

2017 ANNUAL REPORT

FY2017 CEO Letter



Shareholders:

Fiscal 2017 was another strong year for FICO. Our revenues were a record-setting \$932 million, up 6% over fiscal 2016, our net income was \$128 million (up 17%), and EPS was \$3.98 (up 17%). Our revenue and earnings growth are especially impressive given our movement to a cloud-first strategy which results in less up-front revenue. Once again, we saw strong growth in both our Scores and Software businesses.

Scores

The FICO® Score brand is stronger than it has ever been. American consumers continue to recognize the FICO Score name, and an increasing number recognize it as the score lenders use. The continued strong performance of our Scores business is the best evidence of the tremendous value the FICO Score brings to billions of lending decisions each year.

A crucial part of our Scores work is addressing global issues around financial inclusion. Governments worldwide are focused on bringing more than 3 billion adults into the credit mainstream. Credit scoring is a very cost-effective way to do this, and we are applying new analytic techniques and new data sources to make this happen, not only in emerging countries but in the world's biggest credit market, the United States. Our new FICO® Score XD analyzes alternative data to score 26 million Americans who were previously unscorable.

As the independent and trusted leader of the credit scoring industry, we have a responsibility to ensure that the system works well for consumers, lenders and the economy. This year, you will see us talking about the need to expand credit responsibly. While helping people get credit, we need to protect the soundness of lending decisions. I'm proud of the leadership stance FICO is taking.

Software

Several years ago, we made the important decision to move our software solutions to the cloud. Our investment in this strategy is paying off as the financial services industry and others seek cloud deployments of software at a faster adoption rate than anyone predicted.

Today, the majority of our software solutions are available through the FICO® Analytic Cloud, and during fiscal 2017, we added Amazon Web Services as our primary cloud infrastructure provider. This is enabling us to significantly build our recurring revenue base, which will mean more predictable, profitable growth going forward.

For some software companies, the move to the cloud means a disruption of revenue and earnings models. For FICO, this impact has been less dramatic for two reasons. First, our legacy revenue model already includes significant recurring revenue. And second, our transition from license revenue to cloud has been deliberately gradual. 2018 will be an inflection point for the cloud, and thanks to our strategy we are ready for it.

As we pursue our cloud-first strategy, we also continue to add more advanced analytics to our offerings. As our customers rush to embrace artificial intelligence and machine learning, FICO is ready. In fact, FICO was a pioneer in AI when we put neural networks into FICO® Falcon® Fraud Manager 25 years ago. In the last two years, we have introduced AI into our cybersecurity solutions, our anti-money laundering solutions and more. Now we are integrating our groundbreaking IP into our FICO® Analytics Workbench™, part of the FICO® Decision Management Platform we have built over the last four years.

Investments

As in previous years, we pursued a balanced investment strategy in fiscal 2017. With a record \$205 million in free cash flow, we retired 1.5 million shares through our buyback program, bringing shares outstanding below 30 million. In addition to our investment in R&D and product development, we made a significant investment in our cybersecurity, including bringing onboard a new Chief Information Security Officer.

As a company, we have never been better positioned. For years, we have believed that analytics-based decision management would take hold the way ERP systems did in the 1990s, or CRM systems after that. Today, the true value of advanced analytics is being recognized by all industries. Increasingly, businesses are realizing the importance of applying analytics to decisions every day.

We have invested in analytics, invested in cloud, and invested in the people who know how to make an incredibly complicated discipline work for our customers. We are still in the early stages of a new era for FICO, an era when we reach new markets and provide our analytic expertise to customers eager to make more informed decisions.

William Lansing

Willin) Lansing

CEO

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

Form 10-K

(Mark One)						
	R 15(d) OF THE SECURITIES EXCHANGE					
For the fiscal year ended September 30, 2017						
☐ TRANSITION REPORT PURSUANT TO SECTION	13 OR 15(d) OF THE SECURITIES					
EXCHANGE ACT OF 1934 [NO FEE REQUIRED]	` '					
For the transition period from	to					
Commission File Num	ıber 1-11689					
						
Fair Isaac Corporation						
(Exact name of registrant as spe Delaware						
(State or other jurisdiction of	94-1499887 (I.R.S. Employer					
incorporation or organization)	Identification No.)					
181 Metro Drive, Suite 700						
San Jose, California	95110-1346					
(Address of principal executive offices)	(Zip Code)					
Registrant's telephone number, 408-535-150						
Securities registered pursuant to S						
(Title of Class)	(Name of each exchange on which registered)					
Common Stock, \$0.01 par value per share	New York Stock Exchange, Inc.					
Securities registered pursuant to S						
None	12(g) 01 110 1101					
Indicate by check mark if the registrant is a well-known seasoned issue Act. Yes ⊠ No □						
Indicate by check mark if the registrant is not required to file reports pu Act. Yes \square No \boxtimes						
Indicate by check mark whether the registrant (1) has filed all reports re Exchange Act of 1934 during the preceding 12 months (or for such shorter p (2) has been subject to such filing requirements for the past 90 days. Yes	period that the registrant was required to file such reports), and					
Indicate by check mark whether the registrant has submitted electronical Interactive Data File required to be submitted and posted pursuant to Rule 4 such shorter period that the registrant was required to submit and post such files.	05 of Regulation S-T during the preceding 12 months (or for					
Indicate by check mark if disclosure of delinquent filers pursuant to Ite						
be contained, to the best of registrant's knowledge, in definitive proxy or inf this Form 10-K or any amendment to this Form 10-K.						
Indicate by check mark whether the registrant is a large accelerated file reporting company or an emerging growth company. See definitions of "larg company," and "emerging growth company" in Rule 12b-2 of the Exchange	ge accelerated filer," "accelerated filer," "smaller reporting					
Large Accelerated Filer \boxtimes	Accelerated Filer					
Non-Accelerated Filer	Smaller Reporting Company					
	Emerging Growth Company					
If an emerging growth company, indicate by check mark if the registrar						
complying with any new or revised financial accounting standards provided						
Indicate by check mark whether the registrant is a shell company (as de	efined in Rule 12b-2 of the Exchange Act). Yes \(\subseteq \) No \(\subseteq \)					
As of March 31, 2017, the aggregate market value of the registrant's co \$2,637,371,198 based on the last transaction price as reported on the New Y	ork Stock Exchange on such date. This calculation does not					
reflect a determination that certain persons are affiliates of the registrant for						
The number of shares of common stock outstanding on October 27, 20:	17 was 29,990,221 (excluding 58,866,562 shares held by the					
Company as treasury stock). Items 10, 11, 12, 13 and 14 of Port III incorporate information by reference.	ance from the definitive prove statement for the Annual					
Items 10, 11, 12, 13 and 14 of Part III incorporate information by refere Meeting of Stockholders to be held on February 28, 2018.	the from the definitive proxy statement for the Annual					



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FORWARD LOOKING STATEMENTS

Statements contained in this report that are not statements of historical fact should be considered forwardlooking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, certain statements in our future filings with the Securities and Exchange Commission ("SEC"), in press releases, and in oral and written statements made by us or with our approval that are not statements of historical fact constitute forward-looking statements within the meaning of the Act. Examples of forward-looking statements include, but are not limited to: (i) projections of revenue, income or loss, earnings or loss per share, the payment or nonpayment of dividends, capital structure and other statements concerning future financial performance; (ii) statements of our plans and objectives by our management or Board of Directors, including those relating to products or services, research and development, and the sufficiency of capital resources; (iii) statements of assumptions underlying such statements, including those related to economic conditions; (iv) statements regarding business relationships with vendors, customers or collaborators, including the proportion of revenues generated from international as opposed to domestic customers; and (v) statements regarding products, their characteristics, performance, sales potential or effect in the hands of customers. Words such as "believes," "anticipates," "expects," "intends," "targeted," "should," "potential," "goals," "strategy," and similar expressions are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from those in such statements. Factors that could cause actual results to differ from those discussed in the forward-looking statements include, but are not limited to, those described in Item 1A of Part I, Risk Factors, below. The performance of our business and our securities may be adversely affected by these factors and by other factors common to other businesses and investments, or to the general economy. Forwardlooking statements are qualified by some or all of these risk factors. Therefore, you should consider these risk factors with caution and form your own critical and independent conclusions about the likely effect of these risk factors on our future performance. Such forward-looking statements speak only as of the date on which statements are made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made to reflect the occurrence of unanticipated events or circumstances. Readers should carefully review the disclosures and the risk factors described in this and other documents we file from time to time with the SEC, including our reports on Forms 10-Q and 8-K to be filed by the Company in fiscal 2018.

PART I

Item 1. Business

GENERAL

Fair Isaac Corporation (NYSE: FICO) (together with its consolidated subsidiaries, the "Company," which may also be referred to in this report as "we," "us," "our," and "FICO") provides products, solutions and services that enable businesses to automate, improve and connect decisions to enhance business performance. Our predictive analytics, which includes the industry-standard FICO® Score, and our decision management systems leverage the use of big data and mathematical algorithms to predict consumer behavior and power hundreds of billions of customer decisions each year.

We were founded in 1956 on the premise that data, used intelligently, can improve business decisions. Today, we help thousands of companies in over 100 countries use our decision management technology to target and acquire customers more efficiently, increase customer value, reduce fraud and credit losses, lower operating expenses, and enter new markets more profitably. Most leading banks and credit card issuers rely on our solutions, as do insurers, retailers, telecommunications providers, automotive companies, pharmaceutical companies, healthcare organizations, public agencies and organizations in other industries. We also serve consumers through online services that enable people to purchase and understand their FICO® Scores, the standard measure in the U.S. of consumer credit risk, empowering them to manage their financial health.

More information about us can be found on our principal website, www.fico.com. We make our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, as well as amendments to those reports, available free of charge through our website as soon as reasonably practicable after we electronically file them with the SEC. References to our website addresses in this report are provided as a convenience and do not constitute an incorporation by reference. Information on our website is not part of this report.

PRODUCTS AND SERVICES

We use analytics to help businesses automate, improve and connect decisions across their enterprise, an approach we commonly refer to as decision management. Most of our solutions address customer engagement, including customer acquisition, customer onboarding, customer servicing and management, and customer protection. We also help businesses improve non-customer decisions such as transaction and claims processing. Our solutions enable users to make decisions that are more precise, consistent and agile, and that systematically advance business goals. This helps our clients to reduce the cost of doing business, increase revenues and profitability, reduce losses from risks and fraud, and increase customer loyalty.

Our Segments

We categorize our products and services into the following three operating segments:

- Applications. This segment includes pre-configured decision management applications designed for a specific type of business problem or process such as marketing, account origination, customer management, fraud, collections and insurance claims management as well as associated professional services. These applications are available to our customers as on-premises software, and many are available as hosted, software-as-a-service ("SaaS") applications through the FICO[®] Analytic Cloud.
- *Scores*. This segment includes our business-to-business scoring solutions and services, our business-to-consumer scoring solutions and services including myFICO® solutions for consumers, and associated professional services. Our scoring solutions give our clients access to analytics that can be

easily integrated into their transaction streams and decision-making processes. Our scoring solutions are distributed through major credit reporting agencies worldwide, as well as services through which we provide our scores to clients directly.

• Decision Management Software. This segment is composed of analytic and decision management software tools that clients can use to create their own custom decision management applications, our new FICO® Decision Management Suite, as well as associated professional services. These tools are available to our customers as on-premises software or through the FICO® Analytic Cloud.

Segment revenues, operating income and related financial information for fiscal 2017, 2016 and 2015 are set forth in Note 17 to the accompanying consolidated financial statements.

Our Solutions

Our solutions involve four fundamental disciplines:

- Analytics, which include predictive analytics that identify risks and opportunities associated with
 individual customers, prospects and transactions, in order to detect patterns such as risk and fraud, as
 well as optimization analytics that are used to improve the design of decision logic or "strategies."
- Data management and transaction profiling that bring extensive consumer information to every decision.
- Software such as decision management systems that implement business rules, models and decision strategies, often in a real-time environment, as well as software for managing customer engagement.
- Consulting services that help clients make the most of investments in FICO applications, tools and scores in the shortest possible time.

All of our solutions are designed to help businesses make decisions that are faster, more precise, more consistent and more agile, while reducing costs and risks incurred in making decisions. With the new FICO® Analytic Cloud, FICO® Decision Management Platform and FICO® Decision Management Suite, we now offer clients an increasing portfolio of applications, tools and services in the cloud, which they can use to create, customize, deploy and manage powerful analytic services.

Applications

We develop industry-tailored decision management applications, which apply analytics, data management and decision management software to specific business challenges and processes. Our applications primarily serve clients in the banking, insurance, telecommunications, healthcare, retail and public sectors. During fiscal 2017, we continued to expand our product offerings for the FICO® Analytic Cloud, resulting in increased sales opportunities by accommodating small to mid-size businesses that benefit from the affordability and simplicity of cloud-based solutions. Within our Applications segment, our fraud solutions accounted for 19%, 20% and 23% of total revenues in each of fiscal 2017, 2016 and 2015, respectively; our customer communication services accounted for 10%, 9% and 8% of total revenues for each of these periods, respectively; and our customer management solutions accounted for 8%, 9% and 9% of total revenues in each of these periods, respectively.

Marketing Applications

The chief offerings for marketing are our FICO® Analytic Offer Manager and FICO® Customer Dialogue Manager. These solutions offer a suite of products, capabilities and services designed to integrate the technology and analytic services needed to perform context-sensitive customer acquisition, cross-selling and retention programs and deliver mathematically optimized offers. Our marketing solutions enable companies that offer multiple products and use multiple channels (companies such as large financial institutions, consumer branded

goods companies, pharmaceutical companies, retail merchants and hospitality companies) to execute more efficient and profitable customer interactions. Services offered in our marketing solutions include customer data integration services; services that enable real-time marketing through direct consumer interaction channels; campaign management and optimization services; interactive tools that automate the design, execution and collection of customer response data across multiple channels; and customer data collection, management and profiling services.

Originations Applications

We provide solutions that enable banks, credit unions, finance companies, alternative peer-to-peer and online lenders, auto lenders and other companies to automate and improve the processing of requests for credit or service. These solutions increase the speed and efficiency with which requests are handled, reduce losses and increase approval rates through analytics that assess applicant risk, and reduce the need for manual review by loan officers.

The latest version of our origination application, FICO® Origination Manager, is an application-to-decision processing solution, available both on premises and in the FICO® Analytic Cloud. Our other solutions include the web-based FICO® LiquidCredit® service, which is primarily focused on credit decisions and is offered largely to mid-tier banking institutions. We also offer custom and consortium-based credit risk and application fraud models.

Customer Management Applications

Our customer strategy management products and services enable businesses to automate and improve risk-based decisions for their existing customers. These solutions help businesses apply advanced analytics in account and customer decisions to increase portfolio revenue, decrease risk exposure and losses, and reduce customer attrition, while improving operational efficiencies.

We provide customer strategy management solutions for banking, telecommunications and retail. Our primary account and customer strategy management product is FICO® TRIAD® Customer Manager, a leading credit management system, available both on premises and in the FICO® Analytic Cloud. The solution is an adaptive control system, which enables businesses to rapidly adapt to changing business and internal conditions by designing and testing new strategies in a "champion/challenger" environment. The current version enables users to manage risk and communications at both the account and customer level from a single platform.

We market and sell FICO® TRIAD® Customer Manager software licenses, maintenance, consulting services, and strategy design and evaluation. Additionally, we provide TRIAD services and similar credit account management services through third-party credit card processors worldwide, including two of the largest processors in the U.S.

Fraud and Security Management Applications

Our fraud management products improve our clients' profitability by predicting the likelihood a given transaction or customer account is experiencing fraud. Our fraud products analyze transactions in real time and generate recommendations for immediate action, which is critical to stopping third-party fraud, as well as first-party fraud and deliberate misuse of account privileges.

Our solutions are designed to detect and prevent a wide variety of fraud and risk types across multiple industries, including credit and debit payment card fraud; e-payment fraud; deposit account fraud; healthcare fraud; Medicaid and Medicare fraud; and property and casualty insurance claims fraud, including workers' compensation fraud. FICO fraud solutions protect financial institutions, insurance companies and government agencies from losses and damaged customer relationships caused by fraud and related criminal behavior.

Our leading fraud detection solution is the FICO® Falcon® Platform, recognized as a leader in global payment card fraud detection. The Falcon® Platform examines transaction, cardholder, account, customer, device and merchant data to detect a wide range of payment card fraud quickly and accurately utilizing artificial intelligence technology. It analyzes payment transactions in real time, assesses the risk of fraud in a fraud score, and provides the ability for user-defined variables and rules strategies to be used in conjunction with the fraud score to prevent fraud while expediting legitimate transactions. Adaptive analytics, a form of self-learning models, can also be employed to accelerate our customers' response to evolving fraud tactics.

FICO® Fraud Predictor with Merchant Profiles is used in conjunction with the Falcon® Platform to improve fraud detection rates through the inclusion of merchant profiles, which is especially important for online transactions. Merchant profiles are built using fraud and transactional data that include characteristics revealing which merchants have a history of higher fraud volumes, and which purchase types and ticket sizes have most often been fraudulent at a particular merchant, among others.

In addition to our Falcon products, we offer a wide range of solutions focused on preventing and detecting a variety of financial crimes. FICO® Application Fraud Manager helps businesses prevent both first- and third-party fraud during the application process. By preventing fraud prior to account origination we help our customers avoid future losses as well as unnecessary collections costs. Separately, the FICO® Card Alert Service prevents ATM debit fraud by identifying counterfeit payment cards and reporting them to issuers. The service analyzes daily transactions from participating networks, and uses this data to identify common points of compromise and suspect cards most likely to incur fraud.

FICO® Insurance Fraud Manager uses advanced unsupervised predictive modeling techniques to detect health care claims fraud, abuse and errors as soon as unusual behavior patterns emerge. Insurance Fraud Manager is used by both public and private health care payers to detect and prevent fraud in both pre- and post-pay fraud investigation environments.

FICO offers a comprehensive modular set of compliance solutions to fight money-laundering, terrorist financing, and to fulfill custom requirements for governance, risk and compliance. These solutions are based on the acquisition of TONBELLER Aktiengesellschaft ("TONBELLER") combined with FICO's legacy fraud analytics, such as those used in the FICO® Falcon® Platform.

FICO's cybersecurity products utilize predictive analytics to deliver enterprise-level risk assessments as well as prioritization of tactical cyber threat response. The FICO® Enterprise Security Score provides an empirically derived score that conveys the security posture of an organization and the likelihood of a material data breach in the next 12 months. The score is used to manage the cyber risk of an enterprise as well as risks introduced by trusted business partners. Separately, FICO® Falcon® Cybersecurity Analytics utilizes advanced streaming self-learning models to help organizations detect and remediate cyber attacks by reducing the dwell time between when an attack occurs and when it is recognized. These products can be used independently or together as part of a comprehensive cyber risk management program.

Collections & Recovery Applications

FICO® Debt Manager™ solution and FICO® PlacementsPlus® service automate the full cycle of collections and recovery, including early collections, late collections, asset disposal, agency placement, recovery, litigation, bankruptcy, asset management and residual balance recovery. PlacementsPlus service facilitates control over the distribution and management of accounts to agencies, attorneys, debt buyers and internal recovery departments. FICO Debt Management Solutions also include assessments, models and scores, predictive analytics, advanced customer engagement, optimization and speech analytics capabilities. FICO® Debt Manager™ is available both on premises and in the FICO® Analytic Cloud.

Customer Communication Services

FICO® Customer Communication Services provide customer engagement, fraud resolution, and collections solutions in the cloud. It enables leading financial services institutions, utilities, telecommunications firms, insurers, and other businesses to engage in automated two-way communications. It allows businesses to reach customers in real time using short message service ("SMS"), mobile applications, automated voice, email and other channels; resolve matters such as verification of suspicious credit or debit card transactions; request missed payments; and resolve customer service issues. FICO® Customer Communication Services, combined with FICO's decision management applications, allow businesses to execute and resolve customer interactions while improving customer outcomes.

Analytic Services

We perform custom predictive, descriptive and decision modeling and related analytic projects for clients in multiple industries to address business processes across the customer life cycle. This work leverages our analytic methodologies and expertise to solve risk management and marketing challenges for a single business, using that business's data and industry best practices to develop a highly customized solution. Most of this work falls under predictive analytics, decision analysis and optimization, which provide greater insight into customer preferences and future customer behavior. Within decision analysis and optimization, we apply data and proprietary algorithms to the design of customer treatment strategies.

Scores

Our FICO® Scores are used in the majority of U.S. credit decisions, by nearly all of the major banks, credit card organizations, mortgage lenders and auto loan originators. These credit scores, developed based on third-party data, provide a consistent and objective measure of an individual's credit risk. Credit grantors use our FICO® Scores in a variety of ways: to prescreen candidates for marketing programs; to evaluate applicants for new credit; and to manage existing customer accounts. FICO® Score is a three-digit score ranging from 300-850. They are calculated by running data from the three U.S. national credit reporting agencies, Experian, TransUnion and Equifax, through one of several proprietary scoring models developed by FICO. Lenders generally pay the credit reporting agencies scoring fees based on usage, and the credit reporting agencies pay an associated fee to us. FICO® Score 9, the most recent version of the FICO® Score, was released in early fiscal 2015.

While the core FICO® Score is the foundation of our scoring portfolio, we offer a number of other broad-based scores, including several specific FICO® Industry Scores. We also develop various custom scores for our financial services clients. The FICO® Score XD expands the scorable population using alternative credit data. FICO® Score XD looks at public records and property data, and a consumer's history with mobile, landline phone and cable payments, to generate scores on the same 300-850 scale as standard FICO® Scores. FICO® Score XD is available to lenders from LexisNexis Risk Solutions and Equifax.

Outside the U.S., we offer the FICO® Score for consumers, and in some cases for small and medium enterprises, through credit reporting agencies in 16 countries worldwide. We have installed client-specific versions of the FICO® Score in nine countries. Like FICO® Scores in the U.S., these scores help lenders in multiple countries leverage the FICO® Score's predictive analysis to assess the risk of marketing prospects and credit applicants. FICO® Scores are in use or being implemented in 20 different countries across five continents outside the U.S.

We also have scoring systems for insurance underwriters and marketers. They use the same underlying statistical technology as our FICO® Scores, but are designed to predict applicant or policyholder insurance loss ratio for automobile or homeowners' coverage. Our insurance scores are available in the U.S. and Canada. We license credit bureau scoring services and related consulting directly to users in banking through the FICO® PreScore® service for prescreening solicitation candidates.

We also provide FICO® Score based products, education and information on FICO® Scores to consumers. They are distributed directly by us through our myFICO® service and through licensed distribution partners, including Experian and certain lenders, for use in customer and noncustomer programs.

The myFICO® products and subscription offerings are available online at www.myfico.com. Consumers can use the myFICO.com website to purchase their FICO® Scores, including credit reports associated with the scores, explanations of the factors affecting their scores, and customized information on how to manage their scores. We make available the 28 most widely used versions of the FICO® Score from the three major U.S. credit bureaus through our myFICO® service, representing approximately 95% of all FICO® Scores sold and used by lenders. Customers can use products to simulate how taking specific actions would affect their FICO® Score. Consumers can also subscribe to monitoring services, which deliver alerts via email and text when changes to a user's FICO® Scores or other credit report content are detected. In addition, consumers can purchase identity theft monitoring products that alert consumers of potential risks of identity fraud with comprehensive detection and identity restoration services.

Decision Management Software

We provide analytic and decision management platforms and tools that businesses use to build their own tailored, analytically powered decision management applications on-premises, within the FICO® Analytic Cloud or via third-party cloud environments such as Amazon Web Services. In contrast to our packaged applications developed for specific industry solutions, our tools platform adds scalable and flexible decision management capabilities to virtually any application or operational system. These tools are sold as licensed software, and can be used standalone, or in conjunction with third-party solutions to advance a client's decision management initiatives. We use these tools as common software components for our own decision management solutions, described above in the Applications section. They are also key components of our decision management architecture. We also partner with third-party providers within given industry markets and with major software companies to embed our tools within existing applications.

During fiscal 2017, FICO continued to enhance the FICO® Decision Management Suite, a collection of tools for building, extending, deploying and scaling applications and solutions. The Decision Management Suite includes the FICO® Decision Management Platform, along with capabilities for building and customizing predictive analytic, decisioning, and optimization components and services; developing, orchestrating and publishing analytics-powered applications; and visualizing, analyzing and reporting data trends. The FICO® Decision Management Suite is available in the FICO® Analytic Cloud and on-premises; businesses can choose either or both deployments depending on their specific needs, IT environments and other factors. Recent upgrades and enhancements to the functionality in the suite include:

- FICO® Decision Management Platform, the fundamental backbone of the Suite, which dramatically improves performance, data interchange, model tracking and user collaboration;
- FICO® Decision Management Streaming (formerly known as Data Management Integration Platform), which improves scale, performance and versatility; and
- FICO® Decision Central™ (formerly known as Model Central), an analytic and decision model management tool, which expands its versatility and usability across a much broader range of implementations and use cases.

The FICO® Decision Management Suite combines big data, predictive analytics and decision execution together in an easy-to-use development environment. It enables organizations to rapidly create innovative analytic applications; dramatically increase developer and business user productivity with support for a broad range of analytic and decision tools; and execute decisions in real time. It also empowers business analysts and other domain experts to modify systems in real time without IT involvement, providing organizations with the agility they need to rapidly respond to customer, regulatory and business changes.

The principal products offered are software tools for:

- Rules Management. The FICO® Blaze Advisor® decision rules management system is used to design, develop, execute and maintain rules-based business applications. The Blaze Advisor system enables business users to propose and preview the impact of changes to decisioning logic, to review and approve proposed changes, and commit those changes to production decisioning, all without demanding IT cycles. The Blaze Advisor system is sold as an end-user tool and is also the rules engine within several of our decision management applications. The Blaze Advisor system, available in six languages, is a multi-platform solution that: embeds rules management within existing applications; supports Web Services and service-oriented architecture, Java 2 Enterprise Edition platforms, Microsoft .NET and COBOL for z/OS mainframes; and is the first rules engine to support Java, .NET and COBOL deployment of the same rules. It also incorporates the exclusive Rete III rules execution technology, which improves the efficiency and speed with which the Blaze Advisor® system is able to process and execute complex, high-volume decision rules. FICO's solution for rules management in the cloud is called FICO® Decision Modeler.
- *Predictive Modeling*. FICO® Decision Central™ is a comprehensive offering to help banks and other organizations, including insurance, retail and health care companies, maximize the power of their predictive and decision models and meet stricter regulations for model management. It complements FICO® Model Builder, which enables the user to develop and deploy sophisticated predictive models for use in automated decisions. This software is based on the methodology and tools FICO uses to build both client-level and industry-level predictive models and scorecards, which we have developed over more than 40 years, and includes additional algorithms for rapidly discovering variable relationships, predictive interactions and optimal segmentation. The predictive models produced can be embedded in custom production applications or one of our Decision Management applications and can also be executed in the FICO® Blaze Advisor® system. FICO's solution set for predictive modeling in the cloud is called FICO® Analytic Modeler.
- Optimization. FICO® Xpress Optimization Suite provides operations research professionals with world-class solvers and high-productivity tools to quickly design and deliver custom, mathematically optimal solutions for a wide range of industry problems. Xpress includes a powerful modeling and programming language, with robust scalability, to quickly model and solve even the largest optimization problems. Xpress tools are licensed to end users, consultants and independent software vendors in several industries, and are a core component within FICO® Decision Optimizer. Decision Optimizer is a software tool that enables complex, large-scale optimizations involving dozens of networked action-effect models, and enables exploration and simulation of many optimized scenarios along an efficient frontier of options. The data-driven strategies produced by these tools can be executed by the FICO® Blaze Advisor® system or one of our Decision Management applications. FICO's solution for executing optimization services in the cloud is called FICO® Optimization Modeler.

COMPETITION

The market for our advanced solutions is intensely competitive and is constantly changing. Our competitors vary in size and in the scope of the products and services they offer. We encounter competition from a number of sources, including:

- in-house analytic and systems developers;
- scoring model builders;
- enterprise resource planning and customer relationship management packaged solutions providers;
- business intelligence solutions providers;

- business process management and decision rules management providers;
- providers of credit reports and credit scores;
- providers of automated application processing services;
- data vendors:
- neural network developers and artificial intelligence system builders;
- third-party professional services and consulting organizations;
- providers of account/workflow management software;
- software companies supplying modeling, rules, or analytic development tools; collections and recovery solutions providers; entity resolution and social network analysis solutions providers; and
- providers of cloud-based customer engagement and risk management solutions.

We believe our competitors are unable to provide the mix of products, expertise in predictive analytics and their integration with decision management software, and enhanced customer management capabilities we are able to deliver. However, certain competitors may have larger shares of particular geographic or product markets than we do.

Applications

The competition for our Applications varies by both application and industry.

In the marketing services market, we compete with Acxiom, Epsilon, Equifax, Experian, Harte-Hanks, InfoUSA, KnowledgeBase, Merkle and TargetBase, among others. We also compete with traditional advertising agencies and companies' internal information technology and analytics departments.

In the customer origination market, we compete with Experian, Equifax, and CGI, among others.

In the customer strategy management market, we compete with Experian, among others.

In the fraud management market for banking, we compete primarily with Actimize, a division of NICE Systems, Experian, Detica, a division of BAE, SAS and ACI Worldwide. In the fraud solutions market for health care insurance, we compete with Emdeon, OptumInsight, ViPS, MedStat, Detica, a division of BAE, SAS, Verisk Analytics and IBM. Verisk Analytics and SAS also compete in the property and casualty insurance claims fraud market.

In the collections and recovery market, we compete with both outside suppliers and in-house scoring and computer systems departments for software and ASP servicing. Major competitors include CGI, Experian, and various boutique firms, along with the three major U.S. credit reporting agencies and Experian-Scorex for scoring and optimization projects.

Scores

In this segment, we compete with both outside suppliers and in-house analytics departments for scoring business. Primary competitors among outside suppliers of scoring models are the three major credit reporting agencies in the U.S. and Canada, which are also our partners in offering our scoring solutions, Experian, TransUnion and TransUnion International, Equifax, and VantageScore (a joint venture entity established by the major U.S. credit reporting agencies). Additional competitors include CRIF and other credit reporting agencies outside the U.S., and other data providers like LexisNexis and ChoicePoint, some of which also represent FICO partners.

For our direct-to-consumer services that deliver credit scores, credit reports and consumer credit education services, we compete with other direct to consumer credit and identity services.

Decision Management Software

Our primary competitors in this segment include IBM, SAS, Pegasystems and Angoss.

Competitive Factors

We believe the principal competitive factors affecting our markets include: technical performance; access to unique proprietary databases; availability in SaaS format; product attributes like adaptability, scalability, interoperability, functionality and ease-of-use; product price; customer service and support; the effectiveness of sales and marketing efforts; existing market penetration; and reputation. Although we believe our products and services compete favorably with respect to these factors, we may not be able to maintain our competitive position against current and future competitors.

MARKETS AND CUSTOMERS

Our products and services serve clients in multiple industries, including primarily banking, insurance, retail, healthcare and public agencies. End users of our products include 98 of the 100 largest financial institutions in the U.S., and two-thirds of the largest 100 banks in the world. Our clients also include more than 700 insurers, including nine of the top ten U.S. property and casualty insurers; more than 400 retailers and general merchandisers, including more than one-third of the top 100 U.S. retailers; more than 150 government or public agencies; and more than 150 healthcare and pharmaceuticals companies, including seven of the world's top ten pharmaceuticals companies. All of the top ten companies on the 2017 *Fortune* 500 list use FICO's solutions. In addition, our consumer services are marketed to an estimated 200 million U.S. consumers whose credit relationships are reported to the three major U.S. credit reporting agencies.

In the U.S., we market our products and services primarily through our own direct sales organization that is organized around vertical markets. Sales groups are based in our headquarters and in field offices strategically located both in and outside the U.S. We also market our products through indirect channels, including alliance partners and other resellers.

Our scores are marketed and sold through credit reporting agencies. During fiscal 2017, 2016 and 2015, revenues generated from our agreements with Experian, TransUnion and Equifax collectively accounted for 20%, 19% and 16% of our total revenues, respectively.

Outside the U.S., we market our products and services primarily through our subsidiary sales organizations. Our subsidiaries license and support our products in their local countries as well as within other foreign countries where we do not operate through a direct sales subsidiary. We also market our products through resellers and independent distributors in international territories not covered by our subsidiaries' direct sales organizations.

Our largest market segments outside the U.S. are the United Kingdom and Canada. In addition, we have delivered products to users in more than 100 countries.

Revenues from international customers, including end users and resellers, amounted to 36%, 36% and 40% of our total revenues in fiscal 2017, 2016 and 2015, respectively. See Note 17 to the accompanying consolidated financial statements for a summary of our operating segments and geographic information.

TECHNOLOGY

We specialize in analytics software and decision management technologies that analyze data and drive decision strategies and customer engagement. We maintain active research in a number of fields for the purposes of deriving greater insight and predictive value from data, making various forms of data more usable and valuable to the model-building process, and automating and applying analytics to the various processes involved in making high-volume decisions in real time.

We are widely recognized as a leader in predictive analytics due to our pioneering work in credit scoring and fraud detection. We believe that our tools and processes are among the very best commercially available, and that we are uniquely able to integrate advanced analytic, software and data technologies into mission-critical business solutions that offer superior returns on investment.

In fiscal 2017, we continued to make progress with our FICO® Analytic Cloud and FICO® Decision Management Platform initiatives. We have made many of our software solutions, which were previously available only as on-premises software installations, into SaaS solutions hosted on our cloud. The FICO® Decision Management Suite enables clients to use FICO tools, along with rapid application development tools and visualization tools, to quickly develop their own decision management applications and services. We continue to add functionality to the platform as well as host additional FICO applications in the cloud. These ongoing initiatives are driven by enhancing our core technical capabilities listed below, and extending them through partnerships with other technology providers as well as through employing open source software.

Principal Areas of Expertise

Predictive Modeling. Predictive modeling identifies and mathematically represents underlying relationships in historical data in order to explain the data and make predictions or classifications about future events. Our models summarize large quantities of data to amplify its value. Predictive models typically analyze current and historical data on individuals to produce easily understood metrics such as scores. These scores rank-order individuals by likely future performance, e.g., their likelihood of making credit payments on time, or of responding to a particular offer for services. We also include in this category models that detect the likelihood of a transaction being fraudulent. Our predictive models are frequently operationalized in mission-critical transactional systems and drive decisions and actions in near real time. A number of analytic methodologies underlie our products in this area. These include proprietary applications of both linear and nonlinear mathematical programming algorithms, in which one objective is optimized within a set of constraints, and advanced neural systems, which learn complex patterns from large data sets to predict the probability that a new individual will exhibit certain behaviors of business interest. We also apply various related statistical techniques for analysis and pattern detection within large datasets, and have enhanced our abilities to derive insights and predictive variables from various forms of so-called big data, including unstructured data, such as text.

Decision Analysis and Optimization. Decision analysis refers to the broad quantitative field that deals with modeling, analyzing and optimizing decisions made by individuals, groups and organizations. Whereas predictive models analyze multiple aspects of individual behavior to forecast future behavior, decision analysis analyzes multiple aspects of a given decision to identify the most effective action to take to reach a desired result. We have developed an integrated approach to decision analysis that incorporates the development of a decision model that mathematically maps the entire decision structure; proprietary optimization technology that identifies the most effective strategies, given both the performance objective and constraints; the development of designed testing required for active, continuous learning; and the robust extrapolation of an optimized strategy to a wider set of scenarios than historically encountered. Our optimization capabilities also include a proprietary mathematical modeling and programming language, an easy-to-use development environment, and a state-of-the-art set of optimization algorithms.

Transaction Profiling. Transaction profiling is a patent-protected technique used to extract meaningful information and reduce the complexity of transaction data used in modeling. Many of our products operate using

transactional data, such as credit card purchase transactions, or other types of data that change over time. In its raw form, this data is very difficult to use in predictive models for several reasons. First, an isolated transaction contains very little information about the behavior of the individual who generated the transaction. In addition, transaction patterns change rapidly over time. Finally, this type of data can often be highly complex. To overcome these issues, we have developed a set of techniques that transform raw transactional data into a mathematical representation that reveals latent information, and which make the data more usable by predictive models. This profiling technology accumulates data across multiple transactions of many types to create and update profiles of transaction patterns. These profiles enable our neural network models to efficiently and effectively make accurate assessments of, for example, fraud risk and credit risk within real-time transaction streams.

Customer Data Integration. Decisions made on customers or prospects can benefit from data stored in multiple sources, both inside and outside the enterprise. We have focused on developing data integration processes that are able to assemble and integrate those disparate data sources into a unified view of the customer or household, through the application of persistent keying technology. This data can include structured or unstructured data. Recent innovations include a solution that can integrate multiple data sources in real time and make them available for analysis and decisions.

Decision Management Software. In order to make a decision strategy operational, various steps and rules need to be programmed or exported into the business's software infrastructure, where they can communicate with front-end, customer-facing systems and back-end systems such as billing systems. We have developed software systems, sometimes known as decision engines and decision rules management systems, which perform the necessary functions to execute a decision strategy. Our software includes very efficient programs for these functions, facilitating, for example, business user definition of extremely complex decision strategies using graphical user interfaces; simultaneous testing of hundreds of decision strategies in "champion/challenger" (test/control) mode; high-volume processing and analysis of transactions in real time; integration of multiple data sources; and execution of predictive models for improved behavior forecasts and finer segmentation. Decision management software is an integral part of our decision management applications, described earlier.

Customer Engagement. We have advanced technology for customer engagement, which enables the execution of decisions and customer contact through SMS, email, automated voice, mobile applications and other channels. This technology enables FICO to extend decision management beyond the rendering of the decision to the final resolution with a customer, using the most effective method of communication for a given event and customer. Integrating this technology with our decision management systems has proven to decrease costs, improve staff efficiency, increase customer satisfaction and improve the return from marketing, fraud and collections activities.

Social Network Analysis. We have advanced technology for identity resolution and social network analysis, which enables users to understand the relationships between their organization, customers, events, and third-party actors. Businesses can perform real-time searches across their enterprise data to find, match, and link similar entities and uncover hidden relationship between people, places and things. This technology complements FICO's capabilities in the area of fraud and marketing analytics.

Cybersecurity. We continue to seek projects in the cybersecurity and security information and event management space that leverage FICO's streaming analytics, transaction profiling and unsupervised modeling technologies. These technologies include those successfully leveraged by our fraud management systems, including the FICO® Falcon® Platform, and new methods we believe to be unique approaches for detecting certain types of cyber security threats.

Research and Development Activities

Our research and development expenses were \$110.9 million, \$103.7 million and \$98.8 million in fiscal 2017, 2016 and 2015, respectively. We believe that our future success depends on our ability to continually

maintain and improve our core technologies, enhance our existing products, and develop new products and technologies that meet an expanding range of markets and customer requirements. In the development of new products and enhancements to existing products, we use our own development tools extensively.

We have traditionally relied primarily on the internal development of our products. Based on timing and cost considerations, however, we have acquired, and in the future may consider acquiring, technology or products from third parties.

PRODUCT PROTECTION AND TRADEMARKS

We rely on a combination of patent, copyright, trademark and trade secret laws and confidentiality agreements and procedures to protect our proprietary rights.

We retain the title to and protect the suite of models and software used to develop scoring models as a trade secret. We also restrict access to our source code and limit access to and distribution of our software, documentation and other proprietary information. We have generally relied upon the laws protecting trade secrets and upon contractual nondisclosure safeguards and restrictions on transferability to protect our software and proprietary interests in our product and service methodology and know-how. Our confidentiality procedures include invention assignment and proprietary information agreements with our employees and independent contractors, and nondisclosure agreements with our distributors, strategic partners and customers. We also claim copyright protection for certain proprietary software and documentation.

We have patents on many of our technologies and have patent applications pending on other technologies. The patents we hold may not be upheld as valid and may not prevent the development of competitive products. In addition, patents may never be issued on our pending patent applications or on any future applications that we may submit. We currently hold 166 U.S. and 17 foreign patents with 86 applications pending.

Despite our precautions, it may be possible for competitors or users to copy or reproduce aspects of our software or to obtain information that we regard as trade secrets. In addition, the laws of some foreign countries do not protect proprietary rights to the same extent as do the laws of the U.S. Patents and other protections for our intellectual property are important, but we believe our success and growth will depend principally on such factors as the knowledge, ability, experience and creative skills of our personnel, new products, frequent product enhancements and name recognition.

We have developed technologies for research projects conducted under agreements with various U.S. government agencies or their subcontractors. Although we have acquired commercial rights to these technologies, the U.S. government typically retains ownership of intellectual property rights and licenses in the technologies that we develop under these contracts. In some cases, the U.S. government can terminate our rights to these technologies if we fail to commercialize them on a timely basis. In addition, under U.S. government contracts, the government may make the results of our research public, which could limit our competitive advantage with respect to future products based on funded research.

We have used, registered and/or applied to register certain trademarks and service marks for our technologies, products and services. We currently have 36 trademarks registered in the U.S. and select foreign countries.

PERSONNEL

As of September 30, 2017, we employed 3,299 persons worldwide. Of these, 169 full-time employees were located in our San Jose, California office, 366 full-time employees were located in our San Diego, California office, 187 full-time employees were located in our San Rafael, California office, 186 full-time employees were located in our Roseville, Minnesota office, 130 full-time employees were located in our Fairfax, Virginia office, 786 full-time employees were located in our India-based offices and 344 full-time employees were located in our United Kingdom-based offices. None of our employees are covered by a collective bargaining agreement other than to the extent mandated by applicable law in certain foreign jurisdictions, and no work stoppages have been experienced.

Information regarding our executive officers is included in Item 10, *Directors, Executive Officers and Corporate Governance*, of this Annual Report on Form 10-K.

Item 1A. Risk Factors

Risks Related to Our Business

We continue to expand the pursuit of our Decision Management strategy, and we may not be successful, which could cause our growth prospects and results of operations to suffer.

We continue to expand the pursuit of our business objective to become a leader in helping businesses automate and improve decisions across their enterprises, an approach that we commonly refer to as Decision Management, or "DM." Our DM strategy is designed to enable us to increase our business by selling multiple products to clients, as well as to enable the development of custom client solutions that may lead to opportunities to develop new proprietary scores or other new proprietary products. Our DM strategy is also increasingly focused on the delivery of our products through cloud-based deployments. The market may be unreceptive to our general DM business approach, including being unreceptive to purchasing multiple products from us, unreceptive to our customized solutions, or unreceptive to our cloud-based offerings. As we continue to pursue our DM strategy, we may experience volatility in our revenues and operating results caused by various factors, including differences in revenue recognition treatment between our cloud-based offerings and on-premise software licenses, the timing of investments and other expenditures necessary to develop and operate our cloud-based offerings, and the adoption of new sales and delivery methods. If our DM strategy is not successful, we may not be able to grow our business, growth may occur more slowly than we anticipate, or our revenues and profits may decline.

We derive a substantial portion of our revenues from a small number of products and services, and if the market does not continue to accept these products and services, our revenues will decline.

We expect that revenues derived from our scoring solutions, fraud solutions, customer communication services, customer management solutions and decision management software will continue to account for a substantial portion of our total revenues for the foreseeable future. Our revenues will decline if the market does not continue to accept these products and services. Factors that might affect the market acceptance of these products and services include the following:

- changes in the business analytics industry;
- changes in technology;
- our inability to obtain or use key data for our products;
- saturation or contraction of market demand;
- loss of key customers;
- industry consolidation;
- failure to successfully adopt cloud-based technologies;

- failure to execute our selling approach; and
- inability to successfully sell our products in new vertical markets.

If we are unable to access new markets or develop new distribution channels, our business and growth prospects could suffer.

We expect that part of the growth that we seek to achieve through our DM strategy will be derived from the sale of DM products and service solutions in industries and markets we do not currently serve. We also expect to grow our business by delivering our DM solutions through additional distribution channels. If we fail to penetrate these industries and markets to the degree we anticipate utilizing our DM strategy, or if we fail to develop additional distribution channels, we may not be able to grow our business, growth may occur more slowly than we anticipate, or our revenues and profits may decline.

If we are unable to develop successful new products or if we experience defects, failures and delays associated with the introduction of new products, our business could suffer serious harm.

Our growth and the success of our DM strategy depend upon our ability to develop and sell new products or suites of products, including the development and sale of our cloud-based product offerings. If we are unable to develop new products, or if we are not successful in introducing new products, we may not be able to grow our business or growth may occur more slowly than we anticipate. In addition, significant undetected errors or delays in new products or new versions of products may affect market acceptance of our products and could harm our business, financial condition or results of operations. In the past, we have experienced delays while developing and introducing new products and product enhancements, primarily due to difficulties developing models, acquiring data, and adapting to particular operating environments or certain client or other systems. We have also experienced errors or "bugs" in our software products, despite testing prior to release of the products. Software errors in our products could affect the ability of our products to work with other hardware or software products, could delay the development or release of new products or new versions of products, and could adversely affect market acceptance of our products. Errors or defects in our products that are significant, or are perceived to be significant, could result in rejection of our products, damage to our reputation, loss of revenues, diversion of development resources, an increase in product liability claims, and increases in service and support costs and warranty claims.

We rely on relatively few customers, as well as our contracts with the three major credit reporting agencies, for a significant portion of our revenues and profits. Many of our customers are significantly larger than we are and may have greater bargaining power. The businesses of our largest customers depend, in large part, on favorable macroeconomic conditions. If these customers are negatively impacted by weak global economic conditions, global economic volatility or the terms of these relationships otherwise change, our revenues and operating results could decline.

Most of our customers are relatively large enterprises, such as banks, credit card processors, insurance companies, healthcare firms, telecommunications providers, retailers and public agencies. As a result, many of our customers and potential customers are significantly larger than we are and may have sufficient bargaining power to demand reduced prices and favorable nonstandard terms.

In addition, the U.S. and other key international economies have experienced in the past a downturn in which economic activity was impacted by falling demand for a variety of goods and services, restricted credit, poor liquidity, reduced corporate profitability, volatility in credit, equity and foreign exchange markets, bankruptcies and overall uncertainty with respect to the economy. The European Union ("E.U.") continues to face great economic uncertainty which could impact the overall world economy or various other regional economies. The potential for economic disruption presents considerable risks to our business, including potential bankruptcies or credit deterioration of financial institutions with which we have substantial relationships. Such disruption could result in a decline in the volume of transactions that we execute for our customers.

We also derive a substantial portion of our revenues and operating income from our contracts with the three major credit reporting agencies, Experian, TransUnion and Equifax, and other parties that distribute our products to certain markets. The loss of or a significant change in a relationship with one of these credit reporting agencies with respect to their distribution of our products or with respect to our myFICO® offerings, the loss of or a significant change in a relationship with a major customer, the loss of or a significant change in a relationship with a significant third-party distributor (including credit card processors), or the delay of significant revenues from these sources, could have a material adverse effect on our revenues and results of operations.

We rely on relationships with third parties for marketing, distribution and certain services. If we experience difficulties in these relationships, our future revenues may be adversely affected.

Most of our products rely on distributors, and we intend to continue to market and distribute our products through existing and future distributor relationships. Our Scores segment relies on, among others, Experian, TransUnion and Equifax. Failure of our existing and future distributors to generate significant revenues, demands by such distributors to change the terms on which they offer our products, or our failure to establish additional distribution or sales and marketing alliances, could have a material adverse effect on our business, operating results and financial condition. In addition, certain of our distributors presently compete with us and may compete with us in the future, either by developing competitive products themselves or by distributing competitive offerings. For example, Experian, TransUnion and Equifax have developed a credit scoring product to compete directly with our products and are collectively attempting to sell the product. Competition from distributors or other sales and marketing partners could significantly harm sales of our products and services.

Our acquisition and divestiture activities may disrupt our ongoing business and may involve increased expenses, and we may not realize the financial and strategic goals contemplated at the time of a transaction.

We have acquired and expect to continue to acquire companies, businesses, products, services and technologies. Acquisitions involve significant risks and uncertainties, including:

- our ongoing business may be disrupted and our management's attention may be diverted by acquisition, transition or integration activities;
- an acquisition may not further our business strategy as we expected, we may not integrate acquired
 operations or technology as successfully as we expected or we may overpay for our investments, or
 otherwise not realize the expected return, which could adversely affect our business or operating
 results;
- we may be unable to retain the key employees, customers and other business partners of the acquired operation;
- we may have difficulties entering new markets where we have no or limited direct prior experience or where competitors may have stronger market positions;
- our operating results or financial condition may be adversely impacted by claims or liabilities we
 assume from an acquired company, business, product or technology, including claims by government
 agencies, terminated employees, current or former customers, former stockholders or other third
 parties; pre-existing contractual relationships of an acquired company we would not have otherwise
 entered into; unfavorable revenue recognition or other accounting treatment as a result of an acquired
 company's practices; and intellectual property claims or disputes;
- we may fail to identify or assess the magnitude of certain liabilities or other circumstances prior to
 acquiring a company, business, product or technology, which could result in unexpected litigation or
 regulatory exposure, unfavorable accounting treatment, unexpected increases in taxes due, a loss of
 anticipated tax benefits or other adverse effects on our business, operating results or financial
 condition:

- we may not realize the anticipated increase in our revenues from an acquisition for a number of
 reasons, including if a larger than predicted number of customers decline to renew their contracts, if we
 are unable to sell the acquired products to our customer base or if contract models of an acquired
 company do not allow us to recognize revenues on a timely basis;
- we may have difficulty incorporating acquired technologies or products with our existing product lines and maintaining uniform standards, architecture, controls, procedures and policies;
- our use of cash to pay for acquisitions may limit other potential uses of our cash, including stock repurchases, dividend payments and retirement of outstanding indebtedness;
- to the extent we issue a significant amount of equity securities in connection with future acquisitions, existing stockholders may be diluted and earnings per share may decrease; and
- we may experience additional or unexpected changes in how we are required to account for our
 acquisitions pursuant to U.S. generally accepted accounting principles, including arrangements we
 assume from an acquisition.

We have also divested ourselves of businesses in the past and may do so again in the future. Divestitures involve significant risks and uncertainties, including:

- disruption of our ongoing business;
- reductions of our revenues or earnings per share;
- unanticipated liabilities, legal risks and costs;
- the potential loss of key personnel;
- · distraction of management from our ongoing business; and
- impairment of relationships with employees and customers as a result of migrating a business to new owners.

Because acquisitions and divestitures are inherently risky, our transactions may not be successful and may have a material adverse effect on our business, results of operations, financial condition or cash flows. Acquisitions of businesses having a significant presence outside the U.S. will increase our exposure to the risks of conducting operations in international markets.

Charges to earnings resulting from acquisitions may adversely affect our operating results.

Under business combination accounting standards, we recognize the identifiable assets acquired and the liabilities assumed in acquired companies generally at their acquisition-date fair values and separately from goodwill. Goodwill is measured as the excess amount of consideration transferred, which is also generally measured at fair value, and the net of the amounts of the identifiable assets acquired and the liabilities assumed as of the acquisition date. Our estimates of fair value are based upon assumptions believed to be reasonable but which are inherently uncertain. After we complete an acquisition, the following factors could result in material charges and adversely affect our operating results and may adversely affect our cash flows:

- impairment of goodwill or intangible assets, or a reduction in the useful lives of intangible assets acquired;
- · amortization of intangible assets acquired;
- identification of, or changes to, assumed contingent liabilities, both income tax and non-income tax related, after our final determination of the amounts for these contingencies or the conclusion of the measurement period (generally up to one year from the acquisition date), whichever comes first;
- costs incurred to combine the operations of companies we acquire, such as transitional employee expenses and employee retention, redeployment or relocation expenses;

- charges to our operating results to maintain certain duplicative pre-merger activities for an extended
 period of time or to maintain these activities for a period of time that is longer than we had anticipated,
 charges to eliminate certain duplicative pre-merger activities, and charges to restructure our operations
 or to reduce our cost structure; and
- charges to our operating results resulting from expenses incurred to effect the acquisition.

Substantially all of these costs will be accounted for as expenses that will decrease our net income and earnings per share for the periods in which those costs are incurred. Charges to our operating results in any given period could differ substantially from other periods based on the timing and size of our future acquisitions and the extent of integration activities. A more detailed discussion of our accounting for business combinations and other items is presented in the "Critical Accounting Policies and Estimates" section of Management's Discussion and Analysis of Financial Condition and Results of Operations (Item 7).

Our reengineering initiative may cause our growth prospects and profitability to suffer.

As part of our management approach, we implemented an ongoing reengineering initiative designed to grow revenues through strategic resource allocation and improve profitability through cost reductions. Our reengineering initiative may not be successful over the long term as a result of our failure to reduce expenses at the anticipated level, or a lower, or no, positive impact on revenues from strategic resource allocation. If our reengineering initiative is not successful over the long term, our revenues, results of operations and business may suffer.

The occurrence of certain negative events may cause fluctuations in our stock price.

The market price of our common stock may be volatile and could be subject to wide fluctuations due to a number of factors, including variations in our revenues and operating results. We believe that you should not rely on period-to-period comparisons of financial results as an indication of future performance. Because many of our operating expenses are fixed and will not be affected by short-term fluctuations in revenues, short-term fluctuations in revenues may significantly impact operating results. Additional factors that may cause our stock price to fluctuate include the following:

- variability in demand from our existing customers;
- failure to meet the expectations of market analysts;
- changes in recommendations by market analysts;
- the lengthy and variable sales cycle of many products, combined with the relatively large size of orders for our products, increases the likelihood of short-term fluctuation in revenues;
- consumer or customer dissatisfaction with, or problems caused by, the performance of our products;
- the timing of new product announcements and introductions in comparison with our competitors;
- the level of our operating expenses;
- changes in competitive and other conditions in the consumer credit, banking and insurance industries;
- fluctuations in domestic and international economic conditions:
- our ability to complete large installations, and to adopt and configure cloud-based deployments, on schedule and within budget;
- · acquisition-related expenses and charges; and
- timing of orders for and deliveries of software systems.

In addition, the financial markets have at various times experienced significant price and volume fluctuations that have particularly affected the stock prices of many technology companies and financial services companies, and these fluctuations sometimes have been unrelated to the operating performance of these companies. Broad market fluctuations, as well as industry-specific and general economic conditions, may negatively affect our business and require us to record an impairment charge related to goodwill, which could adversely affect our results of operations, stock price and business.

Our products have long and variable sales cycles. If we do not accurately predict these cycles, we may not forecast our financial results accurately, and our stock price could be adversely affected.

We experience difficulty in forecasting our revenues accurately because the length of our sales cycles makes it difficult for us to predict the quarter in which sales will occur. In addition, our selling approach is complex as we look to sell multiple products and services across our customers' organizations. This makes forecasting of revenues in any given period more difficult. As a result of our sales approach and lengthening sales cycles, revenues and operating results may vary significantly from period to period. For example, the sales cycle for licensing our products typically ranges from 60 days to 18 months. Customers are often cautious in making decisions to acquire our products because purchasing our products typically involves a significant commitment of capital and may involve shifts by the customer to a new software and/or hardware platform or changes in the customer's operational procedures. This may cause customers, particularly those experiencing financial stress, to make purchasing decisions more cautiously. Delays in completing sales can arise while customers complete their internal procedures to approve large capital expenditures and test and accept our applications. Consequently, we face difficulty predicting the quarter in which sales to expected customers will occur and experience fluctuations in our revenues and operating results. If we are unable to accurately forecast our revenues, our stock price could be adversely affected.

We typically have revenue-generating transactions concentrated in the final weeks of a quarter, which may prevent accurate forecasting of our financial results and cause our stock price to decline.

Large portions of our customer agreements are consummated in the weeks immediately preceding quarter end. Before these agreements are consummated, we create and rely on forecasted revenues for planning, modeling and earnings guidance. Forecasts, however, are only estimates and actual results may vary for a particular quarter or longer periods of time. Consequently, significant discrepancies between actual and forecasted results could limit our ability to plan, budget or provide accurate guidance, which could adversely affect our stock price. Any publicly-stated revenue or earnings projections are subject to this risk.

The failure to recruit and retain additional qualified personnel could hinder our ability to successfully manage our business.

Our DM strategy and our future success will depend in large part on our ability to attract and retain experienced sales, consulting, research and development, marketing, technical support and management personnel. The complexity of our products requires highly trained customer service and technical support personnel to assist customers with product installation and deployment. The labor market for these individuals is very competitive due to the limited number of people available with the necessary technical skills and understanding and may become more competitive with general market and economic improvement. We cannot be certain that our compensation strategies will be perceived as competitive by current or prospective employees. This could impair our ability to recruit and retain personnel. We have experienced difficulty in recruiting qualified personnel, especially technical, sales and consulting personnel, and we may need additional staff to support new customers and/or increased customer needs. We may also recruit skilled technical professionals from other countries to work in the U.S., and from the U.S. and other countries to work abroad. Limitations imposed by immigration laws in the U.S. and abroad and the availability of visas in the countries where we do business could hinder our ability to attract necessary qualified personnel and harm our business and future operating results. There is a risk that even if we invest significant resources in attempting to attract, train and retain qualified personnel, we will not succeed in our efforts, and our business could be harmed. The failure of

the value of our stock to appreciate may adversely affect our ability to use equity and equity-based incentive plans to attract and retain personnel, and may require us to use alternative and more expensive forms of compensation for this purpose.

The failure to obtain certain forms of model construction data from our customers or others could harm our business.

Our business requires that we develop or obtain a reliable source of sufficient amounts of current and statistically relevant data to analyze transactions and update our products. In most cases, these data must be periodically updated and refreshed to enable our products to continue to work effectively in a changing environment. We do not own or control much of the data that we require, most of which is collected privately and maintained in proprietary databases. Customers and key business alliances provide us with the data we require to analyze transactions, report results and build new models. Our DM strategy depends in part upon our ability to access new forms of data to develop custom and proprietary analytic tools. If we fail to maintain sufficient data sourcing relationships with our customers and business alliances, or if they decline to provide such data due to privacy concerns, competition concerns, prohibitions or a lack of permission from their customers or partners, we could lose access to required data and our products, and the development of new products, might become less effective. Third parties have asserted copyright and other intellectual property interests in these data, and these assertions, if successful, could prevent us from using these data. Any interruption of our supply of data could seriously harm our business, financial condition or results of operations.

We will continue to rely upon proprietary technology rights, and if we are unable to protect them, our business could be harmed.

Our success depends, in part, upon our proprietary technology and other intellectual property rights. To date, we have relied primarily on a combination of copyright, patent, trade secret, and trademark laws, and nondisclosure and other contractual restrictions on copying and distribution, to protect our proprietary technology. This protection of our proprietary technology is limited, and our proprietary technology could be used by others without our consent. In addition, patents may not be issued with respect to our pending or future patent applications, and our patents may not be upheld as valid or may not prevent the development of competitive products. Any disclosure, loss, invalidity of, or failure to protect our intellectual property could negatively impact our competitive position, and ultimately, our business. There can be no assurance that our protection of our intellectual property rights in the U.S. or abroad will be adequate or that others, including our competitors, will not use our proprietary technology without our consent. Furthermore, litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, or to determine the validity and scope of the proprietary rights of others. Such litigation could result in substantial costs and diversion of resources and could harm our business, financial condition or results of operations.

Some of our technologies were developed under research projects conducted under agreements with various U.S. government agencies or subcontractors. Although we have commercial rights to these technologies, the U.S. government typically retains ownership of intellectual property rights and licenses in the technologies developed by us under these contracts, and in some cases can terminate our rights in these technologies if we fail to commercialize them on a timely basis. Under these contracts with the U.S. government, the results of research may be made public by the government, limiting our competitive advantage with respect to future products based on our research.

If we are subject to infringement claims, it could harm our business.

We expect that products in the industry segments in which we compete, including software products, will increasingly be subject to claims of patent and other intellectual property infringement as the number of products and competitors in our industry segments grow. We may need to defend claims that our products infringe intellectual property rights, and as a result we may:

• incur significant defense costs or substantial damages;

- be required to cease the use or sale of infringing products;
- expend significant resources to develop or license a substitute non-infringing technology;
- discontinue the use of some technology; or
- be required to obtain a license under the intellectual property rights of the third party claiming infringement, which license may not be available or might require substantial royalties or license fees that would reduce our margins.

Moreover, in recent years, individuals and groups that are non-practicing entities, commonly referred to as "patent trolls", have purchased patents and other intellectual property assets for the purpose of making claims of infringement in order to extract settlements. From time to time, we may receive threatening letters or notices or may be the subject of claims that our solutions and underlying technology infringe or violate the intellectual property rights of others. Responding to such claims, regardless of their merit, can be time consuming, costly to defend in litigation, divert management's attention and resources, damage our reputation and brand, and cause us to incur significant expenses.

If our security measures are compromised or unauthorized access to customer or consumer data is otherwise obtained, our products and services may be perceived as not being secure, customers may curtail or cease their use of our products and services, our reputation may be damaged and we could incur significant liabilities.

Our business requires the storage, transmission and utilization of sensitive consumer and customer information. Many of our products are provided by us through the Internet. Security breaches could expose us to a risk of loss, the unauthorized disclosure of consumer or customer information, litigation, indemnity obligations and other liability. If our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise, and as a result, someone obtains unauthorized access to our systems or to consumer or customer information, our reputation may be damaged, our business may suffer and we could incur significant liability. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. Malicious third parties may also conduct attacks designed to temporarily deny customers access to our services. Security compromises experienced by our competitors, by our distributors, by our customers or by us may lead to public disclosures, which may lead to widespread negative publicity. Any security compromise in our industry, whether actual or perceived, could harm our reputation, erode customer confidence in the effectiveness of our security measures, negatively impact our ability to attract new customers, cause existing customers to curtail or cease their use of our products and services, cause regulatory or industry changes that impact our products and services, or subject us to third-party lawsuits, regulatory fines or other action or liability, all of which could materially and adversely affect our business and operating results.

Protection from system interruptions is important to our business. If we experience system interruptions, it could harm our business.

Systems or network interruptions, including interruptions experienced in connection with our cloud-based and other product offerings, could delay and disrupt our ability to develop, deliver or maintain our products and services, causing harm to our business and reputation and resulting in loss of customers or revenue. These interruptions can include software or hardware malfunctions, communication failures, outages or other failures of third party environments or service providers, fires, floods, earthquakes, power losses, equipment failures and other events beyond our control.

Risks Related to Our Industry

Our ability to increase our revenues will depend to some extent upon introducing new products and services. If the marketplace does not accept these new products and services, our revenues may decline.

We have a significant share of the available market in portions of our Scores segment and for certain services in our Applications segment, specifically, the markets for account management services at credit card processors and credit card fraud detection software. To increase our revenues, we must enhance and improve existing products and continue to introduce new products and new versions of existing products that keep pace with technological developments, satisfy increasingly sophisticated customer requirements and achieve market acceptance. We believe much of the future growth of our business and the success of our DM strategy will rest on our ability to continue to expand into newer markets for our products and services. Such areas are relatively new to our product development and sales and marketing personnel. Products that we plan to market in the future are in various stages of development. We cannot assure you that the marketplace will accept these products. If our current or potential customers are not willing to switch to or adopt our new products and services, either as a result of the quality of these products and services or due to other factors, such as economic conditions, our revenues will decrease.

If we fail to keep up with rapidly changing technologies, our products could become less competitive or obsolete.

In our markets, technology changes rapidly, and there are continuous improvements in computer hardware, network operating systems, programming tools, programming languages, operating systems, database technologies, cloud-based technologies and the use of the Internet. If we fail to enhance our current products and develop new products in response to changes in technology or industry standards, or if we fail to bring product enhancements or new product developments to market quickly enough, our products could rapidly become less competitive or obsolete. Our future success will depend, in part, upon our ability to:

- innovate by internally developing new and competitive technologies;
- use leading third-party technologies effectively;
- continue to develop our technical expertise;
- anticipate and effectively respond to changing customer needs;
- initiate new product introductions in a way that minimizes the impact of customers delaying purchases
 of existing products in anticipation of new product releases; and
- influence and respond to emerging industry standards and other technological changes.

If our competitors introduce new products and pricing strategies, it could decrease our product sales and market share, or could pressure us to reduce our product prices in a manner that reduces our margins.

We may not be able to compete successfully against our competitors, and this inability could impair our capacity to sell our products. The market for business analytics is new, rapidly evolving and highly competitive, and we expect competition in this market to persist and intensify. Our regional and global competitors vary in size and in the scope of the products and services they offer, and include:

- in-house analytic and systems developers;
- scoring model builders;
- enterprise resource planning, customer relationship management, and customer communication and mobility solution providers;
- business intelligence solutions providers;
- credit report and credit score providers;

- business process management and decision rules management providers;
- process modeling tools providers;
- automated application processing services providers;
- · data vendors;
- neural network developers and artificial intelligence system builders;
- third-party professional services and consulting organizations;
- account/workflow management software providers;
- software tools companies supplying modeling, rules, or analytic development tools; collections and recovery solutions providers; entity resolution and social network analysis solutions providers; and
- cloud-based customer engagement and risk management solutions providers.

We expect to experience additional competition from other established and emerging companies, as well as from other technologies. For example, certain of our fraud solutions products compete against other methods of preventing credit card fraud, such as credit cards that contain the cardholder's photograph; smart cards; cardholder verification and authentication solutions; biometric measures on devices including fingerprint and face matching; and other card authorization techniques and user verification techniques. Many of our anticipated competitors have greater financial, technical, marketing, professional services and other resources than we do, and industry consolidation is creating even larger competitors in many of our markets. As a result, our competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements. They may also be able to devote greater resources than we can to develop, promote and sell their products. Many of these companies have extensive customer relationships, including relationships with many of our current and potential customers. Furthermore, new competitors or alliances among competitors may emerge and rapidly gain significant market share. For example, Experian, TransUnion and Equifax have formed an alliance that has developed a credit scoring product competitive with our products. If we are unable to respond as quickly or effectively to changes in customer requirements as our competition, our ability to expand our business and sell our products will be negatively affected.

Our competitors may be able to sell products competitive to ours at lower prices individually or as part of integrated suites of several related products. This ability may cause our customers to purchase products that directly compete with our products from our competitors. Price reductions by our competitors could negatively impact our margins, and could also harm our ability to obtain new long-term contracts and renewals of existing long-term contracts on favorable terms.

Laws and regulations in the U.S. and abroad that apply to us or to our customers may expose us to liability, cause us to incur significant expense, affect our ability to compete in certain markets, limit the profitability of or demand for our products, or render our products obsolete. If these laws and regulations require us to change our products and services, it could adversely affect our business and results of operations. New legislation or regulations, or changes to existing laws and regulations, may also negatively impact our business and increase our costs of doing business.

Laws and governmental regulation affect how our business is conducted and, in some cases, subject us to the possibility of government supervision and future lawsuits arising from our products and services. Laws and governmental regulation also influence our current and prospective customers' activities, as well as their expectations and needs in relation to our products and services. Laws and regulations that may affect our business and our current and prospective customers' activities include, but are not limited to, those in the following significant regulatory areas:

• Use of data by creditors and consumer reporting agencies (e.g., the U.S. Fair Credit Reporting Act);

- Laws and regulations that limit the use of credit scoring models (e.g., state "mortgage trigger" or "inquiries" laws, state insurance restrictions on the use of credit-based insurance scores, and the E.U. Consumer Credit Directive);
- Fair lending laws (e.g., the U.S. Truth In Lending Act and Regulation Z, the Equal Credit Opportunity Act and Regulation B, and the Fair Housing Act);
- Privacy and security laws and regulations that limit the use and disclosure of personally identifiable information, require security procedures, or otherwise apply to the collection, processing, storage, use and transmission of protected data (e.g., the U.S. Financial Services Modernization Act of 1999, also known as the Gramm Leach Bliley Act; the E.U. Data Protection Directive and the country-specific regulations that implement that directive; the U.S. Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act; the Cybersecurity Act of 2015; the U.S. Department of Commerce's National Institute of Standards and Technology's Cybersecurity Framework; and identity theft, file freezing, security breach notification and similar state privacy laws);
- Extension of credit to consumers through the Electronic Fund Transfers Act and Regulation E, as well as non-governmental VISA and MasterCard electronic payment standards;
- Regulations and guidelines applicable to secondary market participants (e.g., Fannie Mae and Freddie Mac) that could have an impact on our products;
- Laws and regulations applicable to our customer communication clients and their use of our products and services (e.g., the Telemarketing Sales Rule, Telephone Consumer Protection Act and regulations promulgated thereunder);
- Laws and regulations applicable to our insurance clients and their use of our insurance products and services:
- The application or extension of consumer protection laws, including implementing regulations (e.g., the Consumer Financial Protection Act, the Federal Trade Commission Act, the Fair Debt Collection Practices Act, the Servicemembers Civil Relief Act, the Military Lending Act, and the Credit Repair Organizations Act);
- Laws and regulations governing the use of the Internet and social media, telemarketing, advertising, endorsements and testimonials;
- Anti-bribery and corruption laws and regulations (e.g., the Foreign Corrupt Practices Act);
- Financial regulatory standards (e.g., Sarbanes-Oxley Act requirements to maintain and verify internal process controls, including controls for material event awareness and notification);
- Regulatory requirements for managing third parties (e.g., vendors, contractors, suppliers and distributors);
- Anti-money laundering laws and regulations (e.g., the Bank Secrecy Act and the USA Patriot Act);
- Financial regulatory reform stemming from the Dodd-Frank Wall Street Reform and Consumer Protection Act and the many regulations mandated by that Act, including regulations issued by, and the supervisory and investigative authority of, the Bureau of Consumer Financial Protection; and
- Laws and regulations regarding export controls as they apply to FICO products delivered in non-U.S. countries.

In addition, many U.S. and foreign jurisdictions have passed, or are currently contemplating, a variety of consumer protection, privacy, and data security laws and regulations that may relate to our business or affect the demand for our products and services. For example, on April 14, 2016, the European Parliament formally adopted the General Data Protection Regulation (the "GDPR"), which will supersede the existing Data Protection

Directive of 95/46/EC in 2018. The GDPR imposes more stringent operational requirements for entities processing personal information and greater penalties for noncompliance. The costs and other burdens of compliance with privacy and data security laws and regulations could negatively impact the use and adoption of our solutions and reduce overall demand for them. Additionally, concerns regarding data privacy may cause our customers, or their customers and potential customers, to resist providing the data necessary to allow us to deliver our solutions effectively. Even the perception that the privacy of personal information is not satisfactorily protected or does not meet regulatory requirements could inhibit sales of our solutions and any failure to comply with such laws and regulations could lead to significant fines, penalties or other liabilities. Any such decrease in demand or incurred fines, penalties or other liabilities could have a material adverse effect on our business, results of operations, and financial condition.

In addition to existing laws and regulations, changes in the U.S. or foreign legislative, judicial, regulatory or consumer environments could harm our business, financial condition or results of operations. The laws and regulations above, and changes to them, could affect the demand for or profitability of our products, including scoring and consumer products. New laws and regulations pertaining to our customers could cause them to pursue new strategies, reducing the demand for our products.

Our revenues depend, to a great extent, upon conditions in the banking (including consumer credit) and insurance industries. If our clients' industries experience uncertainty, it will likely harm our business, financial condition or results of operations.

During fiscal 2017, 76% of our revenues were derived from sales of products and services to the banking and insurance industries. Global economic uncertainty experienced in the U.S. and other key international economies in the past produced substantial stress, volatility, illiquidity and disruption of global credit and other financial markets, resulting in the bankruptcy or acquisition of, or government assistance to, several major domestic and international financial institutions. The potential for disruptions presents considerable risks to our businesses and operations. These risks include potential bankruptcies or credit deterioration of financial institutions, many of which are our customers. Such disruption would result in a decline in the revenue we receive from financial and other institutions.

While the rate of account growth in the U.S. bankcard industry has been slow and many of our large institutional customers have consolidated in recent years, we have generated most of our revenue growth from our bankcard-related scoring and account management businesses by selling and cross-selling our products and services to large banks and other credit issuers. As the banking industry continues to experience contraction in the number of participating institutions, we may have fewer opportunities for revenue growth due to reduced or changing demand for our products and services that support customer acquisition programs of our customers. In addition, industry contraction could affect the base of recurring revenues derived from contracts in which we are paid on a per-transaction basis as formerly separate customers combine their operations under one contract. There can be no assurance that we will be able to prevent future revenue contraction or effectively promote future revenue growth in our businesses.

While we are attempting to expand our sales of consumer credit, banking and insurance products and services into international markets, the risks are greater as these markets are also experiencing substantial disruption and we are less well-known in them.

Risks Related to External Conditions

Material adverse developments in global economic conditions, or the occurrence of certain other world events, could affect demand for our products and services and harm our business.

Purchases of technology products and services and decisioning solutions are subject to adverse economic conditions. When an economy is struggling, companies in many industries delay or reduce technology purchases,

and we experience softened demand for our decisioning solutions and other products and services. Global economic uncertainty has produced substantial stress, volatility, illiquidity and disruption of global credit and other financial markets in the past. Any economic uncertainty can negatively affect the businesses and purchasing decisions of companies in the industries we serve. The potential for disruptions presents considerable risks to our businesses and operations. If global economic conditions experience stress and negative volatility, or if there is an escalation in regional or global conflicts or terrorism, we will likely experience reductions in the number of available customers and in capital expenditures by our remaining customers, longer sales cycles, deferral or delay of purchase commitments for our products and increased price competition, which may adversely affect our business, results of operations and liquidity.

For example, on June 23, 2016, the United Kingdom ("U.K.") held a referendum in which voters approved an exit from the E.U., commonly referred to as "Brexit." As a result of the referendum, on March 29, 2017, the U.K. triggered Article 50 of the Lisbon Treaty formally starting negotiations regarding its exit from the E.U. The U.K. has two years to complete these negotiations, and the future relationship between the U.K. and the E.U. remains unknown. Brexit has caused, and may continue to create, volatility in global stock markets and regional and global economic uncertainty, which may cause our customers to closely monitor their costs and reduce their spending budget on our products and services.

Whether or not recent or new legislative or regulatory initiatives or other efforts successfully stabilize and add liquidity to the financial markets, we may need to modify our strategies, businesses or operations, and we may incur additional costs in order to compete in a changed business environment. Given the volatile nature of the global economic environment and the uncertainties underlying efforts to stabilize it, we may not timely anticipate or manage existing, new or additional risks, as well as contingencies or developments, which may include regulatory developments and trends in new products and services. Our failure to do so could materially and adversely affect our business, financial condition, results of operations and prospects.

In operations outside the U.S., we are subject to unique risks that may harm our business, financial condition or results of operations.

A growing portion of our revenues is derived from international sales. During fiscal 2017, 36% of our revenues were derived from business outside the U.S. As part of our growth strategy, we plan to continue to pursue opportunities outside the U.S., including opportunities in countries with economic systems that are in early stages of development and that may not mature sufficiently to result in growth for our business. Accordingly, our future operating results could be negatively affected by a variety of factors arising out of international commerce, some of which are beyond our control. These factors include:

- general economic and political conditions in countries where we sell our products and services;
- difficulty in staffing and efficiently managing our operations in multiple geographic locations and in various countries;
- effects of a variety of foreign laws and regulations, including restrictions on access to personal information;
- import and export licensing requirements;
- longer payment cycles;
- reduced protection for intellectual property rights;
- currency fluctuations;
- changes in tariffs and other trade barriers; and
- difficulties and delays in translating products and related documentation into foreign languages.

There can be no assurance that we will be able to successfully address each of these challenges in the near term. Additionally, some of our business will be conducted in currencies other than the U.S. dollar. Foreign

currency transaction gains and losses are not currently material to our cash flows, financial position or results of operations. However, an increase in our foreign revenues could subject us to increased foreign currency transaction risks in the future.

In addition to the risk of depending on international sales, we have risks incurred in having research and development personnel located in various international locations. We currently have a substantial portion of our product development staff in international locations, some of which have political and developmental risks. If such risks materialize, our business could be damaged.

Our anti-takeover defenses could make it difficult for another company to acquire control of FICO, thereby limiting the demand for our securities by certain types of purchasers or the price investors are willing to pay for our stock.

Certain provisions of our Restated Certificate of Incorporation, as amended, could make a merger, tender offer or proxy contest involving us difficult, even if such events would be beneficial to the interests of our stockholders. These provisions include giving our board the ability to issue preferred stock and determine the rights and designations of the preferred stock at any time without stockholder approval. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or discouraging a third party from acquiring, a majority of our outstanding voting stock. These factors and certain provisions of the Delaware General Corporation Law may have the effect of deterring hostile takeovers or otherwise delaying or preventing changes in control or changes in our management, including transactions in which our stockholders might otherwise receive a premium over the fair market value of our common stock.

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

We are subject to federal and state income taxes in the U.S. and in certain foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. Our future effective tax rates could be adversely affected by changes in tax laws, by our ability to generate taxable income in foreign jurisdictions in order to utilize foreign tax losses, and by the valuation of our deferred tax assets. In addition, we are subject to the examination of our income 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. There can be no assurance that the outcomes from such examinations will not have an adverse effect on our operating results and financial condition.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Our properties consist primarily of leased office facilities for sales, data processing, research and development, consulting and administrative personnel. Our principal locations include:

- approximately 55,000 square feet of office space in San Jose, California in one building under a lease expiring in fiscal 2024; this is used for our corporate headquarters and all of our segments;
- approximately 124,000 square feet of office space in San Rafael, California in one building under a lease expiring in fiscal 2020; this is used for all of our segments;

- approximately 96,000 square feet of office and data center in Roseville and Brooklyn Park, Minnesota, in two buildings under leases expiring in fiscal 2018 and 2023, respectively; 16,000 square feet of this space is subleased to a third party; this is used for all of our segments; and
- approximately 80,000 square feet of office space in San Diego, California in one building under a lease expiring in fiscal 2020; this is used for Applications and Decision Management Software segments.

In addition, we lease an aggregate of approximately 306,000 square feet of office and data center space in a number of smaller domestic locations and internationally in India, the United Kingdom, China, Singapore, and several other locations. We believe that suitable additional space will be available to accommodate future needs. See Note 18 to the accompanying consolidated financial statements for information regarding our obligations under leases.

Item 3. Legal Proceedings

Not Applicable.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

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

Market Information

Our common stock trades on the New York Stock Exchange under the symbol: FICO. According to records of our transfer agent, at October 27, 2017, we had 366 shareholders of record of our common stock.

The following table shows the high and low sales prices for our stock, as listed on the New York Stock Exchange for each quarter in the last two fiscal years:

	High	Low
Fiscal 2016		
October 1 — December 31, 2015	\$ 97.00	\$ 78.11
January 1 — March 31, 2016	\$106.64	\$ 80.20
April 1 — June 30, 2016	\$115.87	\$102.77
July 1 — September 30, 2016	\$132.95	\$111.73
Fiscal 2017		
October 1 — December 31, 2016	\$126.00	\$109.77
January 1 — March 31, 2017	\$133.14	\$118.95
April 1 — June 30, 2017	\$140.64	\$125.71
July 1 — September 30, 2017	\$147.02	\$131.52

Dividends

We paid dividends of \$0.02 per share on a quarterly basis during each of fiscal 2015 and 2016, and the first and second quarters of our fiscal 2017. In May 2017, our Board of Directors discontinued cash dividend payments in favor of using our excess cash flow for share repurchases.

Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)
July 1, 2017 through July 31, 2017	145,429	\$141.15	140,000	\$89,727,312
August 1, 2017 through August 31, 2017	110,828	\$139.56	110,000	\$74,375,781
September 1, 2017 through September 30, 2017	270,142	\$139.50	270,000	\$36,711,201
Total	526,399	\$139.97	520,000	\$36,711,201

Total Number

⁽¹⁾ Includes 6,399 shares delivered in satisfaction of the tax withholding obligations resulting from the vesting of restricted stock units held by employees during the quarter ended September 30, 2017.

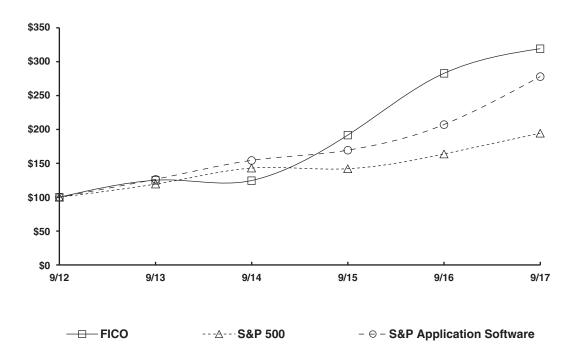
⁽²⁾ In July 2016, our Board of Directors approved a stock repurchase program following the completion of our previous program. This program was open-ended and authorized repurchases of shares of our common stock up to an aggregate cost of \$250.0 million in the open market or in negotiated transactions. In October 2017, our Board of Directors approved a new stock repurchase program following the completion of the July 2016 program. The new program is open-ended and authorizes repurchases of shares of our common stock up to an aggregate cost of \$250.0 million in the open market or in negotiated transactions.

Performance Graph

The following graph shows the total stockholder return of an investment of \$100 in cash on September 30, 2012, in (a) the Company's Common Stock, (b) the Standard & Poor's 500 Stock Index and (c) the Standard & Poor's 500 Application Software Index, in each case with reinvestment of dividends. We do not believe there are any publicly traded companies that compete with us across the full spectrum of our product and service offerings.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among FICO, the S&P 500 Index and the S&P Application Software Index



*\$100 invested on 9/30/12 in stock or index, including reinvestment of dividends. Fiscal year ending September 30.

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Item 6. Selected Financial Data

We acquired CR Software, LLC. ("CR Software") in November 2012, Infoglide Software, Inc. ("Infoglide") in April 2013, InfoCentricity, Inc. ("InfoCentricity") in April 2014, TONBELLER in January 2015, and QuadMetrics in May 2016. Results of operations from the acquisitions are included prospectively from their respective acquisition dates and did not materially impact comparability of the data presented below.

	Year Ended September 30,						
	20	17 (1)	2016	2015 (1)	2014 (1)	2013 (1)	
			(In thousa	nds, except p	er share data)		
Revenues	\$93	32,169	\$881,356	\$838,78	\$788,985	\$743,444	
Operating income	17	77,200	169,592	137,505	5 161,868	161,593	
Net income	12	28,256	109,448	86,502	94,879	90,095	
Basic earnings per share		4.16	3.52	2.75	5 2.80	2.55	
Diluted earnings per share		3.98	3.39	2.65	5 2.72	2.48	
Dividends declared per share		0.04	0.08	0.08	0.08	0.08	
	September 30,						
	2017	201	16	2015	2014	2013	
			(In t	housands)			
Working capital	\$ (15,724)	\$ 2	1,561 \$	42,727	5 (52,877)	\$ 83,308	
Total assets	1,255,620	1,220	0,676 1,	230,163	1,192,298	1,161,547	
Senior notes	244,000	316	5,000	376,000	447,000	455,000	
Revolving line of credit	361,000	255	5,000	232,000	99,000	15,000	
Stockholders' equity	426,537	440	5,828	436,998	454,614	530,677	

⁽¹⁾ Results of operations for fiscal years 2017, 2015, 2014 and 2013 include pre-tax charges of \$4.5 million, \$18.2 million, \$4.3 million and \$3.5 million, respectively, in restructuring and acquisition-related expenses.

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

Our Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") includes the following: a business overview that provides a high-level summary of our strategies and initiatives, financial results and bookings trends that affect our business; a more detailed analysis of our results of operations; our liquidity and capital resources, which discusses key aspects of our statements of cash flows, changes in our balance sheets and our financial commitments; and a summary of our critical accounting policies and estimates we believe are important to understanding the assumptions and judgments incorporated in our reported financial results. Our MD&A should be read in conjunction with Item 8, *Financial Statements and Supplementary Data*, of this Annual Report on Form 10-K. The following discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results may differ from those referred to herein due to a number of factors, including but not limited to risks described in Item 1A, *Risk Factors*, in this Annual Report on Form 10-K.

BUSINESS OVERVIEW

Strategies and Initiatives

During fiscal 2017, our growth initiatives continued to generate significant free cash flow. We utilized our cash to enhance shareholder value through investments in long-term growth initiatives and our share repurchase programs.

While we continued to offer on-premise solutions for many customers who prefer to install and run our software in-house, we continued our expansion into cloud-based solutions in our Applications and Decision Management Software segments to provide growth opportunities with customers that can benefit from the affordability and simplicity of these solutions. The majority of our software solutions are available through the FICO® Analytic Cloud, and during fiscal 2017, we added Amazon Web Services, Inc. ("AWS") as our primary cloud infrastructure provider. We have migrated several core applications, including the Decision Management Suite, to AWS and will migrate additional applications over the next three years. Our cloud bookings accounted for 24% and 26% of our total bookings during fiscal 2017 and 2016, respectively, directly demonstrating the willingness among our customers to engage our cloud-based solutions.

For our Scores segment, our industry leading business-to-business FICO® Scores expanded further into the larger, faster growing U.S. consumer market. The FICO® Score Open Access program, which allows our participating clients to provide their customers with a free FICO® Score along with content to help them understand the FICO® Score their lender uses, continued its expansion during the current year. We commenced this program in 2014 and now have more than 250 million consumer accounts with access to their free FICO® Score. The partnership agreement we launched in fiscal 2015 with Experian, a leading global information services provider, also continued to accelerate during the current year. This partnership provides consumers the FICO® Score that lenders most commonly use in evaluating credit when determining applicant eligibility for new credit cards, car loans, mortgages or other lines of credit and can be accessed through Experian.com. During fiscal 2017, we announced the FICO Financial Inclusion Initiative, a global effort to increase access to affordable credit for consumers and businesses with limited or no credit history, through the use of alternative data. We continue to pursue additional partners to distribute FICO® Scores with their product offerings sold directly to consumers. In addition, we are pursuing opportunities to make FICO® Scores available to third-parties for affinity, white-labeled programs to further penetrate and expand the markets where our scores are available.

We also returned significant cash to shareholders through our stock repurchase program. During fiscal 2017, we repurchased approximately 1.5 million shares at a total repurchase price of \$193.3 million. As of September 30, 2017, we had \$36.7 million remaining under our then-current stock repurchase program.

Overview of Financial Results

Total revenues for fiscal 2017 were \$932.2 million, an increase of 6% from \$881.4 million in fiscal 2016. Revenue in each of our segments increased, with our Scores segment the primary driver increasing by 10% in fiscal 2017 compared to fiscal 2016. Our Applications and Decision Management Software segments increased by 4% and 5% in fiscal 2017 compared to fiscal 2016, respectively. We derive a significant portion of revenues internationally, and 36% of total consolidated revenues were derived from clients outside the U.S. during each of fiscal 2017 and 2016. A significant portion of our revenues are derived from the sale of products and services within the banking (including consumer credit) industry, and 74% and 72% of our revenues were derived from within this industry during fiscal 2017 and 2016, respectively. In addition, we derive a significant share of revenues from transactional or unit-based software license fees, transactional fees derived under credit scoring, data processing, data management and SaaS subscription services arrangements, and annual software maintenance fees. Arrangements with transactional or unit-based pricing accounted for 70% and 69% of our revenues during fiscal 2017 and 2016, respectively. Revenue fluctuations in our business are primarily driven by changes in the transactional volume and license fees.

Operating income for fiscal 2017 was \$177.2 million, an increase of 4% from \$169.6 million in fiscal 2016. Operating margin was 19% for each of fiscal 2017 and 2016. Net income increased 17% to \$128.3 million in fiscal 2017 from \$109.4 million in fiscal 2016 and net margin increased to 14% from 12%. The increases were primarily driven by our adoption of ASU No. 2016-09, "Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" ("ASU 2016-09"), effective October 1, 2016, as further described in Notes 1 and 13 to the accompanying consolidated financial statements. Diluted earnings per share for fiscal 2017 was \$3.98, an increase of 17% from \$3.39 in fiscal 2016.

Bookings

Management regards the volume of bookings achieved as an important indicator of future revenues, but they are not comparable to nor a substitute for an analysis of our revenues. Bookings represent contracts signed in the current reporting period that generate current and future revenue streams. We estimate bookings as of the end of the period in which a contract is signed and initial booking estimates are not updated in future periods for changes between estimated and actual results. Our calculations have varying degrees of certainty depending on the revenue type and individual contract terms. They are subject to a number of risks and uncertainties concerning timing and contingencies affecting product delivery and performance, and estimates consider contract terms, knowledge of the marketplace and experience with our customers, among other factors. Actual revenue and the timing thereof could differ materially from our initial estimates.

Although many of our contracts contain non-cancelable terms, most of our bookings are transactional or service related that depend upon estimates such as volume of transactions, number of active accounts, or number of hours incurred. Since these estimates cannot be considered fixed or firm, we do not believe it is appropriate to characterize bookings as backlog. The following paragraphs discuss the key assumptions used to calculate bookings and the susceptibility of these assumptions to variability for each revenue type.

Transactional and Maintenance Bookings

We calculate transactional bookings as the total estimated volume of transactions or number of accounts under contract, multiplied by the contractual rate. Transactional contracts generally span multiple years and require estimates of future transaction volumes or number of active accounts. We develop estimates from discussions with our customers and examinations of historical data from similar products and customer arrangements. Differences between estimated bookings and actual results occur due to variability in the volume of transactions or number of active accounts estimated. This variability is primarily caused by the economic trends in our customers' industries; individual performance of our customers relative to their competitors; and regulatory and other factors that affect the business environment in which our customers operate.

We calculate maintenance bookings directly from the terms stated in the contract.

Professional Services Bookings

We calculate professional services bookings as the estimated number of hours to complete a project multiplied by the rate per hour. We estimate the number of hours based on our understanding of the project scope, conversations with customer personnel and our experience in estimating professional services projects. Estimated bookings may differ from actual results primarily due to differences in the actual number of hours incurred.

License Bookings

Licenses are sold on a perpetual or term basis and bookings generally equal the fixed amount stated in the contract.

Bookings Trend Analysis

	Bookings	Bookings Yield (1)	Number of Bookings over \$1 Million	Weighted- Average Term (2)
	(In millions)			(months)
Quarter ended September 30, 2017	\$145.9	16%	19	29
Quarter ended September 30, 2016	\$ 80.3	20%	13	37
Year ended September 30, 2017	\$429.0	36%	59	$NM^{(a)} \\$
Year ended September 30, 2016	\$378.0	40%	57	$NM^{(a)} \\$

- (1) Bookings yield represents the percentage of revenue recognized from bookings for the periods indicated.
- (2) Weighted-average term of bookings measures the average term over which bookings are expected to be recognized as revenue.
- (a) NM Measure is not meaningful as our estimate of bookings is as of the end of the period in which a contract is signed, and we do not update our initial booking estimates in future periods for changes between estimated and actual results.

Transactional and maintenance bookings were 41% and 35% of total bookings for the years ended September 30, 2017 and 2016, respectively. Professional services bookings were 43% and 45% of total bookings for the years ended September 30, 2017 and 2016, respectively. License bookings were 16% and 20% of total bookings for the years ended September 30, 2017 and 2016, respectively.

RESULTS OF OPERATIONS

We are organized into the following three reportable segments: Applications, Scores and Decision Management Software. Although we sell solutions and services into a large number of end user product and industry markets, our reportable business segments reflect the primary method in which management organizes and evaluates internal financial information to make operating decisions and assess performance. Segment revenues, operating income, and related financial information for the years ended September 30, 2017, 2016 and 2015 are set forth in Note 17 to the accompanying consolidated financial statements.

Revenues

The following tables set forth certain summary information on a segment basis related to our revenues for fiscal 2017, 2016 and 2015:

	Year I	Revenues Year Ended September 30,			eriod Change	Period-to-Period Percentage Change	
Segment	2017	2016	2015	2017 to 2016	2016 to 2015	2017 to 2016	2016 to 2015
	(In thousands)			(In tho	usands)		
Applications	\$553,167	\$532,642	\$526,274	\$20,525	\$ 6,368	4%	1%
Scores	266,354	241,059	207,007	25,295	34,052	10%	16%
Decision Management Software	112,648	107,655	105,500	4,993	2,155	5%	2%
Total	\$932,169	\$881,356	\$838,781	50,813	42,575	6%	5%

Segment Applications Scores Decision Management Software Total	Year End	Year Ended September 30				
	2017	2016	2015			
Applications	59%	61%	63%			
Scores	29%	27%	25%			
Decision Management Software	12%	_12%	_12%			
Total	100%	100%	100%			

Percentage of Revenues

Applications

	Year l	Year Ended September 30,			eriod Change	Period-to-Period Percentage Change	
	2017			2017 to 2016	2016 to 2015	2017 to 2016	2016 to 2015
		(In thousands)	(In tho	usands)		
Transactional and maintenance	\$348,861	\$328,472	\$320,596	\$20,389	\$ 7,876	6%	2%
Professional services	141,857	138,775	124,562	3,082	14,213	2%	11%
License	62,449	65,395	81,116	(2,946)	(15,721)	(5)%	(19)%
Total	\$553,167	\$532,642	\$526,274	20,525	6,368	4%	1%

Applications segment revenues increased \$20.5 million in fiscal 2017 from 2016 primarily due to a \$10.9 million increase in our *originations* solutions and a \$10.5 million increase in our *customer communication* services. The increase in *originations* solutions was primarily attributable to an increase in services and transactional revenues from our SaaS products. The increase in *customer communication* services was primarily attributable to an increase in transactional revenue as a result of our continued growth in the mobile communication market.

Applications segment revenues increased \$6.4 million in fiscal 2016 from 2015 primarily due to an \$11.3 million increase in our *originations* solutions, a \$10.9 million increase in our *customer communication* services, and a \$5.1 million increase in our *compliance* solutions, partially offset by a \$19.2 million decrease in our *fraud* solutions. The increase in *originations* solutions was primarily attributable to an increase in services revenue. The increase in *customer communication* services was primarily attributable to an increase in transactional revenues as a result of our growth in the mobile communication market. The increase in *compliance* solutions was primarily attributable to our acquisition of TONBELLER in January 2015. The decrease in *fraud* solutions was primarily attributable to a decrease in software revenues mainly driven by decreased number of large multi-year license deals occurring during our fiscal 2016.

Scores

	Year l	Year Ended September 30,			riod Change	Period-to Percentage	
	2017			2017 to 2016	2016 to 2015	2017 to 2016	2016 to 2015
	(In thousands)			(In thou	usands)		
Transactional and maintenance	\$259,780	\$233,655	\$200,426	\$26,125	\$33,229	11%	17%
Professional services	2,849	4,185	2,901	(1,336)	1,284	(32)%	44%
License	3,725	3,219	3,680	506	(461)	16%	(13)%
Total	\$266,354	\$241,059	\$207,007	25,295	34,052	10%	16%

Scores segment revenues increased \$25.3 million in fiscal 2017 from 2016 due to a \$14.2 million increase in our business-to-business scores revenues and an \$11.1 million increase in our business-to-consumer services revenue. The increase in business-to-business scores was primarily attributable to an increase in our transactional scores driven by new originations, prescreen and account management. The increase in business-to-consumer services was primarily attributable to an increase in royalties derived from scores sold indirectly to consumers through credit reporting agencies.

Scores segment revenues increased \$34.1 million in fiscal 2016 from 2015 due to a \$17.8 million increase in our business-to-consumer services revenues and a \$16.3 million increase in our business-to-business scores revenue. The increase in business-to-consumer services was primarily attributable to revenue generated from the agreement with Experian that launched in December 2014 and made FICO® Scores available to consumers on Experian.com. The increase in business-to-business scores was primarily attributable to an increase in our transactional scores driven by new originations, account management and prescreen.

During fiscal 2017, 2016 and 2015, revenues generated from our agreements with Experian, TransUnion and Equifax, collectively accounted for approximately 20%, 19% and 16%, respectively, of our total revenues, including revenues from these customers recorded in our other segments.

Decision Management Software

	Year l	Year Ended September 30,			riod Change	Percentage Change	
	2017	2016	2015	2017 to 2016	2016 to 2015	2017 to 2016	2016 to 2015
		(In thousands))	(In thou	isands)		
Transactional and maintenance	\$ 44,019	\$ 43,792	\$ 43,210	\$ 227	\$ 582	1%	1%
Professional services	34,863	26,778	24,310	8,085	2,468	30%	10%
License	33,766	37,085	37,980	(3,319)	(895)	(9)%	(2)%
Total	\$112,648	\$107,655	<u>\$105,500</u>	4,993	2,155	5%	2%

Pariod to Pariod

Decision Management Software segment revenues increased \$5.0 million in fiscal 2017 from 2016 primarily attributable to an increase in services revenue related to our FICO® Decision Optimizer, partially offset by a decrease in license revenue related to our FICO® Blaze Advisor®.

Decision Management Software segment revenues increased \$2.2 million in fiscal 2016 from 2015 primarily attributable to an increase in services revenue, largely due to an increase in our FICO® Decision Management Platform product partially offset by a decrease in our FICO® Blaze Advisor product.

Operating Expenses and Other Income (Expense), Net

The following tables set forth certain summary information related to our consolidated statements of income and comprehensive income for the fiscal 2017, 2016 and 2015:

	Year Ended September 30,			Period-to-Pe	riod Change	Period-to-Period Percentage Change	
	2017	2016	2015	2017 to 2016	2016 to 2015	2017 to 2016	2016 to 2015
	(In thousa	nds, except 6	employees)	(In thousar	nds, except oyees)		
Revenues	\$932,169	\$881,356	\$838,781	\$ 50,813	\$ 42,575	6%	5%
Operating expenses:							
Cost of revenues	287,123	265,173	270,535	21,950	(5,362)	8%	(2)%
Research and development	110,870	103,669	98,824	7,201	4,845	7%	5%
Selling, general and administrative	339,796	328,940	300,002	10,856	28,938	3%	10%
Amortization of intangible assets	12,709	13,982	13,673	(1,273)	309	(9)%	2%
Restructuring and acquisition-related	4,471		18,242	4,471	(18,242)	100%	(100)%
Total operating expenses	754,969	711,764	701,276	43,205	10,488	6%	1%
Operating income	177,200	169,592	137,505	7,608	32,087	4%	23%
Interest expense, net	(25,790)	(26,633)	(29,150)	843	2,517	(3)%	(9)%
Other income (expense), net	(86)	1,610	883	(1,696)	727	(105)%	82%
Income before income taxes	151,324	144,569	109,238	6,755	35,331	5%	32%
Provision for income taxes	23,068	35,121	22,736	(12,053)	12,385	(34)%	54%
Net income	\$128,256	\$109,448	\$ 86,502	18,808	22,946	17%	27%
Number of employees at fiscal year-end	3,299	3,088	2,803	211	285	7%	10%

	Year Ended September 30,				
	2017	2016	2015		
Revenues	100%	100%	100%		
Operating expenses:					
Cost of revenues	31%	30%	32%		
Research and development	12%	12%	12%		
Selling, general and administrative	36%	37%	36%		
Amortization of intangible assets	1%	2%	2%		
Restructuring and acquisition-related	1%	%	2%		
Total operating expenses	81%	81%	84%		
Operating income	19%	19%	16%		
Interest expense, net	(3)%	(3)%	(3)%		
Income before income taxes	16%	16%	13%		
Provision for income taxes	2%	4%	3%		
Net income	<u>14</u> %	12%	10%		

Percentage of Revenues

Cost of Revenues

Cost of revenues consists primarily of employee salaries and benefits for personnel directly involved in developing, installing and supporting revenue products; travel costs; overhead costs; outside services; internal network hosting costs; software royalty fees; and credit bureau data and processing services.

Cost of revenues as a percentage of revenues increased to 31% during fiscal year 2017 from 30% during fiscal 2016. The \$22.0 million increase was primarily attributable to a \$14.6 million increase in personnel and

labor costs and a \$7.4 million increase in allocated facilities and infrastructure costs. The increase in personnel and labor costs was primarily attributable to an increase in professional services delivery cost driven by higher services revenue and an increase in salaries and benefit costs as a result of our increased headcount. The increase in allocated facilities and infrastructure costs was primarily attributable to increased resource requirements due to our expanded investment in product delivery, support and infrastructure operations.

Cost of revenues as a percentage of revenues decreased to 30% during fiscal year 2016 from 32% during fiscal 2015. The \$5.4 million decrease was primarily attributable to a \$12.9 million decrease in outside services, partially offset by a \$4.6 million increase in personnel and labor costs and a \$2.4 million increase in direct materials cost. The decrease in outside services was primarily attributable to a decrease in our billable consulting projects utilizing temporary resources. The increase in personnel and labor costs was primarily attributable to an increase in incentive cost and share based compensation cost, partially offset by a decrease in professional services delivery cost. The increase in direct materials was primarily attributable to an increase in telecommunications cost associated with the increase in our *customer communications services* subscription based revenue.

In fiscal 2018, we expect cost of revenues as a percentage of revenues will be consistent with those incurred during fiscal 2017.

Research and Development

Research and development expenses include the personnel and related overhead costs incurred in the development of new products and services, including the research of mathematical and statistical models and the development of new versions of our products.

The fiscal year 2017 over 2016 increase of \$7.2 million in research and development expenses was primarily attributable to a \$5.0 million increase in personnel and labor costs and a \$2.6 million increase in facilities and infrastructure costs, mainly driven by our continued investment in the areas of cloud computing and SaaS, as well as new products primarily in the Decision Management Software segment. Research and development expenses as a percentage of revenues were 12% during fiscal 2017, consistent with those incurred during fiscal 2016.

The fiscal year 2016 over 2015 increase of \$4.8 million in research development expenses was primarily attributable to a \$6.7 million increase in personnel and labor costs, partially offset by a \$2.1 million decrease in outside services. The increase in personnel and labor costs was primarily driven by an increase in incentive cost and our continued investment in the areas of cloud computing and software-as-a-service ("SaaS"), as well as several new products primarily in the Decision Management Software segment. The decrease in outside services was primarily attributable to fewer internal projects utilizing temporary resources. Research and development expenses as a percentage of revenues were 12% during fiscal 2016, consistent with those incurred during fiscal 2015.

In fiscal 2018, we expect that research and development expenditures as a percentage of revenues will be consistent with or slightly higher than those incurred during fiscal 2017.

Selling, General and Administrative

Selling, general and administrative expenses consist principally of employee salaries and benefits; travel costs; overhead costs; advertising and other promotional expenses; corporate facilities expenses; legal expenses; business development expenses and the cost of operating computer systems.

The \$10.9 million increase was primarily attributable to a \$21.0 million increase in labor and personnel costs, partially offset by a \$4.0 million decrease in marketing expenses and a \$6.6 million decrease in outside

services. The increase in personnel and costs was primarily attributable to an increase in salaries and benefits as a result of our increased headcount, an increase in commission cost driven by revenue growth, and an increase in stock-based compensation cost. The decrease in marketing expenses was primarily attributable to a company-wide marketing event during our fiscal 2016. The decrease in outside services was primarily attributable to a one-time settlement during fiscal 2017. Selling, general and administrative expenses as a percentage of revenues was 36% during fiscal 2017, materially consistent with those incurred during fiscal 2016.

Selling, general and administrative expenses as a percentage of revenues increased to 37% during fiscal 2016 from 36% during fiscal 2015. The \$28.9 million increase was primarily attributable to a \$23.5 million increase in labor and personnel costs and a \$1.6 million increase in marketing expenses. The increase in personnel and costs was primarily attributable to an increase in salaries and benefits as a result of our increased headcount, an increase in incentive cost, and an increase in stock-based compensation cost primarily related to the reduction in our estimated forfeiture rate as well as higher stock price. The increase in marketing expenses was primarily attributable to our investment in expanding and refining our distribution capabilities.

In fiscal 2018, we expect that selling, general and administrative expenses as a percentage of revenues will be consistent with those incurred during fiscal 2017.

Amortization of Intangible Assets

Amortization of intangible assets consists of expense related to intangible assets recorded in connection with our acquisitions. Our finite-lived intangible assets consist primarily of completed technology and customer contracts and relationships, which are being amortized using the straight-line method over periods ranging from five to fifteen years.

The fiscal 2017 over 2016 decrease in amortization expense of \$1.3 million was primarily attributable to certain assets associated with our Adeptra, HNC and Entiera acquisitions becoming fully amortized in fiscal 2017 and 2016.

The fiscal 2016 over 2015 increase in amortization expense of \$0.3 million was primarily attributable to the addition of intangible assets associated with our TONBELLER acquisition in January 2015, partially offset by certain assets associated with our Entiera acquisition becoming fully amortized in May 2016.

In fiscal 2018, we expect amortization expense will be significantly lower than that incurred in 2017 due to certain assets associated with our Adeptra and HNC acquisitions becoming fully amortized in fiscal 2017.

Restructuring and Acquisition-Related

During fiscal 2017, we incurred net charges totaling \$4.5 million consisting of \$1.7 million in facilities charges associated with vacating excess leased space in San Rafael, California and \$2.8 million in severance charges due to the elimination of 79 positions throughout the Company. Cash payments for all the facilities charges will be paid by the end of fiscal 2020. Cash payments for all the employee separation costs will be paid by the end of the second quarter of fiscal 2018. There were no acquisition-related expenses incurred during fiscal 2017.

There were no restructuring or acquisition-related expenses incurred during fiscal 2016.

During fiscal 2015, we incurred net charges totaling \$17.5 million consisting of \$13.6 million in facilities charges associated with vacating excess leased space in Roseville, Minnesota and San Rafael, California, and \$3.9 million in severance charges due to the elimination of 97 positions throughout the Company. Cash payments for all the facilities charges will be paid by the end of fiscal 2020. Cash payments for all the severance costs were paid by the end of fiscal 2016. We also incurred \$0.7 million in acquisition-related cost primarily associated with our TONBELLER acquisition.

The following table sets forth certain summary information on restructuring expenses for the fiscal 2017, 2016 and 2015:

	I cai Li	car Ended September 30				
	2017	2016	2015			
	()	In thousar	nds)			
Severance costs	\$2,742	\$	\$ 3,908			
Lease exit costs and other adjustments	1,729		13,571			
Total restructuring expense	\$4,471	<u>\$—</u>	\$17,479			

Vear Ended Sentember 30

Interest Expense, Net

Interest expense includes primarily interest on the senior notes issued in May 2008 and July 2010, as well as interest and credit facility fees on the revolving line of credit. On our consolidated statements of income and comprehensive income, interest expense is netted with interest income, which is derived primarily from the investment of funds in excess of our immediate operating requirements.

The fiscal 2017 over 2016 decrease in net interest expense of \$0.8 million was primarily attributable to the \$72.0 million and \$60.0 million principal payments in July 2017 and July 2016, respectively, on the senior notes issued in July 2010, resulting in lower average debt balances for fiscal 2017, partially offset by a higher average outstanding balance on our revolving line of credit.

The fiscal 2016 over 2015 decrease in net interest expense of \$2.5 million was primarily attributable to the \$71.0 million principal payment in May 2015 on the senior notes issued in May 2008 and the \$60.0 million principal payment in July 2016 on the senior notes issued in July 2010, resulting in lower average debt balances for fiscal 2016 for both senior notes, partially offset by a higher average outstanding balance on our revolving line of credit.

In fiscal 2018, we expect net interest expense will be consistent with what we incurred during fiscal 2017.

Other Income (Expense), Net

Other income (expense), net consists primarily of realized investment gains/losses, exchange rate gains/ losses resulting from re-measurement of foreign-currency-denominated receivable and cash balances held by our various reporting entities into their respective functional currencies at period-end market rates, net of the impact of offsetting foreign currency forward contracts, and other non-operating items.

The fiscal 2017 over 2016 change in other income (expense), net of \$1.7 million was primarily attributable to an increase in foreign currency exchange loss during fiscal 2017.

The fiscal 2016 over 2015 change in other income (expense), net of \$0.7 million was primarily attributable to an increase in foreign currency exchange gain during fiscal 2016.

Provision for Income Taxes

Our effective tax rates were 15.2%, 24.3% and 20.8% in fiscal 2017, 2016 and 2015, respectively.

The decrease in our effective tax rate in fiscal 2017 compared to fiscal 2016 was due primarily to the adoption of ASU 2016-09 on October 1, 2016. We no longer record excess tax benefits as an increase to additional paid-in capital, but record such excess tax benefits on a prospective basis as a reduction of income tax expense.

The increase in our effective tax rate in fiscal 2016 compared to 2015 was primarily due to a higher percentage of revenue in higher taxing jurisdictions during the current year, and the favorable settlement of the fiscal 2006-2009 state audits and the 2010 foreign transfer pricing assessment in fiscal 2015, partially offset by higher foreign tax credits, research credits and domestic production deduction credits in fiscal 2016.

As of September 30, 2017, we have not made a provision for U.S. or additional foreign withholding taxes on approximately \$47.0 million of the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries. We intend to reinvest the earnings of non-U.S. subsidiaries in those operations indefinitely, except where we are able to repatriate these earnings to the United States without material incremental tax provision. The determination and estimation of the future income tax consequences in all relevant taxing jurisdictions involves the application of highly complex tax laws in the countries involved, particularly in the United States, and is based on our tax profile in the year of earnings repatriation. Accordingly, it is not practicable to estimate the amount of deferred tax liability related to investments in these foreign subsidiaries.

Operating Income

The following tables set forth certain summary information on a segment basis related to our operating income for the fiscal 2017, 2016 and 2015:

	Year Ended September 30,				o-Period inge	Period-to-Period Percentage Change	
Segment	2017	2016	2015	2017 to 2016	2016 to 2015	2017 to 2016	2016 to 2015
	(In thousands)		(In tho	usands)		
Applications	\$ 159,500	\$ 168,271	\$159,608	\$(8,771)	\$ 8,663	(5)%	5%
Scores	211,918	185,084	151,214	26,834	33,870	14%	22%
Decision Management Software	(10,818)	(3,660)	(6,350)	(7,158)	2,690	196%	(42)%
Unallocated corporate expenses	(104,998)	(110,612)	(89,744)	5,614	(20,868)	(5)%	23%
Total segment operating							
income	255,602	239,083	214,728	16,519	24,355	7%	11%
Unallocated share-based							
compensation	(61,222)	(55,509)	(45,308)	(5,713)	(10,201)	10%	23%
Unallocated amortization expense	(12,709)	(13,982)	(13,673)	1,273	(309)	(9)%	2%
Unallocated restructuring and							
acquisition-related	(4,471)		(18,242)	(4,471)	18,242	100%	(100)%
Operating income	\$ 177,200	\$ 169,592	\$137,505	7,608	32,087	4%	23%

Applications

	Year	er 30,	Percentage of Revenues			
	2017 2016 201		2015	2017	2016	2015
		$(\overline{In\ thousands})$				
Segment revenues	\$ 553,167	\$ 532,642	\$ 526,274	100%	100%	100%
Segment operating expenses	(393,667)	(364,371)	(366,666)	(71)%	(68)%	(70)%
Segment operating income	\$ 159,500	\$ 168,271	\$ 159,608	<u>29</u> %	32%	30%

Scores

	Year Ended September 30,			Percentage of Revenues			
	2017	2016	2015	2017	2016	2015	
	(In thousands)						
Segment revenues	\$266,354	\$241,059	\$207,007	100%	100%	100%	
Segment operating expenses	_(54,436)	(55,975)	(55,793)	(20)%	(23)%	(27)%	
Segment operating income	\$211,918	\$185,084	<u>\$151,214</u>	80%		73% ===	

Decision Management Software

	Year Ended September 30,			Percentage of Revenues		
	2017	2016	2015	2017	2016	2015
	(In thousands)					
Segment revenues	\$ 112,648	\$ 107,655	\$ 105,500	100%	100%	100%
Segment operating expenses	(123,466)	(111,315)	(111,850)	<u>(110</u>)%	$\underline{(103)}\%$	(106)%
Segment operating loss	\$ (10,818)	\$ (3,660)	\$ (6,350)	(10)%	(3)%	(6)%

The fiscal 2017 over 2016 increase in operating income of \$7.6 million was attributable to a \$50.8 million increase in segment revenues, a \$5.6 million decrease in unallocated corporate expenses and a \$1.3 million decrease in amortization expense, partially offset by a \$39.9 million increase in segment operating expenses, a \$5.7 million increase in share-based compensation expense and a \$4.5 million increase in restructuring and acquisition-related expenses.

At the segment level, the \$16.5 million increase in segment operating income was the result of a \$26.8 million increase in our Scores segment operating income and a \$5.6 million decrease in unallocated corporate expenses, partially offset by an \$8.8 million decrease in our Applications segment operating income and a \$7.1 million increase in our Decision Management Software segment operating loss.

The \$8.8 million decrease in Applications segment operating income was attributable to a \$29.3 million increase in segment operating expenses, partially offset by a \$20.5 million increase in segment revenues. Segment operating income as a percentage of segment revenues for Applications decreased to 29% from 32% primarily due to a decrease in sales of our higher-margin software products and an increase in professional services delivery cost.

The \$26.8 million increase in Scores segment operating income was attributable to a \$25.3 million increase in segment revenues and a \$1.5 million decrease in segment operating expenses. Segment operating income as a percentage of segment revenues for Scores increased to 80% from 77% mainly due to an increase in sales of our higher-margin score products.

The \$7.1 million increase in Decision Management Software segment operating loss was attributable to a \$12.1 million increase in segment operating expenses, partially offset by a \$5.0 million increase in segment revenues. Segment operating margin for Decision Management Software decreased to a negative 10% from a negative 3% mainly due to a decrease in sales of our higher-margin software products, our continued investment in sales distribution, and expanded investment in cloud infrastructure operations.

The fiscal 2016 over 2015 increase in operating income of \$32.1 million was attributable to a \$42.7 million increase in segment revenues, an \$18.2 million decrease in restructuring and acquisition-related expenses and a \$2.6 million decrease in segment operating expenses, partially offset by a \$20.9 million increase in unallocated corporate expenses, a \$10.2 million increase in share-based compensation expense and a \$0.3 million increase in

amortization expense. The increase in corporate expenses was primarily driven by a higher incentive cost. The increase in share-based compensation cost was primarily related to the reduction in our estimated forfeiture rate as well as higher stock price.

At the segment level, the \$24.4 million increase in segment operating income was the result of an \$8.7 million increase in our Applications segment operating income, a \$33.9 million increase in our Scores segment operating income and a \$2.7 million decrease in our Decision Management Software segment operating loss, partially offset by a \$20.9 million increase in unallocated corporate expenses.

The \$8.7 million increase in Applications segment operating income was attributable to a \$6.4 million increase in segment revenues and a \$2.3 million decrease in segment operating expenses. Segment operating income as a percentage of segment revenues for Applications increased to 32% from 30% primarily due to improved efficiency in our professional services operations, partially offset by a decrease in sales of our higher-margin software products.

The \$33.9 million increase in Scores segment operating income was attributable to a \$34.1 million increase in segment revenues, partially offset by a \$0.2 million increase in segment operating expenses. Segment operating income as a percentage of segment revenues for Scores increased to 77% from 73% mainly due to an increase in sales of our higher-margin score products.

The \$2.7 million decrease in Decision Management Software segment operating loss was attributable to a \$2.2 million increase in segment revenues and a \$0.5 million decrease in segment operating expenses. Segment operating margin for Decision Management Software improved to a negative 3% from a negative 6% mainly due to improved efficiency in our professional services operations.

CAPITAL RESOURCES AND LIQUIDITY

Outlook

As of September 30, 2017, we had \$105.6 million in cash and cash equivalents, which included \$92.2 million held off-shore by our foreign subsidiaries. We believe these balances, as well as available borrowings from our \$500 million revolving line of credit and anticipated cash flows from operating activities, will be sufficient to fund our working and other capital requirements as well as the \$131.0 million principal payment due in May 2018 on our senior notes issued in May 2008. Under our current financing arrangements, we have no other significant debt obligations maturing over the next twelve months. Additionally, even though we do not anticipate the need to repatriate any undistributed earnings from our foreign subsidiaries for the foreseeable future, we may take advantage of opportunities where we are able to repatriate these earnings to the United States without material incremental tax provision.

In the normal course of business, we evaluate the merits of acquiring technology or businesses, or establishing strategic relationships with or investing in these businesses. We may elect to use available cash and cash equivalents to fund such activities in the future. In the event additional needs for cash arise, or if we refinance our existing debt, we may raise additional funds from a combination of sources, including the potential issuance of debt or equity securities. Additional financing might not be available on terms favorable to us, or at all. If adequate funds were not available or were not available on acceptable terms, our ability to take advantage of unanticipated opportunities or respond to competitive pressures could be limited.

Summary of Cash Flows

	Year Ended September 50,				
	2017	2016	2015		
		(In thousands)			
Cash provided by (used in):					
Operating activities	\$ 225,644	\$ 210,268	\$146,772		
Investing activities	(20,605)	(27,615)	(81,916)		
Financing activities	(180,625)	(190,015)	(72,430)		
Effect of exchange rate changes on cash	5,278	(2,832)	(11,381)		
Increase (decrease) in cash and cash equivalents	\$ 29,692	<u>\$ (10,194)</u>	\$(18,955)		

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Cash Flows from Operating Activities

Our primary method for funding operations and growth has been through cash flows generated from operating activities. Net cash provided by operating activities totaled \$225.6 million in fiscal 2017 compared to \$210.3 million in fiscal 2016. The \$15.3 million increase was mainly attributable to a \$20.0 million decrease in our deferred income tax provision and an \$18.8 million increase in net income, partially offset by a \$24.2 million excess tax benefit related to share-based payments that was recorded as an increase to additional paid-in capital in the prior year but was recorded as a reduction of income tax expense in the current year as a result of our early adoption of ASU 2016-09 effective October 1, 2016.

Net cash provided by operating activities totaled \$210.3 million in fiscal 2016 compared to \$146.8 million in fiscal 2015. The \$63.5 million increase was mainly attributable to a \$22.9 million increase in net income and a \$22.9 million decrease in income tax payments.

Cash Flows from Investing Activities

Net cash used in investing activities totaled \$20.6 million in fiscal 2017 compared to \$27.6 million in fiscal 2016. The \$7.0 million decrease was primarily attributable to a \$5.7 million decrease in net cash used for acquisitions and a \$2.1 million decrease in net cash used for purchases of property and equipment.

Net cash used in investing activities totaled \$27.6 million in fiscal 2016 compared to \$81.9 million in fiscal 2015. The \$54.3 million decrease was attributable to a \$51.3 million decrease in net cash used for acquisitions and a \$3.0 million decrease in net cash used for purchases of property and equipment.

Cash Flows from Financing Activities

Net cash used in financing activities totaled \$180.6 million in fiscal 2017 compared to \$190.0 million in fiscal 2016. The \$9.4 million decrease was primarily due to an \$83.0 million increase in proceeds, net of payments from our revolving line of credit, partially offset by a \$49.2 million increase in net cash used for repurchases of common stock, a \$12.0 million increase in payment on our senior notes, and a \$10.3 million increase in taxes paid related to net share settlement of equity awards.

Net cash used in financing activities totaled \$190.0 million in fiscal 2016 compared to \$72.4 million in fiscal 2015. The \$117.6 million increase was primarily due to a \$110.0 million decrease in proceeds, net of payments from our revolving line of credit and a \$10.5 million increase in taxes paid related to net share settlement of equity awards, partially offset by an \$11.0 million decrease in payment on our senior notes.

Repurchases of Common Stock

In July 2016, our Board of Directors approved a stock repurchase program following the completion of the previously authorized program. This program is open-ended and authorizes repurchases of shares of our common

stock up to an aggregate cost of \$250.0 million in the open market or in negotiated transactions. As of September 30, 2017, we had \$36.7 million remaining under this authorization. During fiscal 2017, 2016 and 2015, we expended \$193.3 million, \$138.4 million and \$130.7 million, respectively, under this and previously authorized stock repurchase programs.

In October 2017, our Board of Directors approved a new stock repurchase program following the completion of the July 2016 program. The new program is open-ended and authorizes repurchases of shares of our common stock up to an aggregate cost of \$250.0 million in the open market or in negotiated transactions.

Dividends

We paid dividends of \$0.02 per share on a quarterly basis during each of fiscal 2015 and 2016, and the first two quarters of our fiscal 2017. In May 2017, our Board of Directors discontinued cash dividend payments in favor of using our excess cash flow for share repurchases.

Revolving Line of Credit

In June 2017, we amended our credit agreement with a syndicate of banks, increasing our borrowing capacity under the unsecured revolving line of credit to \$500 million with an option to increase it by another \$100 million. The revolving line of credit expires on December 30, 2019. Proceeds from the credit facility can be used for working capital and general corporate purposes and may also be used for the refinancing of existing debt, acquisitions, and the repurchase of our common stock. Interest on amounts borrowed under the credit facility is based on (i) a base rate, which is the greater of (a) the prime rate, (b) the Federal Funds rate plus 0.500% and (c) the one-month LIBOR rate plus 1.000%, plus, in each case, an applicable margin, or (ii) an adjusted LIBOR rate plus an applicable margin. The applicable margin for base rate borrowings ranges from 0% to 0.875% and for LIBOR borrowings ranges from 1.000% to 1.875%, and is determined based on our consolidated leverage ratio. In addition, we must pay credit facility fees. The credit facility contains certain restrictive covenants including maintaining a minimum fixed charge ratio of 2.5 and a maximum consolidated leverage ratio of 3.0, subject to a step up to 3.5 following certain permitted acquisitions. The credit agreement also contains other covenants typical of unsecured facilities. As of September 30, 2017, we had \$361.0 million in borrowings outstanding at a weighted average interest rate of 2.365% and were in compliance with all financial covenants under this credit facility.

Senior Notes

In May 2008, we issued \$275 million of Senior Notes in a private placement to a group of institutional investors (the "2008 Senior Notes"). The 2008 Senior Notes were issued in four series with maturities ranging from five to ten years. The weighted average interest rate is 7.2% and the weighted average maturity is 10.0 years for the remaining 2008 Senior Notes. In addition, in July 2010, we issued \$245 million of Senior Notes in a private placement to a group of institutional investors (the "2010 Senior Notes" and, with the 2008 Senior Notes, the "Senior Notes"). The 2010 Senior Notes were issued in four series with maturities ranging from six to ten years. The weighted average interest rate is 5.6% and the weighted average maturity is 9.8 years for the remaining 2010 Senior Notes. The Senior Notes are subject to certain restrictive covenants that are substantially similar to those in the credit agreement for the revolving credit facility, including maintenance of consolidated leverage and fixed charge coverage ratios. The purchase agreements for the Senior Notes also include covenants typical of unsecured facilities. As of September 30, 2017, the carrying value of the Senior Notes was \$244.0 million and we were in compliance with all financial covenants under these purchase agreements.

Contractual Obligations

The following table presents a summary of our contractual obligations at September 30, 2017:

	Year Ended September 30,						
	2018	2019	2020	2021	2022	Thereafter	Total
			(In	thousand	s)		
Senior notes (1)	\$131,000	\$28,000	\$ 85,000	\$ —	\$ —	\$ —	\$244,000
Interest due on debt obligations (2)	15,675	6,269	4,752	_	_	_	26,696
Operating lease obligations	23,787	22,042	13,414	9,619	9,104	22,790	100,756
Unrecognized tax benefits (3)	_	_	_	_	_	_	6,480
Total commitments	\$170,462	\$56,311	\$103,166	\$9,619	\$9,104	\$22,790	\$377,932

- (1) Represents the unpaid principal amount of the Senior Notes.
- (2) Represents interest payments on the Senior Notes.
- (3) Represents unrecognized tax benefits related to uncertain tax positions. As we are not able to reasonably estimate the timing of the payments or the amount by which the liability will increase or decrease over time, the related balances have not been reflected in the section of the table showing payment by fiscal year.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

We prepare our consolidated financial statements in conformity with U.S. generally accepted accounting principles. These accounting principles require management to make certain judgments and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We periodically evaluate our estimates including those relating to revenue recognition, goodwill and other intangible assets resulting from business acquisitions, share-based compensation, income taxes and contingencies and litigation. We base our estimates on historical experience and various other assumptions that we believe to be reasonable based on the specific circumstances, the results of which form the basis for making judgments about the carrying value of certain assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

We believe the following critical accounting policies involve the most significant judgments and estimates used in the preparation of our consolidated financial statements:

Revenue Recognition

Software Licenses

Software license fee revenue is recognized when persuasive evidence of an arrangement exists, software is made available to our customers, the fee is fixed or determinable and collection is probable. The determination of whether fees are fixed or determinable and collection is probable involves the use of assumptions. If at the outset of an arrangement we determine that the arrangement fee is not fixed or determinable, revenue is deferred until the arrangement fee becomes fixed or determinable, assuming all other revenue recognition criteria have been met. If at the outset of an arrangement we determine that collectability is not probable, revenue is deferred until the earlier of when collectability becomes probable or the receipt of payment. If there is uncertainty as to the

customer's acceptance of our deliverables, revenue is not recognized until the earlier of receipt of customer acceptance, expiration of the acceptance period, or when we can demonstrate we meet the acceptance criteria. We evaluate contract terms and customer information to ensure that these criteria are met prior to our recognition of license fee revenue.

We use the residual method to recognize revenue when a software arrangement includes one or more elements to be delivered at a future date provided the following criteria are met: (i) vendor-specific objective evidence ("VSOE") of the fair value does not exist for one or more of the delivered items but exists for all undelivered elements, (ii) all other applicable revenue recognition criteria are met and (iii) the fair value of all of the undelivered elements is less than the arrangement fee. VSOE of fair value is based on the normal pricing practices for those products and services when sold separately by us and customer renewal rates for post-contract customer support services. Under the residual method, the fair value of the undelivered elements is deferred and the remaining portion of the arrangement fee is recognized as revenue. If evidence of the fair value of one or more undelivered elements does not exist, the revenue is deferred and recognized when delivery of those elements occurs or when fair value can be established. Changes to the elements in a software arrangement, the ability to identify VSOE for those elements, the fair value of the respective elements, and change to a product's estimated life cycle could materially impact the amount of earned and unearned revenue.

Revenues from post-contract customer support services, such as software maintenance, are recognized on a straight-line basis over the term of the support period. The majority of our software maintenance agreements provide technical support as well as unspecified software product upgrades and releases when and if made available by us during the term of the support period.

Transactional-Based Revenues

Transactional-based revenue is recognized when persuasive evidence of an arrangement exists, fees are fixed or determinable, and collection is probable. Revenues from our credit scoring, data processing, data management and SaaS subscription services are recognized as these services are performed. Revenues from transactional or unit-based license fees under software license arrangements, credit scoring, data processing, data management and SaaS subscription services agreements are recognized based on minimum contractual amounts or on system usage that exceeds minimum contractual amounts. Certain of our transactional-based revenues are based on transaction or active account volumes as reported by our clients. In instances where volumes are reported to us in arrears, we estimate volumes based on preliminary customer transaction information or average actual reported volumes for an immediate trailing period. Differences between our estimates and actual final volumes reported are recorded in the period in which actual volumes are reported. We have not experienced significant variances between our estimates and actual reported volumes in the past and anticipate that we will be able to continue to make reasonable estimates in the future. If for some reason we were unable to reasonably estimate transaction volumes in the future, revenue may be deferred until actual customer data is received, and this could have a material impact on our consolidated results of operations.

Consulting Services

We provide consulting, training, model development and software integration services under both hourly-based time and materials and fixed-priced contracts. Revenues from these services are generally recognized as the services are performed. For fixed-price service contracts, we use a proportionate performance model with hours as the input method of attribution to determine progress towards completion, with consideration also given to output measures, such as contract milestones, when applicable. In such instances, management is required to estimate the total estimated hours of the project. Adjustments to estimates are made in the period in which the facts requiring such revisions become known and, accordingly, recognized revenues and profits are subject to revisions as the contract progresses to completion. Estimated losses, if any, are recorded in the period in which current estimates of total contract revenue and contract costs indicate a loss. If substantive uncertainty related to customer acceptance of services exists, we defer the associated revenue until the contract is completed. We have

not experienced significant variances between our estimates and actual hours in the past and anticipate that we will be able to continue to make reasonable estimates in the future. If for some reason we are unable to accurately estimate the input measures, revenue would be deferred until the contract is complete, and this could have a material impact on our consolidated results of operations.

Services that are sold in connection with software license arrangements generally qualify for separate accounting from the license element because they do not involve significant production, modification or customization of our products and are not otherwise considered to be essential to the functionality of our software. In arrangements where the professional services do not qualify for separate accounting from the license element, the combined software license and professional services revenue are recognized based on contract accounting using either the percentage-of-completion or completed-contract method.

Multiple-Deliverable Arrangements including Non-Software

When we enter into a multiple-deliverable arrangement that includes non-software, each deliverable is accounted for as a separate unit of accounting if the following criteria are met: (i) the delivered item or items have value to the customer on a standalone basis and (ii) for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. We consider a deliverable to have standalone value if we sell this item separately or if the item is sold by another vendor or could be resold by the customer; for example, we conclude professional services offered along with our SaaS subscription services typically have standalone value using this criteria. Further, our revenue arrangements generally do not include a general right of return relative to delivered products. Revenue for multiple element arrangements is allocated to the software and non-software deliverables based on a relative selling price. We use VSOE in our allocation of arrangement consideration when it is available. We define VSOE as a median price of recent standalone transactions that are priced within a narrow range, as defined by us. If a product or service is seldom sold separately, it is unlikely that we can determine VSOE. In circumstances when VSOE does not exist, we then assess whether we can obtain third-party evidence ("TPE") of the selling price. It may be difficult for us to obtain sufficient information on competitor pricing to substantiate TPE and therefore we may not always be able to use TPE. When we are unable to establish selling price using VSOE or TPE, we use estimated selling price ("ESP") in our allocation of arrangement consideration. The objective of ESP is to determine the price at which we would transact if the product or service were sold by us on a standalone basis. Our determination of ESP involves weighting several factors based on the specific facts and circumstances of each arrangement. The factors include, but are not limited to, geographies, market conditions, gross margin objectives, pricing practices and controls, customer segment pricing strategies and the product lifecycle. Historically, there have been no significant changes in our ESP used in allocation of arrangement consideration. We do not believe there is a reasonable likelihood there will be a material change in the future estimates.

If a deliverable does not have standalone value because the aforementioned criteria are not met, we combine it with the other applicable undelivered item(s) within the arrangement and account for the multiple deliverables as one combined unit of accounting. For example, for hosting arrangements requiring a highly specialized and unique set of initial implementation and setup services prior to the commencement of hosting services, we typically conclude that these implementation or setup services do not have value to the customer on a stand-alone basis; therefore, we combine them with the hosting services as a combined unit of accounting. Revenue is recognized upon commencement of our hosting services over the expected life of the customer relationship.

Gross vs. Net Revenue Reporting

We apply accounting guidance to determine whether we report revenue for certain transactions based upon the gross amount billed to the customer, or the net amount retained by us. In accordance with the guidance we record revenue on a gross basis for sales in which we have acted as the principal and on a net basis for those sales in which we have in substance acted as an agent or broker in the transaction.

Business Combinations

Accounting for our acquisitions requires us to recognize, separately from goodwill, the assets acquired and the liabilities assumed at their acquisition-date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred and the net of the acquisition-date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of income and comprehensive income.

Accounting for business combinations requires our management to make significant estimates and assumptions, especially at the acquisition date, including our estimates for intangible assets, contractual obligations assumed, pre-acquisition contingencies and contingent consideration, where applicable. If we cannot reasonably determine the fair value of a pre-acquisition contingency (non-income tax related) by the end of the measurement period, we will recognize an asset or a liability for such pre-acquisition contingency if: (i) it is probable that an asset existed or a liability had been incurred at the acquisition date and (ii) the amount of the asset or liability can be reasonably estimated. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Subsequent to the measurement period, changes in our estimates of such contingencies will affect earnings and could have a material effect on our consolidated results of operations and financial position.

Examples of critical estimates in valuing certain of the intangible assets we have acquired include but are not limited to: (i)future expected cash flows from software license sales, support agreements, consulting contracts, other customer contracts and acquired developed technologies and patents; (ii) expected costs to develop the in-process research and development into commercially viable products and estimated cash flows from the projects when completed; and (iii) the acquired company's brand and competitive position, as well as assumptions about the period of time the acquired brand will continue to be used in the combined company's product portfolio. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results. Historically, there have been no significant changes in our estimates or assumptions. To the extent a significant acquisition is made during a fiscal year, as appropriate we will expand the discussion to include specific assumptions and inputs used to determine the fair value of our acquired intangible assets.

In addition, uncertain tax positions and tax-related valuation allowances assumed in connection with a business combination are initially estimated as of the acquisition date. We reevaluate these items quarterly based upon facts and circumstances that existed as of the acquisition date with any adjustments to our preliminary estimates being recorded to goodwill provided that we are within the measurement period. Subsequent to the measurement period or our final determination of the tax allowance's or contingency's estimated value, whichever comes first, changes to these uncertain tax positions and tax-related valuation allowances will affect our provision for income taxes in our consolidated statements of income and comprehensive income and could have a material impact on our consolidated results of operations and financial position. Historically, there have been no significant changes in our valuation allowances or uncertain tax positions as it relates to business combinations. We do not believe there is a reasonable likelihood there will be a material change in the future estimates.

Goodwill, Acquisition Intangibles and Other Long-Lived Assets — Impairment Assessment

Goodwill represents the excess of cost over the fair value of identifiable assets acquired and liabilities assumed in business combinations. We assess goodwill for impairment for each of our reporting units on an

annual basis during the fourth quarter using a July 1 measurement date unless circumstances require a more frequent measurement. We have determined that our reporting units are the same as our reportable segments. When evaluating goodwill for impairment, we may first perform an assessment qualitatively whether it is more likely than not that a reporting unit's carrying amount exceeds its fair value, referred to as a "step zero" approach. If, based on the review of the qualitative factors, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying value, we would bypass the two-step impairment test. Events and circumstances we consider in performing the "step zero" qualitative assessment include macro-economic conditions, market and industry conditions, internal cost factors, share price fluctuations, and the operational stability and the overall financial performance of the reporting units. If we conclude that it is more likely than not that a reporting unit's fair value is less than its carrying amount, we would perform the first step ("step one") of the two-step impairment test and calculate the estimated fair value of the reporting unit by using discounted cash flow valuation models and by comparing our reporting units to guideline publicly-traded companies. These methods require estimates of our future revenues, profits, capital expenditures, working capital, and other relevant factors, as well as selecting appropriate guideline publicly-traded companies for each reporting unit. We estimate these amounts by evaluating historical trends, current budgets, operating plans, industry data, and other relevant factors. Using assumptions that are different from those used in our estimates, but in each case reasonable, could produce significantly different results and materially affect the determination of fair value and/ or goodwill impairment for each reporting unit. For example, if the economic environment impacts our forecasts beyond what we have anticipated, it could cause the fair value of a reporting unit to fall below its respective carrying value.

For fiscal 2016 and 2015, we performed a step zero qualitative analysis for our annual assessment of goodwill impairment. After evaluating and weighing all relevant events and circumstances, we concluded that it is not more likely than not that the fair value of any of our reporting units was less their carrying amounts. Consequently, we did not perform a step one quantitative analysis. For fiscal 2017, we elected to proceed directly to the step one quantitative analysis for all of our reporting units, as three years had elapsed since the date of our previous quantitative valuation. There was a substantial excess of fair value over carrying value for each of our reporting units and we determined goodwill was not impaired for any of our reporting units for fiscal 2017.

Our intangible assets that have finite useful lives and other long-lived assets are assessed for potential impairment when there is evidence that events and circumstances related to our financial performance and economic environment indicate the carrying amount of the assets may not be recoverable. When impairment indicators are identified, we test for impairment using undiscounted cash flows. If such tests indicate impairment, then we measure and record the impairment as the difference between the carrying value of the asset and the fair value of the asset. Significant management judgment is required in forecasting future operating results used in the preparation of the projected cash flows. Should different conditions prevail, material write downs of our intangible assets or other long-lived assets could occur. We review the estimated remaining useful lives of our acquired intangible assets at each reporting period. A reduction in our estimate of remaining useful lives, if any, could result in increased annual amortization expense in future periods. We did not recognize any impairment charges on intangible assets that have finite useful lives or other long-lived assets in fiscal 2017, 2016 and 2015.

As discussed above, while we believe that the assumptions and estimates utilized were appropriate based on the information available to management, different assumptions, judgments and estimates could materially affect our impairment assessments for our goodwill, acquired intangibles with finite lives and other long-lived assets. Historically, there have been no significant changes in our estimates or assumptions that would have had a material impact for our goodwill or intangible assets impairment assessment. We believe our projected operating results and cash flows would need to be significantly less favorable to have a material impact on our impairment assessment. However, based upon our historical experience with operations, we do not believe there is a reasonable likelihood of a significant change in our projections.

Share-Based Compensation

We measure stock-based compensation cost at the grant date based on the fair value of the award and recognize it as expense, net of estimated forfeitures, over the vesting or service period, as applicable, of the stock award (generally three to four years). We use the Black-Scholes valuation model to determine the fair value of our stock options and a Monte Carlo valuation model to determine the fair value of our market share units. Our valuation models and generally accepted valuation techniques require us to make assumptions and to apply judgment to determine the fair value of our awards. These assumptions and judgments include estimating the volatility of our stock price, expected dividend yield, employee turnover rates and employee stock option exercise behaviors. Historically, there have been no material changes in our estimates or assumptions. We do not believe there is a reasonable likelihood there will be a material change in the future estimates or assumptions. See Note 14 to the accompanying consolidated financial statements for further discussion of our share-based employee benefit plans.

Income Taxes

We estimate our income taxes based on the various jurisdictions where we conduct business, which involves significant judgment in determining our income tax provision. We estimate our current tax liability using currently enacted tax rates and laws and assess temporary differences that result from differing treatments of certain items for tax and accounting purposes. These differences result in deferred tax assets and liabilities recorded on our consolidated balance sheets using the currently enacted tax rates and laws that will apply to taxable income for the years in which those tax assets are expected to be realized or settled. We then assess the likelihood our deferred tax assets will be realized and to the extent we believe realization is not more likely than not, we establish a valuation allowance. When we establish a valuation allowance or increase this allowance in an accounting period, we record a corresponding income tax expense in our consolidated statements of income and comprehensive income. In assessing the need for the valuation allowance, we consider future taxable income in the jurisdictions we operate; our ability to carry back tax attributes to prior years; an analysis of our deferred tax assets and the periods over which they will be realizable; and ongoing prudent and feasible tax planning strategies. An increase in the valuation allowance would have an adverse impact, which could be material, on our income tax provision and net income in the period in which we record the increase. We have historically had minimal changes in our valuation allowances related to deferred tax assets, as described in Note 13 to the accompanying consolidated financial statements.

We recognize and measure benefits for uncertain tax positions using a two-step approach. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the technical merits of the tax position indicate it is more likely than not that the tax position will be sustained upon audit, including resolution of any related appeals or litigation processes. For tax positions more likely than not of being sustained upon audit, the second step is to measure the tax benefit as the largest amount more than 50% likely of being realized upon settlement. Significant judgment is required to evaluate uncertain tax positions and they are evaluated on a quarterly basis. Our evaluations are based upon a number of factors, including changes in facts or circumstances, changes in tax law, correspondence with tax authorities during the course of audits and effective settlement of audit issues. Changes in the recognition or measurement of uncertain tax positions could result in material increases or decreases in our income tax expense in the period in which we make the change, which could have a material impact on our effective tax rate and operating results. Historically, settlements related to our unrecognized tax benefits have been minimal, as described in Note 13 to the accompanying consolidated financial statements.

A description of our accounting policies associated with tax-related contingencies and valuation allowances assumed as part of a business combination is provided under "Business Combinations" above.

Contingencies and Litigation

We are subject to various proceedings, lawsuits and claims relating to products and services, technology, labor, shareholder and other matters. We are required to assess the likelihood of any adverse outcomes and the

potential range of probable losses in these matters. If the potential loss is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. If the potential loss is considered less than probable or the amount cannot be reasonably estimated, disclosure of the matter is considered. The amount of loss accrual or disclosure, if any, is determined after analysis of each matter, and is subject to adjustment if warranted by new developments or revised strategies. Due to uncertainties related to these matters, accruals or disclosures are based on the best information available at the time. Significant judgment is required in both the assessment of likelihood and in the determination of a range of potential losses. Revisions in the estimates of the potential liabilities could have a material impact on our consolidated financial position or consolidated results of operations. Historically, there have been no material changes in our estimates or assumptions. We do not believe there is a reasonable likelihood there will be a material change in the future estimates.

New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

Effective October 1, 2016, we early adopted ASU No. 2016-09, "Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" ("ASU 2016-09"). ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. As a result of the adoption, we recognized \$24.7 million of excess tax benefits related to share-based payments in our provision for income taxes during fiscal 2017. These items were historically recorded as additional paid-in capital. We elected to apply the change retrospectively in presentation to our consolidated statements of cash flows and no longer classified the excess tax benefits from employee stock plans as a reduction from operating cash flows, which resulted in increases to both net cash provided by operating activities and net cash used in financing activities of \$25.0 million and \$13.8 million for fiscal 2016 and 2015, respectively. Our adoption of ASU 2016-09 also impacted the calculation of diluted weighted-average shares under the treasury stock method as we no longer increase or decrease the assumed proceeds from the vesting of, or an employee exercising, a share-based payment award by the amount of excess tax benefits or deficiencies taken to additional paid-in capital. During fiscal 2017, the impact was immaterial. Given our historical practice of including employee withholding taxes paid within financing activities in the statement of cash flows, no prior period reclassifications are required by the clarifications on classification provided by ASU 2016-09. Furthermore, we elected to continue to estimate expected forfeitures of employee equity awards to determine the amount of compensation expense to be recognized in each period.

Effective October 1, 2016, we retrospectively adopted ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance" ("ASU 2015-03"). ASU 2015-03 requires an entity to present debt issuance costs related to a recognized debt liability, other than those relating to line-of-credit arrangements, in the balance sheet as a direct deduction from the related debt liability rather than as an asset. As a result of the adoption, at September 30, 2017, the amount of debt issuance costs reflected as a deduction of long-term debt was \$0.2 million. At September 30, 2016, the amount of debt issuance costs reclassified from other assets to a deduction of long-term debt was \$0.4 million.

Recent Accounting Pronouncements Not Yet Adopted

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09"). ASU 2014-09 requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. ASU 2014-09 will replace most existing revenue recognition guidance in U.S. Generally Accepted Accounting Principles when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. In August 2015, the FASB issued ASU No. 2015-14, "Deferral of the Effective Date" ("ASU 2015-14"), which defers the effective date for ASU

2014-09 by one year. For public entities, the guidance in ASU 2014-09 will be effective for annual reporting periods beginning after December 15, 2017 (including interim reporting periods within those periods), which means it will be effective for our fiscal year beginning October 1, 2018. Early adoption is permitted to the original effective date of December 15, 2016 (including interim reporting periods within those periods). In March 2016, the FASB issued ASU No. 2016-08, "Principal versus Agent Considerations (Reporting Revenue versus Net)" ("ASU 2016-08"), which clarifies the implementation guidance on principal versus agent considerations in the new revenue recognition standard. In April 2016, the FASB issued ASU No. 2016-10, "Identifying Performance Obligations and Licensing" ("ASU 2016-10"), which reduces the complexity when applying the guidance for identifying performance obligations and improves the operability and understandability of the license implementation guidance. In May 2016, the FASB issued ASU No. 2016-12 "Narrow-Scope Improvements and Practical Expedients" ("ASU 2016-12"), which amends the guidance on transition, collectability, noncash consideration and the presentation of sales and other similar taxes. In December 2016, the FASB further issued ASU 2016-20, "Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers" ("ASU 2016-20"), which makes minor corrections or minor improvements to the Codification that are not expected to have a significant effect on current accounting practice or create a significant administrative cost to most entities. The amendments are intended to address implementation issues that were raised by stakeholders and provide additional practical expedients to reduce the cost and complexity of applying the new revenue standard. These amendments have the same effective date as the new revenue standard. Preliminarily, we plan to adopt Topic 606 in the first quarter of our fiscal 2019 using the retrospective transition method, and are continuing to evaluate the impact our pending adoption of Topic 606 will have on our consolidated financial statements.

We have established a cross-functional implementation team consisting of representatives across the organization to address the scope of work required to implement the recognition and disclosure requirements under the new standard. This cross-functional implementation team has developed a project plan, including evaluating customer contracts across the organization, developing policies, processes and tools to report financial results, and implementing and evaluating our internal controls over financial reporting that will be necessary under the new standard. We currently plan to adopt Topic 606 in the first quarter of our fiscal 2019 using the retrospective transition method. Our ability to adopt using the full retrospective method is dependent on system readiness, and the completion of our analysis of information necessary to restate prior period financial statements. As we continue to assess the new standard along with industry trends and additional interpretive guidance, we may adjust our implementation plan accordingly.

We are continuing to assess the impact of adopting Top 606 on our consolidated financial statements and believe the new standard will impact the following policies and disclosures:

- Timing of revenue recognition of license revenue on term licenses and transactional revenue on
 guaranteed minimum fees related to our on-premises software products. Under the new standard, we
 expect to recognize revenue when control of the license is transferred to the customer, rather than at the
 date payments become due and payable, or ratably over the term of the contract required under the
 current standard;
- Presentation of contract balances. Under the new standard, when we enter into noncancellable contracts
 that provide unconditional rights to payment from our customers for services that we have not yet
 completed providing or services we will provide in the near future, we expect to present the
 unconditional rights as receivables, regardless of whether cash has been received from customers;
- Required disclosures including information about remaining transaction price and when we expect to recognize revenue; and
- Accounting for commissions under the new standard will result in the deferral of incremental commission costs for obtaining contracts.

We do not currently expect Topic 606 to have a significant effect on the timing of revenue recognition for our maintenance or professional services revenues, or SaaS contracts.

In October 2016, the FASB issued ASU No. 2016-16, "*Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*" ("ASU 2016-16"). ASU 2016-16 requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The guidance is effective for fiscal years and interim periods beginning after December 15, 2017, which means it will be effective for our fiscal year beginning October 1, 2018. ASU 2016-16 should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings at the beginning of the period of adoption. Early adoption is permitted as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued. We do not believe that adoption of ASU 2016-16 will have a significant impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)" ("ASU 2016-02"), which requires lessees to put most leases on their balance sheets but recognize the expenses on their income statements in a manner similar to current practice. ASU 2016-02 states that a lessee would recognize a lease liability for the obligation to make lease payments and a right-to-use asset for the right to use the underlying asset for the lease term. ASU 2016-02 is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2018, which means it will be effective for our fiscal year beginning October 1, 2019. Early adoption is permitted. We are currently evaluating the timing of our adoption and the impact that the updated standard will have on our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Market Risk Disclosures

We are exposed to market risk related to changes in interest rates and foreign exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate

We maintain an investment portfolio consisting of bank deposits and money market funds. The funds provide daily liquidity and may be subject to interest rate risk and fall in value if market interest rates increase. We do not expect our operating results or cash flows to be affected to any significant degree by a sudden change in market interest rates. The following table presents the principal amounts and related weighted-average yields for our investments with interest rate risk at September 30, 2017 and 2016:

	Sept	September 30, 2017			September 30, 2016		
	Cost Basis	Carrying Amount	Average Yield	Cost Basis	Carrying Amount	Average Yield	
		(Dollars in thousands)					
Cash and cash equivalents	\$105,618	\$105,618	0.56%	\$75,926	\$75,926	0.17%	

In May 2008, we issued \$275 million of senior notes to a group of institutional investors in a private placement (the "2008 Senior Notes"). In July 2010 we issued an additional \$245 million of senior notes to a group of institutional investors in a private placement (the "2010 Senior Notes" and, with the 2008 Senior Notes, the "Senior Notes"). The fair value of the Senior Notes may increase or decrease due to various factors, including fluctuations in market interest rates and fluctuations in general economic conditions. See Management's Discussion and Analysis of Financial Condition and Results of Operations — Capital Resources and Liquidity for additional information on the Senior Notes. The following table presents the carrying amounts and fair values for the Senior Notes at September 30, 2017 and 2016:

September 30, 2017		September	r 30, 2016
Carrying Amounts	Fair Value	Carrying Amounts	Fair Value
(In thousands)			
\$131,000	\$134,250	\$131,000	\$139,902
113,000	119,106	185,000	195,715
(199)	\$ (199)	(376)	(376)
\$243,801	\$253,157	\$315,624	\$335,241
	Carrying Amounts \$131,000 113,000 (199)	Carrying Amounts Fair Value (In thou \$131,000 \$134,250 \$113,000 \$119,106 \$(199) \$(199)	Carrying Amounts Fair Value Carrying Amounts \$131,000 \$134,250 \$131,000 \$13,000 \$19,106 \$185,000 \$199 \$180,000

We have interest rate risk with respect to our \$500 million unsecured revolving line of credit. Interest on amounts borrowed under the credit facility is based on (i) a base rate, which is the greater of (a) the prime rate and (b) the Federal Funds rate plus 0.500% and (c) the one-month LIBOR rate plus 1.000%, plus, in each case, an applicable margin, or (ii) an adjusted LIBOR rate plus an applicable margin. The applicable margin for base rate borrowings ranges from 0% to 0.875% and for LIBOR borrowings ranges from 1.000% to 1.875% and is determined based on our consolidated leverage ratio. A change in interest rates on this variable rate debt impacts the interest incurred and cash flows, but does not impact the fair value of the instrument. We had \$361.0 million in borrowings outstanding at a weighted average interest of 2.365% under the credit facility as of September 30, 2017.

Foreign Currency Forward Contracts

We use derivative instruments to manage risks caused by fluctuations in foreign exchange rates. The primary objective of our derivative instruments is to protect the value of foreign-currency-denominated receivable and cash balances from the effects of volatility in foreign exchange rates that might occur prior to conversion to their functional currencies. We principally utilize foreign currency forward contracts, which enable us to buy and sell foreign currencies in the future at fixed exchange rates and economically offset changes in foreign exchange rates. We routinely enter into contracts to offset exposures denominated in the British pound and Euro.

Foreign-currency-denominated receivable and cash balances are remeasured at foreign exchange rates in effect on the balance sheet date with the effects of changes in foreign exchange rates reported in other income (expense), net. The forward contracts are not designated as hedges and are marked to market through other income (expense), net. Fair value changes in the forward contracts help mitigate the changes in the value of the remeasured receivable and cash balances attributable to changes in foreign exchange rates. The forward contracts are short-term in nature and typically have average maturities at inception of less than three months.

The following tables summarize our outstanding foreign currency forward contracts, by currency, at September 30, 2017 and 2016:

	September 30, 2017			
	C	nount	Fair Value	
		eign rency	US\$	US\$
		(In	thousands)	
Sell foreign currency: Euro (EUR)	EUR	5,050	\$ 5,968	_
Buy foreign currency: British pound (GBP)	GBP	9,341	\$12,500	_
		Septe	mber 30, 2016	
	C	ontract An	nount	Fair Value
	Foreign Currency US\$		US\$	US\$
		(In	thousands)	
Sell foreign currency: Euro (EUR)	EUR	7,850	\$ 8,743	_
Buy foreign currency: British pound (GBP)	GBP	7,721	\$10,000	_

The foreign currency forward contracts were entered into on September 30 of each fiscal year; therefore, the fair value was \$0 on September 30, 2017 and 2016.

Item 8. Financial Statements and Supplementary Data REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Fair Isaac Corporation San Jose, California

We have audited the accompanying consolidated balance sheets of Fair Isaac Corporation and subsidiaries (the "Company") as of September 30, 2017 and 2016, and the related consolidated statements of income and comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended September 30, 2017. We also have audited the Company's internal control over financial reporting as of September 30, 2017, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting 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 and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. 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 the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company and subsidiaries as of September 30, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2017, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2017, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

/s/ Deloitte & Touche LLP San Diego, CA November 9, 2017

FAIR ISAAC CORPORATION CONSOLIDATED BALANCE SHEETS

	September 30,		30,	
		2017		2016
	(In	thousands, e		ot par value
Assets				
Current assets:				
Cash and cash equivalents	\$	105,618	\$	75,926
Accounts receivable, net		168,586		167,786
Prepaid expenses and other current assets		36,727		23,926
Total current assets		310,931		267,638
Marketable securities available for sale		13,791		11,016
Other investments		11,724		10,920
Property and equipment, net		40,703		45,122
Goodwill		804,414		798,415
Intangible assets, net		21,185		33,619
Deferred income taxes		47,204		47,598
Other assets	_	5,668	_	6,348
Total assets	\$	1,255,620	\$	1,220,676
Liabilities and Stockholders' Equity				
Current liabilities:				
Accounts payable	\$	19,510	\$	22,952
Accrued compensation and employee benefits		77,610		71,216
Other accrued liabilities		32,104		27,780
Deferred revenue Current maturities on debt		55,431		47,129
	_	142,000		77,000
Total current liabilities		326,655		246,077
Long-term debt		462,801		493,624
Other liabilities		39,627	_	34,147
Total liabilities		829,083		773,848
Commitments and contingencies				
Stockholders' equity:				
Preferred stock (\$0.01 par value; 1,000 shares authorized; none issued and				
outstanding)		_		_
Common stock (\$0.01 par value; 200,000 shares authorized, 88,857 shares issued and 30,243 and 30,935 shares outstanding at September 30, 2017 and				
September 30, 2016, respectively)		302		309
Paid-in-capital		1,195,431		1,188,913
Treasury stock, at cost (58,614 and 57,922 shares at September 30, 2017 and		1,175,151		1,100,713
September 30, 2016, respectively)	C	2,301,097)	C	2,136,760)
Retained earnings	,	1,598,395		1,471,377
Accumulated other comprehensive loss		(66,494)		(77,011)
Total stockholders' equity		426,537		446,828
Total liabilities and stockholders' equity	\$	1,255,620	\$	1,220,676
	=		=	

FAIR ISAAC CORPORATION CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

	Year Ended September 30,		
	2017	2016	2015
	(In thousan	ds, except per	share data)
Revenues:			
Transactional and maintenance	\$652,660	\$605,919	\$564,232
Professional services	179,569	169,738	151,773
License	99,940	105,699	122,776
Total revenues	932,169	881,356	838,781
Operating expenses:			
Cost of revenues (1)	287,123	265,173	270,535
Research and development	110,870	103,669	98,824
Selling, general and administrative (1)	339,796	328,940	300,002
Amortization of intangible assets (1)	12,709	13,982	13,673
Restructuring and acquisition-related	4,471		18,242
Total operating expenses	754,969	711,764	701,276
Operating income	177,200	169,592	137,505
Interest expense, net	(25,790)	(26,633)	(29,150)
Other income (expense), net	(86)	1,610	883
Income before income taxes	151,324	144,569	109,238
Provision for income taxes	23,068	35,121	22,736
Net income	128,256	109,448	86,502
Other comprehensive income (loss):			
Foreign currency translation adjustments	10,517	(26,296)	(27,526)
Comprehensive income	\$138,773	\$ 83,152	\$ 58,976
Basic earnings per share	\$ 4.16	\$ 3.52	\$ 2.75
Shares used in computing basic earnings per share	30,862	31,129	31,402
Diluted earnings per share	\$ 3.98	\$ 3.39	\$ 2.65
Shares used in computing diluted earnings per share	32,245	32,308	32,609

⁽¹⁾ Cost of revenues and selling, general and administrative expenses exclude the amortization of intangible assets. See Note 7.

FAIR ISAAC CORPORATION CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Years Ended September 30, 2017, 2016 and 2015 (In thousands, except per share data)

	Comn Stoc					Accumulated Other	Total
	Shares	Par Value	Paid-in- Capital	Treasury Stock	Retained Earnings	Comprehensive Loss	
Balance at September 30, 2014	32,047	\$320	\$1,133,154	\$(1,936,095)	\$1,280,424	\$(23,189)	\$ 454,614
Share-based compensation	_	_	45,308	_	_		45,308
Issuance of treasury stock under							
employee stock plans	954	10	(34,366)	33,153	_	_	(1,203)
Tax effect from share-based							
payment arrangements	_	_	12,530	_	_		12,530
Repurchases of common stock	(1,711)	(17)	_	(130,702)	_	_	(130,719)
Dividends paid	_	_	_		(2,508)		(2,508)
Net income	_	_	_	_	86,502	_	86,502
Foreign currency translation						(2)	
adjustments						(27,526)	(27,526)
Balance at September 30, 2015	31,290	313	1,156,626	(2,033,644)	1,364,418	(50,715)	436,998
Share-based compensation	_	_	55,509	_	_	_	55,509
Issuance of treasury stock under							
employee stock plans	980	10	(47,406)	35,269	_		(12,127)
Tax effect from share-based							
payment arrangements			24,184		_	_	24,184
Repurchases of common stock	(1,335)	(14)	_	(138,385)	(2.400)	_	(138,399)
Dividends paid		_	_	_	(2,489)	_	(2,489)
Net income	_	_		_	109,448		109,448
Foreign currency translation adjustments						(26,296)	(26,296)
· ·	20.025		4 400 042				
Balance at September 30, 2016	30,935	309	1,188,913	(2,136,760)	1,471,377	(77,011)	446,828
Share-based compensation	_	_	61,222	_		_	61,222
Issuance of treasury stock under	774	0	(54.704)	20.020			(25.750)
employee stock plans	774	8	(54,704)			_	(25,758)
Repurchases of common stock	(1,466)	(15)	_	(193,275)	(1,238)	_	(193,290)
Dividends paid Net income	_		_	_	128,256	_	(1,238) 128,256
Foreign currency translation	_		_	_	120,230	_	120,230
adjustments	_	_	_	_	_	10,517	10,517
Balance at September 30, 2017	30,243	\$302	\$1,195,431	\$(2,301,097)	\$1,598,395	\$(66,494)	\$ 426,537
							

FAIR ISAAC CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended September 30,		
	2017	2016	2015
		(In thousands)	
Cash flows from operating activities: Net income	¢ 129 256	\$ 109,448	\$ 86.502
Adjustments to reconcile net income to net cash provided by operating	\$ 120,230	\$ 109,446	\$ 86,502
activities:			
Depreciation and amortization	36,214	31,633	33,889
Share-based compensation	61,222	55,509	45,308
Deferred income taxes	(6,049)		(5,934)
Tax effect from share-based payment arrangements		24,184	12,530
Provision of doubtful accounts	1,640	2,011	_
Net loss on sales of property and equipment	14	6	2,210
Changes in operating assets and liabilities:			
Accounts receivable	(1,265)		(4,602)
Prepaid expenses and other assets	(7,115)		(15,462)
Accounts payable	(2,027)	564	(3,672)
Accrued compensation and employee benefits	6,464	17,079	(1,506)
Other liabilities	(683)		4,113
Deferred revenue	8,973	5,500	(6,604)
Net cash provided by operating activities	225,644	210,268	146,772
Cash flows from investing activities:			
Purchases of property and equipment	(19,828)		(24,999)
Cash paid for acquisitions, net of cash acquired	_	(5,683)	(56,992)
Distribution from (purchase of) cost method investees	(777)	37	75
Net cash used in investing activities	(20,605)	(27,615)	(81,916)
Cash flows from financing activities:			
Proceeds from revolving line of credit	190,000	122,000	249,000
Payments on revolving line of credit	(84,000)	(99,000)	(116,000)
Payments on senior notes	(72,000)		(71,000)
Proceeds from issuance of treasury stock under employee stock plans	14,474	17,828	18,258
Taxes paid related to net share settlement of equity awards	(40,232)		(19,461)
Dividends paid	(1,238)	(2,489)	(2,508)
Repurchases of common stock	(187,629)	(138,399)	(130,719)
Net cash used in financing activities	(180,625)	(190,015)	(72,430)
Effect of exchange rate changes on cash	5,278	(2,832)	(11,381)
Increase (decrease) in cash and cash equivalents	29,692	(10,194)	(18,955)
Cash and cash equivalents, beginning of year	75,926	86,120	105,075
Cash and cash equivalents, end of year	\$ 105,618	\$ 75,926	\$ 86,120
Supplemental disclosures of cash flow information:			
Cash paid for income taxes, net of refunds of \$3,757, \$11,363 and \$1,592			
during the years ended September 30, 2017, 2016 and 2015, respectively	\$ 31,315	\$ 10,855	\$ 33,752
Cash paid for interest	\$ 26,083		\$ 30,470
Supplemental disclosures of non-cash investing and financing activities:	-		•
Unsettled repurchases of common stock	\$ 5,661	\$ —	\$ —
Purchase of property and equipment included in accounts payable	\$ 1,751		\$ 436

1. Nature of Business and Summary of Significant Accounting Policies

Fair Isaac Corporation

Incorporated under the laws of the State of Delaware, Fair Isaac Corporation ("FICO") is a provider of analytic, software and data management products and services that enable businesses to automate, improve and connect decisions. FICO provides a range of analytical solutions, credit scoring and credit account management products and services to banks, credit reporting agencies, credit card processing agencies, insurers, retailers, healthcare organizations and public agencies.

In these consolidated financial statements, FICO is referred to as "we," "us," "our," or "the Company."

Principles of Consolidation and Basis of Presentation

The consolidated financial statements include the accounts of FICO and its subsidiaries. All intercompany accounts and transactions have been eliminated.

Use of Estimates

We make estimates and assumptions that affect the amounts reported in the financial statements and the disclosures made in the accompanying notes. For example, we use estimates in determining the collectibility of accounts receivable; the appropriate levels of various accruals; labor hours in connection with fixed-fee service contracts; the amount of our tax provision and the realizability of deferred tax assets. We also use estimates in determining the remaining economic lives and carrying values of acquired intangible assets, property and equipment, and other long-lived assets. In addition, we use assumptions to estimate the fair value of reporting units and share-based compensation. Actual results may differ from our estimates.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash in banks and investments with an original maturity of 90 days or less at time of purchase.

Fair Value of Financial Instruments

The fair value of certain of our financial instruments, including cash and cash equivalents, receivables, other current assets, accounts payable, accrued compensation and employee benefits, other accrued liabilities and amounts outstanding under our revolving line of credit, approximate their carrying amounts because of the short-term maturity of these instruments. The fair values of our cash and cash equivalents and marketable security investments are disclosed in Note 4. The fair value of our derivative instruments is disclosed in Note 5. The fair value of our senior notes is disclosed in Note 10.

Investments

Management determines the appropriate classification of our investments in marketable debt and equity securities at the time of purchase, and re-evaluates this designation at each balance sheet date. While it is our intent to hold debt securities to maturity, our investments in U.S. government obligations and marketable equity and debt securities that have readily determinable fair values are classified as available-for-sale, as the sale of such securities may be required prior to maturity to implement management strategies. Therefore, such securities are carried at fair value with unrealized gains or losses related to these securities included in accumulated other

comprehensive income (loss). The fair value of marketable securities is based upon inputs including quoted prices for identical or similar assets. Realized gains and losses are included in other income (expense), net on the consolidated statements of income and comprehensive income. The cost of investments sold is based on the specific identification method. Losses resulting from other than temporary declines in fair value are charged to operations. Investments with remaining maturities over one year are classified as long-term investments.

Our investments in equity securities of companies over which we do not have significant influence are accounted for under the cost method. The investment is originally recorded at cost and adjusted for additional contributions or distributions. Management periodically reviews cost-method investments for instances where fair value is less than the carrying amount and the decline in value is determined to be other than temporary. If the decline in value is judged to be other than temporary, the carrying amount of the security is written down to fair value and the resulting loss is charged to operations. We currently do not have investments in which we own 20% to 50% and exercise significant influence over operating and financial policies, therefore we do not account for any investment under the equity method.

Concentration of Risk

Financial instruments that potentially expose us to concentrations of risk consist primarily of cash and cash equivalents, marketable securities and accounts receivable, which are generally not collateralized. Our policy is to place our cash, cash equivalents, and marketable securities with high quality financial institutions, commercial corporations and government agencies in order to limit the amount of credit exposure. We have established guidelines relative to diversification and maturities for maintaining safety and liquidity. We generally do not require collateral from our customers, but our credit extension and collection policies include analyzing the financial condition of potential customers, establishing credit limits, monitoring payments, and aggressively pursuing delinquent accounts. We maintain allowances for potential credit losses.

A significant portion of our revenues are derived from the sales of products and services to the consumer credit and banking industries.

Property and Equipment

Property and equipment are recorded at cost less accumulated depreciation and amortization. Major renewals and improvements are capitalized, while repair and maintenance costs are expensed as incurred. Depreciation and amortization charges are calculated using the straight-line method over the following estimated useful lives:

Data processing equipment and software Office furniture and equipment Leasehold improvements 3 years
3 to 7 years
Shorter of estimated useful life or lease term

The cost and accumulated depreciation for property and equipment sold, retired or otherwise disposed of are removed from the applicable accounts and resulting gains or losses are recorded in our consolidated statements of income and comprehensive income. Depreciation and amortization on property and equipment totaled \$23.0 million, \$17.7 million and \$20.2 million during fiscal 2017, 2016 and 2015, respectively.

Internal-Use Software

Costs incurred to develop internal-use software during the application development stage are capitalized and reported at cost. Application development stage costs generally include costs associated with internal-use software configuration, coding, installation and testing. Costs of significant upgrades and enhancements that result in additional functionality are also capitalized whereas costs incurred for maintenance and minor upgrades and enhancements are expensed as incurred. Capitalized costs are amortized using the straight-line method over two to three years. Software development costs required to be capitalized for internal-use software have not been material to date.

Capitalized Software and Research and Development Costs

Software development costs relating to products to be sold in the normal course of business are expensed as incurred as research and development costs until technological feasibility is established. Technological feasibility for our products occurs approximately concurrently with the general release of our products; accordingly, we have not capitalized any development or production costs. Costs we incur to maintain and support our existing products after the general release of the product are expensed in the period they are incurred and included in research and development costs in our consolidated statements of income and comprehensive income.

Goodwill, Acquisition Intangibles and Other Long-Lived Assets

Goodwill represents the excess of cost over the fair value of identifiable assets acquired and liabilities assumed in business combinations. We assess goodwill for impairment for each of our reporting units on an annual basis during the fourth quarter using a July 1 measurement date unless circumstances require a more frequent measurement. We have determined that our reporting units are the same as our reportable segments. When evaluating goodwill for impairment, we may first perform an assessment qualitatively whether it is more likely than not that a reporting unit's carrying amount exceeds its fair value, referred to as a "step zero" approach. If, based on the review of the qualitative factors, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying value, we would bypass the two-step impairment test. Events and circumstances we consider in performing the "step zero" qualitative assessment include macro-economic conditions, market and industry conditions, internal cost factors, share price fluctuations, and the operational stability and the overall financial performance of the reporting units. If we conclude that it is more likely than not that a reporting unit's fair value is less than its carrying amount, we would perform the first step ("step one") of the two-step impairment test and calculate the estimated fair value of the reporting unit by using discounted cash flow valuation models and by comparing our reporting units to guideline publicly-traded companies. These methods require estimates of our future revenues, profits, capital expenditures, working capital, and other relevant factors, as well as selecting appropriate guideline publicly-traded companies for each reporting unit. We estimate these amounts by evaluating historical trends, current budgets, operating plans, industry data, and other relevant factors. Alternatively, we may bypass the qualitative assessment described above for any reporting unit in any period and proceed directly to performing step one of the goodwill impairment test.

For fiscal 2016 and 2015, we performed a step zero qualitative analysis for our annual assessment of goodwill impairment. After evaluating and weighing all relevant events and circumstances, we concluded that it is not more likely than not that the fair value of any of our reporting units was less their carrying amounts. Consequently, we did not perform a step one quantitative analysis. For fiscal 2017, we elected to proceed directly to the step one quantitative analysis for all of our reporting units, as three years had elapsed since the date of our previous quantitative valuation. There was a substantial excess of fair value over carrying value for each of our reporting units and we determined goodwill was not impaired for any of our reporting units for fiscal 2017.

We amortize our finite-lived intangible assets which result from our acquisitions over the following estimated useful lives:

	Useful Life
Completed technology	4 to 10 years
Customer contracts and relationships	5 to 15 years
Trade names	3 years

Estimated

Our intangible assets that have finite useful lives and other long-lived assets are assessed for potential impairment when there is evidence that events and circumstances related to our financial performance and economic environment indicate the carrying amount of the assets may not be recoverable. When impairment indicators are identified, we test for impairment using undiscounted cash flows. If such tests indicate impairment, then we measure and record the impairment as the difference between the carrying value of the asset and the fair value of the asset. We did not recognize any impairment charges on intangible assets that have finite useful lives or other long-lived assets in fiscal 2017, 2016 and 2015.

Revenue Recognition

Software Licenses

Software license fee revenue is recognized when persuasive evidence of an arrangement exists, software is made available to our customers, the fee is fixed or determinable and collection is probable. The determination of whether fees are fixed or determinable and collection is probable involves the use of judgment. If at the outset of an arrangement we determine that the arrangement fee is not fixed or determinable, revenue is deferred until the arrangement fee becomes fixed or determinable, assuming all other revenue recognition criteria have been met. If at the outset of an arrangement we determine that collectability is not probable, revenue is deferred until the earlier of when collectability becomes probable or the receipt of payment. If there is uncertainty as to the customer's acceptance of our deliverables, revenue is not recognized until the earlier of receipt of customer acceptance, expiration of the acceptance period, or when we can demonstrate we meet the acceptance criteria. We evaluate contract terms and customer information to ensure that these criteria are met prior to our recognition of license fee revenue.

We use the residual method to recognize revenue when a software arrangement includes one or more elements to be delivered at a future date provided the following criteria are met: (i) vendor-specific objective evidence ("VSOE") of the fair value does not exist for one or more of the delivered items but exists for all undelivered elements, (ii) all other applicable revenue recognition criteria are met and (iii) the fair value of all of the undelivered elements is less than the arrangement fee. VSOE of fair value is based on the normal pricing practices for those products and services when sold separately by us and customer renewal rates for post-contract customer support services. Under the residual method, the fair value of the undelivered elements is deferred and the remaining portion of the arrangement fee is recognized as revenue. If evidence of the fair value of one or more undelivered elements does not exist, the revenue is deferred and recognized when delivery of those elements occurs or when fair value can be established. Changes to the elements in a software arrangement, the ability to identify VSOE for those elements, the fair value of the respective elements, and change to a product's estimated life cycle could materially impact the amount of earned and unearned revenue.

Revenues from post-contract customer support services, such as software maintenance, are recognized on a straight-line basis over the term of the support period. The majority of our software maintenance agreements provide technical support as well as unspecified software product upgrades and releases when and if made available by us during the term of the support period.

Transactional-Based Revenues

Transactional-based revenue is recognized when persuasive evidence of an arrangement exists, fees are fixed or determinable, and collection is probable. Revenues from our credit scoring, data processing, data management and SaaS subscription services are recognized as these services are performed. Revenues from transactional or unit-based license fees under software license arrangements, credit scoring, data processing, data management and SaaS subscription services agreements are recognized based on minimum contractual amounts or on system usage that exceeds minimum contractual amounts. Certain of our transactional-based revenues are based on transaction or active account volumes as reported by our clients. In instances where volumes are reported to us in arrears, we estimate volumes based on preliminary customer transaction information or average actual reported volumes for an immediate trailing period. Differences between our estimates and actual final volumes reported are recorded in the period in which actual volumes are reported. We have not experienced material variances between our estimates and actual reported volumes in the past and anticipate that we will be able to continue to make reasonable estimates in the future. If for some reason we were unable to reasonably estimate transaction volumes in the future, revenue may be deferred until actual customer data is received, and this could have a material impact on our consolidated results of operations.

Consulting Services

We provide consulting, training, model development and software integration services under both hourly-based time and materials and fixed-priced contracts. Revenues from these services are generally recognized as the services are performed. For fixed-price service contracts, we use a proportionate performance model with hours as the input method of attribution to determine progress towards completion, with consideration also given to output measures, such as contract milestones, when applicable. In such instances, management is required to estimate the total estimated hours of the project. Adjustments to estimates are made in the period in which the facts requiring such revisions become known and, accordingly, recognized revenues and profits are subject to revisions as the contract progresses to completion. Estimated losses, if any, are recorded in the period in which current estimates of total contract revenue and contract costs indicate a loss. If substantive uncertainty related to customer acceptance of services exists, we defer the associated revenue until the contract is completed. We have not experienced material variances between our estimates and actual hours in the past and anticipate that we will be able to continue to make reasonable estimates in the future. If for some reason we are unable to accurately estimate the input measures, revenue would be deferred until the contract is complete, and this could have a material impact on our consolidated results of operations.

Services that are sold in connection with software license arrangements generally qualify for separate accounting from the license element because they do not involve significant production, modification or customization of our products and are not otherwise considered to be essential to the functionality of our software. In arrangements where the professional services do not qualify for separate accounting from the license element, the combined software license and professional services revenue are recognized based on contract accounting using either the percentage-of-completion or completed-contract method.

Multiple-Deliverable Arrangements including Non-Software

When we enter into a multiple-deliverable arrangement that includes non-software, each deliverable is accounted for as a separate unit of accounting if the following criteria are met: (i) the delivered item or items have value to the customer on a standalone basis and (ii) for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. We consider a deliverable to have standalone value if we sell this item separately

or if the item is sold by another vendor or could be resold by the customer; for example, we conclude professional services offered along with our SaaS subscription services typically have standalone value using this criteria. Further, our revenue arrangements generally do not include a general right of return relative to delivered products. Revenue for multiple element arrangements is allocated to the software and non-software deliverables based on a relative selling price. We use VSOE in our allocation of arrangement consideration when it is available. We define VSOE as a median price of recent standalone transactions that are priced within a narrow range, as defined by us. If a product or service is seldom sold separately, it is unlikely that we can determine VSOE. In circumstances when VSOE does not exist, we then assess whether we can obtain third-party evidence ("TPE") of the selling price. It may be difficult for us to obtain sufficient information on competitor pricing to substantiate TPE and therefore we may not always be able to use TPE. When we are unable to establish selling price using VSOE or TPE, we use estimated selling price ("ESP") in our allocation of arrangement consideration. The objective of ESP is to determine the price at which we would transact if the product or service were sold by us on a standalone basis. Our determination of ESP involves weighting several factors based on the specific facts and circumstances of each arrangement. The factors include, but are not limited to, geographies, market conditions, gross margin objectives, pricing practices and controls, customer segment pricing strategies and the product lifecycle.

If a deliverable does not have standalone value because the aforementioned criteria are not met, we combine it with the other applicable undelivered item(s) within the arrangement and account for the multiple deliverables as one combined unit of accounting. For example, for hosting arrangements requiring a highly specialized and unique set of initial implementation and setup services prior to the commencement of hosting services, we typically conclude that these implementation or setup services do not have value to the customer on a stand-alone basis; therefore, we combine them with the hosting services as a combined unit of accounting. Revenue is recognized upon commencement of our hosting services over the expected life of the customer relationship.

Gross vs. Net Revenue Reporting

We apply accounting guidance to determine whether we report revenue for certain transactions based upon the gross amount billed to the customer, or the net amount retained by us. In accordance with the guidance we record revenue on a gross basis for sales in which we have acted as the principal and on a net basis for those sales in which we have in substance acted as an agent or broker in the transaction.

Business Combinations

Accounting for our acquisitions requires us to recognize, separately from goodwill, the assets acquired and the liabilities assumed at their acquisition-date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred and the net of the acquisition-date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of income and comprehensive income.

Accounting for business combinations requires our management to make significant estimates and assumptions, especially at the acquisition date including our estimates for intangible assets, contractual obligations assumed, pre-acquisition contingencies and contingent consideration, where applicable. If we cannot

reasonably determine the fair value of a pre-acquisition contingency (non-income tax related) by the end of the measurement period, we will recognize an asset or a liability for such pre-acquisition contingency if: (i) it is probable that an asset existed or a liability had been incurred at the acquisition date and (ii) the amount of the asset or liability can be reasonably estimated. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Subsequent to the measurement period, changes in our estimates of such contingencies will affect earnings and could have a material effect on our consolidated results of operations and financial position.

Examples of critical estimates in valuing certain of the intangible assets we have acquired include but are not limited to: (i) future expected cash flows from software license sales, support agreements, consulting contracts, other customer contracts and acquired developed technologies and patents; (ii) expected costs to develop the in-process research and development into commercially viable products and estimated cash flows from the projects when completed; and (iii) the acquired company's brand and competitive position, as well as assumptions about the period of time the acquired brand will continue to be used in the combined company's product portfolio. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

In addition, uncertain tax positions and tax related valuation allowances assumed in connection with a business combination are initially estimated as of the acquisition date. We reevaluate these items quarterly based upon facts and circumstances that existed as of the acquisition date with any adjustments to our preliminary estimates being recorded to goodwill provided that we are within the measurement period. Subsequent to the measurement period or our final determination of the tax allowance's or contingency's estimated value, whichever comes first, changes to these uncertain tax positions and tax related valuation allowances will affect our provision for income taxes in our consolidated statements of income and comprehensive income and could have a material impact on our consolidated results of operations and financial position.

Income Taxes

We estimate our income taxes based on the various jurisdictions where we conduct business, which involves significant judgment in determining our income tax provision. We estimate our current tax liability using currently enacted tax rates and laws and assess temporary differences that result from differing treatments of certain items for tax and accounting purposes. These differences result in deferred tax assets and liabilities recorded on our balance sheet using the currently enacted tax rates and laws that will apply to taxable income for the years in which those tax assets are expected to be realized or settled. We then assess the likelihood our deferred tax assets will be realized and to the extent we believe realization is not more likely than not, we establish a valuation allowance. When we establish a valuation allowance or increase this allowance in an accounting period, we record a corresponding income tax expense in our consolidated statements of income and comprehensive income. In assessing the need for the valuation allowance, we consider future taxable income in the jurisdictions we operate; our ability to carry back tax attributes to prior years; an analysis of our deferred tax assets and the periods over which they will be realizable; and ongoing prudent and feasible tax planning strategies. An increase in the valuation allowance would have an adverse impact, which could be material, on our income tax provision and net income in the period in which we record the increase.

We recognize and measure benefits for uncertain tax positions using a two-step approach. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the technical merits of the tax position indicate it is more likely than not that the tax position will be sustained upon audit, including resolution of any related appeals or litigation processes. For tax positions more likely than not of being sustained

upon audit, the second step is to measure the tax benefit as the largest amount more than 50% likely of being realized upon settlement. Significant judgment is required to evaluate uncertain tax positions and they are evaluated on a quarterly basis. Our evaluations are based upon a number of factors, including changes in facts or circumstances, changes in tax law, correspondence with tax authorities during the course of audits and effective settlement of audit issues. Changes in the recognition or measurement of uncertain tax positions could result in material increases or decreases in our income tax expense in the period in which we make the change, which could have a material impact on our effective tax rate and operating results.

A description of our accounting policies associated with tax-related contingencies and valuation allowances assumed as part of a business combination is provided under "Business Combinations" above.

Earnings per Share

Basic earnings per share are computed on the basis of the weighted-average number of common shares outstanding during the period under measurement. Diluted earnings per share are based on the weighted-average number of common shares outstanding and potential common shares. Potential common shares result from the assumed exercise of outstanding stock options or other potentially dilutive equity instruments, when they are dilutive under the treasury stock method.

Comprehensive Income

Comprehensive income is the change in our equity (net assets) during each period from transactions and other events and circumstances from non-owner sources. It includes net income, foreign currency translation adjustments and unrealized gains and losses on our investments in marketable securities, net of tax.

Foreign Currency and Derivative Financial Instruments

We have determined that the functional currency of each foreign operation is the local currency. Assets and liabilities denominated in their local foreign currencies are translated into U.S. dollars at the exchange rate on the balance sheet date. Revenues and expenses are translated at average rates of exchange prevailing during the period. Foreign currency translation adjustments are accumulated as a separate component of consolidated stockholders' equity.

We utilize derivative instruments to manage market risks associated with fluctuations in certain foreign currency exchange rates as they relate to specific balances of accounts receivable and cash denominated in foreign currencies. We principally utilize foreign currency forward contracts to protect against market risks arising in the normal course of business. Our policies prohibit the use of derivative instruments for the sole purpose of trading for profit on price fluctuations or to enter into contracts that intentionally increase our underlying exposure. All of our foreign currency forward contracts have maturity periods of less than three months.

At the end of the reporting period, foreign-currency-denominated assets and liabilities are remeasured into the functional currencies of the reporting entities at current market rates. The change in value from this remeasurement is reported as a foreign exchange gain or loss for that period in other income (expense), net in the accompanying consolidated statements of income and comprehensive income.

We recorded transactional foreign exchange gains (losses) of \$(1.1) million, \$0.2 million and \$22,000 during fiscal 2017, 2016 and 2015, respectively.

Share-Based Compensation

We measure stock-based compensation cost at the grant date based on the fair value of the award and recognize it as expense, net of estimated forfeitures, over the vesting or service period, as applicable, of the stock award (generally three to four years). See Note 14 for further discussion of our share-based employee benefit plans.

Advertising and Promotion Costs

Advertising and promotion costs are expensed as incurred and are included in selling, general and administrative expenses in the accompanying consolidated statements of income and comprehensive income. Advertising and promotion costs totaled \$3.1 million, \$3.6 million and \$3.7 million in fiscal 2017, 2016 and 2015, respectively.

New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

Effective October 1, 2016, we early adopted ASU No. 2016-09, "Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" ("ASU 2016-09"). ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. As a result of the adoption, we recognized \$24.7 million of excess tax benefits related to share-based payments in our provision for income taxes during fiscal 2017. These items were historically recorded as additional paid-in capital. We elected to apply the change retrospectively in presentation to our consolidated statements of cash flows and no longer classify the excess tax benefits from employee stock plans as a reduction from operating cash flows, which resulted in increases to both net cash provided by operating activities and net cash used in financing activities of \$25.0 million and \$13.8 million for fiscal 2016 and 2015, respectively. Our adoption of ASU 2016-09 also impacted the calculation of diluted weighted-average shares under the treasury stock method as we no longer increase or decrease the assumed proceeds from the vesting of, or an employee exercising, a share-based payment award by the amount of excess tax benefits or deficiencies taken to additional paid-in capital. During fiscal 2017, the impact was immaterial. Given our historical practice of including employee withholding taxes paid within financing activities in the statement of cash flows, no prior period reclassifications are required by the clarifications on classification provided by ASU 2016-09. Furthermore, we elected to continue to estimate expected forfeitures of employee equity awards to determine the amount of compensation expense to be recognized in each period.

Effective October 1, 2016, we retrospectively adopted ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance" ("ASU 2015-03"). ASU 2015-03 requires an entity to present debt issuance costs related to a recognized debt liability, other than those relating to line-of-credit arrangements, in the balance sheet as a direct deduction from the related debt liability rather than as an asset. As a result of the adoption, at September 30, 2017, the amount of debt issuance costs reflected as a deduction of long-term debt was \$0.2 million. At September 30, 2016, the amount of debt issuance costs reclassified from other assets to a deduction of long-term debt was \$0.4 million.

Recent Accounting Pronouncements Not Yet Adopted

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09"). ASU 2014-09 requires an entity to recognize the

amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. ASU 2014-09 will replace most existing revenue recognition guidance in U.S. Generally Accepted Accounting Principles when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. In August 2015, the FASB issued ASU No 2015-14, "Deferral of the Effective Date" ("ASU 2015-14"), which defers the effective date for ASU 2014-09 by one year. For public entities, the guidance in ASU 2014-09 will be effective for annual reporting periods beginning after December 15, 2017 (including interim reporting periods within those periods), which means it will be effective for our fiscal year beginning October 1, 2018. Early adoption is permitted to the original effective date of December 15, 2016 (including interim reporting periods within those periods). In March 2016, the FASB issued ASU No. 2016-08, "Principal versus Agent Considerations (Reporting Revenue versus Net)" ("ASU 2016-08"), which clarifies the implementation guidance on principal versus agent considerations in the new revenue recognition standard. In April 2016, the FASB issued ASU No. 2016-10, "Identifying Performance Obligations and Licensing" ("ASU 2016-10"), which reduces the complexity when applying the guidance for identifying performance obligations and improves the operability and understandability of the license implementation guidance. In May 2016, the FASB issued ASU No. 2016-12 "Narrow-Scope Improvements and Practical Expedients" ("ASU 2016-12"), which amends the guidance on transition, collectability, noncash consideration and the presentation of sales and other similar taxes. In December 2016, the FASB further issued ASU 2016-20, "Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers" ("ASU 2016-20"), which makes minor corrections or minor improvements to the Codification that are not expected to have a significant effect on current accounting practice or create a significant administrative cost to most entities. The amendments are intended to address implementation issues that were raised by stakeholders and provide additional practical expedients to reduce the cost and complexity of applying the new revenue standard. These amendments have the same effective date as the new revenue standard.

We have established a cross-functional implementation team consisting of representatives across the organization to address the scope of work required to implement the recognition and disclosure requirements under the new standard. This cross-functional implementation team has developed a project plan, including evaluating customer contracts across the organization, developing policies, processes and tools to report financial results, and implementing and evaluating our internal controls over financial reporting that will be necessary under the new standard. We currently plan to adopt Topic 606 in the first quarter of our fiscal 2019 using the retrospective transition method. Our ability to adopt using the full retrospective method is dependent on system readiness, and the completion of our analysis of information necessary to restate prior period financial statements. As we continue to assess the new standard along with industry trends and additional interpretive guidance, we may adjust our implementation plan accordingly.

We are continuing to assess the impact of adopting Top 606 on our consolidated financial statements and believe the new standard will impact the following policies and disclosures:

- Timing of revenue recognition of license revenue on term licenses and transactional revenue on guaranteed minimum fees related to our on-premises software products. Under the new standard, we expect to recognize revenue when control of the license is transferred to the customer, rather than at the date payments become due and payable, or ratably over the term of the contract required under the current standard:
- Presentation of contract balances. Under the new standard, when we enter into noncancellable contracts that provide unconditional rights to payment from our customers for services that we have not yet completed providing or services we will provide in the near future, we expect to present the unconditional rights as receivables, regardless of whether cash has been received from customers;

- Required disclosures including information about remaining transaction price and when we expect to recognize revenue; and
- Accounting for commissions under the new standard will result in the deferral of incremental commission costs for obtaining contracts.

We do not currently expect Topic 606 to have a significant effect on the timing of revenue recognition for our maintenance or professional services revenues, or SaaS contracts.

In October 2016, the FASB issued ASU No. 2016-16, "*Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*" ("ASU 2016-16"). ASU 2016-16 requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The guidance is effective for fiscal years and interim periods beginning after December 15, 2017, which means it will be effective for our fiscal year beginning October 1, 2018. ASU 2016-16 should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings at the beginning of the period of adoption. Early adoption is permitted as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued. We do not believe that adoption of ASU 2016-16 will have a significant impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)" ("ASU 2016-02"), which requires lessees to put most leases on their balance sheets but recognize the expenses on their income statements in a manner similar to current practice. ASU 2016-02 states that a lessee would recognize a lease liability for the obligation to make lease payments and a right-to-use asset for the right to use the underlying asset for the lease term. ASU 2016-02 is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2018, which means it will be effective for our fiscal year beginning October 1, 2019. Early adoption is permitted. We are currently evaluating the timing of our adoption and the impact that the updated standard will have on our consolidated financial statements.

2. Business Combinations

There were no acquisitions incurred during fiscal 2017.

In fiscal 2016, we acquired 100% of the equity of QuadMetrics for \$5.7 million in cash. We recorded \$2.0 million of intangible assets, which are being amortized using the straight-line method over a weighted average useful life of approximately 4.0 years We allocated \$3.9 million of goodwill to our Applications segment that was not deductible for tax purposes.

In fiscal 2015, we acquired 100% of the equity of TONBELLER for \$59.6 million in cash. We recorded \$14.9 million of intangible assets, which are being amortized using the straight-line method over a weighted average useful life of approximately 4.9 years. The goodwill of \$46.1 million was allocated to our Applications segment and was not deductible for tax purposes.

3. Cash, Cash Equivalents and Marketable Securities Available for Sale

The following is a summary of cash, cash equivalents and marketable securities available for sale at September 30, 2017 and 2016:

	September 30, 2017			September 30, 2016		
	Gross Amortized Unrealized Cost Gains Fair Value		Amortized Cost Gross Gross Unrealized Gains		Fair Value	
			(In thou	isands)		
Cash and Cash Equivalents:						
Cash	\$ 90,323	\$ —	\$ 90,323	\$75,486	\$ —	\$75,486
Money market funds	6,471		6,471	440	_	440
Bank time deposits	8,824		8,824			
Total	\$105,618	\$ —	\$105,618	\$75,926	<u>\$ </u>	\$75,926
Long-term Marketable Securities:						
Marketable equity securities	\$ 10,788	\$3,003	<u>\$ 13,791</u>	\$ 9,598	<u>\$1,418</u>	\$11,016

The long-term marketable equity securities represent securities held under a supplemental retirement and savings plan for senior management employees, which are distributed upon termination or retirement of the employees.

4. Fair Value Measurements

Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The accounting guidance establishes a three-level hierarchy for disclosure that is based on the extent and level of judgment used to estimate the fair value of assets and liabilities.

- Level 1 uses unadjusted quoted prices that are available in active markets for identical assets or liabilities. Our Level 1 assets are comprised of money market funds and certain equity securities.
- Level 2 uses inputs other than quoted prices included in Level 1 that are either directly or indirectly observable through correlation with market data. These include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; and inputs to valuation models or other pricing methodologies that do not require significant judgment because the inputs used in the model, such as interest rates and volatility, can be corroborated by readily observable market data. We do not have any assets that are valued using inputs identified under a Level 2 hierarchy as of September 30, 2017 and 2016.
- Level 3 uses one or more significant inputs that are unobservable and supported by little or no market activity, and that reflect the use of significant management judgment. Level 3 assets and liabilities include those whose fair value measurements are determined using pricing models, discounted cash flow methodologies or similar valuation techniques, and significant management judgment or estimation. We do not have any assets or liabilities that are valued using inputs identified under a Level 3 hierarchy as of September 30, 2017 and 2016.

The following table represents financial assets that we measured at fair value on a recurring basis at September 30, 2017 and 2016:

September 30, 2017	Active Markets for Identical Instruments (Level 1)	Fair Value as of September 30, 2017	
	(In thou	sands)	
Assets:			
Cash equivalents (1)	\$15,295	\$15,295	
Marketable securities (2)	13,791	13,791	
Total	<u>\$29,086</u>	\$29,086	
September 30, 2016	Active Markets for Identical Instruments (Level 1)	Fair Value as of September 30, 2016	
	(In thousands)		
Assets:			
Cash equivalents (1)	\$ 440	\$ 440	
Marketable securities (2)	11,016	11,016	
Total	\$11,456	<u>\$11,456</u>	

- (1) Included in cash and cash equivalents on our balance sheet at September 30, 2017 and 2016. Not included in this table are cash deposits of \$90.3 million and \$75.5 million at September 30, 2017 and 2016, respectively.
- (2) Represents securities held under a supplemental retirement and savings plan for certain officers and senior management employees, which are distributed upon termination or retirement of the employees. Included in long-term marketable securities on our balance sheet at September 30, 2017 and 2016.

Where applicable, we use quoted prices in active markets for identical assets or liabilities to determine fair value. This pricing applies to our Level 1 investments. To the extent quoted prices in active markets for assets or liabilities are not available, the valuation techniques used to measure the fair values of our financial assets incorporate market inputs, which include reported trades, broker/dealer quotes, benchmark yields, issuer spreads, benchmark securities and other inputs derived from or corroborated by observable market data. This methodology would apply to our Level 2 investments. We have not changed our valuation techniques in measuring the fair value of any financial assets and liabilities during the period.

For the fair value of our derivative instruments and senior notes, see Note 5 and Note 10, respectively.

5. Derivative Financial Instruments

We use derivative instruments to manage risks caused by fluctuations in foreign exchange rates. The primary objective of our derivative instruments is to protect the value of foreign-currency-denominated receivable and cash balances from the effects of volatility in foreign exchange rates that might occur prior to conversion to their functional currencies. We principally utilize foreign currency forward contracts, which enable us to buy and sell foreign currencies in the future at fixed exchange rates and economically offset changes in foreign exchange rates. We routinely enter into contracts to offset exposures denominated in the British pound and Euro.

Foreign-currency-denominated receivable and cash balances are remeasured at foreign exchange rates in effect on the balance sheet date with the effects of changes in foreign exchange rates reported in other income

(expense), net. The forward contracts are not designated as hedges and are marked to market through other income (expense), net. Fair value changes in the forward contracts help mitigate the changes in the value of the remeasured receivable and cash balances attributable to changes in foreign exchange rates. The forward contracts are short-term in nature and typically have average maturities at inception of less than three months.

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The following tables summarize our outstanding foreign currency forward contracts, by currency at September 30, 2017 and 2016:

		September 30, 2017			
	Co	Contract Amount			
	Foreign C	urrency	US\$	US\$	
•		(In th	ousands)		
Sell foreign currency:					
Euro (EUR)	EUR	5,050	\$ 5,968		
Buy foreign currency:					
British pound (GBP)	GBP	9,341	\$12,500	_	
		Septemb	per 30, 2016		
	Co	ntract Amou	unt	Fair Value	
	Foreign C	urrency	US\$	US\$	
		(In th	ousands)		
Sell foreign currency:					
Euro (EUR)	EUR	7,850	\$ 8,743	_	
Buy foreign currency:					
British pound (GBP)	GBP	7,721	\$10,000	_	

The foreign currency forward contracts were entered into on September 30 of each fiscal year; therefore, their fair value was \$0 at September 30, 2017 and 2016.

Gains (losses) on derivative financial instruments are recorded in our consolidated statements of income and comprehensive income as a component of other income (expense), net. These amounts are shown below for the years ended September 30, 2017, 2016 and 2015:

	Year Ended September 30,		
	2017	2016	2015
		$(\underline{In} \overline{thousands})$	
Gain (loss) on foreign currency forward contracts	\$210	\$(2,911)	\$(62)

6. Receivables

Receivables at September 30, 2017 and 2016 consisted of the following:

	September 50,		
	2017 20		
	(In thousands)		
Billed	\$126,887	\$124,731	
Unbilled (1)	44,640	45,247	
	171,527	169,978	
Less: allowance for doubtful accounts	(2,941)	(2,192)	
Receivables, net	\$168,586	\$167,786	

(1) Represents revenue recorded in excess of amounts billable pursuant to contract provisions and generally become billable at contractually specified dates or upon the attainment of milestones. Unbilled amounts are expected to be realized within one year.

Activity in the allowance for doubtful accounts was as follows:

	2017	2016	
	(In tho	usands)	
Balance, beginning of year	\$2,192	\$ 2,126	
Add: expense	1,640	2,011	
Less: write-offs (net of recoveries)	(891)	(1,945)	
Balance, end of year	\$2,941	\$ 2,192	

Year Ended September 30,

7. Goodwill and Intangible Assets

Intangible assets that are subject to amortization consisted of the following at September 30, 2017 and 2016:

	September 30, 2017			September 30, 2016				
	Gross Carrying Amount	Accumulated Amortization	(In th	ousands, ex Average Life	ccept average l Gross Carrying Amount	ife) Accumulated Amortization	Net	Average Life
Completed technology Customer contracts	\$ 84,955	\$(77,682)	\$ 7,273	5	\$ 84,184	\$ (70,368)	\$13,816	5
and relationships	28,947	(15,091)	13,856	8	64,592	(45,034)	19,558	12
Trade names	603	(547)	56	3	575	(330)	245	3
	\$114,505	\$(93,320)	\$21,185	6	\$149,351	\$(115,732)	\$33,619	8

Amortization expense associated with our intangible assets, which has been reflected as a separate operating expense caption within the accompanying consolidated statements of income and comprehensive income, consisted of the following during fiscal 2017, 2016 and 2015:

	Year Ended September 30,		
	2017 2016		
		In thousands	(s)
Cost of revenues	\$ 6,511	\$ 7,300	\$ 7,594
Selling, general and administrative expenses	6,198	6,682	6,079
Total	\$12,709	\$13,982	\$13,673

In the table above, cost of revenues reflects our amortization of completed technology, and selling, general and administrative expenses reflect our amortization of other intangible assets.

Estimated future intangible asset amortization expense associated with intangible assets existing at September 30, 2017, was as follows (in thousands):

Year Ended September 30,	
2018	\$ 6,555
2019	6,037
2020	3,670
2021	2,426
2022	2,280
Thereafter	217
Total	\$21,185

The following table summarizes changes to goodwill during fiscal 2017 and 2016, both in total and as allocated to our operating segments. We have not recognized any goodwill impairment losses to date.

	Applications	Scores	Decision Management Software	Total
		(In thou	ısands)	
Balance at September 30, 2015	\$596,765	\$146,648	\$71,337	\$814,750
Addition from acquisitions	3,857	_	_	3,857
Adjustment related to prior acquisitions	283			283
Foreign currency translation adjustment	(18,185)		(2,290)	(20,475)
Balance at September 30, 2016	582,720	146,648	69,047	798,415
Foreign currency translation adjustment	5,568		431	5,999
Balance at September 30, 2017	\$588,288	\$146,648	\$69,478	\$804,414

8. Composition of Certain Financial Statement Captions

The following table presents the composition of property and equipment at September 30, 2017 and 2016:

	September 30,		
	2017	2016	
	(In thou	ısands)	
Property and equipment:			
Data processing equipment and software	\$ 88,830	\$ 84,761	
Office furniture and equipment	20,763	16,847	
Leasehold improvements	25,767	25,152	
Less: accumulated depreciation and amortization	(94,657)	(81,638)	
Total	\$ 40,703	\$ 45,122	

9. Revolving Line of Credit

In June 2017, we amended our credit agreement with a syndicate of banks, increasing our borrowing capacity under the unsecured revolving line of credit to \$500 million with an option to increase it by another \$100 million. The revolving line of credit expires on December 30, 2019. Proceeds from the credit facility can be

used for working capital and general corporate purposes and may also be used for the refinancing of existing debt, acquisitions, and the repurchase of our common stock. Interest on amounts borrowed under the credit facility is based on (i) a base rate, which is the greater of (a) the prime rate and (b) the Federal Funds rate plus 0.500% and (c) the one-month LIBOR rate plus 1.000%, plus, in each case, an applicable margin, or (ii) an adjusted LIBOR rate plus an applicable margin. The applicable margin for base rate borrowings ranges from 0% to 0.875% and for LIBOR borrowings ranges from 1.000% to 1.875% and is determined based on our consolidated leverage ratio. In addition, we must pay credit facility fees. The credit facility contains certain restrictive covenants including maintaining a minimum fixed charge ratio of 2.5 and a maximum consolidated leverage ratio of 3.0, subject to a step up to 3.5 following certain permitted acquisitions. The credit agreement also contains other covenants typical of unsecured facilities. As of September 30, 2017, we had \$361.0 million in borrowings outstanding at a weighted average interest rate of 2.365%, of which \$350.0 million was classified as a long-term liability and recorded in long-term debt within the accompanying consolidated balance sheets. We were in compliance with all financial covenants under this credit facility as of September 30, 2017.

10. Senior Notes

On May 7, 2008, we issued \$275 million of senior notes in a private placement to a group of institutional investors (the "2008 Senior Notes"). The 2008 Senior Notes were issued in four series as follows:

Series	Amount	Interest Rate	Maturity Date
	(In millions)		
A	\$ 41.0	6.37%	May 7, 2013
В	\$ 40.0	6.37%	May 7, 2015
C	\$ 63.0	6.71%	May 7, 2015
D	\$131.0	7.18%	May 7, 2018

On July 14, 2010, we issued \$245 million of senior notes in a private placement to a group of institutional investors (the "2010 Senior Notes" and, with the 2008 Senior Notes, the "Senior Notes"). The 2010 Senior Notes were issued in four series as follows:

Series	Amount	Interest Rate	Maturity Date
	(In millions)		
E	\$60.0	4.72%	July 14, 2016
F	\$72.0	5.04%	July 14, 2017
G	\$28.0	5.42%	July 14, 2019
Н	\$85.0	5.59%	July 14, 2020

We were and are required to pay the entire unpaid principal balances of each note series on its maturity date except for Series B notes, which required annual principal payments of \$8.0 million starting on May 7, 2011 and ending on May 7, 2015. The Senior Notes require interest payments semi-annually and contain certain restrictive covenants, including the maintenance of consolidated net debt to consolidated EBITDA ratio and a fixed charge coverage ratio. The purchase agreements for the Senior Notes also contain certain covenants typical of unsecured facilities. As of September 30, 2017, we were in compliance with all financial covenants.

The following table presents the carrying amounts and fair values for the Senior Notes at September 30, 2017 and 2016:

	September	September 30, 2017		er 30, 2016
	Carrying Amounts	Fair Value	Carrying Amounts (1)	Fair Value (1)
		(In th	ousands)	
The 2008 Senior Notes	\$131,000	\$134,250	\$131,000	\$139,902
The 2010 Senior Notes	113,000	119,106	185,000	195,715
Debt issuance costs	(199)	(199)	(376)	(376)
Total	<u>\$243,801</u>	\$253,157	\$315,624	\$335,241

⁽¹⁾ Balances as of September 30, 2016 have been recast as a result of the adoption of ASU 2015-03 to present debt issuance costs of \$0.4 million as a direct deduction from the carrying amount of the Senior Notes.

We measure the fair value of the Senior Notes based on Level 2 inputs, which include quoted market prices and interest rate spreads of similar securities.

Future principal payments for the Senior Notes are as follows (in thousands):

Year Ended September 30,	
2018	\$131,000
2019	28,000
2020	85,000
Total	\$244,000

11. Employee Benefit Plans

Defined Contribution Plans

We sponsor the Fair Isaac Corporation 401(k) plan for eligible employees in the U.S. Under this plan, eligible employees may contribute up to 25% of compensation, not to exceed statutory limits. We also provide a company matching contribution. Investment in FICO common stock is not an option under this plan. Our contributions into all 401(k) plans, including former acquired company sponsored plans that have since merged into the Fair Isaac Corporation 401(k) plan or have been frozen, totaled \$8.4 million, \$7.3 million and \$7.1 million during fiscal 2017, 2016 and 2015, respectively.

Employee Incentive Plans

We maintain various employee incentive plans for the benefit of eligible employees, including officers. The awards generally are based on the achievement of certain financial and performance objectives subject to the discretion of management. Total expenses under our employee incentive plans were \$41.6 million, \$40.0 million and \$20.3 million during fiscal 2017, 2016 and 2015, respectively.

12. Restructuring Expenses

During fiscal 2017, we incurred net charges totaling \$4.5 million consisting of \$1.7 million in facilities charges associated with vacating excess leased space in San Rafael, California and \$2.8 million in severance

charges due to the elimination of 79 positions throughout the Company. Cash payments for all the facilities charges will be paid by the end of fiscal 2020. Cash payments for all the employee separation costs will be paid by the end of the second quarter of fiscal 2018.

There was no restructuring expense incurred during fiscal 2016.

During fiscal 2015, we incurred net charges totaling \$17.5 million consisting of \$13.6 million in facilities charges associated with vacating excess leased space in Roseville, Minnesota and San Rafael, California, and \$3.9 million in severance charges due to the elimination of 97 positions throughout the Company. Cash payments for all the facilities charges will be paid by the end of fiscal 2020. Cash payments for all the severance costs were paid by the end of fiscal 2016.

The following tables summarize our restructuring accruals associated with the above actions. The current portion and non-current portion was recorded in other accrued liabilities and other liabilities, respectively, within the accompanying consolidated balance sheets.

	Accrual at September 30, 2015	Expense Additions	Cash Payments	Accrual at September 30, 2016
		(In tho	usands)	
Facilities charges	\$12,995	\$	\$(3,762)	\$ 9,233
Employee separation	2,405		(2,405)	
	15,400	<u>\$—</u>	<u>\$(6,167)</u>	9,233
Less: current portion	(5,570)			(4,266)
Non-current	\$ 9,830			\$ 4,967
	Accrual at September 30, 2016	Expense Additions	Cash Payments	Accrual at September 30, 2017
	September 30,	Additions		September 30,
Facilities charges	September 30,	Additions	Payments	September 30,
Facilities charges Employee separation	September 30, 2016	Additions (In tho	Payments usands)	September 30, 2017
e	September 30, 2016	Additions (In tho \$1,729	Payments usands) \$(2,842)	September 30, 2017
e	\$ 9,233	Additions (In tho \$1,729 2,742	Payments usands) \$(2,842) (2,557)	\$ 8,120 185

13. Income Taxes

The provision for income taxes was as follows during fiscal 2017, 2016 and 2015:

	Year ended September 30,		
	2017	2016	2015
		(In thousands)	
Current:			
Federal	\$19,576	\$ 50,631	\$23,646
State	1,055	2,900	(5,381)
Foreign	8,486	7,597	10,405
	29,117	61,128	28,670
Deferred:			
Federal	(5,027)	(23,592)	(5,004)
State	(296)	(225)	1,422
Foreign	(726)	(2,190)	(2,352)
	(6,049)	(26,007)	(5,934)
Total provision	\$23,068	\$ 35,121	\$22,736

The foreign provision was based on foreign pre-tax earnings of \$27.8 million, \$33.0 million and \$45.2 million in fiscal 2017, 2016 and 2015, respectively. Current foreign tax expense related to foreign tax withholdings was \$4.6 million, \$6.5 million and \$5.3 million in fiscal 2017, 2016 and 2015, respectively. Foreign withholding tax and related foreign tax credits are included in current tax expense above.

Deferred tax assets and liabilities at September 30, 2017 and 2016 were as follows:

	September 30,	
	2017	2016
	(In thou	ısands)
Deferred tax assets:		
Net operating loss carryforward	\$ 16,765	\$ 16,122
Foreign tax credit carryforward	10,286	14,590
Research credit carryforward	7,333	6,132
Accrued bonus	14,468	13,807
Investments	582	619
Accrued compensation	1,585	1,328
Share-based compensation	29,770	27,203
Deferred revenue	_	1,467
Accrued lease costs	3,026	3,406
Property and equipment	3,476	3,348
Other	8,630	7,728
	95,921	95,750
Less valuation allowance	(17,657)	(15,145)
Total deferred tax assets	78,264	80,605
Deferred tax liabilities:		
Intangible assets	(25,346)	(28,056)
Prepaid expense	(4,681)	(3,959)
Deferred revenue	(41)	
Other	(992)	(992)
Total deferred tax liabilities	(31,060)	(33,007)
Deferred tax assets, net	\$ 47,204	\$ 47,598

Based upon the level of historical taxable income and projections for future taxable income over the periods that the deferred tax assets will reverse, management believes it is more likely than not that we will realize the benefits of the deferred tax assets, net of the existing valuation allowance at September 30, 2017.

As of September 30, 2017, we had available U.S. federal, state and foreign net operating loss ("NOL") carryforwards of approximately \$17.1 million, \$0.3 million, and \$38.8 million, respectively. The U.S. NOLs were acquired in connection with our acquisitions of Braun in fiscal 2005, Adeptra in fiscal 2012, Infoglide in fiscal 2013 and Quadmetrics in 2016. The U.S. federal NOL carryforward will expire at various dates beginning in fiscal 2020, if not utilized. The state NOL carryforward will begin to expire at various dates beginning in fiscal 2021, if not utilized. The \$38.8 million of foreign NOL includes \$24.2 million related to China. Due to a limited ability to utilize the China NOLs a full valuation allowance has been recorded on the China NOLs, resulting in no tax benefit. Utilization of the U.S. federal and state NOL are subject to an annual limitation due to the "change in ownership" provisions of the Internal Revenue Code of 1986, as amended, and similar state provisions. In fiscal 2016 and 2017 we generated excess foreign tax credits associated with dividends received from two of our foreign subsidiaries. The associated deferred tax asset of \$9.6 million can be carried forward for up to 10 years. Management believes it is more likely than not that we will realize the benefit of this deferred tax asset and therefore no valuation allowance has been recorded to offset the future benefit of these credits. We also have available excess California state research credit of approximately \$7.3 million. The California state research

credit does not have an expiration date; however, based on enacted law and expected future cash taxes, we have recorded a valuation allowance of \$7.3 million.

A reconciliation of the provision for income taxes, with the amount computed by applying the U.S. federal statutory income tax rate (35% in fiscal 2017, 2016 and 2015) to income before provision for income taxes for fiscal 2017, 2016 and 2015 is shown below:

	Year Ended September 30,		er 30,
	2017	2016	2015
	(]	In thousands)	
Income tax provision at U.S. federal statutory rate	\$ 52,963	\$50,599	\$38,233
State income taxes, net of U.S. federal benefit	2,193	2,244	1,719
Foreign tax rate differential	(1,761)	(4,661)	(5,279)
Intercompany interest	(477)	(1,223)	(1,260)
Research credits	(2,572)	(4,398)	(2,104)
Domestic production deduction	(3,075)	(3,726)	(1,607)
Amended Returns/Audit Settlements/Statute Expirations	(1,296)	(248)	(5,806)
Foreign	744	(1,702)	(3,109)
Valuation allowance	2,512	1,262	1,805
Foreign tax credit	(1,342)	(3,286)	(1,296)
Excess tax benefits relating to stock-based compensation	(24,746)	_	_
Other	(75)	260	1,440
Recorded income tax provision	\$ 23,068	\$35,121	\$22,736

The decrease in our income tax provision in fiscal 2017 compared to fiscal 2016 was due primarily to the adoption of ASU 2016-09 on October 1, 2016. We no longer record excess tax benefits as an increase to additional paid-in capital, but record such excess tax benefits on a prospective basis as a reduction of income tax expense.

The increase in our income tax provision in fiscal 2016 compared to fiscal 2015 was due primarily to the favorable settlement of the fiscal 2006-2009 state audits and the favorable settlement of the 2010 foreign transfer pricing assessment in fiscal 2015, partially offset by an increase in the foreign tax credit associated with the repatriation of income from the United Kingdom and Brazil and the Domestic Production Activities Deduction in fiscal 2016.

As of September 30, 2017, we have not made a provision for U.S. or additional foreign withholding taxes on approximately \$47.0 million of the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries. We intend to reinvest the earnings of non-U.S. subsidiaries in those operations indefinitely, except where we are able to repatriate these earnings to the United States without material incremental tax provision. The determination and estimation of the future income tax consequences in all relevant taxing jurisdictions involves the application of highly complex tax laws in the countries involved, particularly in the United States, and is based on our tax profile in the year of earnings repatriation. Accordingly, it is not practicable to estimate the amount of deferred tax liability related to investments in these foreign subsidiaries.

Unrecognized Tax Benefit for Uncertain Tax Positions

We conduct business globally and, as a result, file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. In the normal course of business, we are subject to examination by taxing

authorities. With a few exceptions, we are no longer subject to U.S. federal, state, local, or foreign income tax examinations for fiscal years prior to 2014. We are currently under audit by New York City for fiscal 2011, 2012 and 2013. We do not anticipate any adjustments related to those audits that will result in a material change to our consolidated financial statements.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Year Ended September 30		ber 30,
	2017	2016	2015
	(]	In thousands)
Gross unrecognized tax benefits at beginning of year	\$ 6,799	\$4,634	\$ 4,554
Gross increases for tax positions in prior years	57	1,004	1,725
Gross decreases for tax positions in prior years	(19)	(117)	(3)
Gross increases based on tax positions related to the current year	1,291	1,310	582
Decreases for settlements and payments	(151)	(32)	(2,224)
Decreases due to statue expiration	(1,497)		
Gross unrecognized tax benefits at end of year	\$ 6,480	\$6,799	\$ 4,634

We had \$6.5 million of total unrecognized tax benefits as of September 30, 2017, including \$5.8 million of tax benefits that, if recognized, would impact the effective tax rate. Although the timing and outcome of audit settlements are uncertain, it is unlikely there will be a reduction of the uncertain tax benefits in the next 12 months.

We recognize interest expense related to unrecognized tax benefits and penalties as part of the provision for income taxes in our consolidated statements of income and comprehensive income. We recognize interest earned related to income tax matters as interest income in our consolidated statements of income and comprehensive income. As of September 30, 2017, we have accrued interest of \$0.4 million related to the unrecognized tax benefits.

14. Stock-Based Employee Benefit Plans

Description of Stock Option and Share Plans

We maintain the 2012 Long-Term Incentive Plan (the "2012 Plan") under which we are authorized to issue equity awards, including stock options, stock appreciation rights, restricted stock awards, stock unit awards and other stock-based awards. All employees, consultants and advisors of FICO or any subsidiary, as well as all non-employee directors are eligible to receive awards under the 2012 Plan. We also have one other long-term incentive plan under which awards are currently outstanding: the 1992 Long-term Incentive Plan, which was adopted in February 1992 and expired in February 2012. Stock option awards have a maximum term of seven years. Stock option awards and restricted stock unit awards not subject to market conditions vest ratably over three or four years. Restricted stock unit awards subject to market conditions vest annually over a period of three years based on the achievement of specified criteria. At September 30, 2017, there were 4,018,329 shares available for issuance under the 2012 Plan.

Description of Employee Stock Purchase Plan

Under our Employee Stock Purchase Plan (the "Purchase Plan"), we are authorized to issue up to 5,062,500 shares of common stock to eligible employees. Employees may have up to 10% of their base salary

withheld through payroll deductions to purchase FICO common stock during semi-annual offering periods. The purchase price of the stock is 85% of the fair market value on the exercise date (the last day of each offering period). Offering period means approximately six-month periods commencing (a) on the first trading day on or after January 1 and terminating on the last trading day in the following June, and (b) on the first trading day on or after July 1 and terminating on the last trading day in the following December. The Purchase Plan was suspended effective January 1, 2009 and employees cannot contribute to the Purchase Plan until the suspension is repealed. At September 30, 2017, there were 2,707,966 shares available for issuance.

We satisfy stock option exercises, vesting of restricted stock units and the Purchase Plan issuances from treasury shares.

Share-Based Compensation Expense and Related Income Tax Benefits

We recorded share-based compensation expense of \$61.2 million, \$55.5 million and \$45.3 million in fiscal years 2017, 2016 and 2015, respectively. The total tax benefit related to this share-based compensation expense was \$20.4 million, \$18.7 million and \$16.1 million in fiscal 2017, 2016 and 2015, respectively. As of September 30, 2017, there was \$87.6 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under all equity compensation plans. Total unrecognized compensation cost will be adjusted for future changes in estimated forfeitures. We expect to recognize that cost over a weighted average period of 2.34 years.

In fiscal 2017 we received \$14.5 million in cash from stock option exercises, with the tax benefit realized for the tax deductions from these exercises of \$9.4 million.

Stock-Based Activity

Stock Options

We estimate the fair value of stock options granted using the Black-Scholes option valuation model and we amortize the fair value on a straight-line basis over the vesting period. We used the following assumptions to estimate the fair value of our stock options during fiscal 2017, 2016 and 2015:

	Year Ended September 30,		
	2017	2016	2015
Stock Options:			
Average expected term (years)	5.00	4.83	4.18
Expected volatility (range)	35.3%	35.3 - 36.4%	34.5 - 35.3%
Weighted average volatility	35.3%	36.0%	34.6%
Risk-free interest rate (range)	2.02%	1.21 - 1.49%	1.33 - 1.48%
Average expected dividend yield	0.07%	0.09%	0.14%
Expected dividend yield (range)	0.07%	0.09 - 0.10%	0.11 - 0.14%

Expected Volatility. We estimate the volatility of our common stock at the date of grant based on a combination of the implied volatility of publicly traded options on our common stock and our historical volatility rate.

Expected Term. The expected term represents the period that our stock options are expected to be outstanding. We estimate the expected term based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior.

Dividends. The dividend yield assumption is based on historical dividend payouts.

Risk-Free Interest Rate. The risk-free interest rate assumption is based on observed interest rates appropriate for the term of our employee options.

Forfeitures. We use historical data to estimate pre-vesting option forfeitures and record share-based compensation expense only for those awards that are expected to vest.

The following table summarizes option activity during fiscal 2017:

	Shares	Weighted- average Exercise Price	average Remaining Contractual Term	Aggregate Intrinsic Value
	(In thousands)		(In years)	(In thousands)
Outstanding at October 1, 2016	1,521	\$ 52.37		
Granted	34	128.80		
Exercised	(325)	44.52		
Outstanding at September 30, 2017	1,230	\$ 56.54	3.12	\$103,275
Exercisable at September 30, 2017	946	\$ 50.29	2.74	\$ 85,354
Vested and expected to vest at September 30, 2017	1,223	\$ 56.43	3.11	\$102,843

The weighted average fair value of options granted were \$43.80, \$31.06 and \$21.66 during fiscal 2017, 2016 and 2015, respectively. The aggregate intrinsic value of options outstanding at September 30, 2017 was calculated as the difference between the exercise price of the underlying options and the market price of our common stock for the 1.2 million outstanding shares, which had exercise prices lower than the \$140.50 market price of our common stock at September 30, 2017. The total intrinsic value of options exercised was \$27.0 million, \$41.3 million and \$24.3 million during fiscal 2017, 2016 and 2015, respectively, determined as of the date of exercise.

Restricted Stock Units

The fair value of restricted stock units ("RSUs") granted is the closing market price of our common stock on the date of grant, adjusted for the expected dividend yield, if applicable. We amortize the fair value on a straight-line basis over the vesting period.

The following table summarizes the RSUs activity during fiscal 2017:

	Shares	Weighted-average Grant-date Fair Value
	(In thousands)	
Outstanding at October 1, 2016	1,211	\$ 76.93
Granted	460	122.47
Released	(475)	68.54
Forfeited	(52)	93.80
Outstanding at September 30, 2017	<u>1,144</u>	\$ 97.95

The weighted average fair value of the RSUs granted were \$122.47, \$94.77 and \$73.93 during fiscal 2017, 2016 and 2015, respectively. The total intrinsic value of the RSUs that vested was \$58.7 million, \$49.8 million and \$38.5 million during fiscal 2017, 2016 and 2015, respectively, determined as of the date of vesting.

Performance Share Units

Performance share units ("PSUs") are granted to our senior officers and earned based on pre-established performance goals approved by the Leadership Development and Compensation Committee of our Board of Directors for any given performance period. The range of payout is zero to 200% of the number of granted PSUs, based on the outcome of the performance conditions. We estimate the fair value of the PSUs using the closing market price of our common stock on the date of grant, adjusted for the expected dividend yield if applicable, based on the performance condition that is probable of achievement. We amortize the fair values over the requisite service period for each vesting tranche of the award. We reassess the probability at each reporting period and recognize the cumulative effect of the change in estimate in the period of change.

The following table summarizes the PSUs activity during fiscal 2017:

	Shares	Weighted-average Grant-date Fair Value
	(In thousands)	
Outstanding at October 1, 2016	230	\$ 73.99
Granted	110	121.30
Released	(136)	65.24
Outstanding at September 30, 2017	204	\$105.37

The weighted average fair value of the PSUs granted were \$121.30, \$91.74 and \$71.86 during fiscal 2017, 2016 and 2015, respectively. The total intrinsic value of the PSUs that vested was \$16.6 million, \$14.0 million and \$9.7 million during fiscal 2017, 2016 and 2015, respectively, determined as of the date of vesting.

Market Share Units

Market share units ("MSUs") are granted to our senior officers and earned based on our total shareholder return relative to the Russell 3000 Index over performance periods of one, two and three years. We estimate the fair value of MSUs granted using the Monte Carlo valuation model and amortize the fair values over the requisite service period for each vesting tranche of the award. In addition, we do not reverse the compensation cost solely because the market condition is not satisfied, and the award is therefore not earned by the employee, provided the requisite service is rendered. We used the following assumptions to estimate the fair value of our MSUs during fiscal 2017, 2016 and 2015:

	September 30,		
	2017	2016	2015
Expected volatility in FICO's stock price	27.4%	24.1%	26.6%
Expected volatility in Russell 3000 Index	13.6%	12.8%	12.2%
Correlation between FICO and the Russell 3000 Index	59.8%	60.2%	55.9%
Risk-free interest rate	1.40%	1.25%	1.10%
Average expected dividend yield	0.07%	0.09%	0.14%

Year Ended

The expected volatility was determined based on daily historical movements in our stock price and the Russell 3000 Index for the three years preceding the grant date. The correlation between FICO and the Russell 3000 Index was determined based on historical daily stock price movements for the three years preceding the grant date. The dividend yield was determined using the historical dividend payout and a trailing twelve month closing stock price on the grant date. The risk-free rate was determined based on U.S. Treasury zero-coupon yields over the three-year performance period.

The following table summarizes the MSUs activity during fiscal 2017:

	Shares	Weighted-average Grant-date Fair Value
	(In thousands)	
Outstanding at October 1, 2016	142	\$100.40
Granted	155	108.09
Released	(166)	89.09
Outstanding at September 30, 2017	131	\$123.82

The weighted average fair value of the MSUs granted were \$108.09, \$100.63 and \$101.85 during fiscal 2017, 2016 and 2015, respectively. The total intrinsic value of the MSUs that vested was \$20.2 million, \$9.2 million and \$1.7 million during fiscal 2017, 2016 and 2015, respectively, determined as of the date of vesting.

15. Earnings per Share

The following table presents reconciliations for the numerators and denominators of basic and diluted earnings per share ("EPS") during fiscal 2017, 2016 and 2015:

	Year Ended September 30,			
	2017	2016	2015	
	(In thousan	ds, except per s	hare data)	
Numerator for basic and diluted earnings per share — net income	\$128,256	\$109,448	\$86,502	
Denominator — share:				
Basic weighted-average shares	30,862	31,129	31,402	
Effect of dilutive securities	1,383	1,179	1,207	
Diluted weighted-average shares	32,245	32,308	32,609	
Earnings per share:				
Basic	\$ 4.16	\$ 3.52	\$ 2.75	
Diluted	\$ 3.98	\$ 3.39	\$ 2.65	

The computation of diluted EPS excludes options to purchase approximately 8,000, 9,000, and 138,000 shares of common stock for fiscal 2017, 2016 and 2015, respectively, because the exercise prices of the options exceeded the average market price of our common stock in these fiscal years and their inclusion would be antidilutive.

16. Related Party Transactions

We have a \$10 million investment in convertible preferred stock of a private company. The company is developing a range of products focused on revenue cycle activities for hospitals and healthcare providers. Related

party revenue was immaterial for the years ended September 30, 2017, 2016 and 2015. The accounts receivable balance from this company was not significant as of September 30, 2017 and 2016.

17. Segment Information

We are organized into the following three operating segments, each of which is a reportable segment, to align with internal management of our worldwide business operations based on product offerings.

- Applications. This segment includes pre-configured decision management applications designed for a specific type of business problem or process such as marketing, account origination, customer management, fraud, collections and insurance claims management as well as associated professional services. These applications are available to our customers as on-premises software, and many are available as hosted, software-as-a-service ("SaaS") applications through the FICO® Analytic Cloud.
- Scores. This segment includes our business-to-business scoring solutions, our myFICO® solutions for consumers and associated professional services. Our scoring solutions give our clients access to analytics that can be easily integrated into their transaction streams and decision-making processes. Our scoring solutions are distributed through major credit reporting agencies, as well as services through which we provide our scores to clients directly.
- Decision Management Software. This segment is composed of analytic and decision management software tools that clients can use to create their own custom decision management applications, our new FICO® Decision Management Suite, as well as associated professional services. These tools are available to our customers as on-premises software or through the FICO® Analytic Cloud.

Our Chief Executive Officer evaluates segment financial performance based on segment revenues and segment operating income. Segment operating expenses consist of direct and indirect costs principally related to personnel, facilities, consulting, travel and depreciation. Indirect costs are allocated to the segments generally based on relative segment revenues, fixed rates established by management based upon estimated expense contribution levels and other assumptions that management considers reasonable. We do not allocate broad-based incentive expense, share-based compensation expense, restructuring and acquisition-related expense, amortization expense, various corporate charges and certain other income and expense measures to our segments. These income and expense items are not allocated because they are not considered in evaluating the segment's operating performance. Our Chief Executive Officer does not evaluate the financial performance of each segment based on its respective assets or capital expenditures; rather, depreciation amounts are allocated to the segments from their internal cost centers as described above.

The following tables summarize segment information for fiscal 2017, 2016 and 2015:

	Year Ended September 30, 2017				
	Applications	Scores	Decision Management Software (In thousands)	Unallocated Corporate Expenses	Total
Segment revenues:					
Transactional and maintenance	\$ 348,861	\$259,780	\$ 44,019	\$ —	\$ 652,660
Professional services License	141,857	2,849	34,863	_	179,569
	62,449	3,725	33,766		99,940
Total segment revenues Segment operating expense	553,167 (393,667)	266,354 (54,436)	112,648 (123,466)	— (104,998)	932,169 (676,567)
Segment operating income (loss)	\$ 159,500	\$211,918	\$ (10,818)	\$(104,998)	\$ 255,602
Unallocated share-based compensation expense					(61,222)
Unallocated amortization expense Unallocated restructuring and acquisition-related					(12,709)
expenses					(4,471)
Operating income					177,200
Unallocated interest expense, net					(25,790)
Unallocated other expense, net					(86)
Income before income taxes					\$ 151,324
Depreciation expense	\$ 15,857	\$ 991	\$ 4,783	\$ 1,349	\$ 22,980
		Year Eı	nded September	30, 2016	
			Decision	Unallocated	
	Applications	Scores	Management Software	Corporate Expenses	Total
			(In thousands)		
Segment revenues: Transactional and maintenance	\$ 328,472	\$233,655	\$ 43,792	s —	\$ 605,919
Professional services	138,775	4,185	26,778	φ — —	169,738
License	65,395	3,219	37,085	_	105,699
Total segment revenues	532,642	241,059	107,655		881,356
Segment operating expense	(364,371)	(55,975)	(111,315)	(110,612)	(642,273)
Segment operating income (loss)	\$ 168,271	\$185,084	\$ (3,660)	\$(110,612)	239,083
Unallocated share-based compensation expense					(55,509)
Unallocated amortization expense					(13,982)
Operating income					169,592
Unallocated interest expense, net					(26,633)
Unallocated other income, net					1,610
Income before income taxes					<u>\$ 144,569</u>
Depreciation expense	\$ 11,852	\$ 814	\$ 3,657	\$ 1,328	\$ 17,651

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	Year Ended September 30, 2015					
	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	Total	
			(In thousands)			
Segment revenues:						
Transactional and maintenance	\$ 320,596	\$200,426	\$ 43,210	\$ —	\$ 564,232	
Professional services	124,562	2,901	24,310		151,773	
License	81,116	3,680	37,980		122,776	
Total segment revenues	526,274	207,007	105,500	_	838,781	
Segment operating expense	(366,666)	(55,793)	(111,850)	(89,744)	(624,053)	
Segment operating income (loss)	\$ 159,608	\$151,214	\$ (6,350)	\$(89,744)	214,728	
Unallocated share-based compensation expense					(45,308)	
Unallocated amortization expense					(13,673)	
Unallocated restructuring and acquisition-related						
expenses					(18,242)	
Operating income					137,505	
Unallocated interest expense, net					(29,150)	
Unallocated other income, net					883	
Income before income taxes					\$ 109,238	
Depreciation expense	\$ 13,861	\$ 921	\$ 3,087	\$ 2,347	\$ 20,216	
1		<u> </u>				

Our revenues and percentage of revenues by reportable market segments were as follows for fiscal 2017, 2016 and 2015, the majority of which were derived from the sale of products and services within the banking (including consumer credit) industry:

	Year Ended September 30,					
	2017		2016		2015	
		(Dollars in tho	usands)		
Applications	\$553,167	59%	\$532,642	61%	\$526,274	63%
Scores	266,354	29%	241,059	27%	207,007	25%
Decision Management Software	112,648	_12%	107,655	12%	105,500	12%
Total	\$932,169	100%	\$881,356	100%	\$838,781	100%

Within our Applications segment our fraud solutions accounted for 19%, 20% and 23% of total revenues in each of fiscal 2017, 2016 and 2015, respectively, our customer communication services accounted for 10%, 9% and 8% of total revenues in each of these periods, respectively; and our customer management solutions accounted for 8%, 9% and 9% of total revenues in each of these periods, respectively.

Our revenues and percentage of revenues on a geographical basis are summarized below for fiscal 2017, 2016 and 2015:

	Year Ended September 30,					
	2017		2016		2015	
		(Dollars in tho	usands)		
United States	\$598,765	64%	\$567,443	64%	\$505,109	60%
United Kingdom	71,989	8%	86,485	10%	93,855	11%
Other countries	261,415	28%	227,428	26%	239,817	29%
Total	\$932,169	100%	\$881,356	100%	\$838,781	100%

During fiscal 2017, 2016 and 2015, no individual customer accounted for 10% or more of our total revenues; however, we derive a substantial portion of revenues from our contracts with the three major credit reporting agencies, Experian, TransUnion and Equifax. Revenues collectively generated by agreements with these customers accounted for 20%, 19% and 16% of our total revenues in fiscal 2017, 2016 and 2015, respectively. At September 30, 2017 and 2016, no individual customer accounted for 10% or more of total consolidated receivables.

Our property and equipment, net, on a geographical basis are summarized below at September 30, 2017 and 2016:

	September 30,					
	2017 201			6		
	(De	ollars in t	housands)			
United States	\$30,773	76%	\$36,083	80%		
United Kingdom	4,893	12%	3,769	8%		
Other countries	5,037	12%	5,270	12%		
Total	<u>\$40,703</u>	100%	\$45,122	100%		

18. Commitments

Minimum future commitments under non-cancelable operating leases and other obligations were as follows at September 30, 2017:

Year Ended September 30,	Future Minimum Lease Commitments
	(In thousands)
2018	\$ 23,787
2019	22,042
2020	13,414
2021	9,619
2022	9,104
Thereafter	22,790
Total	\$100,756

Lease Commitments

The above amounts have contractual sublease commitments totaling \$0.3 million for fiscal 2018 and fiscal 2019. We occupy the majority of our facilities under non-cancelable operating leases with lease terms in excess of one year. Such facility leases generally provide for annual increases based upon the Consumer Price Index or fixed increments. Rent expense under operating leases, including month-to-month leases, totaled \$18.6 million, \$17.6 million and \$20.7 million during fiscal 2017, 2016 and 2015, respectively.

Other Commitments

In the ordinary course of business, we enter into contractual purchase obligations and other agreements that are legally binding and specify certain minimum payment terms.

We are also a party to a management agreement with 23 of our executives providing for certain payments and other benefits in the event of a qualified change in control of FICO, coupled with a termination of the officer during the following year.

19. Contingencies

We are in disputes with certain customers regarding amounts owed in connection with the sale of certain of our products and services. We also have had claims asserted by former employees relating to compensation and other employment matters. We are also involved in various other claims and legal actions arising in the ordinary course of business. We record litigation accruals for legal matters which are both probable and estimable. For legal proceedings for which there is a reasonable possibility of loss (meaning those losses for which the likelihood is more than remote but less than probable), we have determined we do not have material exposure on an aggregate basis.

20. Guarantees

In the ordinary course of business, we are not subject to potential obligations under guarantees, except for standard indemnification and warranty provisions that are contained within many of our customer license and service agreements and certain supplier agreements, including underwriter agreements, as well as standard indemnification agreements that we have executed with certain of our officers and directors, and give rise only to the disclosure in the consolidated financial statements. In addition, we continue to monitor the conditions that are subject to the guarantees and indemnifications to identify whether it is probable that a loss has occurred, and would recognize any such losses under the guarantees and indemnifications when those losses are estimable.

Indemnification and warranty provisions contained within our customer license and service agreements and certain supplier agreements are generally consistent with those prevalent in our industry. The duration of our product warranties generally does not exceed 90 days following delivery of our products. We have not incurred significant obligations under customer indemnification or warranty provisions historically and do not expect to incur significant obligations in the future. Accordingly, we do not maintain accruals for potential customer indemnification or warranty-related obligations. The indemnification agreements that we have executed with certain of our officers and directors would require us to indemnify such officers and directors in certain instances. We have not incurred obligations under these indemnification agreements historically and do not expect to incur significant obligations in the future. Accordingly, we do not maintain accruals for potential officer or director indemnification obligations. The maximum potential amount of future payments that we could be required to make under the indemnification provisions in our customer license and service agreements, and officer and director agreements is unlimited.

21. Supplementary Financial Data (Unaudited)

The following table presents selected unaudited consolidated financial results for each of the eight quarters in the two-year period ended September 30, 2017. In the opinion of management, this unaudited information has been prepared on the same basis as the audited information and includes all adjustments (consisting of only normal recurring adjustments, except as noted below) necessary for a fair statement of the consolidated financial information for the period presented.

	Quarter Ended					
	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016		
	(In	thousands, exce	ept per share da	ata)		
Revenues	\$253,205	\$230,986	\$228,378	\$219,600		
Cost of revenues (1)	75,202	69,793	72,131	69,997		
Gross profit	178,003	161,193	156,247	149,603		
Net income	\$ 40,044	\$ 25,227	\$ 25,084	\$ 37,901		
Earnings per share (2):						
Basic	\$ 1.31	\$ 0.82	\$ 0.81	\$ 1.22		
Diluted	\$ 1.25	\$ 0.78	\$ 0.78	\$ 1.16		
Shares used in computing earnings per share:						
Basic	30,534	30,914	31,017	30,989		
Diluted	31,963	32,224	32,260	32,536		
		Quarte	r Ended			
	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015		
	(In	thousands, exce	ept per share da	nta)		
Revenues	\$235,824	\$238,778	\$206,678	\$200,076		
Cost of revenues (1)	74,298	66,384	62,298	62,193		
Gross profit	161,526	172,394	144,380	137,883		
Net income	\$ 32,104	\$ 34,987	\$ 23,116	\$ 19,241		
Earnings per share (2):						
Basic	\$ 1.04	\$ 1.12	\$ 0.74	\$ 0.62		
Diluted	\$ 1.00	\$ 1.08	\$ 0.72	\$ 0.59		
Shares used in computing earnings per share:						
Basic						
Dasie	30,916	31,149	31,268	31,185		

⁽¹⁾ Cost of revenues excludes amortization expense of \$1.4 million, \$1.7 million, \$1.7 million, \$1.7 million, \$1.7 million, \$1.8 million, \$1.8 million and \$1.9 million for the quarters ended September 30, 2017, June 30, 2017, March 31, 2017, December 31, 2016, September 30, 2016, June 30, 2016, March 31, 2016 and December 31, 2015, respectively.

⁽²⁾ Earnings per share is computed independently for each of the quarters presented. Therefore, the sum of the quarterly per share amounts may not equal the totals for the respective years.

22. Subsequent Events

In October 2017, our Board of Directors approved a new stock repurchase program following the completion of a similar program that was approved in July 2016. The new program is open-ended and authorizes repurchases of shares of our common stock up to an aggregate cost of \$250.0 million in the open market or in negotiated transactions.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

An evaluation was carried out under the supervision and with the participation of FICO's management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of the design and operation of FICO's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this annual report. Based on that evaluation, the CEO and CFO have concluded that FICO's disclosure controls and procedures are effective to ensure that information required to be disclosed by FICO in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms. In addition, the disclosure controls and procedures ensure that information required to be disclosed is accumulated and communicated to management, including the CEO and CFO, allowing timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

No change in FICO's internal control over financial reporting was identified in connection with the evaluation required by Rule 13a-15(d) of the Exchange Act that occurred during the year ended September 30, 2017, that has materially affected, or is reasonably likely to materially affect, FICO's internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of management, including our CEO and CFO, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of September 30, 2017 based on the guidelines established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation management has concluded that our internal control over financial reporting was effective as of September 30, 2017.

Deloitte & Touche LLP, an independent registered public accounting firm that audited the consolidated financial statements included in this Annual Report on Form 10-K, has also audited the effectiveness of our internal control over financial reporting as of September 30, 2017, as stated in their attestation report included in Part II, Item 8 of this Annual Report on Form 10-K.

Item 9B. Other Information

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The required information regarding our Directors is incorporated by reference from the information under the caption "Director Nominees" in our definitive proxy statement for the Annual Meeting of Stockholders to be held on February 28, 2018.

Our current executive officers are as follows:

Name	Positions Held	Age
William J. Lansing	January 2012-present, Chief Executive Officer and member of the Board of Directors of the Company. February 2009-November 2010, Chief Executive Offer and President, Infospace, Inc. 2004-2007, Chief Executive Officer and President, ValueVision Media, Inc. 2001-2003, General Partner, General Atlantic LLC. 2000-2001, Chief Executive Officer, NBC Internet, Inc. 1998-2000, President/Chief Executive Officer, Fingerhut Companies, Inc. 1996-1998, Vice President, Corporate Business Development, General Electric Company. 1996, Executive Vice President, Chief Operating Office, Prodigy, Inc. 1986-1995, various positions, McKinsey & Company, Inc.	59
Michael J. Pung	November 2010-present, Executive Vice President and Chief Financial Officer of the Company. August 2004-November 2010, Vice President, Finance of the Company. 2000-2004, Vice President and Controller, Hubbard Media Group, LLC. 1999-2000, Controller, Capella Education, Inc. 1998-1999, Controller, U.S. Satellite Broadcasting, Inc. 1992-1998, various financial management positions with Deluxe Corporation. 1985-1992, various audit positions, including audit manager, at Deloitte & Touche LLP.	54
Richard S. Deal	November 2015-present, Executive Vice President, Chief Human Resources Officer of the Company. August 2007-November 2015, Senior Vice President, Chief Human Resources Officer of the Company. January 2001-August 2007, Vice President, Human Resources of the Company. 1998-2001, Vice President, Human Resources, Arcadia Financial, Ltd. 1993-1998, managed broad range of human resources corporate and line consulting functions with U.S. Bancorp.	50
Wayne Huyard	November 2014-present, Executive Vice President of Sales, Services, and Marketing of the Company. January 2014-November 2014, Consultant to the Chief Executive Officer of the Company. September 2012-November 2014, Chief Executive Officer and President, TEXbase, Inc. March 2012-May 2012, General Manager of RightNow Technologies, Oracle Corporation. July 2010-February 2012, President and Chief Operating Officer, RightNow Technologies, Inc. May 2006-May 2010, Operations and Advisory Group Executive Leadership Team Member, Cerberus Capital Management L.P.	58

Name	Positions Held	Age
Michael S. Leonard	November 2011-present, Vice President, Chief Accounting Officer of the Company. November 2007-November 2011, Senior Director, Finance of the Company. July 2000-November 2007, Director, Finance of the Company. 1998-2000, Controller of Natural Alternatives International, Inc. 1994-1998, various audit staff positions at KPMG LLP.	52
Mark R. Scadina	February 2009-present, Executive Vice President and General Counsel and Corporate Secretary of the Company. June 2007-February 2009, Senior Vice President and General Counsel and Corporate Secretary of the Company. 2003-2007, various senior positions including Executive Vice President, General Counsel and Corporate Secretary, Liberate Technologies, Inc. 1999-2003, various leadership positions including Vice President and General Counsel, Intertrust Technologies Corporation. 1994-1999, Associate, Pennie and Edmonds LLP.	48
James M. Wehmann	April 2012-present, Executive Vice President, Scores of the Company. November 2003-March 2012, Vice President/Senior Vice President, Global Marketing, Digital River, Inc. March 2002-June 2003, Vice President, Marketing, Brylane, Inc. September 2000-March 2002, Senior Vice President, Marketing, New Customer Acquisition, Bank One. 1993-2000, various roles, including Senior Vice President, Marketing, Fingerhut Companies, Inc.	52
Stuart C. Wells	April 2012-present, Executive Vice President, Chief Technology Officer of the Company. June 2010- April 2012, Head of Global Professional Services and Support of the Company (Consultant). February 2009-June 2010, CEO, and Chairman of the Board, ScaleMP. January 2007-January 2009, Senior Vice President and President, Avaya, Inc. April 2005-December 2006, Executive Vice President, Utility Computing, Sun Microsystems.	61

The required information regarding compliance with Section 16(a) of the Securities Exchange Act is incorporated by reference from the information under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive proxy statement for the Annual Meeting of Stockholders to be held on February 28, 2018.

FICO has adopted a Code of Ethics for Senior Financial Management that applies to the Company's Chief Executive Officer, Chief Financial Officer, Controller and other employees performing similar functions who have been identified by the Chief Executive Officer. We have posted the Code of Ethics on our website located at www.fico.com. FICO intends to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or a waiver from, this Code of Ethics by posting such information on its website. FICO also has a Code of Conduct and Business Ethics applicable to all directors, officers and employees, which is also available at the web site cited above.

The required information regarding the Company's audit committee is incorporated by reference from the information under the caption "Board Meetings, Committees and Attendance" in our definitive proxy statement for the Annual Meeting of Shareholders to be held on February 28, 2018.

Item 11. Executive Compensation

The information required by this Item is incorporated by reference from the information under the captions "Director Compensation for 2017," "Executive Compensation," and "Compensation Committee Interlocks and Insider Participation" in our definitive proxy statement for the Annual Meeting of Stockholders to be held on February 28, 2018.

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

The information required by this Item is incorporated by reference from the information under the caption "Security Ownership Of Certain Beneficial Owners and Management" and "Executive Compensation Plan Information" in our definitive proxy statement for the Annual Meeting of Stockholders to be held on February 28, 2018.

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

The information required by this Item is incorporated by reference from the information under the caption "Certain Relationships and Related Transactions" in our definitive proxy statement for the Annual Meeting of Stockholders to be held on February 28, 2018.

Item 14. Principal Accountant Fees and Services

The information required by this Item is incorporated by reference from the information under the caption "Ratification of Independent Registered Public Accounting Firm" in our definitive proxy statement for the Annual Meeting of Stockholders to be held on February 28, 2018.

PART IV

Item 15. Exhibits and Financial Statement Schedules

1. Consolidated Financial Statements:

	Reference Page Form 10-K
Report of independent registered public accounting firm	58
Consolidated balance sheets as of September 30, 2017 and 2016	59
Consolidated statements of income and comprehensive income for the years ended September 30, 2017, 2016 and 2015	60
Consolidated statements of stockholders' equity for the years ended September 30, 2017, 2016	
and 2015	61
Consolidated statements of cash flows for the years ended September 30, 2017, 2016 and 2015	62
Notes to consolidated financial statements	63

2. Financial Statement Schedules

All financial statement schedules are omitted as the required information is not applicable or as the information required is included in the consolidated financial statements and related notes.

3. Exhibits:

Exhibit Number	Description
3.1	Bylaws of Fair Isaac Corporation. (Incorporated by reference to Exhibit 3.1 to the Company's Form 10-Q for the quarter ended December 31, 2009 (file no. 001-11689))
3.2	Composite Restated Certificate of Incorporation of Fair Isaac Corporation. (Incorporated by reference to Exhibit 3.2 to the Company's Form 10-Q for the quarter ended December 31, 2009 (file no. 001-11689))
10.1	Form of Note Purchase Agreement, dated May 7, 2008, between Fair Isaac Corporation and the Purchasers listed on Schedule A thereto, which includes as Exhibits 1-4 the form of Senior Note for each of Series A, B, C and D (excluding certain schedules and exhibits thereto, which Fair Isaac Corporation agrees to furnish to the Securities and Exchange Commission upon request). (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on May 13, 2008 (file no. 001-11689))
10.2	Form of Note Purchase Agreement, dated July 14, 2010, between Fair Isaac Corporation and the Purchasers listed on Schedule A thereto, which includes as Exhibits 1-4 the form of Senior Note for each of Series E, F, G and H (excluding certain schedules and exhibits thereto, which Fair Isaac Corporation agrees to furnish to the Securities and Exchange Commission upon request). (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on July 19, 2010 (file no. 001-11689))
10.3	Fair Isaac Corporation 1992 Long-Term Incentive Plan, as amended effective May 4, 2010. (Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended June 30, 2010 (file no. 001-11689)) (1)
10.4	Form of Non-Qualified Stock Option Agreement under 1992 Long-term Incentive Plan, as amended effective July 18, 2007. (Incorporated by reference to Exhibit 10.42 to the Company's Form 10-Q for the quarter ended December 31, 2007 (file no. 001-11689)) (1)

Exhibit Number	<u>Description</u>
10.5	Form of Nonstatutory Stock Option Agreement for Initial Grants to Non-Employee Directors under 1992 Long-term Incentive Plan. (Incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q for the quarter ended December 31, 2008 (file no. 001-11689)) (1)
10.6	Form of Restricted Stock Unit Agreement under 1992 Long-term Incentive Plan, as amended effective July 18, 2007. (Incorporated by reference to Exhibit 10.49 to the Company's Form 10-Q for the quarter ended December 31, 2007 (file no. 001-11689)) (1)
10.7	Form of Restricted Stock Agreement under 1992 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.43 to the Company's Form 10-K for the period ended September 30, 2006 (file no. 001-11689)) (1)
10.8	Fair, Isaac Supplemental Retirement and Savings Plan, as amended and restated effective January 1, 2009. (Incorporated by reference to Exhibit 10.10 of the Company's Form 10-K for the fiscal year ended September 30, 2008 (file no. 001-11689)) (1)
10.9	Form of Indemnity Agreement entered into by the Company with the Company's directors and executive officers. (Incorporated by reference to Exhibit 10.49 to the Company's Form 10-K for the fiscal year ended September 30, 2002 (file no. 001-11689)) (1)
10.10	Form of Management Agreement entered into with each of the Company's executive officers. (Incorporated by reference to Exhibit 10.4 to the Company's Form 8-K filed on February 10, 2012.) (1)
10.11	Form of Amendment to Management Agreement entered into with certain of the Company's executive officers. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended December 31, 2014) (1)
10.12	Form of Amendment to Management Agreement entered into with each of the Company's executive officers. (Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended June 30, 2016.)
10.13	Offer Letter entered into on May 29, 2007 with Mark R. Scadina. (Incorporated by reference to Exhibit 10.61 to the Company's Form 10-K for the fiscal year ended September 30, 2008 (file no. 001-11689)) (1)
10.14	Letter Agreement dated January 24, 2012 by and between the Company and William J. Lansing. (Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on January 26, 2012.) (1)
10.15	Letter Agreement dated February 6, 2012 by and between the Company and Michael Pung. (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on February 10, 2012.) (1)
10.16	Letter Agreement dated February 6, 2012 by and between the Company and Mark Scadina. (Incorporated by reference to Exhibit 10.3 to the Company's Form 8-K filed on February 10, 2012.) (1)
10.17	Letter Agreement dated March 7, 2012 by and between the Company and James M. Wehmann. (Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended December 31, 2012.) (1)
10.18	Letter Agreement dated April 24, 2012 by and between the Company and Stuart C. Wells. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended December 31, 2012.) (1)

Exhibit Number	Description
10.19	Letter Agreement dated November 5, 2014 by and between the Company and Wayne Huyard. (Incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q for the quarter ended December 31, 2014.) (1)
10.20	Form of Amendment to Letter Agreement entered into with each of the Company's executive officers. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended June 30, 2016.) (1)
10.21	Fair Isaac Corporation 2012 Long-Term Incentive Plan, as amended through February 24, 2016. (Incorporated by reference to Exhibit A of the Company's definitive proxy statement for the 2016 Annual Meeting of Stockholders, filed with the SEC on January 20, 2016.) (1)
10.22	Form of Employee Non-Statutory Stock Option Agreement (U.S.) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.23	Form of Employee Restricted Stock Unit Award Agreement (U.S.) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.24	Form of Employee Non-Statutory Stock Option Agreement (International) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.4 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.25	Form of Employee Restricted Stock Unit Award Agreement (International) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.5 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.26	Form of Employee Non-Statutory Stock Option Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.27	Form of Employee Restricted Stock Unit Award Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.28	Form of Executive Non-Statutory Stock Option Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.4 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.29	Form of Executive Restricted Stock Unit Award Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.5 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.30	Form of Employee Non Statutory Stock Option Agreement (International) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.6 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.31	Form of Employee Non Statutory Stock Option Agreement (United Kingdom) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.7 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.32	Form of Employee Restricted Stock Unit Award Agreement (International) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.8 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)

Exhibit Number	<u>Description</u>
10.33	Form of Employee Restricted Stock Unit Award Agreement (United Kingdom) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.9 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.34	Form of Director Non-Statutory Stock Option Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.6 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.35	Form of Director Restricted Stock Unit Award Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.7 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.36	Form of Director Non-Statutory Stock Option Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended March 31, 2017.) (1)
10.37	Form of Director Restricted Stock Unit Award Agreement under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended March 31, 2017.) (1)
10.38	Form of Performance Share Unit Award Agreement (fiscal 2012 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.8 to the Company's Form 10-Q for the quarter ended March 31, 2012.) (1)
10.39	Form of Performance Share Unit Award Agreement (fiscal 2013 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q for the quarter ended December 31, 2012.) (1)
10.40	Form of Performance Share Unit Award Agreement (fiscal 2014 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended December 31, 2013.) (1)
10.41	Form of Performance Share Unit Award Agreement (fiscal 2015 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.29 to the Company's Form 10-K for the fiscal year ended September 30, 2015.) (1)
10.42	Form of Performance Share Unit Award Agreement (fiscal 2016 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended December 31, 2015.) (1)
10.43	Form of Performance Share Unit Award Agreement (fiscal 2017 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.10 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)
10.44	Form of Market Share Unit Agreement (fiscal 2014 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended December 31, 2013.) (1)
10.45	Form of Market Share Unit Agreement (fiscal 2015 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.31 to the Company's Form 10-K for the fiscal year ended September 30, 2015.) (1)
10.46	Form of Market Share Unit Award Agreement (fiscal 2016 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended December 31, 2015.) (1)

Exhibit Number	Description	
10.47	Form of Market Share Unit Agreement (fiscal 2017 grants) under the 2012 Long-Term Incentive Plan. (Incorporated by reference to Exhibit 10.11 to the Company's Form 10-Q for the quarter ended December 31, 2016.) (1)	
10.48	Amended and Restated Credit Agreement dated December 31, 2014 among the Company, Wells Fargo Securities, LLC, U.S. Bank National Association, and Wells Fargo Bank, National Association. (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on December 31, 2014.)	
10.49	First Amendment to Amended and Restated Credit Agreement among the Company, Wells Fargo Bank, National Association as administrative agent and the lenders thereto dated as of April 16, 2015. (Incorporated by reference to the Exhibit 10.1 to the Company's Form 8-K filed on April 17, 2015.)	
10.50	Commitment Increase Agreement and Second Amendment to Credit Agreement dated as of June 26, 2017 by and among Fair Isaac Corporation, the lenders party thereto and Wells Fargo Bank, National Association as Administrative Agent (Incorporated by reference to the Exhibit 10.1 to the Company's Form 8-K filed on June 26, 2017.)	
12.1*	Computations of ratios of earnings to fixed charges.	
21.1*	List of Company's subsidiaries.	
23.1*	Consent of Deloitte & Touche LLP, independent registered public accounting firm.	
31.1*	Rule 13a-14(a)/15d-14(a) Certifications of CEO.	
31.2*	Rule 13a-14(a)/15d-14(a) Certifications of CFO.	
32.1*	Section 1350 Certification of CEO.	
32.2*	Section 1350 Certification of CFO.	
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.	
(1) Management contract or compensatory plan or arrangement		

⁽¹⁾ Management contract or compensatory plan or arrangement.* Filed herewith.

SIGNATURES

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

FAIR ISAAC CORPORATION

Ву _	/s/ MICHAEL J. PUNG
	Michael J. Pung
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Executive Vice President and Chief Financial Officer

DATE: November 9, 2017

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

/s/ WILLIAM J. LANSING William J. Lansing	Chief Executive Officer (Principal Executive Officer) and Director	November 9, 2017
/s/ MICHAEL J. PUNG Michael J. Pung	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	November 9, 2017
/s/ MICHAEL S. LEONARD Michael S. Leonard	Vice President and Chief Accounting Officer (Principal Accounting Officer)	November 9, 2017
/s/ A. GEORGE BATTLE A. George Battle	Director	November 9, 2017
/s/ MARK W. BEGOR Mark W. Begor	Director	November 9, 2017
/s/ BRADEN R. KELLY Braden R. Kelly	Director	November 9, 2017
/s/ JAMES D. KIRSNER James D. Kirsner	Director	November 9, 2017
/s/ MARC F. MCMORRIS		November 9, 2017
Marc F. McMorris /s/ JOANNA REES	Director	November 9, 2017
Joanna Rees	Director	110vemuei 9, 2017
/s/ DAVID A. REY David A. Rey	Director	November 9, 2017



