our datasets and services and may enter into similar agreements in

the future. These arrangements may require us to restrict our use of certain of our technologies among certain customer industries, or to grant licenses on terms that ultimately may prove to be unfavorable to us, either of which could adversely affect our business, financial condition or results of operations. Relationships with our alliance agreement partners may include risks due to incomplete information regarding the marketplace and commercial strategies of our partners, and our alliance agreements or other licensing agreements may be the subject of contractual disputes. If we or our alliance agreements' partners are not successful in maintaining or commercializing the alliance agreements' services, such commercial failure could adversely affect our business.

In addition, a significant strategy for our international expansion is to establish operations through strategic alliances or joint ventures with local financial institutions and other partners. We cannot provide assurance that these arrangements will be successful or that our relationships with our partners will continue to be mutually beneficial. If these relationships cannot be established or maintained, it could negatively impact our business, financial condition and results of operations. Moreover, our ownership in and control of our foreign investments may be limited by local law.

We also selectively evaluate and consider acquisitions as a means of expanding our business and entering into new markets. We may not be able to acquire businesses we target due to a variety of factors such as competition from companies that are better positioned to make the acquisition. Our inability to make such strategic acquisitions could restrict our ability to expand our business and enter into new markets which would limit our ability to generate future revenue growth. Additionally, given some of our equity interests in various companies, we may be limited in our ability to require or influence such companies to make acquisitions or take other actions that we believe to be in our or their best interests. Our inability to take such actions could have a material impact on our revenues or earnings.

If we are unable to develop successful new services in a timely manner, or if the market does not adopt our new services, our ability to maintain or increase our revenue could be adversely affected.

In order to keep pace with customer demands for increasingly sophisticated service offerings, to sustain expansion into growth industries and to maintain our profitability, we must continue to innovate and introduce new services to the market. The process of developing new services is complex and uncertain. Our industry solutions require extensive experience and knowledge from within the relevant industry. We must commit significant resources to this effort before knowing whether the market will accept new service offerings. Additionally, our business strategy is dependent on our ability to expand into new markets and to bring new products to market. We may not successfully enter into new markets or execute on our new services because of challenges in planning or timing, technical hurdles, difficulty in predicting market demand, changes in regulation or a lack of appropriate resources. Additionally, even if we successfully develop new products, our existing customers might not accept these new products or new markets might not adopt our products due to operational constraints, high switching costs or general lack of market readiness. Failure to successfully introduce new services to the market could adversely affect our reputation, business, financial condition and results of operations.

If we fail to maintain and improve our systems, our data matching technology, and our interfaces with data sources and customers, demand for our services could be adversely affected.

In our markets, there are continuous improvements in computer hardware, network operating systems, programming tools, programming languages, operating systems, data matching, data filtering and other database technologies and the use of the internet. These improvements, as well as changes in customer preferences or regulatory requirements, may require changes in the technology used to gather and process our data and deliver our services. Our future success will depend, in part, upon our ability to:

- internally develop and implement new and competitive technologies;
- use leading third-party technologies effectively;

- respond to changing customer needs and regulatory requirements, including being able to bring our new products to the market quickly; and
- transition customers and data sources successfully to new interfaces or other technologies.

We cannot provide assurance that we will successfully implement new technologies, cause customers or data furnishers to implement compatible technologies or adapt our technology to evolving customer, regulatory and competitive requirements. If we fail to respond, or fail to cause our customers or data furnishers to respond, to changes in technology, regulatory requirements or customer preferences, the demand for our services, the delivery of our services or our market reputation could be adversely affected. Additionally, our failure to implement important updates could affect our ability to successfully meet the timeline for us to generate cost savings resulting from our investments in improved technology. Failure to achieve any of these objectives would impede our ability to deliver strong financial results.

When we engage in acquisitions, investments in new businesses or divestitures of existing businesses, we will face risks that may adversely affect our business.

We may acquire or make investments in businesses that offer complementary services and technologies. Acquisitions may not be completed on favorable terms and acquired assets, data or businesses may not be successfully integrated into our operations. Any acquisitions or investments will include risks commonly encountered in acquisitions of businesses, including:

- failing to achieve the financial and strategic goals for the acquired business;
- paying more than fair market value for an acquired company or assets;
- failing to integrate the operations and personnel of the acquired businesses in an efficient and timely manner;
- disrupting our ongoing businesses;
- distracting management focus from our existing businesses;
- acquiring unanticipated liabilities;
- failing to retain key personnel;
- incurring the expense of an impairment of assets due to the failure to realize expected benefits;
- damaging relationships with employees, customers or strategic partners;
- diluting the share value of existing stockholders; and
- incurring additional debt or reducing available cash to service our existing debt.

Any divestitures will be accompanied by the risks commonly encountered in the sale of businesses, which may include:

- disrupting our ongoing businesses;
- reducing our revenues;
- losing key personnel;
- distracting management focus from our existing businesses;
- indemnification claims for breaches of representations and warranties in sale agreements;
- damaging relationships with employees and customers as a result of transferring a business to new owners; and
- failure to close a transaction due to conditions such as financing or regulatory approvals not being satisfied.

These risks could harm our business, financial condition or results of operations, particularly if they occur in the context of a significant acquisition or divestiture. Acquisitions of businesses having a significant presence outside the United States will increase our exposure to the risks of conducting operations in international markets.

We may be unable to protect our intellectual property adequately or cost-effectively, which may cause us to lose market share or force us to reduce our prices. We also rely on trade secrets and other forms of unpatented intellectual property that may be difficult to protect.

Our success depends, in part, on our ability to protect and preserve the proprietary aspects of our technology and services. If we are unable to protect our intellectual property, including trade secrets and other unpatented intellectual property, our competitors could use our intellectual property to market and deliver similar services, decreasing the demand for our services. We rely on the patent, copyright, trademark, trade secret and other intellectual property laws of the United States and other countries, as well as contractual restrictions, such as nondisclosure agreements, to protect and control access to our proprietary intellectual property. These measures afford limited protection, however, and may be inadequate. We may be unable to prevent third parties from using our proprietary assets without our authorization or from breaching any contractual restrictions with us. Enforcing our rights could be costly, time-consuming, distracting and harmful to significant business relationships. Claims that a third party illegally obtained and is using trade secrets can be difficult to prove, and courts outside the United States may be less willing to protect trade secrets. Additionally, others may independently develop non-infringing technologies that are similar or superior to ours. Any significant failure or inability to adequately protect and control our proprietary assets may harm our business and reduce our ability to compete.

We may face claims for intellectual property infringement, which could subject us to monetary damages or limit us in using some of our technologies or providing certain services.

There has been substantial litigation in the United States regarding intellectual property rights in the information technology industry. We cannot be certain that we do not infringe on the intellectual property rights of third parties, including the intellectual property rights of third parties in other countries, which could result in a liability to us. Historically, patent applications in the United States and some foreign countries have not been publicly disclosed until eighteen months following submission of the patent application, and we may not be aware of currently filed patent applications that relate to our products or processes. If patents are later issued on these applications, we may be liable for infringement. In the event that claims are asserted against us, we may be required to obtain licenses from third parties (if available on acceptable terms or at all). Any such claims, regardless of merit, could be time consuming and expensive to litigate or settle, divert the attention of management and materially disrupt the conduct of our business, and we may not prevail. Intellectual property infringement claims against us could subject us to liability for damages and restrict us from providing services or require changes to certain products or services. Although our policy is to obtain licenses or other rights where necessary, we cannot provide assurance that we have obtained all required licenses or rights. If a successful claim of infringement is brought against us and we fail to develop non-infringing products or services, or to obtain licenses on a timely and cost-effective basis, our reputation, business, financial condition and results of operations could be adversely affected.

If our outside service providers and key vendors are not able to or do not fulfill their service obligations, our operations could be disrupted and our operating results could be harmed.

We depend on a number of service providers and key vendors such as telecommunication companies, software engineers, data processors, software and hardware vendors and providers of credit score algorithms, who are critical to our operations. These service providers and vendors are involved with our service offerings, communications and networking equipment, computer hardware and software and related support and maintenance. Although we have implemented service-level agreements and have established monitoring controls, our operations could be disrupted if we do not successfully manage relationships with our service providers, if

they do not perform or are unable to perform agreed-upon service levels, or if they are unwilling to make their services available to us at reasonable prices. If our service providers and vendors do not perform their service obligations, it could adversely affect our reputation, business, financial condition and results of operations.

There may be further consolidation in our end-customer markets, which may adversely affect our revenues.

There has been, and we expect there will continue to be, merger, acquisition and consolidation activity in our customer markets. If our customers merge with, or are acquired by, other entities that are not our customers, or that use fewer of our services, our revenue may be adversely impacted. In addition, industry consolidation could affect the base of recurring transaction-based revenue if consolidated customers combine their operations under one contract, since most of our contracts provide for volume discounts. In addition, our existing customers might leave certain geographic markets, which would no longer require them to purchase certain products from us and, consequently, we would generate less revenue than we currently expect.

To the extent the availability of free or relatively inexpensive consumer information increases, the demand for some of our services may decrease.

Public and commercial sources of free or relatively inexpensive consumer information have become increasingly available and this trend is expected to continue. Public and commercial sources of free or relatively inexpensive consumer information, including free credit information from lead generation companies and from banks, may reduce demand for our services. To the extent that our customers choose not to obtain services from us and instead rely on information obtained at little or no cost from these public and commercial sources, our business, financial condition and results of operations may be adversely affected.

If we experience changes in tax laws or adverse outcomes resulting from examination of our tax returns, it could adversely affect our results of operations.

We are subject to federal, state and local income and other taxes in the United States and in foreign jurisdictions. From time to time the United States federal, state, local and foreign governments make substantive changes to tax rules and the application thereof, which could result in materially higher corporate taxes than would be incurred under existing tax law or interpretation and could adversely impact profitability. State and local tax authorities have strengthened their efforts to increase revenues through changes in tax law, including laws regarding nexus and apportionment for sales and income taxes.

The administration of President Trump has included as part of its agenda a potential reform of U.S. tax laws. The details of the potential reform have not yet emerged but during his presidential campaign, President Trump outlined several changes to business taxes. In addition, House Republicans and Congress have drafted an initial tax reform (“Tax Reform Blueprint”) to significantly amend the current income tax code. While the convergence of the President’s plan and the Tax Reform Blueprint’s potential reforms has not yet taken place, key changes within the proposals include:

- Reduction of the maximum business tax rate from 35 percent to 15-20 percent;
- Elimination of the deductibility of corporate interest expense, if a cost recovery system is elected;
- Implementation of a one-time deemed repatriation tax rate of 10 percent on corporate profits held offshore;
- Elective replacement of current depreciation deductions with a cost recovery system for capital asset investments (excluding land investments);
- Elimination of the corporate alternative minimum tax; and
- Elimination of most corporate tax expenditures except for the research and development credit.

We cannot predict whether, when or to what extent new U.S. federal tax laws, regulations, interpretations or rulings will be issued, nor is the long-term impact of proposed tax reforms (including future reforms that may be part of any enacted tax reform) known.

Consequently, significant judgment is required in determining our worldwide provision for income taxes. Our future effective tax rates and the value of our deferred tax assets could be adversely affected by changes in tax laws. In addition, we are subject to the examination of our income tax returns and other tax returns by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of adverse outcomes resulting from such examinations to determine the adequacy of our provision for income taxes and reserves for other taxes. Although we believe we have made appropriate provisions for taxes in the jurisdictions in which we operate, changes in the tax laws, including a reform of the U.S. tax laws by the new administration, or challenges from tax authorities under existing tax laws could adversely affect our business, financial condition and results of operations.

We are subject to losses from risks for which we do not insure.

For certain risks, we do not maintain insurance coverage because of cost and/or availability. Because we retain some portion of insurable risks, and in some cases retain our risk of loss completely, unforeseen or catastrophic losses in excess of insured limits could materially adversely affect our business, financial condition and results of operations.

We may not be able to attract and retain the skilled employees that we need to support our business.

Our success depends on our ability to attract and retain experienced management, sales, research and development, analytics, marketing and technical support personnel. If any of our key personnel were unable or unwilling to continue in their present positions, it may be difficult to replace them and our business could be seriously harmed. If we are unable to find qualified successors to fill key positions as needed, our business could be seriously harmed. The complexity of our services requires trained customer service and technical support personnel. We may not be able to hire and retain such qualified personnel at compensation levels consistent with our compensation structure. Some of our competitors may be able to offer more attractive terms of employment. In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. If we fail to retain our employees, we could incur significant expense replacing employees and our ability to provide quality services could diminish, resulting in a material adverse effect on our business.

Anti-takeover provisions in our organizational documents might discourage, delay or prevent acquisition attempts for us that you might consider favorable.

Certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws may have an anti-takeover effect and may delay, defer or prevent a merger, acquisition, tender offer, takeover attempt or other change of control transaction that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by our stockholders.

These provisions provide for, among other things:

- a classified Board of Directors with staggered three year terms;
- the ability of our Board of Directors to issue one or more series of preferred stock;
- advance notice for nominations of directors by stockholders and for stockholders to include matters to be considered at our annual meetings;
- certain limitations on convening special stockholder meetings;
- the removal of directors only for cause and only upon the affirmative vote of the holders of at least 66 $\frac{2}{3}$ % in voting power of all the then-outstanding shares of stock of the Company entitled to vote thereon, voting together as a single class, if the Sponsors and their affiliates beneficially own, in the aggregate, less than 50% in voting power of the stock of the Company entitled to vote generally in the election of directors; and

- that certain provisions may be amended only by the affirmative vote of at least 66 ⅔% in voting power of all the then-outstanding shares of stock of the Company entitled to vote thereon, voting together as a single class, if the Sponsors and their affiliates beneficially own, in the aggregate, less than 50% in voting power of the stock of the Company entitled to vote generally in the election of directors.

These anti-takeover 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 of our stockholders. As a result, our stockholders may be limited in their ability to obtain a premium for their shares.

We do not expect to pay any cash dividends for the foreseeable future.

The continued operation along with the service of our debt will require substantial funding. Accordingly, we do not anticipate that we will pay any cash dividends on shares of our common stock for the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend upon results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems relevant. Additionally, our operating subsidiaries are currently restricted from paying cash dividends by the agreements governing our indebtedness, and we expect these restrictions to continue in the future.

Maintaining our financial controls and the requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members, and any failure to maintain financial controls could result in our financial statements becoming unreliable.

As a public company for less than two years, we incur significant legal, accounting, insurance and other expenses that we did not incur as a private company, including costs associated with public company governance and reporting requirements. We also have incurred and will continue to incur costs associated with the Sarbanes-Oxley Act of 2002 and related rules implemented by the Securities and Exchange Commission ("SEC") and costs in connection with continued listing on the NYSE. The expenses incurred by public companies for reporting and corporate governance purposes have been generally increasing.

Our efforts to comply with these rules and regulations have significantly increased our legal and financial reporting costs, including costs associated with the hiring of additional personnel. In addition, these laws and regulations could also make it more difficult and costly for us to obtain or renew certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. These laws and regulations could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as our executive officers. Furthermore, if we are unable to satisfy our obligations as a public company, we could be subject to the delisting of our common stock, fines, sanctions and other regulatory action and potentially civil litigation.

Pursuant to Section 404 of the Sarbanes-Oxley Act and related rules and regulations, our management is required to report on the effectiveness of our internal control over financial reporting. Our independent registered public accounting firm is required to attest to the effectiveness of our internal control over financial reporting in this annual report for the fiscal year ended December 31, 2016. We will continue to test our internal controls in connection with the Section 404 requirements and could, as part of that documentation and testing, identify material weaknesses, significant deficiencies or other areas for further attention or improvement. Any failure to maintain the adequacy of internal control over financial reporting, or any consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could materially impair our ability to operate our business. Moreover, effective internal controls are necessary for us to produce reliable financial reports and are important to help prevent fraud. As a result, our failure to satisfy the requirements of Section 404 on a timely basis could result in the loss of investor confidence in the reliability of our financial statements, which in turn could cause the market value of our common stock to decline.

We are a “controlled company” within the meaning of the NYSE rules and the rules of the SEC. As a result, we will qualify for, and intend to rely on, exemptions from certain corporate governance requirements that provide protection to stockholders of other companies.

Affiliates of the Sponsors control a majority of the voting power of our outstanding common stock. As a result, we are a “controlled company” within the meaning of the corporate governance standards of the NYSE. Under these rules, a company of which more than 50% of the voting power is held by an individual, group or another company is a “controlled company” and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of the Board of Directors consist of “independent directors” as defined under the rules of the NYSE;
- the requirement that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities;
- the requirement that we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities; and
- the requirement for an annual performance evaluation of the nominating/corporate governance and compensation committees.

We are currently utilizing these exemptions. As a result, we do not have a majority of independent directors, our nominating/corporate governance committee and compensation committee do not consist entirely of independent directors and such committees will not be subject to annual performance evaluations. Accordingly, you will not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the NYSE.

In addition, on June 20, 2012, the SEC adopted Rule 10C-1 (“Rule 10C-1”) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), to implement provisions of the Dodd-Frank Act pertaining to compensation committee independence and the role and disclosure of compensation consultants and other advisers to the compensation committee. The NYSE has since adopted amendments to its existing listing standards to comply with provisions of Rule 10C-1, and on January 11, 2013, the SEC approved such amendments. The amended listing standards require, among other things, that:

- the requirement for an annual performance evaluation of the nominating/corporate governance and compensation committees;
- compensation committees be explicitly charged with hiring and overseeing compensation consultants, legal counsel and other committee advisers; and
- compensation committees be required to consider, when engaging compensation consultants, legal counsel or other advisers, certain independence factors, including factors that examine the relationship between the consultant or adviser’s employer and us.

As a “controlled company,” we are not subject to these compensation committee independence requirements. In 2016, the Sponsors sold shares in the market, and as of December 31, 2016, held 50.8% of our voting power. Accordingly, if the Sponsors sell more of their shares, we may lose controlled company status and need to ensure that we meet the NYSE’s corporate governance requirements described above within the transition periods prescribed by NYSE rules.

Affiliates of our Sponsors own the majority of the equity interests in us and may have conflicts of interest with us or the holders of our common stock.

Investment funds affiliated with our Sponsors currently control our company interests and have the ability to elect a majority of the seats on our board of directors. The Amended and Restated Major Stockholders’

Agreement provides, subject to certain requirements, that the Sponsors will collectively have the ability to designate for election four directors to our board of directors. As a result, affiliates of our Sponsors may have substantial control over whether we enter into any transaction that requires the approval of the board of directors regardless of whether our management believe that any such transaction is in our best interests. For example, affiliates of our Sponsors could collectively cause us to make acquisitions that increase the amount of our indebtedness or to sell assets, or could cause us to issue additional capital stock or declare dividends. So long as investment funds affiliated with our Sponsors continue to own a significant amount of our equity interests or otherwise have the ability to designate for election a certain number of directors to our board of directors, the Sponsors may continue to be able to effectively control our decisions. In addition, the Sponsors have no obligation to provide us with any additional debt or equity financing.

The Sponsors are in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us or that supply us with goods and services. The Sponsors may also pursue acquisition opportunities that may be complementary to our business and, as a result, those acquisition opportunities may not be available to us. Holders of our common stock should consider that the interests of the Sponsors may differ from their interests in material respects.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Properties

Our corporate headquarters and main data center are located in Chicago, Illinois, in an office building that we own. We also own a data center building in Hamilton, Ontario, Canada. As of December 31, 2016, we lease space in over 70 other locations, including office space and additional data centers. These locations are geographically dispersed to meet our sales and operating needs. We anticipate that suitable additional or alternative space will be available at commercially reasonable terms for future expansion.

ITEM 3. LEGAL PROCEEDINGS

General

In addition to the matters described below, we are routinely named as defendants in, or parties to, various legal actions and proceedings relating to our current or past business operations. These actions generally assert claims for violations of federal or state credit reporting, consumer protection or privacy laws, or common law claims related to privacy, libel, slander or the unfair treatment of consumers, and may include claims for substantial or indeterminate compensatory or punitive damages, or injunctive relief, and may seek business practice changes. We believe that most of these claims are either without merit or we have valid defenses to the claims, and we vigorously defend these matters or seek non-monetary or small monetary settlements, if possible. However, due to the uncertainties inherent in litigation, we cannot predict the outcome of each claim in each instance.

In the ordinary course of business, we also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In connection with formal and informal inquiries by these regulators, we routinely receive requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of our activities. See “Legal and Regulatory Matters.”

In view of the inherent unpredictability of litigation and regulatory matters, particularly where the damages sought are substantial or indeterminate or when the proceedings or investigations are in the early stages, we cannot determine with any degree of certainty the timing or ultimate resolution of litigation and regulatory matters or the eventual loss, fines, penalties or business impact, if any, that may result. We establish reserves for litigation and regulatory matters when those matters present loss contingencies that are both probable and can be reasonably estimated. The actual costs of resolving litigation and regulatory matters, however, may be substantially higher than the amounts reserved for those matters, and an adverse outcome in certain of these matters could have a material adverse effect on our consolidated financial statements in particular quarterly or annual periods.

On a regular basis, we accrue reserves for litigation and regulatory matters based on our historical experience and our ability to reasonably estimate and ascertain the probability of any liability. See Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 18, “Contingencies,” for additional information about these reserves. However, for certain of the matters described below, we are not able to reasonably estimate our exposure because damages have not been specified and (i) the proceedings are in early stages, (ii) there is uncertainty as to the likelihood of a class being certified or the ultimate size of the class, (iii) there is uncertainty as to the outcome of similar matters pending against our competitors, (iv) there are significant factual issues to be resolved, and/or (v) there are legal issues of a first impression being presented. However, for these matters we do not believe based on currently available information that the outcomes will have a material adverse effect on our financial condition, though the outcomes could be material to our operating results for any particular period.

To reduce our exposure to an unexpected significant monetary award resulting from an adverse judicial decision, we maintain insurance that we believe is appropriate and adequate based on our historical experience. We regularly advise our insurance carriers of the claims (threatened or pending) against us in the course of litigation and generally receive a reservation of rights letter from the carriers when such claims exceed applicable deductibles. We are not aware of any significant monetary claim that has been asserted against us in the course of pending litigation that would not have some level of coverage by insurance after the relevant deductible, if any, is met.

Bankruptcy Tradeline Litigation

In a matter captioned *White, et al, v. Experian Information Solutions, Inc.* (No. 05-cv-01070-DOC/MLG, filed in 2005 in the United States District Court for the Central District of California), plaintiffs sought class action status against Equifax, Experian and us in connection with the reporting of delinquent or charged-off consumer debt obligations on a consumer report after the consumer was discharged in a bankruptcy proceeding. The claims allege that each national consumer reporting company did not automatically update a consumer's file after their discharge from bankruptcy and such non-action was a failure to employ reasonable procedures to assure maximum file accuracy, a requirement of the FCRA.

Without admitting any wrongdoing, we have agreed to a settlement of this matter. In August 2008, the Court approved an agreement whereby we and the other industry defendants voluntarily changed certain operational practices. These changes require us to update certain delinquent records when we learn, through the collection of public records, that the consumer has received an order of discharge in a bankruptcy proceeding. These business practice changes did not have a material adverse impact on our operations or those of our customers.

In 2009, we also agreed, with the other two defendants, to settle the monetary claims associated with this matter for \$17.0 million each (\$51.0 million in total), which amount will be distributed from a settlement fund to pay the class counsel's attorney fees, all administration and notice costs of the fund to the purported class, and a variable damage amount to consumers within the class based on the level of harm the consumer is able to confirm. Our share of this settlement was fully covered by insurance. Final approval of this monetary settlement by the Court occurred in July 2011. Certain objecting plaintiffs appealed the Court's final approval of the monetary settlement and, in April 2013, the United States Court of Appeals for the Ninth Circuit reversed the final approval order and remanded the matter to the District Court. The rationale provided by the Court of Appeals was not that the proposed settlement was unfair or defective, but that named class counsel and certain named plaintiffs did not adequately represent the interests of the class because of certain identified conflicts. Objecting counsel to the settlement has sought to become new class counsel and the District Court denied that request. The Court of Appeals affirmed the ruling on interlocutory appeal and in May 2016, denied plaintiffs' petition for rehearing *en banc*. The U.S. Supreme Court has denied *certiorari* on objecting counsel's challenge.

If the monetary settlement is not ultimately upheld, we expect to vigorously litigate this matter and to assert what we believe are valid defenses to the claims made by the plaintiffs. Regardless of what occurs next, we believe we have not violated any law, have valid defenses and are willing to aggressively litigate this matter. We do not believe any final resolution of this matter will have a material adverse effect on our financial condition.

OFAC Alert Service

As a result of a decision by the United States Third Circuit Court of Appeals in 2010 (*Cortez v. Trans Union LLC*), we modified one of our add-on services we offer to our business customers that was designed to alert our customer that the consumer, who was seeking to establish a business relationship with the customer, may potentially be on the Office of Foreign Assets Control, Specifically Designated National and Blocked Persons alert list (the "OFAC Alert"). The OFAC Alert service is meant to assist our customers with their compliance obligations in connection with the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001.

In *Ramirez v. Trans Union LLC*, (No. 3:12-cv-00632-JSC, United States District Court for the Northern District of California), filed in 2012, the plaintiff has alleged that: the OFAC Alert service does not comply with the *Cortez* ruling; we have willfully violated the Fair Credit Reporting Act (“FCRA”) and the corresponding California state-FCRA based on the *Cortez* ruling by continuing to offer the OFAC Alert service; and there are one or more classes of individuals who should be entitled to statutory damages (i.e., \$100 to \$5,000 per person) based on the allegedly willful violations. In addition to the *Ramirez* action, the same lawyers representing *Ramirez* (who also represented the plaintiff in *Cortez*) filed two additional alleged class actions in 2012 (*Miller v. Trans Union, LLC*, No. 12-1715-WJN, United States District Court for the Middle District of Pennsylvania; and *Larson v. Trans Union, LLC*, No. 12-5726-JSC, United States District Court for the Northern District of California) and one in 2014 (*Amit Patel, et al. v. TransUnion LLC, TransUnion Rental Screening Solutions, Inc. and TransUnion Background Data Solutions*, No. 14-cv-0522-LB, United States District Court for the Northern District of California) claiming that our process for disclosing OFAC information to consumers, or how we match OFAC information to a consumer’s name or other identifying information, violates the FCRA and, in some instances, the corresponding California state-FCRA. In addition to the OFAC allegations, the plaintiff in the *Patel* action seeks to collapse all TransUnion FCRA regulated entities into a single entity. In July 2014, the Court in *Ramirez* certified a class of approximately 8,000 individuals solely for purposes of statutory damages if TransUnion is ultimately found to have willfully violated the FCRA, and a sub-class of California residents solely for purposes of injunctive relief under the California Consumer Credit Reporting Agencies Act. While the Court noted that the plaintiff is not seeking any actual monetary damage, the class certification order was predicated on a disputed question of Ninth Circuit law (currently there is a conflict between the federal circuits) that is awaiting action by the United States Supreme Court. Our motions to stay the *Ramirez*, *Miller* and *Larson* proceedings were granted and the proceedings stayed pending action by the U.S. Supreme Court in *Spokeo v. Robins*. In June 2015, the Court in *Patel* certified a national class of approximately 11,000 individuals with respect to allegations that TransUnion willfully violated the FCRA by failing to maintain and follow reasonable procedures to ensure the maximum possible accuracy of their information, and a national subclass of approximately 3,000 individuals with respect to allegations that TransUnion willfully violated the FCRA by failing to provide consumers with all information in their files. In September 2015, our motion to stay the *Patel* proceedings was granted and the proceedings stayed pending action by the U.S. Supreme Court in *Spokeo v. Robins*.

On May 16, 2016, the U.S. Supreme Court issued its decision in *Spokeo v. Robins*, holding that the injury-in-fact requirement for standing under Article III of the United States Constitution requires a plaintiff to allege an injury that is both “concrete and particularized.” The Court held that the Ninth Circuit’s analysis failed to consider concreteness in its analysis and vacated the decision and remanded to the Ninth Circuit to consider both aspects of the injury-in-fact requirement. Following the U.S. Supreme Court’s decision, the stays in the *Ramirez*, *Miller*, *Larson* and *Patel* matters were lifted. In August 2016, the Court in *Larson* certified a class of approximately 18,000 California residents with respect to allegations that TransUnion failed to provide consumers with all information in their files in violation of the Fair Credit Reporting Act. In October 2016, the Court in *Larson* denied our petition for permission to appeal the class certification decision to the Ninth Circuit, and the Courts in *Ramirez* and *Patel* denied our motions to decertify the classes based on the implications of *Spokeo*. On January 17, 2017, the magistrate in *Miller* recommended that the Court find that the plaintiff has standing to bring suit in federal court, and that the motion for class certification should be granted. We intend to continue to defend these matters vigorously as we believe we have acted in a lawful manner.

Consumer Disclosure

In *Tyrone Henderson, et al. v. TransUnion LLC and TransUnion Rental Screening Solutions, Inc.* (No. 3:14-cv-00679-JAG, United States District Court for the Eastern District of Virginia (Richmond Division)), the plaintiffs have alleged that TransUnion’s process for mailing required notices to consumers at the time it furnishes a consumer report for employment purposes that contains adverse public record information violates the FCRA. In May 2016, the Court in *Henderson* certified a national class of individuals with respect to these allegations. We intend to continue to defend this matter vigorously as we believe we have acted in a lawful manner.

CFPB Investigation

In September 2015, we received a Civil Investigative Demand (a “CID”) from the CFPB. The CID was focused on common industry practices relating to the advertising, marketing and sale of consumer reports, credit scores or credit monitoring products to consumers by our Consumer Interactive segment. On December 22, 2016, we agreed to settle with the CFPB and executed and delivered a “Stipulation and Consent to the Issuance of a Consent Order,” pursuant to which we accepted the issuance of a consent order (the “Consent Order”) by the CFPB requiring us to:

- implement certain agreed practice changes in the way we advertise, market and sell products and services offered directly to consumers, including more robust disclosures regarding the nature of the credit score being provided as well as confirming consumer consent if the product or service is being sold through the use of a negative option feature (i.e., a trial period becomes a recurring paid subscription unless the consumer affirmatively cancels their registration); and
- develop and submit to the CFPB for approval a comprehensive compliance plan detailing the steps for addressing each action required by the terms of the Consent Order and specific time frames and deadlines for implementation.

The CFPB issued the Consent Order reflecting the agreed settlement on January 3, 2017. We incurred a charge of approximately \$19.4 million in the fourth quarter of 2016, consisting of the following: approximately \$13.9 million for redress to eligible consumers; a civil money penalty to be paid to the CFPB in the amount of \$3.0 million; and our current estimate of \$2.5 million for additional administrative, legal and compliance costs we will incur in connection with the settlement, which we expect to pay in 2017.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

EXECUTIVE OFFICERS

Our executive officers, and their positions and ages as of February 15, 2017, are set forth below:

<u>Name</u>	<u>Age</u>	<u>Position</u>
James M. Peck	53	Director, President & Chief Executive Officer
Samuel A. Hamood	48	Executive Vice President & Chief Financial Officer
John W. Blenke	61	Executive Vice President & Corporate General Counsel
Christopher A. Cartwright	51	Executive Vice President-U.S. Information Services
John T. Danaher	52	Executive Vice President-Consumer Interactive
Gerald M. McCarthy, Jr.	47	Executive Vice President-Healthcare
David M. Neenan	51	Executive Vice President-International

James M. Peck joined the Company in December 2012 as President and Chief Executive Officer. Mr. Peck has more than 20 years of information management, global product development and engineering experience. From March 2004 through December 2012, Mr. Peck was the Chief Executive Officer for the LexisNexis Risk Solutions business of Reed Elsevier, where he successfully integrated Lexis Nexis' acquisitions of Seisint in 2004 and ChoicePoint in 2008. From 2001 through 2004, Mr. Peck was Senior Vice President and Chief Product Officer of the Global Electronic Product Development Organization of LexisNexis, where he was responsible for product development and online solutions to serve global markets. Prior to 2001, Mr. Peck was the Senior Vice President of Product Development with Celera Genomics, a bio-technology firm that sequenced the human genome. Prior to that, he spent a decade at LexisNexis in engineering and executive roles to manage and build information solutions.

Samuel A. Hamood joined the Company in February 2008. Since Mr. Hamood joined, he has served as Executive Vice President and Chief Financial Officer. From 2000 through January 2008, he held a variety of positions at Electronic Data Systems. From January 2007 to January 2008, he was the Chief Financial Officer for the U.S. Region. From April 2004 to December 2006, he was the Vice President of Investor Relations. From 2002 through March 2004, he was the Senior Director of Corporate Strategy and Planning. Prior to that, he spent six years with the Walt Disney Company in a variety of finance and strategy roles with increasing levels of responsibility. He also spent five years in the audit practice of Deloitte and Touche, LLP.

John W. Blenke joined the Company in May 2003. Since Mr. Blenke joined, he has served as the Executive Vice President and Corporate General Counsel. From 1989 through April 2003, he held a variety of positions with Household International, Inc. (predecessor to HSBC North America), including most recently the Vice President of Corporate Law, where he managed the corporate legal functions responsible for mergers and acquisitions, corporate finance and consumer finance branch-based and wholesale lending. From December 2013 through December 2016, Mr. Blenke served as a TransUnion representative on the boards of various industry-created associations and joint ventures, including the Consumer Data Industry Association and Central Source, LLC.

Christopher A. Cartwright joined the Company in August 2013 as Executive Vice President-U.S. Information Services. From December 2010 through March 2013, he was the Chief Executive Officer of Decision Insight Information Group, a portfolio of independent businesses providing real property information, software and services to insurance, finance, legal and real estate professionals in the United States, Canada and Europe. From June 1997 through October 2010, he held a variety of positions at Wolters Kluwer, a global information services and workflow solutions company, where he was CEO of Corporate Legal and Financial Services Division of North America and Shared Services. Prior to Wolters Kluwer, he was Senior Vice President, Strategic Planning & Operations for Christie's Inc. and Strategy Consultant for Coopers and Lybrand.

John T. Danaher joined the Company in November 2002 and is currently Executive Vice President-Consumer Interactive. Mr. Danaher has more than 25 years of financial services industry expertise and direct marketing experience and has served as the president of the consumer subsidiary of TransUnion since 2004. Prior to

TransUnion, from 2001 to 2002, Mr. Danaher was Chief Operating Officer of TrueLink, Inc., which was acquired by TransUnion. Mr. Danaher joined TrueLink, Inc. from Citibank, where he held several roles including Vice President of E-Commerce, where he was responsible for planning and executing Citibank's e-commerce strategy for home equity loan products. He also served in a variety of leadership roles in operations and technology.

Gerald M. McCarthy, Jr. joined the Company as Executive Vice President-Healthcare in July 2014. Mr. McCarthy is also a director for both RTech Healthcare Revenue Technologies, Inc. and Auditiz, LLC, wholly-owned subsidiaries of TransUnion Healthcare, Inc. From January 2012 through June 2014, Mr. McCarthy was the Chief Strategy Officer of HealthMEDX, a leading software provider for long-term care, home care and rehabilitation organizations. Prior to joining HealthMEDX, Mr. McCarthy held a number of executive positions at McKesson Provider Technologies, including Senior Vice President, Product Management and Marketing from July 2007 to December 2011; Vice President, Physician Solutions from January 2005 to June 2007; Division Vice President of Sales, Clinical and Imaging Solutions from January 2004 to December 2005; and Clinical Solution Specialist from December 2001 to December 2003.

David M. Neenan joined the Company in September 2012 as Executive Vice President-International. From October 1998 through September 2012, he held a variety of positions at HSBC. From 2011 through August 2012, he served as the Global Chief Operations Officer for HSBC's insurance division. From 2009 through 2011, he served as the Global Head of Sales and marketing for the insurance division. From July 2006 through 2008, he served as President and CEO of HSBC Finance, Canada.

There are no family relationships among any of the Company's executive officers.

PART II

ITEM 5. MARKET FOR THE REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock has been listed on The New York Stock Exchange under the symbol “TRU” since June 25, 2015. The following table sets forth for the indicated periods the high and low sales prices per share for our common stock on The New York Stock Exchange.

<u>Period</u>	<u>Low</u>	<u>High</u>
Second quarter 2015 (from June 25, 2015)	\$23.42	\$25.89
Third quarter 2015	\$23.30	\$27.02
Fourth quarter 2015	\$23.12	\$28.08
First quarter 2016	\$20.43	\$27.98
Second quarter 2016	\$26.48	\$33.70
Third quarter 2016	\$31.57	\$35.79
Fourth quarter 2016	\$28.92	\$34.50

Holders of Record

As of January 31, 2017, we had 63 stockholders of record. We have a greater number of beneficial owners of our stock who own their shares through brokerage firms and other nominees.

Dividends

We do not intend to pay cash dividends on our common stock in the foreseeable future. We may, in the future, decide to pay dividends on our common stock. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, capital requirements, restrictions contained in current or future financing instruments and other factors that our board of directors deem relevant. Additionally, our ability to pay dividends is limited by restrictions on the ability of our operating subsidiaries to make distributions, including restrictions under the terms of the agreements governing our debt. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Debt” and Part II, Item 8, “Financial statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 10, “Debt,” for a description of the restrictions on our ability to pay dividends. We did not declare or pay dividends to the holders of our common stock in the twelve months ended December 31, 2016, 2015 or 2014.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

<u>Period</u>	<u>Total Number of Shares Purchased⁽¹⁾</u>	<u>Average Price Paid Per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs⁽²⁾</u>	<u>Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs⁽²⁾</u>
October 1 to October 31	791	\$33.20	—	\$ —
November 1 to November 30	—	—	—	\$ —
December 1 to December 31	<u>20,242</u>	30.93	—	\$ —
Total	<u>21,033</u>	31.02	—	\$ —

⁽¹⁾ Represents shares that were repurchased from employees for withholding taxes on options exercised and restricted stock vesting pursuant to the terms of the Company’s equity compensation plans.

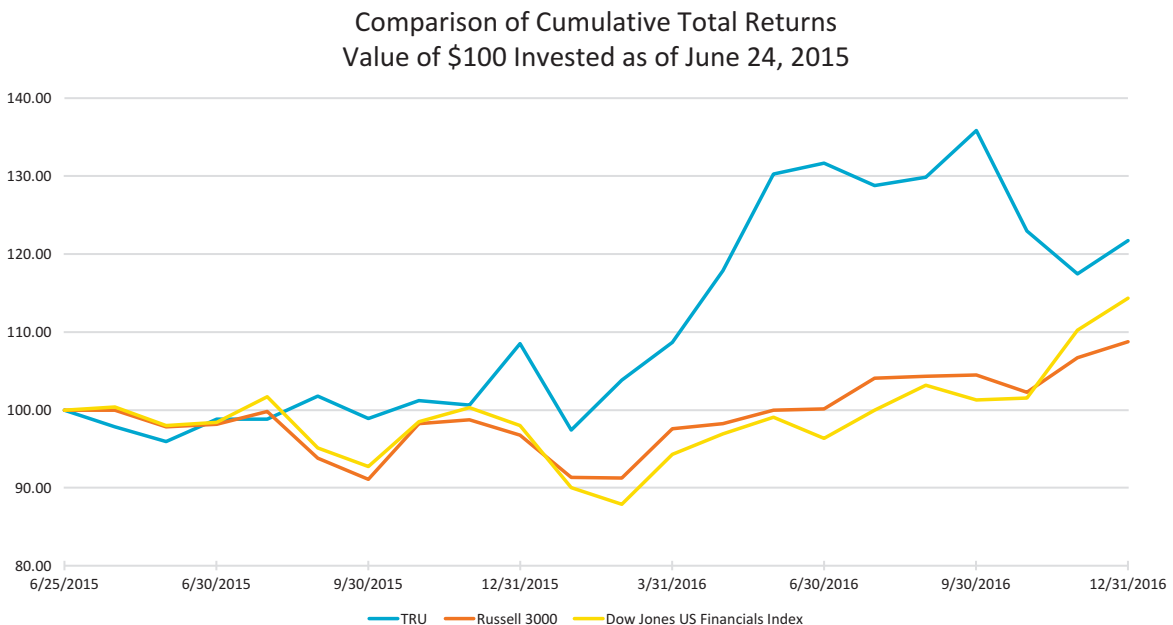
- (2) On February 13, 2017, our board of directors authorized the repurchase of up to \$300 million of stock over the next three years. Repurchases may be made from time to time at management’s discretion at prices management considers to be attractive through open market purchases or through privately negotiated transactions, subject to availability. Open market purchases will be conducted in accordance with the limitations set forth in Rule 10b-18 of the Securities and Exchange Commission and other applicable legal requirements.

The Company has no obligation to repurchase shares, and the timing, actual number and value of the shares that are repurchased, if any, will be at the discretion of management and will depend on a number of factors, including market conditions, the cost of repurchasing shares, the availability of alternative investment opportunities, liquidity, and other factors deemed appropriate. Repurchases may be suspended, terminated or modified at any time for any reason. Any repurchased shares will have the status of treasury shares and may be used, if and when needed, for general corporate purposes.

Performance Graph

This performance graph shall not be deemed “soliciting material” or to be “filed” with the SEC for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of TransUnion under the Securities Act of 1933, as amended, or the Exchange Act.

The following graph shows a comparison of cumulative total return for the Company’s common stock, the Russell 3000 and the Dow Jones U.S. Financials Index from June 25, 2015, the date the Company’s common stock commenced trading on the NYSE, through December 31, 2016. The graph assumes that \$100 was invested at market close on June 25, 2015, in each of the Company’s common stock, the Russell 3000 and the Dow Jones U.S. Financial Index. The cumulative total returns for the Russell 3000 and the Dow Jones U.S. Financial Index assume reinvestment of dividends. The stock price performance of the following graph is not necessarily indicative of future stock price performance.



ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth our selected historical consolidated financial data for the periods ended and as of the dates indicated below.

We have derived the selected historical consolidated financial data as of December 31, 2016 and 2015, and for each of the twelve months ended December 31, 2016, 2015 and 2014 from our audited consolidated financial statements included elsewhere in this report. We have derived the selected historical consolidated financial data as of December 31, 2013 and 2012 and for the period of our inception, February 15, 2012, through December 31, 2012, from our audited consolidated financial statements, which are not included in this report. We have derived the selected historical consolidated financial data for the four months ended April 30, 2012, from our Predecessor's audited historical consolidated financial statements, which are not included in this report. Our historical results are not necessarily indicative of the results expected for any future period.

You should read the following financial data together with Part I, Item 1A, "Risk Factors," Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," our audited consolidated financial statements and related notes appearing elsewhere in this report, and our predecessors audited consolidated financial statements and related notes included in our annual reports on Form 10-K for the year ended December 31, 2013, previously filed with the SEC.

Selected financial data consists of the following:

(dollars in millions)	TransUnion					TransUnion Intermediate Predecessor
	Twelve Months Ended December 31, 2016	Twelve Months Ended December 31, 2015	Twelve Months Ended December 31, 2014	Twelve Months Ended December 31, 2013	From Inception Through December 31, 2012	Four Months Ended April 30, 2012
Income Statement Data:						
Revenue	\$1,704.9	\$1,506.8	\$1,304.7	\$1,183.2	\$ 767.0	\$373.0
Operating expense:						
Cost of services	579.1	531.6	500.2	473.9	298.2	172.0
Selling, general and administrative	560.1	499.7	434.9	353.3	212.6	172.0
Depreciation and amortization	<u>265.2</u>	<u>278.4</u>	<u>241.2</u>	<u>186.8</u>	<u>115.0</u>	<u>29.2</u>
Total operating expense	1,404.4	1,309.7	1,176.3	1,014.0	625.8	373.2
Operating income (loss)	300.5	197.1	128.4	169.2	141.2	(0.2)
Non-operating income and expense	<u>(95.1)</u>	<u>(170.5)</u>	<u>(130.2)</u>	<u>(195.1)</u>	<u>(138.5)</u>	<u>(63.7)</u>
Income (loss) from continuing operations before income taxes . . .	205.4	26.6	(1.8)	(25.9)	2.7	(63.9)
(Provision) benefit for income taxes	<u>(74.0)</u>	<u>(11.3)</u>	<u>(2.6)</u>	<u>(2.3)</u>	<u>(6.6)</u>	<u>11.5</u>
Net income (loss)	131.4	15.3	(4.4)	(28.2)	(3.9)	(52.4)
Less: net income attributable to noncontrolling interests	<u>(10.8)</u>	<u>(9.4)</u>	<u>(8.1)</u>	<u>(6.9)</u>	<u>(4.9)</u>	<u>(2.5)</u>
Net income (loss) attributable to the Company	<u>\$ 120.6</u>	<u>\$ 5.9</u>	<u>\$ (12.5)</u>	<u>\$ (35.1)</u>	<u>\$ (8.8)</u>	<u>\$ (54.9)</u>
Net earnings (loss) per share:						
Basic	\$ 0.66	\$ 0.04	\$ (0.09)	\$ (0.24)	\$ (0.06)	\$ (1.84)
Diluted	\$ 0.65	\$ 0.04	\$ (0.09)	\$ (0.24)	\$ (0.06)	\$ (1.84)
Weighted average shares outstanding:						
Basic	182.6	165.3	147.3	146.4	146.2	29.8
Diluted	184.6	166.8	147.3	146.4	146.2	29.8
Dividends per share:						
Basic	\$ —	\$ —	\$ —	\$ —	\$ 2.56	\$ —
Diluted	\$ —	\$ —	\$ —	\$ —	\$ 2.56	\$ —

<u>(dollars in millions)</u>	<u>As of</u>				
	<u>December 31,</u> <u>2016</u>	<u>December 31,</u> <u>2015</u>	<u>December 31,</u> <u>2014</u>	<u>December 31,</u> <u>2013</u>	<u>December 31,</u> <u>2012</u>
<u>Balance sheet data:</u>					
Total assets	\$4,781.2	\$4,442.8	\$4,633.8	\$4,456.2	\$4,339.1
Total debt ⁽¹⁾	\$2,375.6	\$2,204.6	\$2,907.9	\$2,830.8	\$2,641.2
Total stockholders' equity ⁽¹⁾	\$1,473.0	\$1,367.0	\$ 747.7	\$ 714.5	\$ 796.1

(1) The change in total debt and total stockholders' equity at December 31, 2015, reflects the impact of our initial public offering and the use of those proceeds to retire our public debt.

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

The following discussion and analysis of TransUnion’s financial condition and results of operations is provided as a supplement to, and should be read in conjunction with Part I, Item 1A, “Risk Factors,” Part II, Item 6, “Selected Financial Data,” and Part II, Item 8, “Financial Statements and Supplementary Information,” including TransUnion’s audited consolidated financial statements and the accompanying notes. In addition to historical data, this discussion contains forward-looking statements about our business, operations and financial performance based on current expectations that involve risks, uncertainties and assumptions. Our actual results may differ materially from those discussed in the forward-looking statements as a result of various factors, including but not limited to those discussed in “Cautionary Notice Regarding Forward-Looking Statements” and Part I, Item 1A, “Risk Factors.”

References in this discussion and analysis to the “Company,” “we,” “us,” and “our” refer to TransUnion and its direct and indirect subsidiaries, including TransUnion Intermediate.

Overview

TransUnion is a leading global risk and information solutions provider to businesses and consumers. We provide consumer reports, risk scores, analytical services and decisioning capabilities to businesses. Businesses embed our solutions into their process workflows to acquire new customers, assess consumer ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and investigate potential fraud. Consumers use our solutions to view their credit profiles and access analytical tools that help them understand and manage their personal information and take precautions against identity theft. We are differentiated by our comprehensive and unique datasets, our next-generation technology and our analytics and decisioning capabilities, which enable us to deliver insights across the entire consumer lifecycle. We believe we are the largest provider of risk and information solutions in the United States to possess both nationwide consumer credit data and comprehensive, diverse public records data, which allows us to better predict behaviors, assess risk and address a broader set of business issues for our customers. We have deep domain expertise across a number of attractive industries, sometimes referred to as verticals, including financial services, specialized risk, insurance and healthcare. We have a global presence in over 30 countries across North America, Africa, Latin America and Asia.

Our solutions are based on a foundation of financial, credit, alternative credit, identity, bankruptcy, lien, judgment, insurance claims, automotive and other relevant information from 90,000 data sources, including financial institutions, private databases and public records repositories. We refine, standardize and enhance this data using sophisticated algorithms to create proprietary databases. Our deep analytics expertise, which includes our people as well as tools such as predictive modeling and scoring, customer segmentation, benchmarking and forecasting, enables businesses and consumers to gain better insights into their risk and financial data. Our decisioning capabilities, which are generally delivered on a software-as-a-service platform, allow businesses to interpret data and apply their specific qualifying criteria to make decisions and take action with respect to their customers. Collectively, our data, analytics and decisioning capabilities allow businesses to authenticate the identity of consumers, effectively determine the most relevant products for consumers, retain and cross-sell to existing consumers, identify and acquire new consumers and reduce loss from fraud. Similarly, our capabilities allow consumers to see how their credit profiles have changed over time, understand the impact of financial decisions on their credit scores and manage their personal information as well as to take precautions against identity theft.

Segments

In the first quarter of 2016, we moved our direct-to-consumer reseller business and reallocated certain other costs related to our consumer facing business in the U.S. from our USIS segment to our Consumer Interactive segment.

These changes better reflect the evolution of our consumer facing business in the U.S. and how we manage that business. As a result, we modified our segment reporting effective the first quarter of 2016. In conjunction with this change we also reclassified \$105.0 million of goodwill from our USIS segment to our Consumer Interactive segment. The segment results below have been recast to reflect these changes for all periods presented. These changes do not impact our consolidated results.

We manage our business and report our financial results in three reportable segments: USIS, International and Consumer Interactive.

- USIS provides consumer reports, risk scores, analytical and decisioning services to businesses. These businesses use our services to acquire new customers, assess consumer ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and investigate potential fraud. The core capabilities and delivery platforms in our USIS segment allow us to serve a broad set of customers and business issues. We offer our services to customers in financial services, insurance, healthcare and other industries.
- The International segment provides services similar to our USIS segment to businesses in select regions outside the United States. Depending on the maturity of the credit economy in each country, services may include credit reports, analytics and decisioning services and other value-added risk management services. In addition, we have insurance, business and automotive databases in select geographies. These services are offered to customers in a number of industries including financial services, insurance, automotive, collections and communications, and are delivered through both direct and indirect channels. The International segment also provides consumer services similar to those offered by our Consumer Interactive segment that help consumers proactively manage their personal finances.
- Consumer Interactive offers solutions that help consumers manage their personal finances and take precautions against identity theft. Services in this segment include credit reports and scores, credit monitoring, fraud protection and resolution and financial management. Our products are provided through user friendly online and mobile interfaces and supported by educational content and customer support. Our Consumer Interactive segment serves consumers through both direct and indirect channels.

In addition, Corporate provides shared services for each of the segments, holds investments, and conducts enterprise functions. Certain costs incurred in Corporate that are not directly attributable to one or more of the segments remain in Corporate. These costs are typically enterprise-level costs and are primarily administrative in nature.

Factors Affecting Our Results of Operations

The following are certain key factors that affect, or have recently affected, our results of operations:

Macroeconomic and Industry Trends

Our revenues are significantly influenced by general macroeconomic conditions, including the availability of affordable credit and capital, interest rates, inflation, employment levels, consumer confidence and housing demand. Since the beginning of 2014, we have seen continuing signs of improved economic conditions and increased market stabilization. In the United States, we also saw improvement in the consumer lending market, including mortgage refinancings resulting from low long-term mortgage rates, an improving housing market, increased auto loans, improvements in the labor market, an increase in consumer confidence and an increase in demand for our marketing services. In our Consumer Interactive segment, we continue to see strong demand for our credit and identity theft solutions. In addition, the continuing strengthening of the U.S. dollar has diminished the operating results reported by our International segment during 2016 and 2015.

Our revenues are also significantly influenced by industry trends, including the demand for information services in financial services, insurance, healthcare and other industries we serve. Companies are increasingly relying on business analytics and big-data technologies to help process this data in a cost-efficient manner. As customers have gained the ability to rapidly aggregate and analyze data generated by their own activities, they are increasingly expecting access to real-time data and analytics from their information providers as well as solutions that fully integrate into their workflows. As economies in emerging markets continue to develop and mature, we believe there will continue to be favorable socio-economic trends, such as an increase in the size of the middle class and a significant increase in the use of financial services by under-served and under-banked customers. Demand for consumer solutions is rising with higher consumer awareness of the importance and usage of their credit information, increased risk of identity theft due to data breaches and more readily available free credit information. The increasing number and complexity of regulations, including from the CFPB and the Dodd-Frank act, and new capital requirements, make operations for businesses more challenging.

Effects of Inflation

We do not believe that inflation has had a material effect on our business, results of operations or financial condition.

Recent Developments

On December 22, 2016, TransUnion agreed to settle a Civil Investigative Demand (the “CID”) with the CFPB. The CID was focused on common industry practices relating to the advertising, marketing and sale of consumer reports, credit scores or credit monitoring products to consumers by our Consumer Interactive segment. As a result, we incurred a charge of approximately \$19.4 million for the settlement and related costs in the fourth quarter of 2016 that we recorded in selling, general and administrative expenses.

On September 14, 2016, certain of our stockholders completed a secondary public offering of approximately 16.0 million shares of TransUnion common stock. On June 10, 2016, one of our stockholders completed a secondary offering of approximately 18.0 million shares of TransUnion common stock. On March 14, 2016, certain of our stockholders completed a secondary offering of approximately 17.9 million shares of TransUnion common stock. These secondary offerings had no impact on our financial statements, other than approximately \$2.7 million of transaction costs recorded in other income and expense. We were obligated to pay these costs in accordance with an agreement with these stockholders. We did not receive any proceeds from these offerings and all shares were sold by the selling stockholders.

On May 31, 2016, we borrowed an additional \$55.0 million of our Senior Secured Term Loan A, on the same terms as the original Senior Secured Term Loan A, to fund an additional investment in CIFIN. On March 31, 2016, we borrowed an additional \$150.0 million on our Senior Secured Term Loan B, on the same terms as the original Senior Secured Term Loan B, to pay off the balance on our senior secured revolving line of credit that we had drawn on in February 2016 to fund the initial acquisition of CIFIN and for general corporate purposes.

Recent Acquisitions and Partnerships

We selectively evaluate acquisitions and partnerships as a means to expand our business and international footprint and to enter new markets. During the past three years we completed the following acquisitions:

- On November 10, 2016, we entered into an agreement with Synthetic P2P Holdings Corporation (“PeerIQ”) whereby we licensed data to PeerIQ and, in return, received warrants to purchase a noncontrolling interest in their common stock. PeerIQ is a credit risk analytics firm that helps institutions analyze, access and manage risk in the peer-to-peer lending sector. Once the warrants are exercised, we will account for PeerIQ on the cost method of accounting. Any future dividends will be recorded in other income and expense when received.

- On November 4, 2016, we increased our ownership interest in CIFIN from 95.17% to 100%. On August 3, 2016, we increased our equity interest in CIFIN from 94.67% to 95.17% with an additional purchase of 0.5%. On May 31, 2016, we increased our interest from 71.0% to 94.67% with an additional purchase of 23.67%. On February 8, 2016, we acquired a 71.0% equity interest in CIFIN. CIFIN is one of two primary credit bureaus in Colombia. The results of operations of CIFIN, which are not material to our consolidated financial statements, have been included as part of our International segment in our consolidated statements of income since the date of the acquisition.
- On September 30, 2016, we increased our equity interest in CIBIL from 77.1% to 82.1% with an additional purchase of 5%. In June 2016, we increased our equity interest in CIBIL from 66.1% to 77.1% with additional purchases totaling 11%. During 2015, we increased our equity interest from 55% to 66.1%, with the purchase of 5% on September 24, 2015 and an additional 6.1% on November 5, 2015. In 2014, we increased our equity interest in CIBIL from 27.5% to 55.0%. This additional purchase gave us control and resulted in our consolidation of CIBIL. CIBIL's results of operations, which are not material, are included as part of our International segment in our consolidated statements of income since May 21, 2014, the date we obtained control.
- On September 21, 2016, we acquired 100% of the equity of RTech. RTech uses innovative proprietary technology to help healthcare providers protect revenue and cash. The results of operations of RTech, which are not material to our consolidated financial statements, have been included as part of our USIS segment in our consolidated statements of income since the date of acquisition.
- On August 30, 2016, we made a noncontrolling interest investment in SavvyMoney, Inc. ("SavvyMoney"). SavvyMoney is a provider of credit information services for bank and credit union users. We account for SavvyMoney on the cost method of accounting. Any future dividends will be recorded in other income and expense when received.
- On June 15, 2016, we acquired 100% of the equity of Auditiz. Auditiz is a healthcare services organization that uses sophisticated proprietary technology to help healthcare providers identify and recover payments. The results of operations of Auditiz, which are not material to our consolidated financial statements, have been included as part of our USIS segment in our consolidated statements of income since the date of the acquisition.
- On April 29, 2016, we acquired the remaining 12.5% ownership interest in Drivers History Information Sales, LLC ("DHI") and no longer record net income attributable to the noncontrolling interests in our consolidated statements of income or redeemable noncontrolling interests on our consolidated balance sheets from the date we acquired the remaining interest. On November 12, 2014, we acquired an 87.5% ownership interest in DHI. DHI collects traffic violation and criminal court data. The results of operations of DHI, which are not material, have been included as part of our USIS segment in our consolidated statements of income since the date of acquisition.
- On April 15, 2016, we made a noncontrolling interest investment in Dashlane, Inc. ("Dashlane"). Dashlane is a password management company that enables users to monitor their online identities across multiple sites and applications. We account for Dashlane on the cost method of accounting. Any future dividends will be recorded in other income and expense when received.
- On December 9, 2015, we acquired 100% of the voting share capital in Trustev Limited ("Trustev"). Trustev is a registered company in the Republic of Ireland that provides digital verification technology to multiple industries. The results of operations of Trustev, which are not material, have been included as part of our USIS segment in our consolidated statements of income since the date of the acquisition.
- On October 21, 2015, we acquired the remaining 49% equity interest in Databusiness S.A., our Chile subsidiary. We no longer record net income attributable to the noncontrolling interests in our consolidated statements of income or redeemable noncontrolling interests on our consolidated balance sheets from the date we acquired the remaining interest.

- During January 2015, we acquired the remaining equity interests in our two Brazilian subsidiaries, Data Solutions Serviços de Informática Ltda. (“ZipCode”) and Crivo Sistemas em Informática S.A. (“Crivo”). We no longer record net income attributable to the noncontrolling interests in our consolidated statements of income or redeemable noncontrolling interests in our consolidated balance sheets from the date we acquired the remaining interests.
- On October 17, 2014, we increased our equity interest in L2C, Inc. (“L2C”) from 11.6% to 100%. L2C provides predictive analytics generally focused on the unbanked market using alternative data. The results of operations of L2C, which are not material, have been included as part of our USIS segment in our consolidated statements of income since the date we obtained control.
- Effective January 1, 2014, we acquired the remaining 30% equity interest in our Guatemala subsidiary, Trans Union Guatemala, S.A. (TransUnion Guatemala) from the minority shareholders. We no longer record net income attributable to the noncontrolling interests in our consolidated statements of income or redeemable noncontrolling interests in our consolidated balance sheets from the date we acquired the remaining interests.

Key Components of Our Results of Operations

Revenue

We derive our USIS segment revenue from three operating platforms: Online Data Services, Marketing Services and Decision Services. Online Data Services encompass services delivered in real-time using both credit and public record datasets. We also provide online reports that link public record datasets for qualified businesses seeking to locate consumers, specific assets or investigate relationships among consumers, businesses and locations. Collectively, the reports, characteristics and scores, with variations tailored for specific industries, form the basis of Online Data Services. We also provide online services to help businesses manage fraud and authenticate a consumer’s identity when they initiate a new business relationship. Additionally, we provide data to businesses to help them satisfy “know your customer” compliance requirements and to confirm an individual’s identity. Marketing Services help our customers develop marketing lists of prospects via direct mail, web and mobile. Our databases are used by our customers to contact individuals to extend firm offers of credit or insurance. We provide portfolio review services, which are periodic reviews of our customers’ existing accounts, to help our customers develop cross-selling offers to their existing customers and monitor and manage risk in their existing consumer portfolios. We also provide trigger services which are daily notifications of changes to a consumer profile. Decision Services, our software-as-a-service offerings, includes a number of platforms that help businesses interpret data and predictive model results and apply their customer-specific criteria to facilitate real-time automated decisions at the time of customer interaction. Our customers use Decision Services to evaluate business risks and opportunities, including those associated with new consumer credit and checking accounts, insurance applications, optimize accounts receivable management and collections, patient registrations and insurance coverages, and apartment rental requests.

We report our International segment revenue in two categories: developed markets and emerging markets. Our developed markets are Canada and Hong Kong. Our emerging markets include Africa, Latin America, Asia Pacific and India.

Consumer Interactive offers solutions that help consumers manage their personal finances and take precautions against identity theft. Services in this segment include credit reports and scores, credit monitoring, fraud protection and resolution and financial management. Our products are provided through user friendly online and mobile interfaces and supported by educational content and customer support.

Cost of Services

Costs of services include data acquisition and royalty fees, costs related to our databases and software applications, consumer and call center support costs, hardware and software maintenance costs, telecommunication expenses and occupancy costs associated with the facilities where these functions are performed.

Selling, General and Administrative

Selling, general and administrative expenses include personnel-related costs for sales, administrative and management employees, costs for professional and consulting services, advertising and occupancy and facilities expense of these functions.

Non-Operating Income and Expense

Non-operating income and expense includes interest expense, interest income, earnings from equity-method investments, dividends from cost-method investments, impairments of equity-method and cost-method investments, if any, expenses related to successful and unsuccessful business acquisitions, loan fees, debt refinancing expenses, certain acquisition-related gains and losses and other non-operating income and expenses.

Results of Operations—Twelve Months Ended December 31, 2016, 2015 and 2014

Key Performance Measures

Management, including our chief operating decision maker, evaluates the financial performance of our businesses based on a variety of key indicators. These indicators include the non-GAAP measure Adjusted EBITDA and the GAAP measures revenue, cash provided by operating activities and cash paid for capital expenditures. For the twelve months ended December 31, 2016, 2015 and 2014, these key indicators were as follows:

<u>(dollars in millions)</u>	<u>Twelve months ended December 31,</u>			<u>Change</u>			
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016 vs. 2015</u>		<u>2015 vs. 2014</u>	
	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>%</u>	<u>\$</u>	<u>%</u>
Revenue	<u>\$1,704.9</u>	<u>\$1,506.8</u>	<u>\$1,304.7</u>	<u>\$198.1</u>	<u>13.1%</u>	<u>\$202.1</u>	<u>15.5%</u>
Reconciliation of net income (loss) attributable to TransUnion to Adjusted EBITDA ⁽¹⁾ :							
Net income (loss) attributable to							
TransUnion	\$ 120.6	\$ 5.9	\$ (12.5)	\$114.7	nm	\$ 18.4	147.2%
Net interest expense	80.9	130.4	186.7	(49.6)	(38.0)%	(56.3)	(30.2)%
Provision for income taxes	74.0	11.3	2.6	62.7	nm	8.7	334.6%
Depreciation and amortization	265.2	278.4	241.2	(13.2)	(4.8)%	37.2	15.4%
EBITDA	<u>540.7</u>	<u>426.0</u>	<u>418.0</u>	<u>114.6</u>	<u>26.9%</u>	<u>8.0</u>	<u>1.9%</u>
Adjustments to EBITDA:							
Stock-based compensation ⁽²⁾	31.2	22.3	10.6	8.9	39.8%	11.7	110.4%
Mergers and acquisitions, divestitures and business optimization ⁽³⁾	18.5	8.0	19.7	10.4	129.9%	(11.7)	(59.4)%
Technology transformation ⁽⁴⁾	23.3	26.9	18.7	(3.5)	(13.2)%	8.2	43.9%
Other ⁽⁵⁾	23.1	43.5	(12.7)	(20.3)	(46.8)%	56.2	nm
Total adjustments to EBITDA	<u>96.1</u>	<u>100.7</u>	<u>36.3</u>	<u>(4.5)</u>	<u>(4.5)%</u>	<u>64.4</u>	<u>177.4%</u>
Adjusted EBITDA	<u>\$ 636.8</u>	<u>\$ 526.7</u>	<u>\$ 454.3</u>	<u>\$110.1</u>	<u>20.9%</u>	<u>\$ 72.4</u>	<u>15.9%</u>
Other Metrics							
Cash provided by operating activities	\$ 389.9	\$ 309.1	\$ 154.3	\$ 80.8	26.1%	\$154.8	100.3%
Capital expenditures	\$ 124.0	\$ 132.2	\$ 155.2	\$ (8.2)	(6.2)%	\$(23.0)	(14.8)%

nm: not meaningful

As a result of displaying amounts in millions, rounding differences may exist in the table above.

- Adjusted EBITDA is defined as net income (loss) attributable to the Company before net interest expense, income tax provision (benefit), depreciation and amortization and other adjustments noted in

the table above. We present Adjusted EBITDA as a supplemental measure of our operating performance because it eliminates the impact of certain items that we do not consider indicative of our cash operations and ongoing operating performance. Also, Adjusted EBITDA is a measure frequently used by securities analysts, investors and other interested parties in their evaluation of the operating performance of companies similar to ours. In addition, our board of directors and executive management team use Adjusted EBITDA as a compensation measure under our incentive compensation plan. Furthermore, under the credit agreement governing our senior secured credit facility, our ability to engage in activities such as incurring additional indebtedness, making investments and paying dividends is tied to a ratio based on Adjusted EBITDA. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Debt.” Adjusted EBITDA does not reflect our capital expenditures, interest, income tax, depreciation, amortization, stock-based compensation and certain other income and expense. Other companies in our industry may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure. Because of these limitations, Adjusted EBITDA should not be considered in isolation or as a substitute for performance measures calculated in accordance with GAAP. Adjusted EBITDA is not a measure of financial condition or profitability under GAAP and should not be considered as an alternative to cash flows from operating activities, as a measure of liquidity or as an alternative to operating income or net income as indicators of operating performance. We believe that the most directly comparable GAAP measure to Adjusted EBITDA is net income attributable to the Company. The table above provides a reconciliation from our net income (loss) attributable to the Company to Adjusted EBITDA for the twelve months ended December 31, 2016, 2015 and 2014.

2. Consisted of stock-based compensation and cash-settled stock-based compensation.
3. For the twelve months ended December 31, 2016, consisted of the following adjustments to operating income: a \$(0.7) million net gain from exiting a business relationship and the closure and divestiture of certain business operations; a \$(0.5) million adjustment to business optimization expenses; and a \$(0.1) million reduction in contingent consideration expense from previous acquisitions. For the twelve months ended December 31, 2016, consisted of the following adjustments to non-operating income and expense: \$17.6 million of acquisition expenses; a \$2.0 million loss on the impairment of a cost method investment; and a \$0.2 million loss on the closure and divestiture of certain business operations.

For the twelve months ended December 31, 2015, consisted of the following adjustments to operating income: a \$(0.1) million reduction in contingent consideration expense from previous acquisitions, \$2.1 million of business optimization expenses, and a \$0.3 million loss on divestiture of a business operation. For the twelve months ended December 31, 2015, consisted of the following adjustments to non-operating income and expense: \$5.8 million of acquisition expenses and \$(0.1) million of miscellaneous.

For the twelve months ended December 31, 2014, consisted of the following adjustments to operating income: \$17.2 million of merger and acquisition integration expenses; \$15.8 million of business optimization expenses; a \$1.5 million adjustment for contingent consideration expense from previous acquisitions; and \$1.2 million of miscellaneous. For the twelve months ended December 31, 2014, consisted of the following adjustments to non-operating income and expenses: \$(22.2) million of remeasurement gains of our previously held equity interests upon purchase and consolidation of CIBIL and L2C, Inc.; a \$4.1 million impairment charge for a cost-method investment that sold its assets and liquidated; \$2.9 million of acquisition expenses; and \$(0.8) million of miscellaneous.
4. Represented costs associated with a project to transform our technology infrastructure.
5. For the twelve months ended December 31, 2016, consisted of the following adjustments to operating income: \$19.4 million for the settlement with the CFPB and related costs; \$0.3 million for certain legal and regulatory matters; and \$(0.7) million of miscellaneous. For the twelve months ended

December 31, 2016, consisted of the following adjustments to non-operating income and expense: \$2.7 million of fees connected to the filing of secondary registration statements filed on behalf of certain stockholders; \$1.4 million of loan fees; a \$0.5 million mark-to-market loss related to ineffectiveness of our interest rate hedge; \$(0.3) million of currency remeasurement of our foreign operations; and \$(0.2) million of miscellaneous.

For the twelve months ended December 31, 2015, consisted of the following adjustments to operating income: \$(0.5) million of miscellaneous. For the twelve months ended December 31, 2015, consisted of the following adjustments to non-operating income and expense: \$37.6 million of debt refinancing expenses; \$3.6 million of currency remeasurement of our foreign operations; \$0.7 million of losses related to mark-to-market ineffectiveness of our interest rate hedge; \$1.4 million of loan fees; and \$0.7 million of miscellaneous.

For the twelve months ended December 31, 2014, consisted of the following adjustments to operating income: \$8.1 million charge for certain legal and regulatory matters; \$3.9 million of expenses for sales and use tax matters; \$3.5 million of other miscellaneous items. For the twelve months ended December 31, 2014, consisted of the following adjustments to non-operating income and expense: a \$(33.1) million gain on prepayment of debt, net of prepayment premium and expenses; \$1.1 million of currency remeasurement losses of our foreign operations; \$0.3 million of mark-to-market losses related to ineffectiveness of our interest rate hedge; \$1.9 million of loan fees; and \$1.6 million of miscellaneous.

Revenue

For 2016, revenue increased \$198.1 million compared with 2015, due to strong organic growth in all of our segments, across all USIS platforms and both the developed and emerging International markets, and revenue from our 2016 and 2015 acquisitions in our USIS and International segments, partially offset by the impact of weakening foreign currencies on the 2016 revenue of our International segment. Acquisitions accounted for an increase in revenue of 2.0%. The impact of weakening foreign currencies accounted for a decrease in revenue of 1.1%.

For 2015, revenue increased \$202.1 million compared with 2014, due to strong organic growth in all of our segments and revenue from our 2015 and 2014 acquisitions in our USIS and International segments, partially offset by the impact of weakening foreign currencies on the 2015 revenue of our International segment. Acquisitions accounted for an increase in revenue of 1.8%. The impact of weakening foreign currencies accounted for a decrease in revenue of 2.8%.

Revenue by segment and a more detailed explanation of revenue within each segment are as follows:

(dollars in millions)	Twelve months ended December 31,			Change			
				2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
USIS:							
Online Data Services	\$ 677.8	\$ 602.1	\$ 538.6	\$ 75.7	12.6%	\$ 63.5	11.8%
Marketing Services	160.9	149.2	134.4	11.6	7.8%	14.8	11.0%
Decision Services	206.4	173.2	138.5	33.2	19.2%	34.7	25.1%
Total USIS	1,045.1	924.5	811.5	120.6	13.0%	113.0	13.9%
International:							
Developed Markets	109.2	95.2	92.6	14.0	14.7%	2.6	2.9%
Emerging Markets	204.7	174.4	165.1	30.3	17.4%	9.3	5.6%
Total International	313.9	269.6	257.7	44.3	16.4%	11.9	4.6%
Consumer Interactive	407.1	369.8	294.0	37.3	10.1%	75.8	25.8%
Total revenue, gross	\$1,766.0	\$1,563.9	\$1,363.3	\$202.1	12.9%	\$200.6	14.7%
Intersegment revenue eliminations:							
USIS Online	\$ (57.0)	\$ (53.9)	\$ (56.3)	\$ (3.1)	(5.8)%	\$ 2.4	4.3%
International Developed Markets	(3.4)	(2.6)	(1.7)	(0.8)	(29.1)%	(0.9)	(52.6)%
International Emerging Markets	(0.6)	(0.6)	(0.5)	—	(13.7)%	(0.1)	(8.8)%
Consumer Interactive	—	—	—	—	—%	—	—%
Total intersegment revenue eliminations	(61.1)	(57.1)	(58.5)	(4.0)	(7.0)%	1.4	2.4%
Total revenue as reported	\$1,704.9	\$1,506.8	\$1,304.7	\$198.1	13.1%	\$202.1	15.5%

As a result of displaying amounts in millions, rounding differences may exist in the table above.

USIS Segment

For 2016, USIS revenue increased \$120.6 million compared with 2015, due to increases in revenue from all platforms and revenue from our acquisitions of Trustev in 2015 and Auditz and RTech in 2016.

For 2015, USIS revenue increased \$113.0 million compared with 2014, with increases in all of the platforms due to improved market conditions and revenue from our acquisitions of DHI and L2C in 2014 and Trustev in 2015.

Online Data Services. For 2016, online data services revenue increased \$75.7 million due primarily to a 4.6% increase in online credit report unit volume and an increase due to new product initiatives. Also, a change in the mix of products sold resulted in an increase in average pricing for online credit reports.

For 2015, online data services revenue increased \$63.5 million due primarily to an 8.7% increase in online credit report unit volume. Also, a change in the mix of products sold resulted in an increase in average pricing for online credit reports.

Marketing Services. For 2016, marketing services revenue increased \$11.6 million compared with 2015, due primarily to an organic increase in custom data sets and archive information driven by an increase in demand for our new solutions and batch jobs.

For 2015, marketing services revenue increased \$14.8 million compared with 2014, due primarily to an organic increase in custom data sets and archive information driven by an increase in demand for our new solutions and revenue from our recent acquisitions.

Decision Services. For 2016, decision services revenue increased \$33.2 million compared with 2015, due primarily to increases in the healthcare market, including revenue from our recent acquisitions, and the insurance market.

For 2015, decision services revenue increased \$34.7 million compared with 2014, due primarily to increases in the healthcare and insurance markets and revenue from our acquisition of DHI.

International Segment

For 2016, International revenue increased \$44.3 million, or 16.4%, compared with 2015. Higher local currency revenue from increased volumes in all regions and the inclusion of revenue from our acquisition of CIFIN was partially offset by a 6.3% decrease in revenue from the impact of weakening foreign currencies.

For 2015, International revenue increased \$11.9 million, or 4.6%, compared with 2014. Higher local currency revenue from increased volumes in all regions and the inclusion of revenue from our acquisition of CIBIL was partially offset by a 14.1% decrease in revenue from the impact of weakening foreign currencies.

Developed Markets. For 2016, developed markets revenue increased \$14.0 million, or 14.7%, compared with 2015, due to higher local currency revenue in both regions partially offset by a 2.8% decrease in revenue from the impact of a weakening Canadian dollar.

For 2015, developed markets revenue increased \$2.6 million, or 2.9%, due to higher local currency revenue in both regions, partially offset by a 10.6% decrease in revenue from the impact of a weakening Canadian dollar.

Emerging Markets. For 2016, emerging markets revenue increased \$30.3 million, or 17.4%, compared with 2015. Revenue from our acquisition of CIFIN and higher local currency revenue in all regions was partially offset by an 8.2% decrease in revenue from the impact of weakening foreign currencies, primarily the South African rand, Indian rupee and Brazilian real.

For 2015, emerging markets revenue increased \$9.3 million, or 5.6% compared with 2014. Higher local currency revenue in all regions and incremental revenue from our consolidation of CIBIL was partially offset by a 16.0% decrease in revenue from the impact of weakening foreign currencies, primarily the South African rand and Brazilian real.

Consumer Interactive Segment

For 2016, Consumer Interactive revenue increased \$37.3 million compared with 2015. This increase was due to an increase in both the direct and indirect channels. The increase in the direct channel was driven by an increase in the average number of direct subscribers. The increase in the indirect channel was driven by strong growth the first half of the year, partially offset by a decrease in revenue the second half of the year resulting from lower revenue associated with one of our indirect channel partners that was acquired by a competitor.

For 2015, Consumer Interactive revenue increased \$75.8 million, compared with 2014. This increase was due primarily to an increase in revenue in our indirect channel, and an increase in revenue in our direct channel driven by an increase in the average number of direct subscribers in 2015.

Operating Expenses

Operating expenses for the periods reported were as follows:

<u>(dollars in millions)</u>	<u>Twelve months ended December 31,</u>			<u>Change</u>			
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016 vs. 2015</u>		<u>2015 vs. 2014</u>	
				<u>\$</u>	<u>%</u>	<u>\$</u>	<u>%</u>
Cost of services	\$ 579.1	\$ 531.6	\$ 500.2	\$ 47.5	8.9%	\$ 31.4	6.3%
Selling, general and administrative	560.1	499.7	434.9	60.4	12.1%	64.8	14.9%
Depreciation and amortization	265.2	278.4	241.2	(13.2)	(4.8)%	37.2	15.4%
Total operating expenses	<u>\$1,404.4</u>	<u>\$1,309.7</u>	<u>\$1,176.3</u>	<u>\$ 94.7</u>	<u>7.2%</u>	<u>\$133.4</u>	<u>11.3%</u>

Cost of Services

For 2016, cost of services increased \$47.5 million compared with 2015. The increase was due primarily to:

- an increase in labor costs in all of our segments, as we continue to invest in key strategic growth initiatives;
- an increase in product costs resulting from the increase in revenue, primarily in our USIS segment; and
- operating costs related to our recent acquisitions in our USIS and International segments,

partially offset by:

- a decrease in product costs in our Consumer Interactive segment associated with one of our indirect channel partners being acquired by a competitor;
- savings enabled by our technology transformation and other key productivity initiatives; and
- the impact of weakening foreign currencies on the expenses of our International segment.

For 2015, cost of services increased \$31.4 million compared with 2014. The increase was due primarily to:

- an increase in product costs resulting from the increase in revenue;
- operating and integration costs of our DHI, L2C and Trustev acquisitions in our USIS segment and the CIBIL acquisition in our International segment; and
- an increase in labor costs as we continue to invest in key strategic growth initiatives,

partially offset by:

- an expense in 2014 of \$10.2 million for the acceleration of fees for a data matching service contract that we terminated and in-sourced in our USIS segment;
- savings enabled by our technology transformation and other key productivity initiatives; and
- the impact of weakening foreign currencies on the expenses of our International segment.

Selling, General and Administrative

For 2016, selling, general and administrative expenses increased \$60.4 million compared with 2015. The increase was due primarily to:

- an increase in litigation expense in Corporate due primarily to \$19.4 million for the settlement with the CFPB and related costs;
- an increase in advertising costs primarily in our Consumer Interactive segment;

- an increase in labor costs, primarily in our USIS segment and in Corporate, attributed to higher incentive and stock-based compensation, and an increase in headcount as we continue to invest in key strategic growth initiatives; and
- operating costs relating to our recent acquisitions in our USIS and International segments,

partially offset by:

- the impact of weakening foreign currencies on the expenses of our International segment.

For 2015, selling, general and administrative expenses increased \$64.8 million compared with 2014. The increase was due primarily to:

- an increase in labor costs due to an increase in incentive-based compensation resulting from improved operating results in all segments, an increase in stock-based compensation in our USIS and International segments, including the increase in the value of cash-settled stock-based compensation in our International segment, and an increase in headcount primarily in our USIS and International segments as we continue to invest in key strategic growth initiatives;
- operating and integration costs of our DHI, L2C and Trustev acquisitions in our USIS segment and the CIBIL acquisition in our International segments; and
- an increase in advertising costs primarily in our Consumer Interactive segment,

partially offset by:

- a decrease in litigation expense in Corporate; and
- the impact of weakening foreign currencies on the expenses of our International segment.

Depreciation and amortization

For 2016, depreciation and amortization decreased \$13.2 million compared with 2015, primarily in our USIS segment, due to the useful lives of certain USIS internal-use software and equipment assets ending June 30, 2016, in conjunction with our strategic initiative to transform our technology platform. The decrease related to these technology assets was partially offset by additional depreciation and amortization from the new capital expenditures related to our technology transformation initiative and from assets acquired with our recent business acquisitions.

For 2015, depreciation and amortization increased \$37.2 million compared with 2014, primarily in our USIS and International segments. In July 2014, we revised the remaining useful lives of certain internal-use software, equipment, leasehold improvements and the corporate headquarters facility to align with the expected completion dates of our strategic initiatives to transform our technology platform and corporate headquarters facility. As a result of shortening the useful lives of these assets, depreciation and amortization increased \$28.8 million in 2015 compared with \$17.5 million in 2014. Depreciation and amortization increased an additional \$8.4 million in 2015 due to the recent business acquisitions and increased capital expenditures related to our strategic initiatives made in 2014 and 2015.

Operating Income and Operating Margins

(dollars in millions)	Twelve months ended December 31,			Change			
				2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
Gross operating income by segment:							
USIS operating income	\$ 203.5	\$ 130.5	\$ 102.4	\$ 73.0	55.9%	\$28.2	27.5%
International operating income	49.8	21.2	22.8	28.6	135.0%	(1.6)	(7.1)%
Consumer Interactive operating income	168.9	137.2	93.4	31.6	23.1%	43.8	46.9%
Corporate operating loss	(121.6)	(91.8)	(90.1)	(29.8)	(32.4)%	(1.7)	(1.9)%
Total operating income	<u>\$ 300.5</u>	<u>\$ 197.1</u>	<u>\$ 128.4</u>	<u>\$103.5</u>	<u>52.5%</u>	<u>\$68.7</u>	<u>53.5%</u>
Intersegment operating income eliminations:							
USIS	\$ (55.5)	\$ (52.4)	\$ (54.9)	\$ (3.1)	(6.0)%	\$ 2.5	4.6%
International	(3.0)	(1.9)	(0.6)	(1.0)	(53.6)%	(1.3)	(232.1)%
Consumer Interactive	58.5	54.4	55.5	4.2	7.6%	(1.2)	(2.2)%
Corporate	—	—	—	—	—%	—	—%
Total eliminations	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>		<u>\$ —</u>	
Operating margin							
USIS	19.5%	14.1%	12.6%		5.4%		1.5%
International	15.9%	7.9%	8.8%		8.0%		(0.9)%
Consumer Interactive	41.5%	37.1%	31.8%		4.4%		5.3%
Total operating margin	17.6%	13.1%	9.8%		4.5%		3.3%

As a result of displaying amounts in millions, rounding differences may exist in the table above.

For 2016, consolidated operating income increased \$103.5 million due primarily to:

- the increase in revenue in all segments, including revenue from the recent acquisitions; and
- The decrease in depreciation and amortization, primarily in our USIS segment,

partially offset by:

- an increase in labor costs, primarily in our USIS and International segments and in Corporate, attributed to higher incentive and stock-based and other compensation costs and an increase in headcount as we continue to invest in key strategic initiatives growth initiatives;
- an increase in litigation expense in Corporate due to \$19.4 million for the settlement with CFPB and related costs;
- operating costs related to our recent acquisitions in our USIS and International segments;
- an increase in advertising costs primarily in our Consumer Interactive segment;
- an increase in product costs, primarily in our USIS segment, resulting from the increase in revenue; and
- the impact of weakening foreign currencies on the 2016 results of our International segment.

For 2016, margins for the USIS segment increased due to the increase in revenue, savings enabled by our technology transformation and the decrease in depreciation and amortization, partially offset by the increase in compensation costs and the increase in operating expenses from the recent acquisitions. Margins for the International segment increased due primarily to the increases in revenue and cost savings from our key productivity initiatives. Margins for the Consumer Interactive segment increased due to the increase in revenue and decrease in product costs, partially offset by the increase in advertising costs.

For 2015, consolidated operating income increased \$68.7 million due primarily to:

- the increase in revenue in all segments, including revenue from the recent acquisitions; and
- an expense in 2014 of \$10.2 million for the acceleration of fees for a data matching service contract that we terminated and in-sourced in our USIS segment,

partially offset by:

- The increase in depreciation and amortization, primarily in our USIS and International segments;
- an increase in incentive-based, stock-based and other compensation costs;
- operating and integration costs from the DHI, L2C and Trustev acquisitions in our USIS segment and the CIBIL acquisition in our International segment;
- incremental costs incurred as part of the transformation of our technology infrastructure;
- an increase in advertising costs primarily in our Consumer Interactive segment; and
- the impact of weakening foreign currencies on the 2015 results of our International segment.

For 2015, margins for the USIS segment increased due to the increase in revenue and the accelerated data matching service contract cancellation fees recorded in 2014 partially offset by incremental costs incurred as part of the strategic initiative to transform our technology platform, including additional depreciation and amortization resulting from shortening the remaining useful lives of certain existing technology assets to align with the expected completion of this initiative, the increase in incentive-based and stock-based compensation, and operating and integration expenses from the recent acquisitions. Margins for the International segment decreased due primarily to additional depreciation and amortization resulting from reassessing the remaining useful lives of certain assets, the increase in incentive-based and cash-settled stock-based compensation, and integration and depreciation and amortization expenses of our CIBIL acquisition, partially offset by the increase in revenue. Margins for the Consumer Interactive segment increased due to the increase in revenue partially offset by the increase in advertising costs.

Non-Operating Income and Expense

<u>(dollars in millions)</u>	<u>Twelve months ended December 31,</u>			<u>Change</u>			
				<u>2016 vs. 2015</u>		<u>2015 vs. 2014</u>	
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>\$</u>	<u>%</u>	<u>\$</u>	<u>%</u>
Interest expense	\$ (85.5)	\$ (134.2)	\$ (190.0)	\$ 48.7	36.3%	\$ 55.8	29.4%
Interest income	4.6	3.8	3.3	0.8	22.2%	0.5	14.0%
Earnings from equity method investments . .	8.6	8.8	12.5	(0.2)	(2.7)%	(3.7)	(29.5)%
Other income and expense, net:							
Acquisition fees	(17.6)	(5.8)	(2.9)	(11.7)	nm	(2.9)	(98.7)%
Loan Fees	(1.4)	(39.0)	(14.6)	37.6	96.4%	(24.4)	nm
Dividends from cost method investments	0.9	0.8	0.8	0.1	6.9%	—	—%
Other income (expense), net	(4.7)	(4.9)	60.7	0.2	3.7%	(65.6)	(108.1)%
Total other income and expense, net	<u>(22.8)</u>	<u>(48.9)</u>	<u>44.0</u>	<u>26.1</u>	<u>53.4%</u>	<u>(92.9)</u>	<u>(211.1)%</u>
Non-operating income and expense	<u>\$ (95.1)</u>	<u>\$ (170.5)</u>	<u>\$ (130.2)</u>	<u>\$ 75.4</u>	<u>44.2%</u>	<u>\$(40.3)</u>	<u>(31.0)%</u>

As a result of displaying amounts in millions, rounding difference may exist in the table above.

nm: not meaningful

Other income and expense, net, was impacted by the 2015 and 2014 refinancing transactions. See Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 10, “Debt,” for additional information.

For 2016, interest expense decreased \$48.7 million compared with 2015 as a result of changes to our outstanding debt. The decrease in interest expense from redeeming our 9.625% and 8.125% Senior Notes in 2015 was partially offset by additional interest expense resulting from the increase in the average outstanding principal balance of the senior secured credit facility in 2016 compared with 2015. Our 9.625% and 8.125% Senior Notes were redeemed on July 15, 2015, using the net proceeds from our initial public offering (“IPO”), along with \$350.0 million borrowings from the Senior Secured Term Loan A. During 2016 we borrowed additional funds against our senior secured credit facility.

For 2015, interest expense decreased \$55.8 million compared with 2014. A decrease in interest expense due to the early redemptions of the Senior Notes in 2015 and 2014 was partially offset by additional interest expense resulting from the increase in the average principal balance of the senior secured credit facility in 2015 compared with 2014.

For 2016, earnings from equity method investments decreased \$0.2 million due to lower earnings from our Mexico affiliate.

For 2015, earnings from equity method investments decreased \$3.7 million due to lower earnings from our Mexico affiliate and due to the consolidation of CIBIL beginning May 21, 2014. Prior to May 21, 2014, earnings from CIBIL were previously recorded under the equity method of accounting.

For 2015, loan fees included \$33.8 million of fees due to the early redemption of our 9.625% and 8.125% Senior Notes and \$3.8 million from the refinance of our senior secured credit facility in June of 2015.

For 2014, loan fees included \$12.7 million of refinancing fees and other net costs expensed as a result of refinancing our senior secured credit facility.

Acquisition fees represent costs we have incurred for various acquisition-related efforts. For 2016, acquisition fees included costs related to our acquisition of CIFIN, Auditz and RTech, and costs of other acquisition efforts.

For 2015, acquisition fees included costs related to our acquisition of Trustev and costs of other acquisition efforts.

For 2014, acquisition fees included costs related to our acquisitions of DHI, L2C and CIBIL and costs of other acquisition efforts.

For 2016, other income (expense), net included \$2.7 million of fees connected to the filing of secondary registration statements filed on behalf of certain stockholders; a \$2.0 million loss on the impairment of a cost method investment; a currency remeasurement gain of \$(0.3) million; a loss of \$0.5 million on the swap that no longer qualifies for hedge accounting; and other income and expenses.

For 2015, other income (expense), net included a currency remeasurement loss of \$3.6 million; a loss of \$0.8 million on the swap that no longer qualifies for hedge accounting; and other income and expenses.

For 2014, other income (expense), net included a gain of \$45.8 million resulting from the early redemption of the 11.375% Senior Notes consisting of the unamortized 2012 change in control transaction fair value increase in these notes of \$89.4 million, less an early redemption premium and other costs totaling \$43.6 million; a \$22.2 million gain resulting from remeasuring our previously held equity interests in CIBIL and L2C under the

accounting guidance for acquisitions achieved in stages; an impairment charge of \$4.1 million related to a cost-method investment that has sold its assets and liquidated; a loss of \$0.6 million on the swap that no longer qualified for hedge accounting; and other income and expenses.

Provision for Income Taxes

For 2016, we reported income before income taxes and a 36.0% effective tax rate, which is higher than the 35.0% U.S. federal statutory rate due primarily to increases resulting from changes to our state tax assumptions and tax on our foreign earnings that are not considered permanently reinvested outside the United States, partially offset by decreases resulting from the impact of international restructuring and Internal Revenue Code Section 199 Domestic Productions Activities Deduction and Research and Development tax credits.

For 2015, we reported income before income taxes and a 42.4% effective tax rate, which is higher than the 35.0% U.S. federal statutory rate due primarily to tax on our foreign earnings that are not considered permanently reinvested outside the United States, partially offset by a favorable foreign tax rate differential and a credit to deferred state tax expense for changes in state tax rates.

For 2014, we reported a loss before income taxes with income tax expense, resulting in a negative effective tax rate for the period. This rate was lower than the 35.0% U.S. federal statutory rate due primarily to tax on our foreign earnings that are not considered permanently reinvested outside the United States.

Significant Changes in Assets and Liabilities

The increase in goodwill and gross other intangible assets as of December 31, 2016, compared with December 31, 2015, included \$167.2 million and \$111.3 million, respectively, as a result of purchase accounting entries for entities acquired in 2015 and 2016. The net increase in debt at December 31, 2016, compared with December 31, 2015, included \$205.0 million of additional borrowings, primarily as a result of funding our acquisition of CIBIL. See “Recent Developments” above for additional information.

Liquidity and Capital Resources

Overview

Our principal sources of liquidity are cash flows provided by operating activities, cash and cash equivalents on hand, and our senior secured revolving line of credit. Our principal uses of liquidity are working capital, capital expenditures, debt service and other general corporate purposes. We believe our cash on hand, cash generated from operations, and funds available under the senior secured revolving line of credit will be sufficient to fund our planned capital expenditures, debt service obligations and operating needs for the foreseeable future. We may, however, elect to raise funds through debt or equity financing in the future to fund significant investments or acquisitions that are consistent with our growth strategy.

Cash and cash equivalents totaled \$182.2 million and \$133.2 million at December 31, 2016 and 2015, respectively, of which \$91.3 million and \$79.7 million was held outside the United States. As of December 31, 2016, we had no amounts outstanding under the senior secured revolving line of credit and could have borrowed up to the \$210.0 million available. TransUnion also has the ability to borrow up to an additional \$450.0 million, or 4.25 times our senior secured net leverage, whichever is greater, under the senior secured credit facility, subject to certain additional conditions and commitments by existing or new lenders to fund any additional borrowings.

The balance retained in cash and cash equivalents is consistent with our short-term cash needs and investment objectives. The Company is required to make additional principal payments on the Senior Secured Term Loan B based on excess cash flows of the prior year, as defined in the agreement. There were no excess cash flows for 2016 and therefore no additional payment will be required in 2017. See Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 10, “Debt,” for additional information.

As of December 31, 2016, no provision has been made for U.S. income taxes or foreign withholding taxes on \$179.3 million of unremitted earnings from certain foreign subsidiaries that we assert are permanently reinvested in operations outside the United States. Remitting these earnings to the United States would result in additional tax expense of approximately \$63 million, assuming we cannot use any of the related foreign tax credits. As of December 31, 2016, we have made a provision for U.S. income taxes or foreign withholding taxes of \$45.4 million on \$125.3 million of unremitted earnings from certain other foreign subsidiaries, as those earnings are not permanently reinvested outside the United States.

On February 13, 2017, our board of directors authorized the repurchase of up to \$300 million of stock over the next three years. Repurchases may be made from time to time at management's discretion at prices management considers to be attractive through open market purchases or through privately negotiated transactions, subject to availability. Open market purchases will be conducted in accordance with the limitations set forth in Rule 10b-18 of the Exchange Act and other applicable legal requirements.

The Company has no obligation to repurchase shares, and the timing, actual number and value of the shares that are repurchased, if any, will be at the discretion of management and will depend on a number of factors, including market conditions, the cost of repurchasing shares, the availability of alternative investment opportunities, liquidity, and other factors deemed appropriate. Repurchases may be suspended, terminated or modified at any time for any reason. Any repurchased shares will have the status of treasury shares and may be used, if and when needed, for general corporate purposes.

Sources and Uses of Cash

<u>(dollars in millions)</u>	<u>Twelve months ended December 31,</u>			<u>Change</u>	
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016 vs. 2015</u>	<u>2015 vs. 2014</u>
Cash provided by operating activities	\$ 389.9	\$ 309.1	\$ 154.3	\$ 80.8	\$ 154.8
Cash used in investing activities	(495.8)	(197.1)	(276.0)	(298.7)	78.9
Cash (used in) provided by financing activities	153.8	(51.3)	91.9	205.1	(143.2)
Effect of exchange rate changes on cash and cash equivalents	1.1	(5.4)	(3.5)	6.5	(1.9)
Net change in cash and cash equivalents	<u>\$ 49.0</u>	<u>\$ 55.3</u>	<u>\$ (33.3)</u>	<u>\$ (6.3)</u>	<u>\$ 88.6</u>

Operating Activities

For 2016, the increase in cash provided by operating activities was due primarily to the increase in revenue and decrease in interest expense, partially offset by the increase in cash operating expenses. For 2015, the increase in cash provided by operating activities was due primarily to the increase in revenue and decrease in interest expense, partially offset by the increase in cash operating expenses.

Investing Activities

For 2016, the increase in cash used in investing activities was due primarily to an increase in cash used to fund acquisitions. For 2015, the decrease in cash used in investing activities was due primarily to a decrease in cash used for acquisitions and capital expenditures.

Financing Activities

For 2016, the increase in cash provided by financing activities was due primarily to additional borrowing in 2016 to fund acquisitions. For 2015, the increase in cash used for financing activities was due primarily to the net pay down of our debt, partially offset by the net proceeds from the IPO.

Capital Expenditures

We make capital expenditures to grow our business by developing new and enhanced capabilities, to increase the effectiveness and efficiency of the organization and to reduce risks. We make capital expenditures for product development, disaster recovery, security enhancements, regulatory compliance, and the replacement and upgrade of existing equipment at the end of its useful life. During the third quarter of 2013, we began a strategic initiative to transform our technology infrastructure, which we effectively completed in the United States during 2016. We also completed significant improvements to our corporate headquarters facility early in 2015.

For 2016, cash paid for capital expenditures decreased \$8.2 million, due primarily to a decrease in spending for our technology infrastructure transformation. For 2015, cash paid for capital expenditures decreased \$23.0 million, due primarily to a decrease in spending to upgrade our corporate headquarters facility and transform our technology infrastructure.

Debt

Senior Secured Credit Facility

On June 15, 2010, we entered into a senior secured credit facility with various lenders. This facility has been amended several times and currently consists of the Senior Secured Term Loan A, the Senior Secured Term Loan B and the senior secured revolving line of credit. On July 15, 2015, we used the net proceeds from our IPO, along with \$350.0 million of borrowings from the Senior Secured Term Loan A, to redeem all of our outstanding 9.625% and 8.125% Senior Notes, including a prepayment premium, accrued interest and certain transaction costs.

On March 31, 2016, we borrowed an additional \$150.0 million of our Senior Secured Term Loan B, on the same terms as the original Senior Secured Term Loan B, to pay off the balance on our senior secured revolving line of credit that we had drawn on in February 2016 to fund the acquisition of CIFIN and for general corporate purposes. On May 31, 2016 we borrowed an additional \$55.0 million of our Senior Secured Term Loan A, on the same terms as the original Senior Secured Term Loan A, to fund an additional investment in CIFIN and for general corporate purposes.

See Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements, Note 10, “Debt,” and Note 22, “Subsequent Events,” for additional information about our senior secured credit facility.

Hedge

On December 18, 2015, we entered into interest rate cap agreements with various counter-parties that effectively cap our LIBOR exposure on a portion of our existing senior secured term loans at 0.75% beginning June 30, 2016. We have designated these cap agreements as cash flow hedges. The initial aggregate notional amount under these agreements was \$1,526.4 million and decreases each quarter beginning September 30, 2016, until the agreement terminates on June 30, 2020. In July 2016, we began to pay the various counter-parties a fixed rate on the outstanding notional amounts of between 0.98% and 0.994% and receive payments to the extent LIBOR exceeds 0.75%.

The interest rate caps are recorded on the balance sheet at fair value. The effective portion of changes in the fair value of the interest rate cap agreements is recorded in other comprehensive income (loss). The ineffective portion of changes in the fair value of the caps, which is due to, and will continue to result from, the cost of financing the cap premium, is recorded in other income and expense. The effective portion of the change in the fair value of the caps resulted in an unrealized loss of \$7.5 million and an unrealized gain of \$0.3 million, net of tax, recorded in other comprehensive income for the years ended December 31, 2016 and December 31, 2015,

respectively. The ineffective portion of the change in the fair value of the caps resulted in a loss of \$0.5 million and a gain of \$0.1 million recorded in other income and expense for the years ended December 31, 2016 and December 31, 2015, respectively.

In accordance with ASC 815, the fair value of the interest rate caps at inception is reclassified from other comprehensive income to interest expense in the same period the interest expense on the underlying hedged debt impacts earnings. Based on how the fair value of interest rate caps are determined, the earlier interest periods have lower fair values at inception than the later interest periods, resulting in less interest expense being recognized in the earlier periods compared with the later periods. Any payments we receive to the extent LIBOR exceeds 0.75% is also reclassified from other comprehensive income to interest expense in the period received. Interest expense reclassified from other comprehensive income to interest expense related to the fair value of the portion of the caps expiring in the twelve-month period of 2016 was \$1.6 million. We expect to reclassify approximately \$6.0 million from other comprehensive income to interest expense related to the fair value of the portion of the caps expiring and payments received to the extent LIBOR exceeds 0.75% in the next twelve months.

Effect of certain debt covenants

A breach of any of the covenants under the agreements governing our debt could limit our ability to borrow funds under the senior secured revolving line of credit and could result in a default under the senior secured credit facility. Upon the occurrence of an event of default under the senior secured credit facility, the lenders could elect to declare all amounts then outstanding to be immediately due and payable, and the lenders could terminate all commitments to extend further credit. If we were unable to repay the amounts declared due, the lenders could proceed against any collateral granted to them to secure that indebtedness.

With certain exceptions, the senior secured credit facility obligations are secured by a first-priority security interest in substantially all of the assets of Trans Union LLC, including its investment in subsidiaries. The senior secured credit facility contains various restrictions and nonfinancial covenants, along with a senior secured net leverage ratio test. The nonfinancial covenants include restrictions on dividends, investments, dispositions, future borrowings and other specified payments, as well as additional reporting and disclosure requirements. The senior secured net leverage test must be met as a condition to incur additional indebtedness and at the end of each fiscal quarter. As of December 31, 2016, this covenant required us to maintain a net leverage ratio on a pro forma basis equal to, or less than, 6.5-to-1. As of December 31, 2016, we were in compliance with all debt covenants.

TransUnion's ability to meet its liquidity needs or to pay dividends on its common stock depends on its subsidiaries' earnings, the terms of their indebtedness, and other contractual restrictions. Trans Union LLC, the borrower under the senior secured credit facility, is not permitted to declare any dividend or make any other distribution subject to certain exceptions, including compliance with a fixed charge coverage ratio and a basket that depends on TransUnion Intermediate Holding, Inc.'s consolidated net income.

11.375% Senior Notes

These notes were repaid in full on May 9, 2014, from the incremental proceeds borrowed on our senior secured credit facility and resulted in a net gain of \$45.8 million recorded in other income and expense in 2014.

9.625% and 8.125% Senior Notes

These notes were repaid in full on July 15, 2015 from the net proceeds from our IPO, along with the \$350.0 million borrowings from the Senior Secured Term Loan A as discussed above.

For more information about our debt and the IPO transaction, see Part I, Item 1, "Notes to Unaudited Consolidated Financial Statements," Note 10 "Debt," and Note 11, "Stockholders' Equity."

Contractual Obligations

Consolidated future minimum payments for noncancelable operating leases, purchase obligations and debt repayments as of December 31, 2016, are payable as follows:

<u>(in millions)</u>	<u>Operating leases</u>	<u>Purchase obligations</u>	<u>Debt repayments</u>	<u>Loan fees and interest payments</u>	<u>Total</u>
2017	\$12.6	\$182.9	\$ 50.7	\$ 86.6	\$ 332.8
2018	11.0	40.2	54.5	84.4	190.1
2019	10.3	21.9	54.3	85.7	172.2
2020	9.9	18.0	314.4	84.0	426.3
2021	8.9	8.0	1,914.6	21.4	1,952.9
Thereafter	17.3	0.3	—	—	17.6
Totals	<u>\$70.0</u>	<u>\$271.3</u>	<u>\$2,388.5</u>	<u>\$362.1</u>	<u>\$3,091.9</u>

Purchase obligations include \$114.2 million of trade accounts payable that were included in our balance sheet as of December 31, 2016. Purchase obligations include commitments for outsourcing services, royalties, data licenses, maintenance and other operating expenses. Loan fees and interest payments are estimates based on the interest rates in effect at December 31, 2016, and the contractual principal paydown schedule, excluding any excess cash flow prepayments that may be required. See Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 10, “Debt,” for additional information about our interest payments.

Off-Balance Sheet Arrangements

As of December 31, 2016, we had no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

Application of Critical Accounting Estimates

We prepare our consolidated financial statements in conformity with GAAP. The notes to our consolidated financial statements include disclosures about our significant accounting policies. These accounting policies require us to make certain judgments and estimates in reporting our operating results and our assets and liabilities. The following paragraphs describe the accounting policies that require significant judgment and estimates due to inherent uncertainty or complexity.

Goodwill and Indefinite-Lived Intangibles

In connection with the acquisition of TransUnion Intermediate by TransUnion in April 2012, the value of goodwill increased significantly, as the excess of the purchase price paid for TransUnion Intermediate over the fair value of the net tangible and identifiable intangible assets acquired and liabilities assumed was recorded as goodwill and allocated to each of our reporting units.

As of December 31, 2016, our consolidated balance sheet included goodwill of \$2,173.9 million. As of December 31, 2016, we had no other indefinite-lived intangible assets. We test goodwill and indefinite-lived intangible assets for impairment on an annual basis, in the fourth quarter, or on an interim basis if an indicator of impairment is present. For goodwill, we compare the fair value of each reporting unit to its carrying amount to determine if there is potential goodwill impairment. If the fair value of a reporting unit is less than its carrying value, an impairment loss is recorded to the extent that the fair value of the goodwill within the reporting unit is less than the carrying value of its goodwill. For other indefinite-lived intangibles, if any, we compare the fair value of the asset to its carrying value to determine if there is an impairment. If the fair value of the asset is less than its carrying value, an impairment loss is recorded.

We use discounted cash flow techniques to determine the fair value of our reporting units, goodwill and other indefinite-lived intangibles. The discounted cash flow calculation requires a number of significant assumptions, including projections of future cash flows, exchange rates and an estimate of the appropriate discount rates. The projections of future cash flows used to assess the fair value of the reporting units are based on the internal operating plans reviewed by management and significant stockholders. The projections of future exchange rates were based on the current exchange rates at the time the projections were prepared. The estimated discount rates were based on the risk-free rate of interest and estimated risk premiums for the reporting units at the time the impairment analysis was prepared. We believe our current estimates of fair value are based on assumptions that are reasonable and consistent with assumptions that would be used by other marketplace participants. Such estimates are, however, inherently uncertain, and estimates using different assumptions could result in significantly different results, and a potential impairment charge for one or more of our reporting units that could adversely affect our results of operations.

During 2016, 2015 and 2014, there were no impairments of goodwill or other indefinite-lived intangible assets. As of December 31, 2016, our estimates of fair value for each reporting unit exceeded the carrying amount of the corresponding reporting unit. A 10% increase in the discount rate or a 10% decrease in the estimated cash flows of the reporting unit would not have resulted in an impairment in any of the reporting units.

Long-Lived Depreciable and Amortizable Assets

In connection with the acquisition of TransUnion Intermediate by TransUnion in April 2012, all long-lived depreciable and amortizable assets were recorded at fair value and the carrying value of certain fixed assets and all intangible assets increased significantly.

As of December 31, 2016 our consolidated balance sheet included fixed assets of \$433.1 million, \$197.5 million net of accumulated depreciation, and long-lived intangible assets of \$2,578.1 million, \$1,762.3 million net of accumulated amortization. We review long-lived asset groups subject to amortization for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable. Recoverability of asset groups to be held and used is measured by a comparison of the carrying amount of an asset group to the estimated undiscounted future cash flows expected to be generated by the asset group. If the carrying amount of an asset group exceeds its estimated future cash flows, an impairment charge is recognized equal to the amount by which the carrying amount of the asset group exceeds the fair value of the asset group. Assets to be disposed of are separately presented in the consolidated balance sheet, and reported at the lower of the carrying amount or fair value, less costs to sell, and are no longer depreciated. When a long-lived asset group is tested for recoverability, we also review depreciation estimates and methods. Any revision to the remaining useful life of a long-lived assets resulting from that review is also considered in developing estimates of future cash flows used to test the asset group for recoverability. We typically use a discounted cash flow model when assessing the fair value of our asset groups. The discounted cash flow calculation requires a number of significant assumptions, including projections of future cash flows and an estimate of our discount rate.

When events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable, we use estimates of future cash flows to determine recoverability and base such estimates on assumptions that are reasonable and consistent with assumptions that would be used by other marketplace participants. Such estimates, however, are inherently uncertain and estimates using different assumptions, or different valuation techniques, could result in significantly different results. During 2016, 2015 and 2014, there were no material impairment charges.

Legal Contingencies

In the ordinary course of business, we are routinely named as defendants in, or parties to, various legal actions and proceedings relating to our current or past business operations. These actions generally assert claims for violations of federal or state credit reporting, consumer protection or privacy laws, or common law claims related

to privacy, libel, slander or the unfair treatment of consumers, and may include claims for substantial or indeterminate compensatory or punitive damages, or injunctive relief, and may seek business practice changes. In the ordinary course of business, we also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings, both formal and informal, certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In connection with formal and informal inquiries by these regulators, we routinely receive requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of our activities. We regularly review all litigation and regulatory matters to determine whether a loss is probable and, if probable, whether the loss can be reasonably estimated. If a loss is probable and can be reasonably estimated, an appropriate reserve is accrued, taking into consideration legal positions, contractual obligations and applicable insurance coverages, and included in other current liabilities. We believe that the reserves established for pending or threatened legal and regulatory matters are appropriate based on the facts currently known. Due to the uncertainties inherent in the investigation and resolution of legal and regulatory matters, however, the actual costs of resolving litigation and regulatory matters may be substantially higher than the amounts reserved for those matters, and an adverse outcome in certain of these matters could have a material adverse effect on our financial results. Legal fees incurred in connection with ongoing litigation are considered a period cost and are expensed as incurred.

As of December 31, 2016 and 2015, we accrued \$35.9 million and \$16.3 million, respectively, for anticipated claims. The increase at December 31, 2016 compared with December 31, 2015 was due primarily to our settlement with the CFPB, which we expect to pay in 2017. These amounts were recorded in other accrued liabilities in the consolidated balance sheets and the associated expenses were recorded in selling, general and administrative expenses in the consolidated statements of income.

Income Taxes

As of December 31, 2016, TransUnion's consolidated balance sheet included noncurrent deferred tax liabilities of \$579.0 million. Certain deferred tax assets, including net operating loss carryforwards, may be deducted from taxable income in computing our federal income tax liability. If, in the future, we undergo an ownership change as described in Section 382(g) of the United States Internal Revenue Code, our ability to recover such deferred tax assets may be limited. Additionally, we are required to record current and deferred tax expense, deferred tax assets and liabilities resulting from temporary differences, and unrecognized tax benefits for uncertain tax positions.

No provision has been made for U.S. income taxes or foreign withholding taxes on \$179.3 million of unremitted earnings from certain foreign subsidiaries that we assert are permanently reinvested in operations outside the United States. Remitting these earnings to the United States would result in additional tax expense of approximately \$63 million, assuming we cannot use any of the related foreign tax credits. As of December 31, 2016, we have made a provision for U.S. income taxes or foreign withholding taxes of \$45.4 million on \$125.3 million of unremitted earnings from certain other foreign subsidiaries, as those earnings are not permanently reinvested outside the United States.

We make certain judgments and estimates to determine the amounts recorded, including future tax rates, future taxable income, whether it is more likely than not a tax position will be sustained, and the amount of the unrecognized tax benefit to record. We believe the judgments and estimates used are reasonable, but events may arise that were not anticipated and the outcome of tax audits may differ significantly from what is expected.

Stock-Based Compensation

For the years ended December 31, 2016, 2015 and 2014, we recognized stock-based compensation of \$31.2 million, \$22.3 million and \$10.6 million, respectively. The fair value of each award was determined by various methods including independent valuations of our common stock based on discounted cash flow and selected comparable public company analysis, the Black-Scholes valuation model, and risk-neutral Monte Carlo

valuation models. The various valuation models required management to make a number of significant assumptions, including the fair value of our stock, projections of future cash flows and an estimate of our cost of capital, volatility rates, expected life of awards and risk-free interest rates. We believe the determinations of fair values were based on assumptions and estimates that were reasonable and consistent with what would have been used by other marketplace participants to determine fair value. Valuations, however, are inherently uncertain and valuations using different assumptions and estimates, or different valuation techniques, could result in significantly different values. See Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 14, “Stock-Based Compensation,” for additional information.

Recent Accounting Pronouncements

For information about recent accounting pronouncements and the potential impact on our consolidated financial statements, see Part II, Item 8, “Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements,” Note 1, “Significant Accounting and Reporting Policies.”

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In the normal course of business we are exposed to market risk, primarily from changes in variable interest rates and foreign currency exchange rates, which could impact our results of operations and financial position. We manage the exposure to this market risk through our regular operating and financing activities. We may use derivative financial instruments, such as foreign currency and interest rate hedges, but only as a risk management tool and not for speculative or trading purposes.

Interest Rate Risk

Our senior secured credit facility consists of senior secured term loans and a \$210.0 million senior secured revolving line of credit. Interest rates on these borrowings are based, at Trans Union LLC's election, on LIBOR or an alternate base rate, subject to floors, plus applicable margins based on applicable net leverage ratios. As of December 31, 2016, all of TransUnion's outstanding debt was variable-rate debt. As of December 31, 2016, our variable-rate debt had a weighted-average interest rate of 3.40% and a weighted-average life of 4.15 years. During 2016, a 10% change in LIBOR rates would have increased our interest expense by \$0.2 million for the year.

On December 18, 2015, we entered into interest rate cap agreements with various counter-parties that effectively cap our LIBOR exposure on a portion of our existing senior secured term loans at 0.75% beginning June 30, 2016. We have designated these cap agreements as cash flow hedges. The initial aggregate notional amount under these agreements was \$1,526.4 million and decreases each quarter beginning September 30, 2016, until the agreement terminates on June 30, 2020. In July 2016, we began to pay the various counter-parties a fixed rate on the outstanding notional amounts of between 0.98% and 0.994% and receive payments to the extent LIBOR exceeds 0.75%.

The interest rate caps are recorded on the balance sheet at fair value. The effective portion of changes in the fair value of the interest rate cap agreements is recorded in other comprehensive income (loss). The ineffective portion of changes in the fair value of the caps, which is due to, and will continue to result from, the cost of financing the cap premium, is recorded in other income and expense. The effective portion of the change in the fair value of the caps resulted in an unrealized loss of \$7.5 million and an unrealized gain of \$0.3 million, net of tax, recorded in other comprehensive income for the years ended December 31, 2016 and December 31, 2015, respectively. The ineffective portion of the change in the fair value of the caps resulted in a loss of \$0.5 million and a gain of \$0.1 million recorded in other income and expense for the years ended December 31, 2016 and December 31, 2015, respectively.

Based on the amount of unhedged outstanding variable-rate debt, we have a material exposure to interest rate risk. In the future our exposure to interest rate risk may change due to changes in the amount borrowed, changes in interest rates, or changes in the amount we have hedged. The amount of our outstanding debt, and the ratio of fixed-rate debt to variable-rate debt, can be expected to vary as a result of future business requirements, market conditions or other factors.

See Part II, Item 8, "Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements," Note 10, "Debt," for additional information about interest rates on our debt.

Foreign Currency Exchange Rate Risk

A substantial majority of our revenue, expense and capital expenditure activities are transacted in U.S. dollars. However, we transact business in a number of foreign currencies, including the South African rand, Canadian dollar, Indian rupee, Colombian peso and Brazilian real. We have minimal euro-based transactions. In reporting the results of our foreign operations, we benefit from a weaker U.S. dollar and are adversely affected by a stronger U.S. dollar relative to the foreign currencies.

We are required to translate the assets and liabilities of our foreign subsidiaries that are measured in foreign currencies at the applicable period-end exchange rate in our consolidated balance sheets. We are required to translate revenue and expenses at the average exchange rates prevailing during the year in our consolidated statements of income. The resulting translation adjustment is included in other comprehensive income, as a component of stockholders' equity. Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are included in the results of operations as incurred.

In 2016, revenue from foreign operations was \$327.5 million, and foreign operating income was \$54.5 million. A 10% change in the value of the U.S. dollar relative to a basket of the currencies for all foreign countries in which we had operations during 2016 would have changed our revenue by \$32.8 million and our operating income by \$5.5 million.

A 10% change in the value of the U.S. dollar relative to a basket of currencies for all foreign countries in which we had operations would not have had a significant impact on our 2016 realized foreign currency transaction gains and losses.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of TransUnion and subsidiaries

We have audited the accompanying consolidated balance sheets of TransUnion and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2016. Our audit also included the financial statement schedules listed in the Index at Item 15. These financial statements and schedules are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedules based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of TransUnion and subsidiaries at December 31, 2016 and 2015, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedules, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), TransUnion's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 15, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Chicago, IL

February 15, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of TransUnion and subsidiaries

We have audited TransUnion and subsidiaries' internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). TransUnion and subsidiaries 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 Financial Statements and Assessment of Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

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

As indicated in the accompanying Management's Report on Financial Statements and Assessment of Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Central de Informacion Financiera S.A. ("CIFIN"), which is included in the 2016 consolidated financial statements of TransUnion and subsidiaries and constituted approximately 5% and 15% of total and net assets, respectively, as of December 31, 2016 and approximately 1% and 7% of revenues and net income, respectively, for the year then ended. Our audit of internal control over financial reporting of TransUnion and subsidiaries also did not include an evaluation of the internal control over financial reporting of CIFIN.

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of TransUnion and subsidiaries as of December 31, 2016 and

2015, and the related consolidated statements of income, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2016 of TransUnion and subsidiaries and our report dated February 15, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Chicago, IL

February 15, 2017

TRANSUNION AND SUBSIDIARIES
Consolidated Balance Sheets
(in millions, except per share data)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	\$ 182.2	\$ 133.2
Trade accounts receivable, net of allowance of \$6.2 and \$4.2	277.9	228.3
Other current assets	89.9	65.3
Total current assets	550.0	426.8
Property, plant and equipment, net of accumulated depreciation and amortization of \$235.6 and \$174.3	197.5	183.0
Goodwill	2,173.9	1,983.4
Other intangibles, net of accumulated amortization of \$815.8 and \$615.3	1,762.3	1,770.1
Other assets	97.5	79.5
Total assets	\$4,781.2	\$4,442.8
Liabilities and stockholders' equity		
Current liabilities:		
Trade accounts payable	\$ 114.2	\$ 105.4
Short-term debt and current portion of long-term debt	50.4	43.9
Other current liabilities	208.7	146.7
Total current liabilities	373.3	296.0
Long-term debt	2,325.2	2,160.7
Deferred taxes	579.0	588.4
Other liabilities	30.7	27.8
Total liabilities	3,308.2	3,072.9
Redeemable noncontrolling interests	—	2.9
Stockholders' equity:		
Common stock, \$0.01 par value; 1.0 billion shares authorized at December 31, 2016 and December 31, 2015; 183.9 million and 183.0 million shares issued as of December 31, 2016 and December 31, 2015, respectively; and 183.2 million and 182.3 million shares outstanding as of December 31, 2016 and December 31, 2015, respectively	1.8	1.8
Additional paid-in capital	1,844.9	1,850.3
Treasury stock at cost; 0.7 million shares at December 31, 2016 and December 31, 2015	(5.3)	(4.6)
Accumulated deficit	(303.8)	(424.3)
Accumulated other comprehensive loss	(174.8)	(191.8)
Total TransUnion stockholders' equity	1,362.8	1,231.4
Noncontrolling interest	110.2	135.6
Total stockholders' equity	1,473.0	1,367.0
Total liabilities and stockholders' equity	\$4,781.2	\$4,442.8

See accompanying notes to consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Income
(in millions, except per share data)

	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Revenue	\$1,704.9	\$1,506.8	\$1,304.7
Operating expenses			
Cost of services (exclusive of depreciation and amortization below)	579.1	531.6	500.2
Selling, general and administrative	560.1	499.7	434.9
Depreciation and amortization	265.2	278.4	241.2
Total operating expenses	1,404.4	1,309.7	1,176.3
Operating income	300.5	197.1	128.4
Non-operating income and (expense)			
Interest expense	(85.5)	(134.2)	(190.0)
Interest income	4.6	3.8	3.3
Earnings from equity method investments	8.6	8.8	12.5
Other income and (expense), net	(22.8)	(48.9)	44.0
Total non-operating income and (expense)	(95.1)	(170.5)	(130.2)
Income (loss) before income taxes	205.4	26.6	(1.8)
Provision for income taxes	(74.0)	(11.3)	(2.6)
Net income (loss)	131.4	15.3	(4.4)
Less: net income attributable to noncontrolling interests	(10.8)	(9.4)	(8.1)
Net income (loss) attributable to TransUnion	<u>\$ 120.6</u>	<u>\$ 5.9</u>	<u>\$ (12.5)</u>
Earnings (loss) per share:			
Basic	<u>\$ 0.66</u>	<u>\$ 0.04</u>	<u>\$ (0.09)</u>
Diluted	<u>\$ 0.65</u>	<u>\$ 0.04</u>	<u>\$ (0.09)</u>
Weighted average shares outstanding:			
Basic	<u>182.6</u>	<u>165.3</u>	<u>147.3</u>
Diluted	<u>184.6</u>	<u>166.8</u>	<u>147.3</u>

See accompanying notes to consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income
(in millions)

	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Net income (loss)	\$ 131.4	\$ 15.3	\$ (4.4)
Other comprehensive income (loss):			
Foreign currency translation:			
Foreign currency translation adjustment	26.7	(86.3)	(58.9)
Benefit for income taxes	2.7	4.9	5.2
Foreign currency translation, net	29.4	(81.4)	(53.7)
Hedge instruments:			
Net unrealized (loss) gain	(12.0)	0.3	(0.6)
Amortization of accumulated loss	0.4	0.4	0.3
Benefit (provision) for income taxes	4.4	(0.2)	0.1
Hedge instruments, net	(7.2)	0.5	(0.2)
Available-for-sale securities:			
Net unrealized gain	0.4	—	0.2
Provision for income taxes	(0.2)	—	(0.1)
Available-for-sale securities, net	0.2	—	0.1
Total other comprehensive income (loss), net of tax	22.4	(80.9)	(53.8)
Comprehensive income (loss)	153.8	(65.6)	(58.2)
Less: comprehensive (income) loss attributable to noncontrolling interests	(16.2)	(2.8)	1.5
Comprehensive income (loss) attributable to TransUnion	<u>\$ 137.6</u>	<u>\$ (68.4)</u>	<u>\$ (56.7)</u>

See accompanying notes to consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(in millions)

	Twelve Months Ended December 31,		
	2016	2015	2014
Cash flows from operating activities:			
Net income (loss)	\$ 131.4	\$ 15.3	\$ (4.4)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	265.2	278.4	241.2
Net loss (gain) on refinancing transactions	—	37.6	(33.1)
Gain on fair value adjustment of cost and equity method investment	—	—	(22.2)
Impairment of cost method investment	2.0	—	4.1
Amortization and loss on fair value of hedge instruments	0.9	1.2	0.6
Equity in net income of affiliates, net of dividends	(0.6)	(0.1)	(3.3)
Deferred taxes	(22.2)	(17.3)	(20.8)
Amortization of discount and deferred financing fees	3.2	6.1	1.5
Stock-based compensation	24.4	9.0	8.0
Provision for losses on trade accounts receivable	4.3	3.2	3.2
Other	(5.1)	1.4	1.3
Changes in assets and liabilities:			
Trade accounts receivable	(42.5)	(39.2)	(36.3)
Other current and long-term assets	(5.9)	13.8	2.0
Trade accounts payable	2.9	1.3	6.1
Other current and long-term liabilities	31.9	(1.6)	6.4
Cash provided by operating activities	389.9	309.1	154.3
Cash flows from investing activities:			
Capital expenditures	(124.0)	(132.2)	(155.2)
Proceeds from sale of trading securities	0.9	1.0	1.5
Purchases of trading securities	(1.5)	(1.5)	(2.1)
Proceeds from sale of other investments	58.2	12.4	9.7
Purchases of other investments	(64.6)	(15.5)	(15.1)
Acquisitions and purchases of noncontrolling interests, net of cash acquired	(356.6)	(70.4)	(119.9)
Acquisition-related deposits, net	(6.2)	9.1	4.1
Other	(2.0)	—	1.0
Cash used in investing activities	(495.8)	(197.1)	(276.0)
Cash flows from financing activities:			
Proceeds from senior secured term loan B	150.0	1,881.0	1,895.3
Extinguishment of senior secured term loan B	—	(1,881.0)	(1,120.5)
Proceeds from senior secured term loan A	55.0	350.0	—
Extinguishment of 9.625% and 8.125% Senior Notes	—	(1,000.0)	—
Extinguishment of 11.375% senior unsecured notes	—	—	(645.0)
Proceeds from senior secured revolving line of credit	145.0	35.0	78.5
Payment on senior secured revolving line of credit	(145.0)	(85.0)	(28.5)
Repayments of debt	(49.3)	(38.2)	(25.6)
Termination of interest rate swaps	—	(2.7)	—
Proceeds from initial public offering	—	764.5	—

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(in millions)

	Twelve Months Ended December 31,		
	2016	2015	2014
Cash flows from financing activities (continued):			
Underwriter fees and other costs on initial public offering	—	(49.8)	—
Debt financing fees (2015 and 2014 fees include prepayment premiums on early terminations)	(3.7)	(18.2)	(61.5)
Proceeds from issuance of common stock and exercise of stock options . . .	6.0	2.8	9.6
Treasury stock purchases	(0.7)	(0.3)	(0.2)
Distributions to noncontrolling interests	(9.3)	(10.8)	(10.4)
Excess tax benefit	6.3	1.4	—
Payment of contingent obligation	(0.5)	—	—
Other	—	—	0.2
	<u>153.8</u>	<u>(51.3)</u>	<u>91.9</u>
Cash provided by (used in) financing activities	153.8	(51.3)	91.9
Effect of exchange rate changes on cash and cash equivalents	1.1	(5.4)	(3.5)
Net change in cash and cash equivalents	49.0	55.3	(33.3)
Cash and cash equivalents, beginning of period	133.2	77.9	111.2
	<u>182.2</u>	<u>133.2</u>	<u>77.9</u>
Cash and cash equivalents, end of period	\$182.2	\$133.2	\$ 77.9
Noncash investing activities:			
Property and equipment acquired through capital lease obligations	\$ —	\$ 1.2	\$ —
Noncash financing activities:			
Finance arrangements	\$ 16.3	\$ 7.8	\$ 12.9
Supplemental disclosure of cash flow information:			
Cash paid during the period for:			
Interest	\$ 87.9	\$147.6	\$191.0
Income taxes, net of refunds	93.6	25.9	25.2

See accompanying notes to consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity
(in millions)

	<u>Common Stock</u>			Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total	Redeemable Non- controlling Interests
	Shares	Amount	Paid-In Capital						
Balance, December 31,									
2013	147.0	\$ 1.5	\$1,121.4	\$ (4.1)	\$(417.7)	\$ (73.2)	\$ 86.6	\$ 714.5	\$ 17.6
Net income (loss)	—	—	—	—	(12.5)	—	8.4	(4.1)	(0.3)
Other comprehensive									
loss	—	—	—	—	—	(44.3)	(7.5)	(51.8)	(2.0)
Establishment of									
noncontrolling									
interests	—	—	—	—	—	—	85.1	85.1	8.4
Distributions to									
noncontrolling									
interests	—	—	—	—	—	—	(10.1)	(10.1)	(0.3)
Purchase of									
noncontrolling									
interests	—	—	(1.4)	—	—	—	(2.0)	(3.4)	—
Stockholder									
contribution from									
noncontrolling									
interests	—	—	—	—	—	—	0.1	0.1	—
Stock-based									
compensation	—	—	8.0	—	—	—	—	8.0	—
Issuance of stock	0.7	—	8.5	—	—	—	—	8.5	—
Exercise of stock									
options	0.2	—	1.1	—	—	—	—	1.1	—
Treasury stock									
purchased	—	—	—	(0.2)	—	—	—	(0.2)	—
December 31, 2014	<u>147.9</u>	<u>\$ 1.5</u>	<u>\$1,137.6</u>	<u>\$ (4.3)</u>	<u>\$(430.2)</u>	<u>\$(117.5)</u>	<u>\$160.6</u>	<u>\$ 747.7</u>	<u>\$ 23.4</u>

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity—Continued
(in millions)

	<u>Common Stock</u>		Paid-In Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total	Redeemable Non- controlling Interests
	Shares	Amount							
Net income (loss) . . .	—	\$ —	\$ —	\$ —	\$ 5.9	\$ —	\$ 9.8	\$ 15.7	\$ (0.4)
Other comprehensive loss	—	—	—	—	—	(74.3)	(6.2)	(80.5)	(0.4)
Distributions to noncontrolling interests	—	—	—	—	—	—	(10.4)	(10.4)	(0.4)
Reclassification of redeemable noncontrolling interest	—	—	—	—	—	—	0.2	0.2	(0.2)
Adjustment of redeemable noncontrolling interest	—	—	(1.0)	—	—	—	—	(1.0)	(4.7)
Purchase of noncontrolling interests	—	—	(13.9)	—	—	—	(18.4)	(32.3)	(14.4)
Excess tax benefit . . .	—	—	1.4	—	—	—	—	1.4	—
Stock-based compensation	—	—	9.0	—	—	—	—	9.0	—
Initial public offering	34.0	0.3	714.4	—	—	—	—	714.7	—
Issuance of stock	—	—	0.4	—	—	—	—	0.4	—
Exercise of stock options	0.4	—	2.4	—	—	—	—	2.4	—
Treasury stock purchased	—	—	—	(0.3)	—	—	—	(0.3)	—
Balance, December 31, 2015	<u>182.3</u>	<u>\$ 1.8</u>	<u>\$ 1,850.3</u>	<u>\$ (4.6)</u>	<u>\$ (424.3)</u>	<u>\$ (191.8)</u>	<u>\$ 135.6</u>	<u>\$ 1,367.0</u>	<u>\$ 2.9</u>

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity—Continued
(in millions)

	<u>Common Stock</u>		Paid-In Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total	Redeemable Non- controlling Interests
	Shares	Amount							
Net income	—	\$ —	\$ —	\$ —	\$ 120.6	\$ —	\$ 10.8	\$ 131.4	\$ —
Other comprehensive income	—	—	—	—	—	17.0	0.8	17.8	4.6
Distributions to noncontrolling interests	—	—	—	—	—	—	(9.3)	(9.3)	—
Adjustment of redeemable noncontrolling interest	—	—	(10.0)	—	—	—	—	(10.0)	15.8
Establishment of noncontrolling interests	—	—	—	—	—	—	10.2	10.2	43.7
Excess tax benefit ...	—	—	6.3	—	—	—	—	6.3	—
Stock-based compensation	—	—	23.7	—	—	—	—	23.7	—
Employee share purchase plan	0.1	—	1.4	—	—	—	—	1.4	—
Exercise of stock options	0.8	—	4.6	—	—	—	—	4.6	—
Purchase of noncontrolling interest	—	—	(31.4)	—	—	—	(37.9)	(69.3)	(67.0)
Treasury stock purchased	—	—	—	(0.7)	—	—	—	(0.7)	—
Other	—	—	—	—	(0.1)	—	—	(0.1)	—
Balance, December 31, 2016	<u>183.2</u>	<u>\$ 1.8</u>	<u>\$ 1,844.9</u>	<u>\$ (5.3)</u>	<u>\$ (303.8)</u>	<u>\$ (174.8)</u>	<u>\$ 110.2</u>	<u>\$ 1,473.0</u>	<u>\$ —</u>

See accompanying notes to consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Notes to Consolidated Financial Statements
Years Ended December 31, 2016, 2015 and 2014

1. Significant Accounting and Reporting Policies

Description of Business

TransUnion is a leading global risk and information solutions provider to businesses and consumers. We provide consumer reports, risk scores, analytical services and decisioning capabilities to businesses. Businesses embed our solutions into their process workflows to acquire new customers, assess consumer ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and investigate potential fraud. Consumers use our solutions to view their credit profiles and access analytical tools that help them understand and manage their personal information and take precautions against identity theft. We are differentiated by our comprehensive and unique datasets, our next-generation technology and our analytics and decisioning capabilities, which enable us to deliver insights across the entire consumer lifecycle. We believe we are the largest provider of risk and information solutions in the United States to possess both nationwide consumer credit data and comprehensive, diverse public records data, which allows us to better predict behaviors, assess risk and address a broader set of business issues for our customers. We have deep domain expertise across a number of attractive industries, sometimes referred to as verticals, including financial services, specialized risk, insurance and healthcare. We have a global presence in over 30 countries across North America, Africa, Latin America and Asia.

We believe that we have the capabilities and assets, including comprehensive and unique datasets, advanced technology and analytics to provide differentiated solutions to our customers. Our solutions are based on a foundation of financial, credit, alternative credit, identity, bankruptcy, lien, judgment, insurance claims, healthcare, automotive and other relevant information from 90,000 data sources, including financial institutions, private databases and public records repositories. We refine, standardize and enhance this data using sophisticated algorithms to create proprietary databases. Our next-generation technology allows us to quickly and efficiently integrate our data with our analytics and decisioning capabilities to create and deliver innovative solutions to our customers and to quickly adapt to changing customer needs. Our deep analytics expertise, which includes our people as well as tools such as predictive modeling and scoring, customer segmentation, benchmarking and forecasting, enables businesses and consumers to gain better insights into their risk and financial data. Our decisioning capabilities, which are generally delivered on a software-as-a-service platform, allow businesses to interpret data and apply their specific qualifying criteria to make decisions and take actions. Collectively, our data, analytics and decisioning capabilities allow businesses to authenticate the identity of consumers, effectively determine the most relevant products for consumers, retain and cross-sell to existing consumers, identify and acquire new consumers and reduce loss from fraud. Similarly, our capabilities allow consumers to see how their credit profiles have changed over time, understand the impact of financial decisions on their credit scores, manage their personal information and take precautions against identity theft.

Basis of Presentation

The accompanying consolidated financial statements of TransUnion and subsidiaries have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”). Our consolidated financial statements reflect all adjustments which, in the opinion of management, are necessary for a fair presentation of the periods presented. All significant intercompany transactions and balances have been eliminated.

Unless the context indicates otherwise, any reference in this report to the “Company,” “we,” “our,” “us,” and “its” refers to TransUnion and its consolidated subsidiaries, collectively.

For the periods presented, TransUnion does not have any material assets, liabilities, revenues, expenses or operations of any kind other than its ownership investment in TransUnion Intermediate.

Initial Public Offering

On June 30, 2015, we completed our initial public offering (“IPO”) of our common stock. The proceeds, net of underwriter fees and commission and costs incurred in connection with the IPO, were recorded in additional paid-in capital. The IPO costs consisted primarily of legal fees, accounting fees and printing fees. See Note 11, “Stockholders’ Equity” for further discussion on the IPO.

Subsequent Events

Events and transactions occurring through the date of issuance of the financial statements have been evaluated by management and, when appropriate, recognized or disclosed in the financial statements or notes to the consolidated financial statements.

Principles of Consolidation

The consolidated financial statements of TransUnion include the accounts of TransUnion and all of its majority-owned or controlled subsidiaries. Investments in unconsolidated entities in which the Company is able to exercise significant influence, are accounted for using the equity method. Nonmarketable investments in unconsolidated entities in which the Company is not able to exercise significant influence are accounted for using the cost method and periodically reviewed for impairment.

Use of Estimates

The preparation of consolidated financial statements and related disclosures in accordance with GAAP requires management to make estimates and judgments that affect the amounts reported. We believe that the estimates used in preparation of the accompanying consolidated financial statements are reasonable, based upon information available to management at this time. These estimates and judgments affect the reported amounts of assets, liabilities and disclosure of contingent assets and liabilities at the balance sheet date, as well as the amounts of revenue and expense during the reporting period. Estimates are inherently uncertain and actual results could differ materially from the estimated amounts.

Change in Accounting Estimate

Effective July 1, 2014, we revised the remaining useful lives of certain internal use software, equipment, leasehold improvement and corporate headquarters facility assets to align with the expected completion dates of our strategic initiatives to transform our technology infrastructure and corporate headquarters facility. As a result, depreciation and amortization expense increased by \$28.8 million and \$17.5 million for the years ended December 31, 2015 and 2014, respectively. The net of tax impact of this change decreased net income attributable to TransUnion by \$18.4 million, or \$0.11 per share, and \$11.2 million or \$0.08 per share for the years ended December 31, 2015 and 2014, respectively. The impact for the year ended December 31, 2016 was not significant.

Segments

Operating segments are businesses for which separate financial information is available and evaluated regularly by the chief operating decision-maker in deciding how to allocate resources. We have four operating segments; USIS, Healthcare, International and Consumer Interactive. We aggregate our USIS and Healthcare operating segments into the USIS reportable segment. We manage our business and report our financial results in three reportable segments: U.S. Information Services (“USIS”); International; and Consumer Interactive. We also report expenses for Corporate, which provides support services to each segment. Details of our segment results are discussed in Note 16, “Reportable Segments.”

Revenue Recognition and Deferred Revenue

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the pricing is fixed or determinable and the collectability is reasonably assured.

A significant portion of our revenue is derived from providing information services to our customers. This revenue is recognized when services are provided, assuming all criteria for revenue recognition are met. A smaller portion of our revenue relates to subscription-based contracts where a customer pays a predetermined fee for a predetermined, or unlimited, number of transactions or services during the subscription period. Revenue related to subscription-based contracts that have a preset number of transactions is recognized as the services are provided, using an effective transaction rate as the actual transactions are completed. Any remaining revenue related to unfulfilled units is not recognized until the end of the related contract subscription period. Revenue related to subscription-based contracts that have an unlimited volume is recognized straight-line over the contract term.

Deferred revenue generally consists of amounts billed in excess of revenue recognized for the sale of data services, subscriptions and set up fees. Deferred revenue is included in other current liabilities.

Costs of Services

Costs of services include data acquisition and royalty fees, personnel costs related to our databases and software applications, consumer and call center support costs, hardware and software maintenance costs, telecommunication expenses and occupancy costs associated with the facilities where these functions are performed.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include personnel-related costs for sales, administrative and management employees, costs for professional and consulting services, advertising and occupancy and facilities expense of these functions. Advertising costs are expensed as incurred. Advertising costs for the years ended December 31, 2016, 2015 and 2014 were \$50.8 million, \$43.1 million and \$31.3 million, respectively.

Stock-Based Compensation

Compensation expense for all stock-based compensation awards is determined using the grant date fair value and includes an estimate for expected forfeitures. Expense is recognized on a straight-line basis over the requisite service period of the award, which is generally equal to the vesting period. The details of our stock-based compensation program are discussed in Note 14, "Stock-Based Compensation."

Income Taxes

Deferred income tax assets and liabilities are determined based on the estimated future tax effects of temporary differences between the financial statement and tax basis of assets and liabilities, as measured by current enacted tax rates. The effect of a tax rate change on deferred tax assets and liabilities is recognized in operations in the period that includes the enactment date of the change. We periodically assess the recoverability of our deferred tax assets, and a valuation allowance is recorded against deferred tax assets if it is more likely than not that some portion of the deferred tax assets will not be realized. See Note 13, "Income Taxes," for additional information.

Foreign Currency Translation

The functional currency for each of our foreign subsidiaries is generally that subsidiary's local currency. We translate the assets and liabilities of foreign subsidiaries at the year-end exchange rate, and translate revenues and expenses at the monthly average rates during the year. We record the resulting translation adjustment as a component of other comprehensive income in stockholders' equity.

Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency of an entity are included in the results of operations as incurred. The exchange rate gain for the year ended December 31, 2016, was \$0.3 million. The exchange rate losses for the years ended December 31, 2015 and 2014 were \$3.6 million and \$1.1 million, respectively.

Cash and Cash Equivalents

We consider investments in highly liquid debt instruments with original maturities of three months or less to be cash equivalents.

Trade Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is based on our historical write-off experience, analysis of the aging of outstanding receivables, customer payment patterns and the establishment of specific reserves for customers in adverse financial condition or for existing contractual disputes. Adjustments to the allowance are recorded as a bad debt expense in selling, general and administrative expenses. Trade accounts receivable are written off against the allowance when we determine that they are no longer collectible. We reassess the adequacy of the allowance for doubtful accounts each reporting period.

Long-Lived Assets

Property, Plant, Equipment and Intangibles

Property, plant and equipment is depreciated primarily using the straight-line method over the estimated useful lives of the assets. Buildings and building improvements are generally depreciated over twenty years. Computer equipment and purchased software are depreciated over three to seven years. Leasehold improvements are depreciated over the shorter of the estimated useful life of the asset or the lease term. Other assets are depreciated over five to seven years. Intangibles, other than indefinite-lived intangibles, are amortized using the straight-line method over their economic life, generally three to forty years. Assets to be disposed of, if any, are separately presented in the consolidated balance sheet and reported at the lower of the carrying amount or fair value, less costs to sell, and are no longer depreciated. See Note 3, "Property, Plant and Equipment," and Note 5, "Intangible Assets," for additional information about these assets.

Internal Use Software

We monitor the activities of each of our internal use software and system development projects and analyze the associated costs, making an appropriate distinction between costs to be expensed and costs to be capitalized. Costs incurred during the preliminary project stage are expensed as incurred. Many of the costs incurred during the application development stage are capitalized, including costs of software design and configuration, development of interfaces, coding, testing and installation of the software. Once the software is ready for its intended use, it is amortized on a straight-line basis over its useful life, generally three to seven years.

As our business continues to evolve, and in connection with the completion of our strategic initiative to transform our technology infrastructure, we reviewed the remaining estimated useful lives for all of our internally developed software assets during the fourth quarter of 2016. This review indicated that the estimated useful lives of certain assets were longer than the estimates initially used for amortization purposes. As a result, in the fourth quarter of 2016, we changed the estimated useful lives for a portion of these assets to better align with their estimated remaining economic useful lives. Subsequent to the completion of our review, we continue to amortize our internal use software assets on a straight-line basis over their estimated useful lives, generally three to seven years.

Impairment of Long-Lived Assets

We review long-lived asset groups that are subject to amortization for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable. Recoverability of asset groups to be held and used is measured by a comparison of the carrying amount of an asset group to the estimated undiscounted future cash flows expected to be generated by the asset group. If the carrying amount of an asset group exceeds its estimated future cash flows, an impairment charge is recognized equal to the amount by which the carrying amount of the asset group exceeds the fair value of the asset group. No significant impairment charges were recorded during 2016, 2015 and 2014.

Marketable Securities

We classify our investments in debt and equity securities in accordance with our intent and ability to hold the investments. Held-to-maturity securities are carried at amortized cost, which approximates fair value, and are classified as either short-term or long-term investments based on the contractual maturity date. Earnings from these securities are reported as a component of interest income. Available-for-sale securities are carried at fair market value, with the unrealized gains and losses, net of tax, included in accumulated other comprehensive income. Trading securities are carried at fair value, with unrealized gains and losses included in income.

At December 31, 2016 and 2015, the Company's marketable securities consisted of trading securities and available-for-sale securities. The trading securities relate to a nonqualified deferred compensation plan held in trust for the benefit of plan participants. The available-for-sale securities relate to foreign exchange-traded corporate bonds. There were no significant realized or unrealized gains or losses for these securities for any of the periods presented. We follow fair value guidance to measure the fair value of our financial assets as further described in Note 15, "Fair Value".

We periodically review our marketable securities to determine if there is an other-than-temporary impairment on any security. If it is determined that an other-than-temporary decline in value exists, we write down the investment to its market value and record the related impairment loss in other income. There were no other-than-temporary impairments of marketable securities in 2016, 2015 or 2014.

Goodwill and Other Indefinite-Lived Intangibles

Goodwill and any indefinite-lived intangible assets are allocated to various reporting units, which are an operating segment or one level below an operating segment. We test goodwill and indefinite-lived intangible assets for impairment on an annual basis, in the fourth quarter, or on an interim basis if an indicator of impairment is present. For goodwill, we compare the fair value of each reporting unit to its carrying amount to determine if there is potential goodwill impairment. If the fair value of a reporting unit is less than its carrying value, an impairment loss is recorded to the extent that the fair value of the goodwill within the reporting unit is less than the carrying value of its goodwill. For other indefinite-lived intangibles, if any, we compare the fair value of the asset to its carrying value to determine if there is an impairment. If the fair value of the asset is less than its carrying value, an impairment loss is recorded. We use discounted cash flow techniques to determine the fair value of our reporting units and other indefinite-lived intangibles. See Note 4, "Goodwill," and Note 5, "Intangible Assets," for additional information about these assets.

Benefit Plans

We maintain a 401(k) defined-contribution profit sharing plan for eligible employees. We provide a partial matching contribution and a discretionary contribution based on a fixed percentage of a participant's eligible compensation. Contributions to this plan for the years ended December 31, 2016, 2015 and 2014 were \$19.1 million, \$17.0 million and \$14.1 million, respectively. We also maintain a nonqualified deferred compensation plan for certain key employees. The deferred compensation plan contains both employee deferred

compensation and company contributions. These investments are held in the TransUnion Rabbi Trust, and are included in marketable securities in the consolidated balance sheets. The assets held in the Rabbi Trust are for the benefit of the participants in the deferred compensation plan, but are available to our general creditors in the case of our insolvency. The liability for amounts due to these participants is included in other current liabilities and other liabilities in the consolidated balance sheets.

Recently Adopted Accounting Pronouncements

On April 7, 2015, the FASB issued ASU No. 2015-03, *Interest—Imputation of Interest (Subtopic 835-30), Simplifying the Presentation of Debt Issuance Costs*. The amendments in this update require that unamortized debt issuance costs be presented in the balance sheet as a direct deduction from the carrying amount of the corresponding debt liability, consistent with debt discounts. We adopted this guidance on a retrospective basis in our quarter ended March 31, 2016, wherein the balance sheet of each individual period presented was adjusted to reflect the period-specific effects of applying the new guidance. The impact of the adoption resulted in our deferred financing fees on our term loans being reclassified from other current assets and other assets to long-term debt on the balance sheet and related revisions to Notes 2, 6 and 10 in all periods presented in these financial statements.

On August 18, 2015, the FASB issued ASU 2015-15, *Interest—Imputation of Interest (Subtopic 835-30)—Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements (Amendments to SEC Paragraphs Pursuant to Staff Announcement at June 18, 2015 EITF Meeting)*. The ASU indicates the SEC staff would not object to presenting deferred debt issuance costs for a line of credit arrangement as an asset in the balance sheet. We continue to present our deferred line of credit fees as an asset in the consolidated balance sheet. See Note 2 “Other Current Assets” and Note 6 “Other Assets.”

Recent Accounting Pronouncements Not Yet Adopted

On May 28, 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*. During 2016, the FASB issued several additional ASU’s related to revenue recognition. This series of comprehensive guidance will replace all existing revenue recognition guidance and is effective for annual reporting periods beginning after December 15, 2017, and interim periods therein. We will adopt this standard beginning January 1, 2018, and expect to use the modified retrospective approach, with the cumulative effect recognized in the opening balance of retained earnings. We continue to evaluate the impact this guidance will have on our consolidated financial statements and disclosures.

On January 5, 2016, the FASB issued ASU 2016-01, *Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. This ASU is intended to improve the recognition and measurement of financial instruments. Among other things, the ASU requires equity investments (except those accounted for under the equity method of accounting, or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. This guidance is effective for fiscal years beginning after December 15, 2017, and interim periods therein. We are currently assessing the impact this guidance will have on our consolidated financial statements.

On February 25, 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. This ASU, among other things, will require lessee’s to record a lease liability, which is an obligation to make lease payments arising from a lease, and right-of-use asset, which is an asset that represents the right to use, or control the use of, a specified asset for the lease term, for all long-term leases. This guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We are currently assessing the impact this guidance will have on our consolidated financial statements.

On March 30, 2016, the FASB issued ASU 2016-09, *Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. This ASU simplifies several aspects of the

accounting for share-based payment award transactions, including income tax consequences, classification of awards, and classification on the statement of cash flows. This guidance is effective for annual reporting periods beginning after December 15, 2016, including interim periods therein. While we are currently assessing the impact this guidance will have on our consolidated financial statements, depending on the exercise pattern of our outstanding options and the value of our stock on the exercise dates of our stock options and vest dates of our restricted stock units relative to the corresponding fair value of those awards on their grant dates, there could be a material impact on our future income tax expense. See Note 14, “Stock-Based Compensation,” for further information about the number and weighted-average grant-date fair values of our outstanding stock awards.

On June 16, 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. This ASU amends the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration. In addition, these amendments require the measurement of all expected credit losses for financial assets, including trade accounts receivable, held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. This guidance is effective for annual reporting periods beginning after December 15, 2019, including interim period therein. We are currently assessing the impact this guidance will have on our consolidated financial statements.

On August 26, 2016 the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*. This ASU addresses the diversity in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. This guidance is effective for annual reporting periods beginning after December 15, 2017, including interim period therein. We are currently assessing the impact this guidance will have on our consolidated statements of cash flows.

2. Other Current Assets

Other current assets consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Prepaid expenses	\$43.9	\$41.9
Other investments	29.5	12.5
Income taxes receivable	5.4	0.1
Marketable securities	3.3	2.9
Deferred financing fees	0.5	0.5
Other	7.3	7.4
Total other current assets	<u>\$89.9</u>	<u>\$65.3</u>

Other investments include non-negotiable certificates of deposit that are recorded at their carrying value. The investments increased from year-end due to investments acquired with our purchase of Central de Informacion Financiera S.A. (“CIFIN”).

3. Property, Plant and Equipment

Property, plant and equipment, including those acquired by capital lease, consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Computer equipment and furniture	\$ 226.9	\$ 187.3
Purchased software	105.5	75.4
Building and building improvements	97.5	91.4
Land	<u>3.2</u>	<u>3.2</u>
Total cost of property, plant and equipment	433.1	357.3
Less: accumulated depreciation	<u>(235.6)</u>	<u>(174.3)</u>
Total property, plant and equipment, net of accumulated depreciation	<u>\$ 197.5</u>	<u>\$ 183.0</u>

Depreciation expense, including depreciation of assets recorded under capital leases, for the years ended December 31, 2016, 2015 and 2014, was \$67.7 million, \$60.3 million and \$56.7 million, respectively.

4. Goodwill

Goodwill is tested for impairment at the reporting unit level on an annual basis, in the fourth quarter, or on an interim basis if changes in circumstances could reduce the fair value of a reporting unit below its carrying value. Our reporting units consist of USIS and Healthcare within the U.S. Information Services (“USIS”) reportable segment, Consumer Interactive and the geographic regions of Africa, Canada, Latin America and Asia-Pacific within our International reportable segment.

Our impairment tests are performed using a discounted cash flow analysis that requires certain assumptions and estimates regarding economic factors and future profitability. Goodwill impairment tests performed during 2016, 2015 and 2014 resulted in no impairment. At December 31, 2016, there was no accumulated goodwill impairment loss.

Goodwill allocated to our segments as of December 31, 2016, 2015 and 2014, and the changes in the carrying amount of goodwill during those periods, consisted of the following:

<u>(in millions)</u>	<u>USIS</u>	<u>International</u>	<u>Consumer Interactive</u>	<u>Total</u>
Balance, December 31, 2014	\$1,202.6	\$580.1	\$241.2	\$2,023.9
Purchase accounting adjustments	(5.7)	1.8	—	(3.9)
Acquisitions	13.2	—	—	13.2
Foreign exchange rate adjustment	—	<u>(49.8)</u>	—	<u>(49.8)</u>
Balance, December 31, 2015	\$1,210.1	\$532.1	\$241.2	\$1,983.4
Purchase accounting adjustments	4.0	—	—	4.0
Acquisitions	31.6	131.6	—	163.2
Foreign exchange rate adjustment	—	<u>23.3</u>	—	<u>23.3</u>
Balance, December 31, 2016	<u>\$1,245.7</u>	<u>\$687.0</u>	<u>\$241.2</u>	<u>\$2,173.9</u>

5. Intangible Assets

Intangible assets are initially recorded at their acquisition cost, or fair value if acquired as part of a business combination, and amortized over their estimated useful lives. Increases to the gross amount of intangible assets during 2016 included expenditures to develop internal use software, a \$111.3 million increase due to business acquisitions and increases due to the impact of foreign exchange rate adjustments.

Intangible assets consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>			<u>December 31, 2015</u>		
	<u>Gross</u>	<u>Accumulated Amortization</u>	<u>Net</u>	<u>Gross</u>	<u>Accumulated Amortization</u>	<u>Net</u>
Database and credit files	\$ 844.4	\$(242.7)	\$ 601.7	\$ 791.3	\$(185.8)	\$ 605.5
Internal use software	739.0	(412.7)	326.3	628.5	(308.3)	320.2
Customer relationships	415.7	(89.3)	326.4	392.0	(66.4)	325.6
Trademarks, copyrights and patents	573.3	(69.2)	504.1	571.6	(53.9)	517.7
Noncompete and other agreements	5.7	(1.9)	3.8	2.0	(0.9)	1.1
Total intangible assets	<u>\$2,578.1</u>	<u>\$(815.8)</u>	<u>\$1,762.3</u>	<u>\$2,385.4</u>	<u>\$(615.3)</u>	<u>\$1,770.1</u>

All amortizable intangibles are amortized on a straight-line basis over their estimated useful lives. Database and credit files are generally amortized over a twelve to fifteen year period. Internal use software is generally amortized over three to seven year period. Customer relationships are amortized over a ten to twenty year period. Trademarks are generally amortized over a forty year period. Copyrights, patents, noncompete and other agreements are amortized over varying periods based on their estimated economic life. The weighted average lives of our intangibles is approximately seventeen years.

Amortization expense related to intangible assets for the years ended December 31, 2016, 2015 and 2014, was \$197.5 million, \$218.1 million and \$184.5 million, respectively. Estimated future amortization expense related to intangible assets at December 31, 2016, is as follows:

<u>(in millions)</u>	<u>Annual Amortization Expense</u>
2017	\$ 167.4
2018	166.0
2019	148.3
2020	131.8
2021	118.6
Thereafter	<u>1,030.2</u>
Total future amortization expense	<u>\$1,762.3</u>

6. Other Assets

Other assets consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Investments in affiliated companies	\$62.6	\$50.5
Marketable securities	12.4	11.2
Other investments	9.5	13.0
Deposits	9.3	1.8
Deferred financing fees	1.2	1.7
Other	<u>2.5</u>	<u>1.3</u>
Total other assets	<u>\$97.5</u>	<u>\$79.5</u>

Other investments include non-negotiable certificates of deposit that are recorded at their carrying value.

7. Investments in Affiliated Companies

Investments in affiliated companies represent our investment in non-consolidated domestic and foreign entities. These entities are in businesses similar to ours, such as credit reporting, credit scoring and credit monitoring services.

We use the equity method to account for investments in affiliates where we are able to exercise significant influence. For these investments, we adjust the carrying value for our proportionate share of the affiliates' earnings, losses and distributions, as well as for purchases and sales of our ownership interest.

We use the cost method to account for nonmarketable investments in affiliates where we are not able to exercise significant influence. For these investments, we adjust the carrying value for purchases and sales of our ownership interests.

For all investments, we adjust the carrying value if we determine that an other-than-temporary impairment has occurred. During 2016 and 2014, we incurred losses of \$2.0 million and \$4.1 million, respectively, on cost method investments recorded in our USIS segment. The losses were included in other income and expense in the consolidated statements of income. We had no impairments of investments in affiliated companies during 2015.

Investments in affiliated companies consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Total equity method investments	\$39.4	\$45.5
Total cost method investments	23.2	5.0
Total investments in affiliated companies	<u>\$62.6</u>	<u>\$50.5</u>

These balances are included in other assets in the consolidated balance sheets.

During 2016, we acquired an ownership interest in two cost method investments in our USIS segment.

During 2014, we increased our equity interest in Credit Information Bureau (India) Limited ("CIBIL") to 55.0%, obtained control and began consolidating results of operations of CIBIL as part of our International segment from the date we obtained control. As a result, CIBIL is no longer an equity method investment as of the date we obtained control. We remeasured our previously held equity interest in CIBIL at fair value as of the date we obtained control in accordance with the accounting guidance for acquisitions achieved in stages. As a result, we recognized a gain of \$21.7 million in other income and expense in the second quarter of 2014.

Earnings from equity method investments, which are included in other non-operating income and expense, and dividends received from equity method investments consisted of the following:

<u>(in millions)</u>	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Earnings from equity method investments	\$ 8.6	\$ 8.8	\$ 12.5
Dividends received from equity method investments	\$ 8.0	\$ 8.7	\$ 9.2

Dividends received from cost method investments were \$0.9 million, \$0.8 million and \$0.8 million in 2016, 2015 and 2014, respectively. Dividends received from cost method investments have been included in other income and expense.

8. Other Current Liabilities

Other current liabilities consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Accrued payroll	\$ 79.3	\$ 74.5
Accrued legal and regulatory	35.9	16.3
Accrued employee benefits	31.8	24.2
Contingent consideration	16.1	2.0
Deferred revenue	12.0	10.6
Income taxes payable	11.5	2.6
Accrued interest	1.3	1.0
Other	20.8	15.5
Total other current liabilities	<u>\$208.7</u>	<u>\$146.7</u>

The increase in accrued legal and regulatory is due primarily to the settlement with the Consumer Financial Protection Bureau (“CFPB”) and related costs, which we expect to pay in 2017. See note 18, “Contingencies,” for additional information about CFPB settlement.

9. Other Liabilities

Other liabilities consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Retirement benefits	\$10.9	\$11.2
Interest rate caps	6.1	—
Unrecognized tax benefits	4.8	0.3
Contingent consideration	1.5	5.1
Other	7.4	11.2
Total other liabilities	<u>\$30.7</u>	<u>\$27.8</u>

See note 10, “Debt,” for additional information about the interest rate caps.

10. Debt

Debt outstanding consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Senior Secured Term Loan B, payable in quarterly installments through April 9, 2021, and periodic variable interest at LIBOR or alternate base rate, plus applicable margin (3.52% at December 31, 2016), including original issue discount and deferred financing fees of \$7.6 million and \$4.4 million, respectively, at December 31, 2016, and original issue discount and deferred financing fees of \$7.3 million and \$3.8 million, respectively, at December 31, 2015	\$1,984.6	\$1,855.6
Senior Secured Term Loan A, payable in quarterly installments through June 30, 2020, and periodic variable interest at LIBOR or alternate base rate, plus applicable margin (2.77% at December 31, 2016), including original issue discount and deferred financing fees of \$0.7 million and \$0.2 million, respectively, at December 31, 2016, and original issue discount and deferred financing fees of \$0.7 million and \$0.1 million, respectively, at December 31, 2015	375.7	340.4
Other notes payable	14.2	6.2
Capital lease obligations	1.1	2.4
Total debt	<u>\$2,375.6</u>	<u>\$2,204.6</u>
Less short-term debt and current portion of long-term debt	(50.4)	(43.9)
Total long-term debt	<u><u>\$2,325.2</u></u>	<u><u>\$2,160.7</u></u>

Excluding potential additional principal payments due on the senior secured credit facility based on excess cash flows of the prior year, scheduled future maturities of total debt at December 31, 2016, were as follows:

<u>(in millions)</u>	
2017	\$ 50.7
2018	54.5
2019	54.3
2020	314.4
2021	1,914.6
Thereafter	—
Unamortized original issue discounts and deferred financing fees	(12.9)
Total debt	<u><u>\$2,375.6</u></u>

Senior Secured Credit Facility

On June 15, 2010, we entered into a senior secured credit facility with various lenders. This facility has been amended several times and currently consists of the Senior Secured Term Loan A, the Senior Secured Term Loan B and the senior secured revolving line of credit. On July 15, 2015, we used the net proceeds from our IPO, along with \$350.0 million of borrowings from the Senior Secured Term Loan A, to redeem all of our then outstanding 9.625% and 8.125% Senior Notes, including a prepayment premium, accrued interest and certain transaction costs. Collectively the refinance and redemptions resulted in \$37.6 million of expenses recorded in other income and expense in the consolidated statement of income in 2015. See Note 22, “Subsequent Event” for additional information about an amendment to the senior secured credit facility subsequent to year-end.

On April 9, 2014, we refinanced and amended the then existing senior secured credit facility. The refinancing resulted in an increase in the outstanding senior secured term loan from \$1,120.5 million to \$1,900.0 million. The

additional borrowings were used in part to repay all amounts outstanding under the existing senior secured revolving line of credit and pay fees and expenses associated with the refinancing transaction. On May 9, 2014, the remaining borrowings were used to redeem the entire \$645.0 million outstanding balance of the 11.375% Senior Notes issued by TransUnion LLC and its wholly-owned subsidiary, TransUnion Financing Corporation, including a prepayment premium and unpaid accrued interest through June 15, 2014. The early redemption of the 11.375% Senior Notes resulted in a net gain of \$45.8 million recorded in other income and expense in the consolidated statements of income in 2014 consisting of an unamortized fair value adjustment increase in the 11.375% Senior Notes of \$89.4 million less an early redemption premium and other costs totaling \$43.6 million. The senior secured credit facility refinancing resulted in \$12.7 million of refinancing fees and other net costs expensed and recorded in other income and expense in the consolidated statements of income in 2014.

Interest rates on the refinanced Senior Secured Term Loan B are based on the London Interbank Offered Rate (“LIBOR”), unless otherwise elected, and subject to a floor of 0.75%, plus a margin of 2.75% or 3.00% depending on our senior secured net leverage ratio. The Company is required to make principal payments at the end of each quarter of 0.25% of the 2014 refinanced principal balance plus additional borrowings with the remaining balance due April 9, 2021. The Company is also required to make additional payments based on excess cash flows, as defined in the agreement, of the prior year. Depending on the senior secured net leverage ratio for the year, a principal payment of between zero and fifty percent of the excess cash flows will be due the following year. There were no excess cash flows for 2016 and therefore no payment is required in 2017.

Interest rates on Senior Secured Term Loan A are based on LIBOR, unless otherwise elected, plus a margin of 2.00% or 2.25% depending on our total net leverage ratio. The Company is required to make principal payments of 1.25% of the original principal balance plus additional borrowings at the end of each quarter for the first two years, increasing to 1.875% each quarter for the last three years, with the remaining balance due June 30, 2020.

Interest rates on the refinanced senior secured revolving line of credit are based on LIBOR, unless otherwise elected, plus a margin of 2.00% or 2.25% depending on our total net leverage ratio. There is a 0.30% or 0.375% annual commitment fee, depending on our total net leverage ratio, payable quarterly based on the undrawn portion of the senior secured revolving line of credit. The commitment under the senior secured revolving line of credit expires on June 30, 2020.

On March 31, 2016, we borrowed an additional \$150.0 million of our Senior Secured Term Loan B, on the same terms as the original Senior Secured Term Loan B, to pay off the balance on our senior secured revolving line of credit that we had drawn on in February 2016 to fund the acquisition of CIFIN and for general corporate purposes. On May 31, 2016, we borrowed an additional \$55.0 million of our Senior Secured Term Loan A, on the same terms as the original Senior Secured Term Loan A, to fund an additional investment in CIFIN and for general corporate purposes.

As of December 31, 2016, we had no amounts outstanding under the senior secured revolving line of credit and could have borrowed up to the \$210.0 million available. As of December 31, 2016, TransUnion has the ability to borrow incremental term loans or increase the revolving credit commitments in one or more tranches, subject to certain additional conditions, so long as the Senior Secured Net Leverage ratio does not exceed 4.25-to-1. TransUnion also has the ability to borrow up to an additional \$450.0 million, or 4.25 times our senior secured net leverage, whichever is greater, under the senior secured credit facility, subject to certain additional conditions and commitments by existing or new lenders to fund any additional borrowings.

With certain exceptions, the senior secured credit facility obligations are secured by a first-priority security interest in substantially all of the assets of Trans Union LLC, including its investment in subsidiaries. The senior secured credit facility contains various restrictions and nonfinancial covenants, along with a senior secured net leverage ratio test. The nonfinancial covenants include restrictions on dividends, investments, dispositions, future borrowings and other specified payments, as well as additional reporting and disclosure requirements. The senior secured net leverage test must be met as a condition to incur additional indebtedness and at the end of each fiscal

quarter. As of December 31, 2016, this covenant required us to maintain a net leverage ratio on a pro forma basis equal to, or less than, 6.5-to-1. As of December 31, 2016, we were in compliance with all debt covenants.

On April 30, 2012, we entered into swap agreements to effectively fix the interest payments on a portion of the then existing senior secured term loan at 2.033%, plus the applicable margin, beginning March 28, 2013. As a result of the amendment to our senior secured credit facility dated April 9, 2014, the swaps no longer were expected to be highly effective and no longer qualified for hedge accounting. At that time, the total net of tax loss of \$1.0 million was recorded in accumulated other comprehensive income and is being amortized to interest expense on a straight-line basis through December 29, 2017, the initial expiration date of the swaps. On December 18, 2015, we terminated the interest rate swaps by paying off the outstanding liability balance of \$2.7 million. Prior to terminating the swaps, changes in the fair value of the swaps for the year ended December 31, 2015, resulted in a loss of \$0.8 million recorded in other income and expense.

On December 18, 2015, we entered into interest rate cap agreements with various counter-parties that effectively cap our LIBOR exposure on a portion of our existing senior secured term loans or similar replacement debt at 0.75% beginning June 30, 2016. We have designated these cap agreements as cash flow hedges. The initial aggregate notional amount under these agreements was \$1,526.4 million and decreases each quarter beginning September 30, 2016, until the agreement terminates on June 30, 2020. In July 2016, we began to pay the various counter-parties a fixed rate on the outstanding notional amounts of between 0.98% and 0.994% and receive payments to the extent LIBOR exceeds 0.75%.

The interest rate caps are recorded on the balance sheet at fair value. The effective portion of changes in the fair value of the interest rate cap agreements is recorded in other comprehensive income (loss). The ineffective portion of changes in the fair value of the caps, which is due to, and will continue to result from, the cost of financing the cap premium, is recorded in other income and expense. The effective portion of the change in the fair value of the caps resulted in an unrealized loss of \$7.5 million and an unrealized gain of \$0.3 million, net of tax, recorded in other comprehensive income for the years ended December 31, 2016 and December 31, 2015, respectively. The ineffective portion of the change in the fair value of the caps resulted in a loss of \$0.5 million and a gain of \$0.1 million recorded in other income and expense for the years ended December 31, 2016 and December 31, 2015, respectively.

In accordance with ASC 815, the fair value of the interest rate caps at inception is reclassified from other comprehensive income to interest expense in the same period the interest expense on the underlying hedged debt impacts earnings. Based on how the fair value of interest rate caps are determined, the earlier interest periods have lower fair values at inception than the later interest periods, resulting in less interest expense being recognized in the earlier periods compared with the later periods. Any payments we receive to the extent LIBOR exceeds 0.75% is also reclassified from other comprehensive income to interest expense in the period received. Interest expense reclassified from other comprehensive income to interest expense related to the fair value of the portion of the caps expiring in the twelve-month period of 2016 was \$1.6 million. We expect to reclassify approximately \$6.0 million from other comprehensive income to interest expense related to the fair value of the portion of the caps expiring and payments received to the extent LIBOR exceeds 0.75% in the next twelve months.

Fair Value of Debt

As of December 31, 2016, the fair value of our variable-rate Senior Secured Term Loan A, excluding original issue discounts and deferred fees, approximates the carrying value. As of December 31, 2016, the fair value of our Senior Secured Term Loan B, excluding original issue discounts and deferred fees, was approximately \$2,020.3 million. The fair values of our variable-rate term loans are determined using Level 2 inputs, quoted market prices for these publicly traded instruments.

11. Stockholders' Equity

Stock Split

During 2015, we effected a 1.333 to 1 stock split of our common stock. All periods presented in these financial statements reflect this split. The impact of the split resulted in a reclassification of the beginning balance of additional paid-in capital to common stock to reflect the increase in par value.

Preferred Stock

As of December 31, 2016 and 2015, we had 100.0 million shares of preferred stock authorized and no preferred stock issued or outstanding.

Redeemable Non-controlling Interest

During the first quarter of 2016, redeemable noncontrolling interest increased \$59.5 million, due to our purchase of CIFIN and our exercise of our call rights on the Drivers History Information Sales, LLC ("DHI") noncontrolling interest. During the second quarter of 2016, we redeemed all of our redeemable noncontrolling interest in CIFIN and DHI, resulting in no redeemable noncontrolling interest at December 31, 2016.

12. Earnings Per Share

Basic earnings per share represents income available to common stockholders divided by the weighted average number of common shares outstanding during the reported period. Diluted earnings per share reflects the effect of the increase in shares outstanding determined by using the treasury stock method for awards issued under our incentive stock plans.

As of December 31, 2016, there were 0.1 million anti-dilutive weighted stock-based awards outstanding. In addition, there were 5.9 million contingently issuable market-based stock awards outstanding that were excluded from the diluted earnings per share calculation because the contingencies had not been met. As of December 31, 2015, there were less than 0.1 million weighted anti-dilutive stock-based awards outstanding. In addition, there were 6.1 million contingently issuable market-based stock awards outstanding that were excluded from the diluted earnings per share calculation because the contingencies had not been met. As of December 31, 2014, there were 4.1 million outstanding service-based stock awards excluded from the diluted earnings per share calculation because they were anti-dilutive since we reported a net loss in the period. In addition, there were 6.2 million contingently issuable market-based stock awards outstanding that were excluded from the diluted earnings per share calculations because the contingencies had not been met.

Basic and diluted weighted average shares outstanding and earnings per share were as follows:

<u>(in millions)</u>	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Earnings per share - basic			
Earnings (loss) available to common shareholders	\$ 120.6	\$ 5.9	\$ (12.5)
Weighted average shares outstanding	182.6	165.3	147.3
Earnings (loss) per share - basic	<u>\$ 0.66</u>	<u>\$ 0.04</u>	<u>\$ (0.09)</u>
Earnings per share - diluted			
Earnings (loss) available to common shareholders	\$ 120.6	\$ 5.9	\$ (12.5)
Weighted average shares outstanding	182.6	165.3	147.3
Dilutive impact of stock based awards	2.0	1.5	—
Weighted average dilutive shares outstanding	184.6	166.8	147.3
Earnings (loss) per share - diluted	<u>\$ 0.65</u>	<u>\$ 0.04</u>	<u>\$ (0.09)</u>

13. Income Taxes

The provision (benefit) for income taxes consisted of the following:

<u>(in millions)</u>	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Federal			
Current	\$ 53.9	\$ 3.8	\$ (0.1)
Deferred	(21.3)	(8.2)	(15.9)
State			
Current	6.9	(0.3)	0.4
Deferred	10.6	(5.5)	0.1
Foreign			
Current	35.4	25.1	23.1
Deferred	(11.5)	(3.6)	(5.0)
Total provision for income taxes	<u>\$ 74.0</u>	<u>\$ 11.3</u>	<u>\$ 2.6</u>

The components of income (loss) before income taxes consisted of the following:

<u>(in millions)</u>	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Domestic	\$ 128.0	\$ (30.5)	\$ (54.1)
Foreign	77.4	57.1	52.3
Income (loss) before income taxes	<u>\$ 205.4</u>	<u>\$ 26.6</u>	<u>\$ (1.8)</u>

The effective income tax rate reconciliation consisted of the following:

(in millions)	Twelve Months Ended December 31,					
	2016		2015		2014	
Income taxes at 35% statutory rate	\$ 71.9	35.0%	\$ 9.3	35.0%	\$(0.6)	35.0%
Increase (decrease) resulting from:						
State taxes, net of federal benefit	15.4	7.5%	(5.8)	(21.8)%	0.4	(23.9)%
Foreign rate differential	(1.8)	(0.9)%	(2.6)	(9.9)%	(1.8)	98.7%
Current year tax impact of unremitted foreign earnings . .	7.7	3.7%	11.1	41.8%	5.6	(308.4)%
Impact of foreign dividends	0.1	—%	0.1	0.2%	—	(1.6)%
DPAD & R&D tax credit	(5.0)	(2.4)%	—	—%	—	—%
International restructuring	(13.6)	(6.6)%	—	—%	—	—%
Other	(0.7)	(0.3)%	(0.8)	(2.9)%	(1.0)	56.0%
Total	<u>\$ 74.0</u>	<u>36.0%</u>	<u>\$11.3</u>	<u>42.4%</u>	<u>\$ 2.6</u>	<u>(144.2)%</u>

For 2016, we reported income before income taxes and a 36.0% effective tax rate, which is higher than the 35.0% U.S. federal statutory rate due primarily to increases resulting from changes to our state tax assumptions and tax on our foreign earnings that are not considered permanently reinvested outside the United States, partially offset by decreases resulting from the impact of international restructuring and Internal Revenue Code Section 199 Domestic Productions Activities Deduction (“DPAD”) and Research and Development (“R&D”) tax credits.

For 2015, we reported income before income taxes and a 42.4% effective tax rate, which is higher than the 35.0% U.S. federal statutory rate due primarily to tax on our foreign earnings that are not considered permanently reinvested outside the United States, partially offset by a favorable foreign tax rate differential and a credit to deferred state tax expense for changes in state tax rates.

For 2014, we reported a loss before income taxes with income tax expense, resulting in a negative effective tax rate for the period. This rate was lower than the 35.0% U.S. federal statutory rate due primarily to tax on our foreign earnings that are not considered permanently reinvested outside the United States.

As of December 31, 2016, no provision has been made for U.S. income taxes or foreign withholding taxes on \$179.3 million of unremitted earnings from certain foreign subsidiaries that we assert are permanently reinvested in operations outside the United States. Remitting these earnings to the United States would result in additional tax expense of approximately \$63 million, assuming we cannot use any of the related foreign tax credits. As of December 31, 2016, we have made a provision for U.S. income taxes and foreign withholding taxes of \$45.4 million on \$125.3 million of unremitted earnings from certain other foreign subsidiaries, as those earnings are not permanently reinvested outside the United States.

Components of net deferred income tax consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Deferred income tax assets:		
Compensation	\$ 20.1	\$ 13.7
Employee benefits	4.9	5.8
Legal reserves and settlements	7.4	5.1
Hedge investments	4.8	0.2
Financing related costs	4.2	4.1
Loss and credit carryforwards	84.9	96.2
Other	<u>10.0</u>	<u>7.8</u>
Gross deferred income tax assets	136.3	132.9
Valuation allowance	<u>(59.2)</u>	<u>(46.7)</u>
Total deferred income tax assets, net	<u>\$ 77.1</u>	<u>\$ 86.2</u>
Deferred income tax liabilities:		
Depreciation and amortization	\$(604.5)	\$(606.2)
Investments in affiliated companies	—	(14.9)
Taxes on undistributed foreign earnings	(49.7)	(49.8)
Other	<u>(1.9)</u>	<u>(3.7)</u>
Total deferred income tax liability	<u>(656.1)</u>	<u>(674.6)</u>
Net deferred income tax liability	<u><u>\$(579.0)</u></u>	<u><u>\$(588.4)</u></u>

Deferred tax assets and liabilities result from temporary differences between tax and accounting policies. If certain deferred tax assets are not likely to be recovered in future years, a valuation allowance is recorded. During 2016, our valuation allowance increased \$12.5 million primarily due to the current year foreign tax credit carryforward. As of December 31, 2016 and 2015, a valuation allowance of \$59.2 million and \$46.7 million, respectively, reduced deferred tax assets generated by capital loss, U.S. net operating loss, foreign loss, foreign tax credit and certain state net operating loss carryforwards. Our capital loss carryforward will expire over three to five years, our U.S. net operating loss over eleven to seventeen years, our foreign loss carryforward over three to an indefinite numbers of years, our foreign tax credit carryforward over the next ten years, and our state net operating loss carryforward over the next five to fourteen years.

The total amount of unrecognized tax benefits as of December 31, 2016 and 2015, was \$4.8 million and \$1.9 million, respectively. These same amounts would affect the effective tax rate, if recognized.

The total amount of unrecognized tax benefits consisted of the following:

<u>(in millions)</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Balance as of beginning of period	\$ 1.9	\$ 1.9
Increase in tax positions of prior years	0.7	0.1
Increase for tax positions of current year	2.5	—
Decrease in tax positions due to settlement and lapse of statute	<u>(0.3)</u>	<u>(0.1)</u>
Balance as of end of period	<u><u>\$ 4.8</u></u>	<u><u>\$ 1.9</u></u>

We classify interest on unrecognized tax benefits as interest expense and income tax penalties as other income or expense in the consolidated statements of income. We classify any interest or income tax penalties related to

unrecognized tax benefits as other liabilities in the consolidated balance sheets. Interest expense related to taxes was insignificant for the years ended December 31, 2016, 2015 and 2014. As of December 31, 2016 and 2015, accrued interest payable for taxes was also insignificant. There was no significant expense recognized for tax penalties for the years ended December 31, 2016, 2015 or 2014, and no significant liability recorded for tax penalties as of December 31, 2016 or 2015.

We are regularly audited by federal, state and foreign taxing authorities. Given the uncertainties inherent in the audit process, it is reasonably possible that certain audits could result in a significant increase or decrease in the total amounts of unrecognized tax benefits. An estimate of the range of the increase or decrease in unrecognized tax benefits due to audit results cannot be made at this time. Tax years 2008 and forward remain open for examination in some state and foreign jurisdictions, and tax years 2012 and forward remain open for examination for U.S. federal purposes.

14. Stock-Based Compensation

For the years ended December 31, 2016, 2015 and 2014, we recognized stock-based compensation expense of \$31.2 million, \$22.3 million and \$10.6 million, respectively, with related income tax benefits of approximately \$11.3 million, \$8.3 million and \$3.8 million, respectively. Of the stock-based compensation expense recognized in 2016, 2015 and 2014, \$6.8 million, \$13.3 million and \$2.6 million, respectively, was from cash-settleable awards.

On June 4, 2015, in anticipation of our IPO, our board of directors authorized and we effected a 1.333 to 1 stock split of our common stock. All periods presented in these financial statements reflect this split. See Note 11, “Stockholders’ Equity” for further discussion on the stock split.

Under the TransUnion Holding Company, Inc. 2012 Management Equity Plan (the “2012 Plan”), stock-based awards could be issued to executive officers, employees and independent directors of the Company. A total of 10.1 million shares were authorized for grant under the 2012 Plan. Effective upon the closing of the IPO, the Company’s board of directors and its stockholders adopted the TransUnion 2015 Omnibus Incentive Plan (the “2015 Plan”) and no more shares can be issued under the 2012 Plan. A total of 5.4 million shares have been authorized for grant under the 2015 Plan. The 2015 Plan provides for the granting of stock options, restricted stock and other stock-based or performance-based awards to key employees, directors or other persons having a service relationship with the Company and its affiliates.

For all equity-based plans, we estimate expected forfeitures and make adjustments during the year for actual forfeitures. We review our estimates at least annually to determine if adjustments are needed to our estimate.

Effective upon the closing of the IPO, the Company’s board of directors and its stockholders adopted the TransUnion 2015 Employee Stock Purchase Plan (the “ESPP”). A total of 2.4 million shares have been authorized to be issued under the ESPP. The ESPP provides certain employees of the Company with an opportunity to purchase the Company’s common stock at a discount. As of December 31, 2016, the Company has issued 41,868 shares of common stock under the ESPP.

2012 Plan

Stock Options

Stock-options granted under the 2012 Plan have a ten year term. For stock options granted to employees, 40% generally vest based on the passage of time (service condition options), and 60% generally vest based on the passage of time, subject to meeting certain shareholder return on investment conditions (market condition options). All stock options granted to independent directors vest based on the passage of time.

Service condition options were valued using the Black-Scholes valuation model and vest over a five year service period, with 20% generally vesting one year after the grant date, and 5% vesting each quarter thereafter. Compensation costs for the service condition options are recognized on a straight-line basis over the requisite service period for the entire award. Market condition options were valued using a risk-neutral Monte Carlo valuation model, with assumptions similar to those used to value the service condition options, and vest over a five year service period, contingent on meeting the market conditions. There were no stock options granted during 2016. The assumptions used to value the service condition options and the weighted-average grant date fair value for market condition options granted during 2015 and 2014 were as follows:

	Year Ended December 31,	
	2015	2014
<u>Service condition options:</u>		
Dividend yield	—	—
Expected volatility	40%-55%	55%-60%
Risk-free interest rate	1.7%-2.3%	0.9%-2.3%
Expected life, in years	6.4	5.9-6.4
Weighted-average grant date fair value	\$ 7.40	\$ 6.12
<u>Market condition options:</u>		
Weighted-average grant date fair value	\$ 7.15	\$ 5.59

The dividend yield was estimated to be zero because we do not expect to pay dividends in the future. The expected volatility was estimated based on comparable company volatility. The risk-free interest rate was derived from the constant maturity treasury curve for terms matching the expected life of the award. The expected life was calculated using the simplified method described in SAB No. 110 because at the time the options were valued we did not have sufficient historical data related to exercise behavior.

Stock option activity as of December 31, 2016 and 2015, and for the year ended December 31, 2016, consisted of the following:

	<u>Shares</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Contractual Term (in years)</u>	<u>Aggregate Intrinsic Value (in millions)</u>
Outstanding as of December 31, 2015	9,814,760	\$7.02	7.3	\$201.7
Granted	—	—		
Exercised	(783,550)	5.84		
Forfeited	(251,888)	9.40		
Expired	—	—		
Outstanding as of December 31, 2016	<u>8,779,322</u>	\$7.05	6.3	\$209.6
Expected to vest as of December 31, 2016	6,787,907	\$7.11	6.3	\$161.7
Exercisable as of December 31, 2016	1,842,076	\$6.73	6.1	\$ 44.6

As of December 31, 2016, stock-based compensation expense remaining to be recognized in future years related to options, excluding an estimate for forfeitures, was \$5.1 million for service condition options and \$3.9 million for market condition options, with weighted-average recognition periods of 2.1 years and 2.0 years, respectively. During 2016, cash received from the exercise of stock options was \$4.6 million and the tax benefit realized from exercise of stock options was \$7.2 million.

The intrinsic value of options exercised and the fair value of options vested for the periods presented are as follows:

<u>(in millions)</u>	<u>Year Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Intrinsic value of options exercised	\$19.4	\$5.2	\$1.1
Total fair value of options vested	\$ 3.9	\$3.8	\$3.0

Stock appreciation rights

The Company granted no stock appreciation rights during the year ended December 31, 2016. During the years ended December 31, 2015 and 2014, the Company granted 0.1 million and 0.1 million stock appreciation rights (“SARs”), respectively, with weighted-average exercise prices of \$21.00 and \$10.94, respectively. The SARs have a ten year term, with 40% vesting over a five year service period and 60% vesting over a five year service period, subject to meeting certain shareholder return on investment conditions. The SARs are cash-settleable and are accounted for as liability awards, with expense recognized based on our stock price and the percentage of requisite service rendered at the end of each reporting period.

During the year ended December 31, 2016, 0.1 million SARs vested, less than 0.1 million SARs were forfeited, and 0.1 million SARs were exercised. During years ended December 31, 2016, 2015, and 2014, \$1.8 million, \$0.4 million, and \$0.1 million, respectively, of share-based liabilities were paid for SARs that were exercised during the year. Stock-based compensation expense remaining to be recognized in future years related to SARs was \$3.4 million based on the fair value of the awards at December 31, 2016. As of December 31, 2016, there were 0.7 million SARs outstanding.

Restricted stock

During 2015, the Company granted 49,187 shares of restricted stock under the 2012 Plan that cliff vested on December 31, 2016. The weighted average grant date fair value was \$20.34. As of December 31, 2016, there was no stock-based compensation expense remaining to be recognized in future years related to restricted stock granted under the 2012 plan.

2015 Plan

Restricted Stock Units

During 2016, restricted stock units were granted under the 2015 Plan. Restricted stock units issued to date generally consist of: 50% service-based restricted stock units that vest based on passage of time; 25% revenue-based performance restricted stock units that vest based on the passage of time, subject to meeting certain 3-year revenue cumulative annual growth rate (“CAGR”) targets; 12.5% Adjusted EBITDA-based performance restricted stock units that vest based on the passage of time, subject to meeting certain 3-year Adjusted EBITDA CAGR targets; and 12.5% market-based restricted stock units that vest based on the passage of time, subject to meeting certain relative total shareholder return metrics. Restricted stock units generally vest three years from the grant date, subject to meeting any performance and market conditions.

Service-based and performance-based restricted stock units are valued on the award grant date at the closing market price of our stock. Market-based awards are valued using a risk-neutral Monte-Carlo model, with assumptions similar to those used to value the 2012 Plan market-condition options, based on conditions that existed on the grant date of the award.

Restricted stock unit activity as of December 31, 2016, and for the year ended December 31, 2016, consisted of the following:

	<u>Shares</u>	<u>Weighted Average Grant Date Fair Value</u>	<u>Weighted Average Remaining Contractual Term (in years)</u>	<u>Aggregate Intrinsic Value (in millions)</u>
Outstanding as of December 31, 2015	—	\$ —	—	\$ —
Granted	1,277,271	26.36		
Vested	(2,538)	26.25		
Forfeited	(27,669)	26.25		
Expired	—	—		
Outstanding as of December 31, 2016	1,247,064	\$26.37	2.1	\$38.6
Expected to vest as of December 31, 2016	1,588,381	\$26.09	2.1	\$49.1

The fair value and intrinsic value of restricted stock units that vested during the year ended December 31, 2016, was \$0.1 million. As of December 31, 2016, stock-based compensation expense remaining to be recognized in future years related to restricted stock units, excluding an estimate for forfeitures, was \$32.7 million, with weighted-average recognition periods of 2.2 years.

Restricted stock

During 2016, the Company granted 24,800 shares of restricted stock under the 2015 Plan that vest one year from the grant date. The weighted average grant date fair value was \$30.24. As of December 31, 2016, stock-based compensation expense remaining to be recognized in future years related to these shares of restricted stock was \$0.3 million, with a weighted average recognition period of five months.

Other

In connection with an acquisition we made in 2014, the Company issued equity awards to certain employees of the acquired company in exchange for stock awards they held prior to the acquisition. The new awards were for pre- and post-acquisition services. As a result, the Company recorded a \$1.3 million acquisition date opening liability, and \$0.8 million and \$4.3 million of stock-based compensation expense in 2016 and 2015, respectively. During 2016, the entire \$6.4 million cash-settleable award was paid in full.

In connection with an acquisition we made in 2015, the Company issued equity awards to certain employees for post-acquisition services. As a result, the Company recorded \$0.2 million of stock-based compensation expense in 2016. These awards are cash-settleable and accounted for as liability awards, with the liability valued at the probability-weighted expected payout at the end of each period.

15. Fair Value

The following table summarizes financial instruments measured at fair value, on a recurring basis, as of December 31, 2016:

<u>(in millions)</u>	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
<u>Assets</u>				
Trading securities	\$ 12.4	\$8.2	\$ 4.2	\$ —
Available-for-sale securities	3.3	—	3.3	—
Total	<u>\$ 15.7</u>	<u>\$8.2</u>	<u>\$ 7.5</u>	<u>\$ —</u>
<u>Liabilities</u>				
Interest rate caps	\$ (6.1)	\$ —	\$(6.1)	\$ —
Contingent consideration	(17.6)	—	—	(17.6)
Total	<u>\$(23.7)</u>	<u>\$ —</u>	<u>\$(6.1)</u>	<u>\$(17.6)</u>

Level 1 instruments consist of exchange-traded mutual funds. Exchange-traded mutual funds are trading securities valued at their current market prices. These securities relate to a nonqualified deferred compensation plan held in trust for the benefit of plan participants.

Level 2 instruments consist of pooled separate accounts, foreign exchange-traded corporate bonds and interest rate caps. Pooled separate accounts are designated as trading securities valued at net asset values. These securities relate to the nonqualified deferred compensation plan held in trust for the benefit of plan participants. Foreign exchange-traded corporate bonds are available-for-sale securities valued at their current quoted prices. These securities mature between 2027 and 2033. The interest rate caps fair values are determined using the market standard methodology of discounting the future expected cash receipts that would occur if variable interest rates rise above the strike rate of the caps in conjunction with the cash payments related to financing the premium of the interest rate caps. The variable interest rates used in the calculation of projected receipts on the caps are based on an expectation of future interest rates derived from observable market interest rate curves and volatilities. See Note 10, "Debt" for additional information regarding interest rate caps.

Unrealized gains and losses on trading securities are included in net income, while unrealized gains and losses on available-for-sale securities are included in other comprehensive income. There were no significant realized or unrealized gains or losses on our securities for any of the periods presented.

Level 3 instruments consist of contingent consideration obligations related to companies we have acquired, with maximum remaining payouts totaling \$34.1 million. These obligations are contingent upon meeting certain performance requirements through 2018. The fair values of these obligations were determined based on an income approach, using our current expectations of the future earnings of the acquired entities. We assess the fair value of these obligations each reporting period with any changes reflected as gains or losses in selling, general and administrative expenses in the consolidated statements of income. During 2016, we recorded a gain of \$0.1 million as a result of changes to the fair value of these obligations.

16. Reportable Segments

The segment financial information is reported on the basis that is used for the internal evaluation of operating performance. The accounting policies of the segments are the same as described in Note 1, "Significant Accounting and Reporting Policies."

In the first quarter of 2016, we moved our direct-to-consumer reseller business and reallocated certain other costs related to our consumer facing business in the U.S. from our USIS segment to our Consumer Interactive segment.

These changes better reflect the evolution of our consumer facing business in the U.S. and how we manage that business. As a result, we modified our segment reporting effective the first quarter of 2016. In conjunction with this change we also reclassified \$105.0 million of goodwill from our USIS segment to our Consumer Interactive segment. The segment results below have been recast to reflect these changes for all periods presented. These changes do not impact our consolidated results.

We evaluate the performance of segments based on revenue and operating income. The following is a more detailed description of the three reportable segments and the Corporate unit, which provides support services to each segment:

U.S. Information Services

U.S. Information Services (“USIS”) provides consumer reports, risk scores, analytical and decisioning services to businesses. These businesses use our services to acquire new customers, assess consumer ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and investigate potential fraud. The core capabilities and delivery platforms in our USIS segment allow us to serve a broad set of customers and business issues. We offer our services to customers in financial services, insurance, healthcare and other industries.

International

The International segment provides services similar to our USIS segment to businesses in select regions outside the United States. Depending on the maturity of the credit economy in each country; services may include credit reports, analytics and decisioning services and other value-added risk management services. In addition, we have insurance, business and automotive databases in select geographies. These services are offered to customers in a number of industries including financial services, insurance, automotive, collections and communications, and are delivered through both direct and indirect channels. The International segment also provides consumer services similar to those offered by our Consumer Interactive segment that help consumers proactively manage their personal finances.

Consumer Interactive

Consumer Interactive offers solutions that help consumers manage their personal finances and take precautions against identity theft. Services in this segment include credit reports and scores, credit monitoring, fraud protection and resolution and financial management. Our products are provided through user friendly online and mobile interfaces and are supported by educational content and customer support. Our Consumer Interactive segment serves consumers through both direct and indirect channels.

Corporate

In addition, Corporate provides support services for each of the segments, holds investments, and conducts enterprise functions. Certain costs incurred in Corporate that are not directly attributable to one or more of the segments remain in Corporate. These costs are typically enterprise-level costs and are primarily administrative in nature.

Selected segment financial information consisted of the following:

<u>(in millions)</u>	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Gross revenues			
U.S. Information Services	\$1,045.1	\$ 924.5	\$ 811.5
International	313.9	269.6	257.7
Consumer Interactive	407.1	369.8	294.0
Total revenues, gross	<u>\$1,766.0</u>	<u>\$1,563.9</u>	<u>\$1,363.3</u>
Intersegment revenue eliminations:			
U.S. Information Services	\$ (57.0)	\$ (53.9)	\$ (56.3)
International	(4.0)	(3.2)	(2.2)
Consumer Interactive	—	—	—
Total intersegment eliminations	<u>(61.1)</u>	<u>(57.1)</u>	<u>(58.5)</u>
Total revenues, net	<u>\$1,704.9</u>	<u>\$1,506.8</u>	<u>\$1,304.7</u>
Operating income:			
U.S. Information Services	\$ 203.5	\$ 130.5	\$ 102.4
International	49.8	21.2	22.8
Consumer Interactive	168.9	137.2	93.4
Corporate	(121.6)	(91.8)	(90.1)
Total operating income	<u>\$ 300.5</u>	<u>\$ 197.1</u>	<u>\$ 128.4</u>
Intersegment operating income eliminations:			
U.S. Information Services	\$ (55.5)	\$ (52.4)	\$ (54.9)
International	(3.0)	(1.9)	(0.6)
Consumer Interactive	58.5	54.4	55.5
Corporate	—	—	—
Total intersegment eliminations	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

As a result of displaying amounts in millions, rounding differences may exist in the table above.

A reconciliation of operating income to income (loss) before income taxes for the periods presented is as follows:

<u>(in millions)</u>	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Operating income from segments	\$300.5	\$ 197.1	\$ 128.4
Non-operating income and expense	(95.1)	(170.5)	(130.2)
Income (loss) before income tax	<u>\$205.4</u>	<u>\$ 26.6</u>	<u>\$ (1.8)</u>

Earnings from equity method investments included in non-operating income and expense was as follows:

<u>(in millions)</u>	Twelve Months Ended December 31,		
	2016	2015	2014
U.S. Information Services	\$1.9	\$1.8	\$ 1.2
International	6.7	7.0	11.3
Total	<u>\$8.6</u>	<u>\$8.8</u>	<u>\$12.5</u>

Total assets, by segment, consisted of the following:

<u>(in millions)</u>	December 31, 2016	December 31, 2015
U.S. Information Services	\$2,762.8	\$2,762.9
International	1,460.1	1,169.0
Consumer Interactive	417.7	404.0
Corporate	140.6	106.9
Total	<u>\$4,781.2</u>	<u>\$4,442.8</u>

Cash paid for capital expenditures, by segment, was as follows:

<u>(in millions)</u>	Twelve Months Ended December 31,		
	2016	2015	2014
U.S. Information Services	\$ 82.5	\$ 86.5	\$ 99.6
International	30.2	29.8	30.1
Consumer Interactive	9.1	7.9	5.3
Corporate	2.2	8.0	20.2
Total	<u>\$124.0</u>	<u>\$132.2</u>	<u>\$155.2</u>

Depreciation and amortization expense by segment was as follows:

<u>(in millions)</u>	Twelve Months Ended December 31,		
	2016	2015	2014
U.S. Information Services	\$191.0	\$206.2	\$174.7
International	57.2	55.1	51.0
Consumer Interactive	11.7	11.8	10.3
Corporate	5.3	5.3	5.2
Total	<u>\$265.2</u>	<u>\$278.4</u>	<u>\$241.2</u>

Percentage of revenue based on where it was earned, was as follows:

	Twelve Months Ended December 31,		
	2016	2015	2014
Domestic	82%	82%	80%
International	18%	18%	20%

Percentage of long-lived assets, other than financial instruments and deferred tax assets, based on the location of the legal entity that owns the asset, was as follows:

	As of December 31,		
	2016	2015	2014
Domestic	78%	83%	82%
International	22%	17%	18%

17. Commitments

Future minimum payments for noncancelable operating leases, purchase obligations and other liabilities in effect as of December 31, 2016, are payable as follows:

(in millions)	Operating Leases	Purchase Obligations	Total
2017	\$12.6	\$182.9	\$195.5
2018	11.0	40.2	51.2
2019	10.3	21.9	32.2
2020	9.9	18.0	27.9
2021	8.9	8.0	16.9
Thereafter	17.3	0.3	17.6
Totals	<u>\$70.0</u>	<u>\$271.3</u>	<u>\$341.3</u>

Purchase obligations include \$114.2 million of trade accounts payable that were included in our balance sheet as of December 31, 2016. Purchase obligations include commitments for outsourcing services, royalties, data licenses, maintenance and other operating expenses. Rental expense related to operating leases was \$14.0 million, \$13.1 million and \$13.4 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Licensing agreements

We have agreements with Fair Isaac Corporation to license credit-scoring algorithms and the right to sell credit scores derived from those algorithms. Payment obligations under these agreements vary due to factors such as the volume of credit scores we sell, what type of credit scores we sell, and how our customers use the credit scores. There are no minimum payments required under these licensing agreements. However, we do have a significant level of sales volume related to these credit scores.

18. Contingencies

Litigation

In addition to the matters described below, we are routinely named as defendants in, or parties to, various legal actions and proceedings relating to our current or past business operations. These actions generally assert claims for violations of federal or state credit reporting, consumer protection or privacy laws, or common law claims related to privacy, libel, slander or the unfair treatment of consumers, and may include claims for substantial or indeterminate compensatory or punitive damages, or injunctive relief, and may seek business practice changes. We believe that most of these claims are either without merit or we have valid defenses to the claims, and we vigorously defend these matters or seek non-monetary or small monetary settlements, if possible. However, due to the uncertainties inherent in litigation, we cannot predict the outcome of each claim in each instance.

In the ordinary course of business, we also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may

result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In connection with formal and informal inquiries by these regulators, we routinely receive requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of our activities.

In view of the inherent unpredictability of litigation and regulatory matters, particularly where the damages sought are substantial or indeterminate or when the proceedings or investigations are in the early stages, we cannot determine with any degree of certainty the timing or ultimate resolution of litigation and regulatory matters or the eventual loss, fines, penalties or business impact, if any, that may result. We establish reserves for litigation and regulatory matters when those matters present loss contingencies that are both probable and can be reasonably estimated. The actual costs of resolving litigation and regulatory matters, however, may be substantially higher than the amounts reserved for those matters, and an adverse outcome in certain of these matters could have a material adverse effect on our consolidated financial statements in particular quarterly or annual periods.

On a regular basis, we accrue reserves for litigation and regulatory matters based on our historical experience and our ability to reasonably estimate and ascertain the probability of any liability. However, for certain of the matters described below, we are not able to reasonably estimate our exposure because damages have not been specified and (i) the proceedings are in early stages, (ii) there is uncertainty as to the likelihood of a class being certified or the ultimate size of the class, (iii) there is uncertainty as to the outcome of similar matters pending against our competitors, (iv) there are significant factual issues to be resolved, and/or (v) there are legal issues of a first impression being presented. However, for these matters we do not believe based on currently available information that the outcomes will have a material adverse effect on our financial condition, though the outcomes could be material to our operating results for any particular period.

To reduce our exposure to an unexpected significant monetary award resulting from an adverse judicial decision, we maintain insurance that we believe is appropriate and adequate based on our historical experience. We regularly advise our insurance carriers of the claims (threatened or pending) against us in the course of litigation and generally receive a reservation of rights letter from the carriers when such claims exceed applicable deductibles. We are not aware of any significant monetary claim that has been asserted against us in the course of pending litigation that would not have some level of coverage by insurance after the relevant deductible, if any, is met.

As of December 31, 2016 and 2015, we accrued \$35.9 million and \$16.3 million, respectively, for anticipated claims. The increase at December 31, 2016 compared with December 31, 2015 was due primarily to our settlement with the CFPB. These amounts were recorded in other accrued liabilities in the consolidated balance sheets and the associated expenses were recorded in selling, general and administrative expenses in the consolidated statements of income. Legal fees incurred in connection with ongoing litigation are considered period costs and are expensed as incurred.

OFAC Alert Service

As a result of a decision by the United States Third Circuit Court of Appeals in 2010 In *Ramirez v. Trans Union LLC*, we modified one of our add-on services we offer to our business customers that was designed to alert our customer that the consumer, who was seeking to establish a business relationship with the customer, may potentially be on the Office of Foreign Assets Control, Specifically Designated National and Blocked Persons alert list (the "OFAC Alert"). The OFAC Alert service is meant to assist our customers with their compliance obligations in connection with the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001.

In *Ramirez v. Trans Union LLC*, (No. 3:12-cv-00632-JSC, United States District Court for the Northern District of California), filed in 2012, the plaintiff has alleged that: the OFAC Alert service does not comply with the *Cortez* ruling; we have willfully violated the Fair Credit Reporting Act ("FCRA") and the corresponding

California state-FCRA based on the *Cortez* ruling by continuing to offer the OFAC Alert service; and there are one or more classes of individuals who should be entitled to statutory damages (i.e., \$100 to \$5,000 per person) based on the allegedly willful violations. In addition to the *Ramirez* action, the same lawyers representing *Ramirez* (who also represented the plaintiff in *Cortez*) filed two additional alleged class actions in 2012 (*Miller v. Trans Union, LLC*, No. 12-1715-WJN, United States District Court for the Middle District of Pennsylvania; and *Larson v. Trans Union, LLC*, No. 12-5726-JSC, United States District Court for the Northern District of California) and one in 2014 (*Amit Patel, et al. v. TransUnion LLC, TransUnion Rental Screening Solutions, Inc. and TransUnion Background Data Solutions*, No. 14-cv-0522-LB, United States District Court for the Northern District of California) claiming that our process for disclosing OFAC information to consumers, or how we match OFAC information to a consumer's name or other identifying information, violates the FCRA and, in some instances, the corresponding California state-FCRA. In addition to the OFAC allegations, the plaintiff in the *Patel* action seeks to collapse all TransUnion FCRA regulated entities into a single entity. In July 2014, the Court in *Ramirez* certified a class of approximately 8,000 individuals solely for purposes of statutory damages if TransUnion is ultimately found to have willfully violated the FCRA, and a sub-class of California residents solely for purposes of injunctive relief under the California Consumer Credit Reporting Agencies Act. While the Court noted that the plaintiff is not seeking any actual monetary damage, the class certification order was predicated on a disputed question of Ninth Circuit law (currently there is a conflict between the federal circuits) that is awaiting action by the United States Supreme Court. Our motions to stay the *Ramirez*, *Miller* and *Larson* proceedings were granted and the proceedings stayed pending action by the U.S. Supreme Court in *Spokeo v. Robins*. In June 2015, the Court in *Patel* certified a national class of approximately 11,000 individuals with respect to allegations that TransUnion willfully violated the FCRA by failing to maintain and follow reasonable procedures to ensure the maximum possible accuracy of their information, and a national subclass of approximately 3,000 individuals with respect to allegations that TransUnion willfully violated the FCRA by failing to provide consumers with all information in their files. In September 2015, our motion to stay the *Patel* proceedings was granted and the proceedings stayed pending action by the U.S. Supreme Court in *Spokeo v. Robins*.

On May 16, 2016, the U.S. Supreme Court issued its decision in *Spokeo v. Robins*, holding that the injury-in-fact requirement for standing under Article III of the United States Constitution requires a plaintiff to allege an injury that is both "concrete and particularized." The Court held that the Ninth Circuit's analysis failed to consider concreteness in its analysis and vacated the decision and remanded to the Ninth Circuit to consider both aspects of the injury-in-fact requirement. Following the U.S. Supreme Court's decision, the stays in the *Ramirez*, *Miller*, *Larson* and *Patel* matters were lifted. In August 2016, the Court in *Larson* certified a class of approximately 18,000 California residents with respect to allegations that TransUnion failed to provide consumers with all information in their files in violation of the Fair Credit Reporting Act. In October 2016, the Court in *Larson* denied our petition for permission to appeal the class certification decision to the Ninth Circuit, and the Courts in *Ramirez* and *Patel* denied our motions to decertify the classes based on the implications of *Spokeo*. On January 17, 2017, the magistrate in *Miller* recommended that the Court find that the plaintiff has standing to bring suit in federal court, and that the motion for class certification should be granted. We intend to continue to defend these matters vigorously as we believe we have acted in a lawful manner.

Consumer Disclosure

In *Tyrone Henderson, et al. v. TransUnion LLC and TransUnion Rental Screening Solutions, Inc.* (No. 3:14-cv-00679-JAG, United States District Court for the Eastern District of Virginia (Richmond Division)), the plaintiffs have alleged that TransUnion's process for mailing required notices to consumers at the time it furnishes a consumer report for employment purposes that contains adverse public record information violates the FCRA. In May 2016, the Court in *Henderson* certified a national class of individuals with respect to these allegations. We intend to continue to defend this matter vigorously as we believe we have acted in a lawful manner.

CFPB Investigation

In September 2015, we received a Civil Investigative Demand (a “CID”) from the CFPB. The CID was focused on common industry practices relating to the advertising, marketing and sale of consumer reports, credit scores or credit monitoring products to consumers by our Consumer Interactive segment. On December 22, 2016, we agreed to settle with the CFPB and executed and delivered a “Stipulation and Consent to the Issuance of a Consent Order,” pursuant to which we accepted the issuance of a consent order (the “Consent Order”) by the CFPB requiring us to:

- implement certain agreed practice changes in the way we advertise, market and sell products and services offered directly to consumers, including more robust disclosures regarding the nature of the credit score being provided as well as confirming consumer consent if the product or service is being sold through the use of a negative option feature (i.e., a trial period becomes a recurring paid subscription unless the consumer affirmatively cancels their registration); and
- develop and submit to the CFPB for approval a comprehensive compliance plan detailing the steps for addressing each action required by the terms of the Consent Order and specific time frames and deadlines for implementation.

The CFPB issued the Consent Order reflecting the agreed settlement on January 3, 2017. We incurred a one-time charge of approximately \$19.4 million in the fourth quarter of 2016, consisting of the following: approximately \$13.9 million for redress to eligible consumers; a civil money penalty to be paid to the CFPB in the amount of \$3.0 million; and our current estimate of \$2.5 million for additional administrative, legal and compliance costs we will incur in connection with the settlement. We expect to pay this liability 2017.

19. Related-Party Transactions

Stockholder Agreement

TransUnion was formed by affiliates of Advent International Corporation (“Advent”) and Goldman, Sachs & Co. (“GS”) on February 15, 2012. In connection with our IPO, TransUnion, Advent and GS amended the Major Stockholders’ Agreement. Among other things, under the terms of the amended agreement, Advent and GS each have the right to appoint two members to TransUnion’s board of directors. As of December 31, 2016, Advent and GS collectively own approximately 50.8% of our outstanding stock.

Consulting Agreement

In connection with our consulting agreement with Advent and GS, we incurred fees from each of them for the years ended December 31, 2015 and 2014, of \$0.1 million and \$0.3 million, respectively. This agreement terminated upon completion of our IPO.

In connection with his resignation as President and Chief Executive Officer of the Company, TransUnion and Siddharth N. (Bobby) Mehta, a director of the Company, entered into a consulting agreement, dated December 6, 2012, pursuant to which Mr. Mehta provided advice and consultation to assist Mr. Peck in the transition of duties as Chief Executive Officer and to Mr. Peck and the Board of Directors with respect to the Company’s strategic operating plan and strategic opportunities or transactions considered by the Company from time to time. Pursuant to the terms of the agreement, Mr. Mehta received a consulting fee of \$0.2 million on or before January 10 of each year during the term of the agreement. This agreement terminated on December 31, 2015.

Data and Data Services

In 2015 and 2016, we entered into a series of transactions with affiliates of GS to license data and provide data services that we offer to all of our business customers. In connection with these transactions, we received aggregate fees of approximately \$1.4 million and \$0.2 million in 2016 and 2015, respectively.

Debt and Hedge Activities

As of December 31, 2016 and 2015, interest accrued on our debt and hedge owed to related parties was less than \$0.1 million for each period. As of December 31, 2016 and 2015, there was approximately \$61.5 million and \$64.8 million, respectively, of our Term Loan A owed to affiliates of GS. As of December 31, 2016 and 2015, there were no outstanding borrowings of our senior secured revolving line of credit owed to affiliates of GS. During 2015, we terminated our interest rate swap agreements, paying affiliates of GS \$1.7 million, and entered into new interest rate cap agreements with various counter-parties including an affiliate of GS. As of December 31, 2016 and 2015, the GS proportion of the fair value of the cap was a liability of \$1.5 million and an asset \$0.1 million, respectively. For the years ended December 31, 2016, 2015 and 2014 affiliates of GS were paid \$3.9 million, \$2.0 million and \$1.5 million, respectively, of interest expense and fees related to debt and hedge instruments.

Financing Transactions

In connection with our 2015 refinancing transaction, affiliates of GS were paid \$0.1 million of fees. In connection with the refinancing of our senior secured credit facility on April 9, 2014, affiliates of GS were paid \$4.4 million in arrangement fees.

Investment in Affiliated Companies

During the normal course of business we enter into transactions with companies that we hold an equity interest in. These transactions include selling and purchasing software data and professional services.

Use of IPO Proceeds

In connection with our IPO, we paid underwriting discounts and commissions of approximately \$8.8 million to Goldman, Sachs & Co., affiliates of which owned approximately 39.7% of our outstanding common stock at the time of our IPO. Messrs. Klemann and Rajpal, each of whom was a member of our Board of Directors at the time of our IPO, are both Managing Directors at Goldman, Sachs & Co.

Directed Share Program

At our request, the underwriters reserved up to 1,477,273 shares of common stock, or approximately 5% of our IPO shares, for sale at the IPO to our directors, officers, employees and certain other persons associated with us. Of these shares, 1,042,395 were sold to our directors, officers and employees and certain other persons associated with us.

Issuances of Common Stock

During 2015, the Company sold an aggregate of 32,277 shares of common stock at a weighted-average purchase price of \$13.06 per share to an executive officer and director of the Company.

During 2014, the Company sold an aggregate of 369,905 shares of common stock at a weighted-average purchase price of \$10.63 per share to executive officers of the Company.

20. Quarterly Financial Data (Unaudited)

The quarterly financial data for 2016 and 2015 consisted of the following:

(in millions)	Three Months Ended			
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Revenue	\$435.9	\$437.6	\$425.7	\$405.7
Operating income	89.3	95.8	63.5	51.9
Net income	52.6	44.5	19.7	14.6
Net income attributable to TransUnion	49.5	41.2	17.3	12.6
Earnings per share:				
Basic	\$ 0.27	\$ 0.23	\$ 0.09	\$ 0.07
Diluted	\$ 0.27	\$ 0.22	\$ 0.09	\$ 0.07

(in millions)	Three Months Ended			
	December 31, 2015	September 30, 2015	June 30, 2015	March 31, 2015
Revenue	\$386.1	\$389.1	\$378.5	\$353.1
Operating income	48.9	60.3	51.4	36.5
Net income (loss)	21.1	(1.0)	(0.4)	(4.4)
Net income (loss) attributable to TransUnion	19.2	(4.0)	(2.6)	(6.6)
Earnings (loss) per share:				
Basic	\$ 0.11	\$ (0.02)	\$ (0.02)	\$ (0.04)
Diluted	\$ 0.10	\$ (0.02)	\$ (0.02)	\$ (0.04)

As a result of displaying amounts in millions, rounding differences compared to the annual totals may exist in the table above.

21. Accumulated Other Comprehensive Income (Loss)

The following table sets forth the changes in each component of accumulated other comprehensive income (loss), net of tax:

(in millions)	Foreign Currency Translation Adjustment	Net Unrealized Gain/(Loss) On Hedges	Net Unrealized Gain/(Loss) On Available-for-sale Securities	Accumulated Other Comprehensive Income / (Loss)
Balance, December 31, 2013	\$ (72.6)	\$(0.6)	\$ —	\$ (73.2)
Change	(44.2)	(0.2)	0.1	(44.3)
Balance, December 31, 2014	\$(116.8)	\$(0.8)	\$0.1	\$(117.5)
Change	(74.8)	0.5	—	(74.3)
Balance, December 31, 2015	\$(191.6)	\$(0.3)	\$0.1	\$(191.8)
Change	24.0	(7.2)	0.2	17.0
Balance, December 31, 2016	\$(167.6)	\$(7.5)	\$0.3	\$(174.8)

22. Subsequent Events

On January 31, 2017, we amended certain provisions to our Senior Secured Term Loan B. Key provisions to the amendment included a two year extension of the maturity date from April 2021 to April 2023, a 0.25% reduction in the applicable margin and a reduction in the LIBOR floor to zero from 0.75%.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. The term “disclosure controls and procedures” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this report, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Financial Statements and Assessment of Internal Control over Financial Reporting

Financial Statements

Management of TransUnion is responsible for the preparation of the TransUnion financial information included in this Annual Report on Form 10-K. The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and include amounts that are based on the best estimates and judgments of management.

Assessment of Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. TransUnion'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 U.S. generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that:

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

Because of the inherent limitations in any control, no matter how well designed, internal control over financial reporting may not prevent or detect misstatements. Accordingly, even effective internal control over financial reporting can only provide reasonable assurance with respect to financial statement preparation. 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.

Management assessed the effectiveness of TransUnion's internal control over financial reporting as of December 31, 2016. Management based this assessment on the criteria for effective internal control over financial reporting described in *Internal Control—Integrated Framework* as issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls over financial reporting of Central de Informacion Financiera S.A. ("CIFIN"), which we acquired on February 8, 2016, and is included in the 2016 consolidated financial statements of TransUnion and subsidiaries from the date of acquisition. CIFIN constituted approximately 5% and 15% of total and net assets, respectively, as of December 31, 2016, and approximately 1% and 7% of revenues and net income, respectively, for the year then ended. Management's assessment included an evaluation of the design of TransUnion's internal control over financial reporting and testing of the operational effectiveness of its internal control over financial reporting. Management reviewed the results of its assessment with the Audit and Compliance Committee of TransUnion's Board of Directors. Our independent registered public accounting firm, Ernst & Young LLP, has issued an attestation report on TransUnion's internal control over financial reporting that is included in this Annual Report on Form 10-K.

Based on our assessment, management determined that, as of December 31, 2016, TransUnion's internal control over financial reporting was effective.

Changes in internal control over financial reporting

During the quarter ended December 31, 2016, there have been no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be held on May 3, 2017, which will be filed with the SEC within 120 days of the end of our fiscal year ended December 31, 2016.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all directors, officers and employees. Our Code of Business Conduct and Ethics is available in the “Investor Relations” section of our website at www.transunion.com, under the tab “Leadership and Governance,” and a copy of the Code of Business Conduct and Ethics may also be obtained free of charge upon a request directed to TransUnion, 555 West Adams Street, Chicago, Illinois 60661, Attn: Corporate Secretary. Our Code of Business Conduct and Ethics is a “code of ethics,” as defined in Item 406(b) of Regulation S-K. We will make any legally required disclosures regarding amendments to, or waivers of, provisions of our code of ethics on our website.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be held on May 3, 2017, which will be filed with the SEC within 120 days of the end of our fiscal year ended December 31, 2016.

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

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be held on May 3, 2017, which will be filed with the SEC within 120 days of the end of our fiscal year ended December 31, 2016.

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

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be held on May 3, 2017, which will be filed with the SEC within 120 days of the end of our fiscal year ended December 31, 2016.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders to be held on May 3, 2017, which will be filed with the SEC within 120 days of the end of our fiscal year ended December 31, 2016.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) **List of Documents Filed as a Part of This Report:**

(1) *Financial Statements.* The following financial statements are included in Item 8 of Part II:

- Consolidated Balance Sheets — December 31, 2016 and 2015;
- Consolidated Statements of Income for the years ended December 31, 2016, 2015 and 2014;
- Consolidated Statements of Comprehensive Income for the years ended December 31, 2016, 2015 and 2014;
- Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014;
- Consolidated Statements of Stockholders' Equity for the years ended December 31, 2016, 2015 and 2014; and
- Notes to Consolidated Financial Statements.

(2) *Financial Statement Schedules.*

- Schedule I — Condensed Financial Information of TransUnion;
- Schedule I — Notes to Financial Information of TransUnion; and
- Schedule II — Valuation and Qualifying Accounts.

(3) *Exhibits.* A list of the exhibits required to be filed as part of this Report by Item 601 of Regulation S-K is set forth in the Exhibit Index on page 128 of this Form 10-K, which immediately precedes such exhibits, and is incorporated herein by reference.

(4) Valuation and qualifying accounts.

(b) **Exhibits.** See Item 15(a)(3).

(c) **Financial Statement Schedules.** See Item 15(a)(2).

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 15, 2017.

TransUnion

By: /s/ Samuel A. Hamood

Samuel A. Hamood

Executive Vice President and Chief Financial Officer

POWER OF ATTORNEY

The officers and directors whose signatures appear below constitute and appoint John W. Blenke and Michael J. Forde as their true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for them in their name, place and stead, in any and all capacities, to sign and file, with the Securities and Exchange Commission, this Form 10-K and any and all amendments and exhibits thereto, and all documents in connection therewith, granting unto each such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully and to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 15, 2017.

<u>Signature</u>	<u>Title</u>
<u>/s/ James M. Peck</u> James M. Peck	Director, President and Chief Executive Officer <i>(Principal Executive Officer)</i>
<u>/s/ Samuel A. Hamood</u> Samuel A. Hamood	Executive Vice President and Chief Financial Officer <i>(Principal Financial Officer)</i>
<u>/s/ Timothy Elberfeld</u> Timothy Elberfeld	Vice President and Chief Accounting Officer <i>(Principal Accounting Officer)</i>
<u>/s/ George M. Awad</u> George M. Awad	Director
<u>/s/ Christopher Egan</u> Christopher Egan	Director
<u>/s/Pamela A. Joseph</u> Pamela A. Joseph	Director
<u>/s/ Siddharth N. (Bobby) Mehta</u> Siddharth N. (Bobby) Mehta	Director
<u>/s/ Leo F. Mullin</u> Leo F. Mullin	Director
<u>/s/ Andrew Prozes</u> Andrew Prozes	Director
<u>/s/ Sumit Rajpal</u> Sumit Rajpal	Director
<u>/s/ Steven M. Tadler</u> Steven M. Tadler	Director

**2016 Form 10-K
EXHIBIT INDEX
TransUnion**

<u>Exhibit No.</u>	<u>Exhibit Name</u>
2.1*†	Purchase Agreement Made as a Deed, dated December 9, 2015, by and among TransUnion Netherlands I B.V., Trustev Limited, the Non-Management Sellers Identified therein, the Management Sellers identified therein and the Management Seller Representative named therein (Incorporated by reference to Exhibit 2.1 to TransUnion’s Current Report on Form 8-K filed December 15, 2015).
2.2*††	Agreement with respect to certain Shares and Options of Trustev Limited Made as a Deed, dated as of December 9, 2015, by and among Trustev Limited, TransUnion Netherlands I B.V., the Management Holders identified therein and the Management Holder Representative named therein (Incorporated by reference to Exhibit 2.2 to TransUnion’s Current Report on Form 8-K filed December 15, 2015).
2.3*†	Share Purchase Sale Agreement, dated February 8, 2016, among TransUnion Netherlands II B.V., Bancolombia S.A., Banco Bilbao Vizcaya Argentaria Colombia S.A., Banco Davivienda S.A., Banco Corpbanca Colombia S.A., Banco de Bogota S.A., Banco de Occidente S.A., Banco GNB Sudameris S.A., Banco Colpatria Multibanca S.A., Banco Popular S.A., Banco Caja Social S.A., Corporacion Financiera Colombiana S.A., Banco Comercial AV Villas S.A., Citibank—Colombia S.A., Banco Compartir S.A., JP Morgan Corporacion Financiera S.A., Titularizadora Colombiana S.A., and Banco de las Microfinanzas-Banamia S.A., as Sellers, TransUnion, as guarantor, and Central de Informacion Financiera S.A. (Incorporated by reference to Exhibit 2.1 to TransUnion’s Current Report on Form 8-K filed on February 12, 2016).
2.4*††	Purchase Agreement, dated September 21, 2016, by and among TransUnion Healthcare, Inc., RTech Healthcare Revenue Technologies, Inc., the Sellers identified therein, and the Seller Representative named therein (Incorporated by reference to Exhibit 2.1 to TransUnion’s Current Report on Form 8-K filed on September 22, 2016).
3.1	Second Amended and Restated Certificate of Incorporation of TransUnion (Incorporated by reference to Exhibit 4.1 to TransUnion’s Registration Statement on Form S-8 filed June 26, 2015).
3.2	Second Amended and Restated Bylaws of TransUnion (Incorporated by reference to Exhibit 4.2 to TransUnion’s Registration Statement on Form S-8 filed June 26, 2015).
4.1	Form of Stock Certificate for Common Stock (Incorporated by reference to Exhibit 4.6 to TransUnion’s Amendment No. 3 to Registration Statement on Form S-1 filed on June 15, 2015).
10.1	Amendment No. 7 to Credit Agreement, dated as of April 9, 2014, by and among TransUnion Intermediate Holdings, Inc., Trans Union LLC, the guarantors party thereto, Deutsche Bank Trust Company Americas, as Existing Administrative Agent, Existing Collateral Agent, Existing Swing Line Lender and Existing L/C Issuer, Deutsche Bank AG New York Branch, as Successor Administrative Agent, Successor Collateral Agent, Successor Swing Line Lender, Successor L/C Issuer and as 2014 Replacement Term Lender, and each other Lender party thereto (Incorporated by reference to Exhibit 10.1 to TransUnion’s Current Report on Form 8-K filed April 9, 2014).
10.2	Second Amended and Restated Credit Agreement, dated as of April 9, 2014, by and among TransUnion Intermediate Holdings, Inc., Trans Union LLC, the guarantors party thereto, Deutsche Bank AG New York Branch, as Administrative Agent and as Collateral Agent, Deutsche Bank AG New York Branch, as L/C Issuer and Swing Line Lender, the other lenders from time to time party thereto, Goldman Sachs Lending Partners LLC, as Syndication Agent, and Bank of America, N.A., Royal Bank of Canada and Credit Suisse AG, as Documentation Agents (Incorporated by reference to Exhibit 10.2 to TransUnion’s Current Report on Form 8-K filed April 9, 2014).

- 10.3 Amendment No. 8 to Credit Agreement, dated as of June 2, 2015, among TransUnion Corp., Trans Union LLC, the guarantors from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent and as collateral agent,, the other lenders party thereto, Credit Suisse Securities (USA) LLC, Goldman Sachs Lending Partners LLC, J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner and Smith Incorporated, as syndication agents, Royal Bank of Canada and Wells Fargo Bank, N.A., as documentation agents, Deutsche Bank Securities Inc., Credit Suisse Securities (USA) LLC, Goldman Sachs Lending Partners LLC, J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner and Smith Incorporated, RBC Capital Markets and Wells Fargo Securities, LLC, as joint lead arrangers and joint bookrunners (Incorporated by reference to Exhibit 10.1 to TransUnion’s Current Report on Form 8-K filed June 8, 2015).
- 10.4 Amendment No. 9 to Credit Agreement, dated as of June 30, 2015, among TransUnion Intermediate Holdings, Inc. (f/k/a TransUnion Corp.), Trans Union LLC, the guarantors from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent and as collateral agent, Deutsche Bank AG New York Branch, as L/C issuer and swing line lender, the other lenders party thereto, Goldman Sachs Lending Partners LLC, as syndication agent, Bank of America, N.A., Royal Bank of Canada and Credit Suisse AG, as documentation agents, Deutsche Bank Securities Inc., Goldman Sachs Lending Partners LLC, Merrill Lynch, Pierce, Fenner and Smith Incorporated, RBC Capital Markets and Credit Suisse Securities (USA) LLC, as joint lead arrangers and joint bookrunners (Incorporated by reference to Exhibit 10.1 to TransUnion’s Current Report on Form 8-K filed July 2, 2015).
- 10.5 Amendment No. 10 to Credit Agreement, dated as of March 31, 2016, by and among TransUnion Intermediate Holdings, Inc., Trans Union LLC, the Guarantors, Deutsche Bank Securities Inc., as lead arranger, Deutsche Bank AG New York Branch, as administrative agent, as collateral agent (in such capacity, the “Collateral Agent”) and each of the lenders party thereto (Incorporated by reference to Exhibit 10.1 to TransUnion’s Current Report on Form 8-K filed on April 6, 2016).
- 10.6 Amendment No. 11 to Credit Agreement, dated as of May 31, 2016, by and among TransUnion Intermediate Holdings, Inc., Trans Union LLC, the Guarantors, Deutsche Bank Securities Inc., as lead arranger, Deutsche Bank AG New York Branch, as administrative agent, as collateral agent and each of the lenders party thereto (Incorporated by reference to Exhibit 10.1 to TransUnion’s Current Report on Form 8-K filed on June 1, 2016).
- 10.7 Amendment No. 12 to Credit Agreement, dated as of January 31, 2017, by and among TransUnion Intermediate Holdings, Inc., Trans Union LLC, the Guarantors, Deutsche Bank Securities Inc., Capital One, N.A., Goldman Sachs Lending Partners LLC, JPMorgan Chase Bank, N.A. Merrill Lynch, Pierce, Fenner & Smith Incorporated, RBC Capital Markets and Wells Fargo Securities, LLC, as joint lead arrangers, Deutsche Bank AG New York Branch, as administrative agent and collateral agent and each of the lenders party thereto (Incorporated by reference to Exhibit 10.1 to TransUnion’s Current Report on Form 8-K filed on February 3, 2017).
- 10.8††† TransUnion Holding Company, Inc. 2012 Management Equity Plan (Effective April 30, 2012) (Incorporated by reference to Exhibit 10.1 to TransUnion’s Registration Statement on Form S-4 filed July 31, 2012).
- 10.9††† TransUnion Holding Company, Inc. 2012 Management Equity Plan Stock Option Agreement (Effective April 30, 2012) (Incorporated by reference to Exhibit 10.2 to TransUnion’s Registration Statement on Form S-4 filed July 31, 2012).
- 10.10††† Amendment No. 1 to TransUnion Holding Company, Inc. 2012 Management Equity Plan Stock Option Agreement, dated as of January 1, 2016 (Incorporated by reference to Exhibit 10.7 to TransUnion’s Annual Report on Form 10-K for the year ended December 31, 2015).

- 10.11 Stockholders' Agreement made as of April 30, 2012, among TransUnion, the members of the management or other key persons of TransUnion or of TransUnion Intermediate Holdings, Inc., that are signatories thereto, any other person who becomes a party thereto, and the GS Investors (as defined therein) and the Advent Investor (as defined therein) (for specific purposes) (Incorporated by reference to Exhibit 10.4 to TransUnion's Registration Statement on Form S-4 filed July 31, 2012).
- 10.12 First Amendment to the Stockholders' Agreement, dated as of February 12, 2016, among TransUnion, The Advent Investor (as defined therein) and the GS Investor (as defined therein) (Incorporated by reference to Exhibit 10.9 to TransUnion's Annual Report on Form 10-K for the year ended December 31, 2015).
- 10.13** Second Amendment to the Stockholders' Agreement, dated as of December 16, 2016, among TransUnion, The Advent Investor (as defined therein) and the GS Investor (as defined therein).
- 10.14 Amended and Restated Major Stockholders' Agreement, dated as of June 23, 2015, among TransUnion, the Advent Investor (as defined therein) and the GS Investors (as defined therein) (Incorporated by reference to Exhibit 10.7 to TransUnion's Amendment No. 2 to Registration Statement on Form S-1/A filed May 29, 2015).
- 10.15 Registration Rights Agreement dated as of April 30, 2012, by and among TransUnion, the Advent Investors (as defined therein), the GS Investors (as defined therein), certain Key Individuals (as defined therein) and any other person who becomes a party thereto (Incorporated by reference to Exhibit 10.5 to TransUnion's Registration Statement on Form S-4 filed July 31, 2012).
- 10.16 First Amendment to Registration Rights Agreement, dated March 2, 2016, by and among TransUnion (successor to TransUnion Holding Company, Inc.), the Advent Investor (as defined therein), the GS Investors (as defined therein) and certain Key Individuals (as defined therein) (Incorporated by reference to Exhibit 10.4 to TransUnion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016).
- 10.17 Form of Director Indemnification Agreement for directors of TransUnion (Incorporated by reference to Exhibit 10.6 to TransUnion's Registration Statement on Form S-4 filed July 31, 2012).
- 10.18††† Employment Agreement with James M. Peck, President and Chief Executive Officer of TransUnion and TransUnion Intermediate Holdings, Inc., dated December 6, 2012 (Incorporated by reference to Exhibit 10.15 to TransUnion's and TransUnion Intermediate Holdings, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012).
- 10.19††† Letter Agreement between TransUnion and Reed Elsevier with respect to the employment of James M. Peck as the President and Chief Executive Officer of TransUnion and TransUnion Intermediate Holdings, Inc., dated December 6, 2012 (Incorporated by reference to Exhibit 10.16 to TransUnion's and TransUnion Intermediate Holdings, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012).
- 10.20††† TransUnion 2015 Omnibus Incentive Plan. (Incorporated by reference to Exhibit 4.4 to TransUnion's Registration Statement on Form S-8 filed June 26, 2015).
- 10.21††† TransUnion 2015 Omnibus Incentive Plan Award Agreement with respect to Restricted Stock Units and Performance Share Units (U.S. Employees) (Incorporated by reference to Exhibit 10.2 to TransUnion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016).
- 10.22††† TransUnion 2015 Omnibus Incentive Plan Award Agreement with respect to Restricted Stock (Outside Directors) (Incorporated by reference to Exhibit 10.3 to TransUnion's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016).
- 10.23††† TransUnion 2015 Employee Stock Purchase Plan (Incorporated by reference to Exhibit 4.5 to TransUnion's Registration Statement on Form S-8 filed June 26, 2015).

- 10.24†††** TransUnion 2015 Employee Stock Purchase Plan, as Amended and Restated, Effective November 18, 2016.
- 10.25** Consent Order Issued by the United States Consumer Financial Protection Bureau on January 3, 2017, Administrative Proceeding—File No. 2017-CFPB-0002, In the Matter of: TransUnion Interactive, Inc., Trans Union LLC and TransUnion.
- 21** Subsidiaries of TransUnion.
- 23.1** Consent of Ernst & Young LLP
- 24** Power of Attorney—TransUnion (included on the signature page of this Form 10-K).
- 31.1** Certification of Principal Executive Officer for TransUnion pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2** Certification of Principal Financial Officer for TransUnion pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32** Certification of Chief Executive Officer and Chief Financial Officer for TransUnion 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
- 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
- * Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Registrant hereby undertakes to furnish supplemental copies of any of the omitted schedules upon request by the Securities and Exchange Commission.
- † English translation submitted. The Registrant hereby undertakes to furnish supplementally a copy of the foreign language document upon request of the Securities and Exchange Commission.
- †† Confidential treatment has been granted for portions of this exhibit. These portions have been omitted and submitted separately to the Securities and Exchange Commission.
- ††† Identifies management contracts and compensatory plans or arrangement.
- ** Filed or furnished herewith.

Schedule I—Condensed Financial Information of TransUnion

**TRANSUNION
Parent Company Only
Balance Sheet**

(in millions, except per share data)

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Assets		
Current assets:		
Due from TransUnion Intermediate	\$ 129.3	\$ 114.4
Other current assets	0.6	—
Total current assets	<u>129.9</u>	<u>114.4</u>
Investment in TransUnion Intermediate	1,255.3	1,131.2
Total assets	<u>\$1,385.2</u>	<u>\$1,245.6</u>
Liabilities and stockholders' equity		
Current liabilities:		
Trade accounts payable	\$ 0.1	\$ —
Other current liabilities	0.1	0.1
Total current liabilities	<u>0.2</u>	<u>0.1</u>
Other liabilities	22.2	14.1
Total liabilities	22.4	14.2
Stockholders' equity:		
Common stock, \$0.01 par value; 1.0 billion shares authorized at December 31, 2016 and December 31, 2015; 183.9 million and 183.0 million shares issued as of December 31, 2016 and December 31, 2015, respectively; and 183.2 million and 182.3 million shares outstanding as of December 31, 2016 and December 31, 2015, respectively	1.8	1.8
Additional paid-in capital	1,844.9	1,850.3
Treasury stock at cost; 0.7 million shares at December 31, 2016 and December 31, 2015	(5.3)	(4.6)
Accumulated deficit	(303.8)	(424.3)
Accumulated other comprehensive loss	(174.8)	(191.8)
Total stockholders' equity	<u>1,362.8</u>	<u>1,231.4</u>
Total liabilities and stockholders' equity	<u>\$1,385.2</u>	<u>\$1,245.6</u>

See accompanying notes to condensed financial statements.

Schedule I—Condensed Financial Information of TransUnion

**TRANSUNION
Parent Company Only
Statement of Income
(in millions)**

	Twelve Months Ended December 31,		
	2016	2015	2014
Revenue	\$ —	\$ —	\$ —
Operating expenses			
Selling, general and administrative	1.8	1.6	1.4
Total operating expenses	1.8	1.6	1.4
Operating loss	(1.8)	(1.6)	(1.4)
Non-operating income and expense			
Interest expense	—	(52.8)	(97.0)
Equity Income from TransUnion Intermediate	124.3	61.6	49.1
Other income and (expense), net	(2.7)	(33.7)	(0.2)
Total non-operating income and expense	121.6	(24.9)	(48.1)
Income (loss) before income taxes	119.8	(26.5)	(49.5)
Benefit for income taxes	0.8	32.4	37.0
Net income (loss)	<u>\$ 120.6</u>	<u>\$ 5.9</u>	<u>\$ (12.5)</u>

See accompanying notes to condensed financial statements.

Schedule I—Condensed Financial Information of TransUnion

TRANSUNION
Parent Company Only
Statements of Comprehensive Income
(in millions)

	Twelve Months Ended December 31,		
	2016	2015	2014
Net income (loss)	\$ 120.6	\$ 5.9	\$ (12.5)
Other comprehensive income (loss):			
Foreign currency translation:			
Foreign currency translation adjustment	21.3	(79.7)	(47.9)
Benefit for income taxes	2.7	4.9	3.8
Foreign currency translation, net	24.0	(74.8)	(44.1)
Hedge instruments:			
Net unrealized (loss) gain	(12.0)	0.3	(0.6)
Amortization of accumulated loss	0.4	0.4	0.3
Benefit (provision) for income taxes	4.4	(0.2)	0.1
Hedge instruments, net	(7.2)	0.5	(0.2)
Available-for-sale securities:			
Net unrealized gain	0.4	—	0.2
Provision for income taxes	(0.2)	—	(0.1)
Available-for-sale securities, net	0.2	—	0.1
Total other comprehensive income (loss), net of tax	17.0	(74.3)	(44.2)
Comprehensive income (loss) attributable to TransUnion	\$ 137.6	\$ (68.4)	\$ (56.7)

See accompanying notes to condensed financial statements.

Schedule I—Condensed Financial Information of TransUnion

TRANSUNION
Parent Company Only
Statement of Cash Flows
(in millions)

	<u>Twelve Months Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Cash (used in) provided by operating activities	\$ (11.6)	\$ 289.5	\$ (9.4)
Cash used in investing activities	—	—	—
Cash flows from financing activities:			
Extinguishment of 9.625% and 8.125% Senior Notes	—	(1,000.0)	—
Proceeds from initial public offering	—	764.5	—
Underwriter fees and other costs on initial public offering	—	(49.8)	—
Debt financing fees	—	(8.1)	—
Proceeds from issuance of common stock and exercise of stock options	6.0	2.8	9.6
Treasury stock purchases	(0.7)	(0.3)	(0.2)
Excess tax benefit	6.3	1.4	—
Cash provided by (used in) financing activities	<u>11.6</u>	<u>(289.5)</u>	<u>9.4</u>
Net change in cash and cash equivalents	—	—	—
Cash and cash equivalents, beginning of period	—	—	—
Cash and cash equivalents, end of period	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>

See accompanying notes to condensed financial statements.

Schedule I—Condensed Financial Information of TransUnion

TRANSUNION Parent Company Only Notes to Financial Statements

Note 1. Basis of Presentation

In the TransUnion parent company only financial statements, the Company's investment in subsidiaries is stated at cost plus equity in the undistributed earnings of subsidiaries since the date of acquisition. The Company's share of net income of its subsidiaries is included in consolidated income using the equity method. The parent company only financial information should be read in conjunction with TransUnion's consolidated financial statements.

Note 2. Income Tax

TransUnion entered into an intercompany tax allocation agreement with TransUnion Intermediate Holdings, Inc. in 2013, effective for all taxable periods from May 1, 2012, forward, in which they are members of the same consolidated federal or state tax groups. The agreement allocates the consolidated tax liability from those filings among the various members of the group.

Note 3. Dividends from Subsidiaries

Cash dividends paid to TransUnion from its consolidated subsidiaries were \$45.1 million and \$90.3 million for the years ended December 31, 2015 and 2014, respectively. There were no cash dividends paid to TransUnion from its consolidated subsidiaries for the year ended December 31, 2016.

Schedule II—Valuation and Qualifying Accounts

TRANSUNION

<u>(in millions)</u>	<u>Balance at Beginning of Year</u>	<u>Charged to Costs and Expenses</u>	<u>Charged to Other Accounts</u>	<u>Deductions⁽¹⁾</u>	<u>Balance at End of Year</u>
Allowance for doubtful accounts:					
Year ended December 31,					
2016	\$ 4.2	\$ 4.3	\$—	\$(2.3)	\$ 6.2
2015	\$ 2.4	\$ 3.2	\$—	\$(1.4)	\$ 4.2
2014	\$ 0.7	\$ 3.2	\$—	\$(1.5)	\$ 2.4
Allowance for deferred tax assets:					
Year ended December 31,					
2016	\$46.7	\$13.6	\$—	\$(1.1)	\$59.2
2015	\$42.1	\$ 5.3	\$—	\$(0.7)	\$46.7
2014	\$25.9	\$19.5	\$—	\$(3.3)	\$42.1

⁽¹⁾ For the allowance for doubtful accounts, includes write-offs of uncollectable accounts.

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INFORMATION FOR



Smarter Decisions

We help businesses know who to extend offers and services to, so consumers get the opportunities that are right for them while businesses better manage their risk.

Stronger Communities

We help build stronger communities by contributing to efforts that improve financial literacy and decrease risk and exploitation of vulnerable people around the world.



Greater Certainty

Our identity management systems let businesses know and assess the risks associated with the people they work with, help avoid breaches and fraud, and make confident decisions possible.

Thriving Economies

We've entered emerging markets at the early stages of using credit. Now they can extend capital, resulting in more opportunities in those markets and around the world.



Personal Empowerment

Our consumer services allow people to monitor, protect and manage their own credit information, so they can act with confidence.

Brighter Futures

We offer our associates experiences to promote professional growth; we work hard to provide an enjoyable place to work, and we seek to ensure a healthy work/life balance.



Healthier Bottom Lines

Our revenue management applications help businesses manage their collections better, control revenues and avoid fraud.

OUR IMPACT ON THE WORLD

At TransUnion, we see information differently—not just for what it is, but for what it can help people accomplish.