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

Form 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2019

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

For the transition period from _____ to _____

Commission File Number 1-11689

Fair Isaac Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

**181 Metro Drive, Suite 700
San Jose, California**

(Address of principal executive offices)

94-1499887

(I.R.S. Employer
Identification No.)

95110-1346

(Zip Code)

Registrant's telephone number, including area code: 408-535-1500

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 229.405) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes No

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

The number of shares of common stock outstanding on April 19, 2019 was 28,990,026 (excluding 59,866,757 shares held by us as treasury stock).

TABLE OF CONTENTS

PART I – FINANCIAL INFORMATION

Item 1.	Financial Statements	1
Item 2.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	20
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	37
Item 4.	Controls and Procedures	38

PART II – OTHER INFORMATION

Item 1.	Legal Proceedings	40
Item 1A.	Risk Factors	40
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	51
Item 3.	Defaults Upon Senior Securities	51
Item 4.	Mine Safety Disclosures	51
Item 5.	Other Information	51
Item 6.	Exhibits	52
	Signatures	53

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

FAIR ISAAC CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

	March 31, 2019	September 30, 2018
		As Adjusted
	(In thousands, except par value data)	
Assets		
Current assets:		
Cash and cash equivalents	\$ 76,885	\$ 90,023
Accounts receivable, net	271,632	266,742
Prepaid expenses and other current assets	48,483	39,624
Total current assets	397,000	396,389
Marketable securities	18,888	18,059
Other investments	1,702	1,697
Property and equipment, net	44,760	48,837
Goodwill	800,696	800,890
Intangible assets, net	11,422	14,536
Deferred income taxes	13,678	13,805
Other assets	39,965	36,254
Total assets	\$ 1,328,111	\$ 1,330,467
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 16,249	\$ 20,251
Accrued compensation and employee benefits	67,349	84,292
Other accrued liabilities	28,747	31,025
Deferred revenue	106,275	103,335
Current maturities on debt	218,000	235,000
Total current liabilities	436,620	473,903
Long-term debt	604,369	528,944
Other liabilities	39,644	40,183
Total liabilities	1,080,633	1,043,030
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 29,056 and 29,015 shares outstanding at March 31, 2019 and September 30, 2018, respectively)	291	290
Additional Paid-in-capital	1,190,341	1,211,051
Treasury stock, at cost (59,801 and 59,842 shares at March 31, 2019 and September 30, 2018, respectively)	(2,704,305)	(2,612,007)
Retained earnings	1,837,912	1,764,524
Accumulated other comprehensive loss	(76,761)	(76,421)
Total stockholders' equity	247,478	287,437
Total liabilities and stockholders' equity	\$ 1,328,111	\$ 1,330,467

See accompanying notes.

FAIR ISAAC CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME
(Unaudited)

	Quarter Ended March 31,		Six Months Ended March 31,	
	2019	2018	2019	2018
	As Adjusted		As Adjusted	
	(In thousands, except per share data)			
Revenues:				
Transactional and maintenance	\$ 211,779	\$ 192,791	\$ 405,972	\$ 363,194
Professional services	50,555	46,731	91,363	89,859
License	15,900	16,738	43,155	35,568
Total revenues	278,234	256,260	540,490	488,621
Operating expenses:				
Cost of revenues *	85,568	79,493	161,634	153,925
Research and development	37,684	32,519	73,110	61,493
Selling, general and administrative *	104,930	96,125	205,188	186,467
Amortization of intangible assets *	1,503	1,684	3,005	3,472
Total operating expenses	229,685	209,821	442,937	405,357
Operating income	48,549	46,439	97,553	83,264
Interest expense, net	(10,008)	(7,116)	(19,684)	(13,576)
Other income (expense), net	1,433	(161)	(739)	352
Income before income taxes	39,974	39,162	77,130	70,040
Provision for income taxes	6,593	7,993	3,742	5,992
Net income	33,381	31,169	73,388	64,048
Other comprehensive income (loss):				
Foreign currency translation adjustments	2,925	9,125	(340)	12,196
Comprehensive income	\$ 36,306	\$ 40,294	\$ 73,048	\$ 76,244
Earnings per share:				
Basic	\$ 1.15	\$ 1.04	\$ 2.53	\$ 2.13
Diluted	\$ 1.10	\$ 1.00	\$ 2.42	\$ 2.04
Shares used in computing earnings per share:				
Basic	29,074	29,985	29,017	30,032
Diluted	30,259	31,300	30,297	31,431

* Cost of revenues and selling, general and administrative expenses exclude the amortization of intangible assets. See Note 4.

See accompanying notes.

FAIR ISAAC CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

(In thousands)	Common Stock		Additional Paid-in-Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Par Value					
Balance at December 31, 2018	29,056	\$ 291	\$ 1,176,770	\$ (2,674,011)	\$ 1,804,531	\$ (79,686)	\$ 227,895
Share-based compensation	—	—	20,482	—	—	—	20,482
Issuance of treasury stock under employee stock plans	150	2	(6,911)	6,727	—	—	(182)
Repurchases of common stock	(150)	(2)	—	(37,021)	—	—	(37,023)
Net income	—	—	—	—	33,381	—	33,381
Foreign currency translation adjustments	—	—	—	—	—	2,925	2,925
Balance at March 31, 2019	29,056	\$ 291	\$ 1,190,341	\$ (2,704,305)	\$ 1,837,912	\$ (76,761)	\$ 247,478

(In thousands)	Common Stock		Additional Paid-in-Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Par Value					
Balance at December 31, 2017 (As Adjusted)	30,246	\$ 302	\$ 1,160,274	\$ (2,337,205)	\$ 1,670,921	\$ (63,424)	\$ 430,868
Share-based compensation	—	—	19,239	—	—	—	19,239
Issuance of treasury stock under employee stock plans	50	1	(2,608)	2,038	—	—	(569)
Repurchases of common stock	(461)	(5)	—	(75,004)	—	—	(75,009)
Net income	—	—	—	—	31,169	—	31,169
Foreign currency translation adjustments	—	—	—	—	—	9,125	9,125
Balance at March 31, 2018 (As Adjusted)	29,835	\$ 298	\$ 1,176,905	\$ (2,410,171)	\$ 1,702,090	\$ (54,299)	\$ 414,823

(In thousands)	Common Stock		Additional Paid-in-Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Par Value					
Balance at September 30, 2018 (As Adjusted)	29,015	\$ 290	\$ 1,211,051	\$ (2,612,007)	\$ 1,764,524	\$ (76,421)	\$ 287,437
Share-based compensation	—	—	42,336	—	—	—	42,336
Issuance of treasury stock under employee stock plans	616	6	(63,046)	27,420	—	—	(35,620)
Repurchases of common stock	(575)	(5)	—	(119,718)	—	—	(119,723)
Net income	—	—	—	—	73,388	—	73,388
Foreign currency translation adjustments	—	—	—	—	—	(340)	(340)
Balance at March 31, 2019	29,056	\$ 291	\$ 1,190,341	\$ (2,704,305)	\$ 1,837,912	\$ (76,761)	\$ 247,478

(In thousands)	Common Stock		Additional Paid-in-Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Par Value					
Balance at September 30, 2017 (As Adjusted)	30,243	\$ 302	\$ 1,195,431	\$ (2,301,097)	\$ 1,638,042	\$ (66,495)	\$ 466,183
Share-based compensation	—	—	35,749	—	—	—	35,749
Issuance of treasury stock under employee stock plans	388	4	(54,275)	15,529	—	—	(38,742)
Repurchases of common stock	(796)	(8)	—	(124,603)	—	—	(124,611)
Net income	—	—	—	—	64,048	—	64,048
Foreign currency translation adjustments	—	—	—	—	—	12,196	12,196
Balance at March 31, 2018 (As Adjusted)	29,835	\$ 298	\$ 1,176,905	\$ (2,410,171)	\$ 1,702,090	\$ (54,299)	\$ 414,823

See accompanying notes.

FAIR ISAAC CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Six Months Ended March 31,	
	2019	2018
	As Adjusted	
	(In thousands)	
Cash flows from operating activities:		
Net income	\$ 73,388	\$ 64,048
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	15,786	15,095
Share-based compensation	42,336	35,749
Deferred income taxes	74	(3,152)
Net (gain) loss on marketable securities	1,300	(198)
Provision for doubtful accounts, net	391	482
Net (gain) loss on sales of property and equipment	(5)	27
Changes in operating assets and liabilities:		
Accounts receivable	(5,015)	(9,019)
Prepaid expenses and other assets	(12,219)	(5,904)
Accounts payable	(2,210)	(515)
Accrued compensation and employee benefits	(16,970)	(20,650)
Other liabilities	(2,672)	(418)
Deferred revenue	2,462	2,465
Net cash provided by operating activities	<u>96,646</u>	<u>78,010</u>
Cash flows from investing activities:		
Purchases of property and equipment	(10,644)	(11,111)
Proceeds from sales of marketable securities	2,267	2,383
Purchases of marketable securities	(4,396)	(4,528)
Net cash used in investing activities	<u>(12,773)</u>	<u>(13,256)</u>
Cash flows from financing activities:		
Proceeds from revolving line of credit	138,000	147,000
Payments on revolving line of credit	(80,000)	(48,000)
Payments on debt issuance costs	—	(240)
Proceeds from issuance of treasury stock under employee stock plans	12,850	1,706
Taxes paid related to net share settlement of equity awards	(48,470)	(40,448)
Repurchases of common stock	(119,723)	(124,715)
Net cash used in financing activities	<u>(97,343)</u>	<u>(64,697)</u>
Effect of exchange rate changes on cash		
Increase (decrease) in cash and cash equivalents	332	2,193
Cash and cash equivalents, beginning of period	(13,138)	2,250
Cash and cash equivalents, beginning of period	90,023	105,618
Cash and cash equivalents, end of period	<u>\$ 76,885</u>	<u>\$ 107,868</u>
Supplemental disclosures of cash flow information:		
Cash paid for income taxes, net of refunds	\$ 7,962	\$ 6,669
Cash paid for interest	\$ 19,686	\$ 13,324
Supplemental disclosures of non-cash investing and financing activities:		
Purchase of property and equipment included in accounts payable	\$ 77	\$ 6,006
Unsettled repurchases of common stock	\$ —	\$ 5,557

See accompanying notes.

FAIR ISAAC CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Nature of Business

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, telecommunications providers, pharmaceutical companies, healthcare organizations, public agencies and organizations in other industries.

In this Quarterly Report on Form 10-Q, Fair Isaac Corporation is referred to as “FICO,” “we,” “us,” “our,” or “the Company.”

Principles of Consolidation and Basis of Presentation

We have prepared the accompanying unaudited interim condensed consolidated financial statements in accordance with the instructions to Form 10-Q and the applicable accounting guidance. Consequently, we have not necessarily included all information and footnotes required for audited financial statements. In our opinion, the accompanying unaudited interim condensed consolidated financial statements reflect all adjustments (consisting only of normal recurring adjustments, except as otherwise indicated) necessary for a fair presentation of our financial position and results of operations. These unaudited condensed consolidated financial statements and notes thereto should be read in conjunction with our audited consolidated financial statements and notes thereto presented in our Annual Report on Form 10-K for the fiscal year ended September 30, 2018. The interim financial information contained in this report is not necessarily indicative of the results to be expected for any other interim period or for the entire fiscal year.

Effective October 1, 2018, we adopted Accounting Standards Update (“ASU”) No. 2014-09, “*Revenue from Contracts with Customers (Topic 606)*” (“ASU 2014-09”) using the full retrospective method. In connection with this adoption, the results and related disclosures for the comparative fiscal 2018 periods presented in this Form 10-Q were adjusted to be presented as if ASU 2014-09 had been in effect during such fiscal 2018 periods. See “New Accounting Pronouncements” below and Note 8. All amounts and disclosures set forth in this Form 10-Q reflect these changes.

The condensed 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 collectability 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.

Revenue Recognition

Revenue is recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration to which we expect to be entitled to in exchange for those goods or services.

See Note 8 for further discussion on revenues.

New Accounting Pronouncements*Recently Adopted Accounting Pronouncements*

In May 2014, the Financial Accounting Standards Board (“FASB”) issued ASU 2014-09. The standard’s core principle is that a reporting entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from the contracts with customers. The guidance permits two methods of adoption: retrospectively to each prior reporting period presented (“full retrospective method”), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (“modified retrospective method”).

We adopted ASU 2014-09 in the first quarter of our fiscal 2019 using the full retrospective method which required us to adjust each prior reporting period presented. This adoption primarily affected 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 recognize revenue when control of the license is transferred to the customer, rather than at the date payments become due and payable when there are extended payment terms, or ratably over the term of the contract as required under the previous standard. In addition, revenue attributable to a software license renewal is recognized at the beginning of the applicable renewal period rather than at the signing of the renewal agreement as required under the previous standard. Additionally, under the new standard, when we enter into noncancellable contracts that provide unconditional rights to payment from our customers for services we have not yet completed or services we will provide in the near future, we present receivables — our unconditional rights to payments — and deferred revenues on a gross basis, rather than on a net basis. Finally, under the new standard we capitalize and amortize contract acquisition costs such as commissions paid for software-as-a-service (“SaaS”) cloud services contracts in excess of one year. Following the adoption of ASU 2014-09, the revenue recognition for our other sales arrangements remained materially consistent with our historical practice.

Upon adoption of ASU 2014-09, we applied the standard’s practical expedients that permit the omission of prior-period information about our performance obligations.

Adoption of the standard impacted our previously reported results as follows:

Condensed Consolidated Balance Sheets

	September 30, 2018		
	As Previously Reported	Adjustment	As Adjusted
	(In thousands)		
Accounts receivable, net	208,865	57,877	266,742
Deferred income taxes	20,117	(6,312)	13,805
Other assets	12,431	23,823	36,254
Other accrued liabilities	30,457	568	31,025
Deferred revenue	52,215	51,120	103,335
Stockholders’ equity	263,737	23,700	287,437

Condensed Consolidated Statements of Income and Comprehensive Income

	Quarter Ended March 31, 2018			Six Months Ended March 31, 2018		
	As Previously Reported	Adjustment	As Adjusted	As Previously Reported	Adjustment	As Adjusted
(In thousands, except per share amounts)						
Revenues	257,858	(1,598)	256,260	493,179	(4,558)	488,621
Cost of revenues	78,519	974	79,493	152,878	1,047	153,925
Selling, general and administrative	97,057	(932)	96,125	187,353	(886)	186,467
Provision for income taxes	8,527	(534)	7,993	15,185	(9,193)	5,992
Net income	32,275	(1,106)	31,169	59,574	4,474	64,048
Comprehensive income	41,400	(1,106)	40,294	71,770	4,474	76,244
Basic earnings per share	1.08	(0.04)	1.04	1.98	0.15	2.13
Diluted earnings per share	1.03	(0.03)	1.00	1.90	0.14	2.04

Condensed Consolidated Statement of Cash Flows

	Six Months Ended March 31, 2018		
	As Previously Reported	Adjustment	As Adjusted
(In thousands)			
Cash flows from operating activities:			
Net income			64,048
Deferred income taxes	6,041	(9,193)	(3,152)
Changes in operating assets and liabilities	(38,760)	4,719	(34,041)

Recent Accounting Pronouncements Not Yet Adopted

In February 2018, the FASB issued ASU No. 2018-02, “*Income Statement — Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*” (“ASU 2018-02”). ASU 2018-02 allows reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act (defined below) and requires certain disclosures about stranded tax effects. The guidance is effective for fiscal years and interim periods beginning after December 15, 2018, which means it will be effective for our fiscal year beginning October 1, 2019. ASU 2018-02 should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Act is recognized. We do not believe that adoption of ASU 2018-02 will have a significant impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, “*Leases (Topic 842)*” and subsequent amendments to the initial guidance: ASU 2017-13, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01 (collectively, Topic 842). Topic 842 requires companies to generally recognize on the balance sheet operating and financing lease liabilities and corresponding right-of-use assets. Topic 842 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 impact of our pending adoption of Topic 842 on our consolidated financial statements. We expect that most of our operating leases will be recognized as right-of-use assets and corresponding lease liabilities on our consolidated balance sheets, which will increase our total assets and total liabilities upon adoption.

2. 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. We do not have any liabilities that are valued using inputs identified under a Level I hierarchy as of March 31, 2019 and September 30, 2018.

- 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 March 31, 2019 and September 30, 2018. 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.
- 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 March 31, 2019 and September 30, 2018.

The following tables represent financial assets that we measured at fair value on a recurring basis at March 31, 2019 and September 30, 2018:

March 31, 2019	Active Markets for Identical Instruments (Level 1)	Fair Value as of March 31, 2019
(In thousands)		
Assets:		
Cash equivalents (1)	\$ 22,607	\$ 22,607
Marketable securities (2)	18,888	18,888
Total	<u>\$ 41,495</u>	<u>\$ 41,495</u>
September 30, 2018	Active Markets for Identical Instruments (Level 1)	Fair Value as of September 30, 2018
(In thousands)		
Assets:		
Cash equivalents (1)	\$ 18,413	\$ 18,413
Marketable securities (2)	18,059	18,059
Total	<u>\$ 36,472</u>	<u>\$ 36,472</u>

(1) Included in cash and cash equivalents on our condensed consolidated balance sheet at March 31, 2019 and September 30, 2018. Not included in these tables are cash deposits of \$54.3 million and \$71.6 million at March 31, 2019 and September 30, 2018, respectively.

(2) Represents securities held under a supplemental retirement and savings plan for senior management employees, which are distributed upon termination or retirement of the employees. Included in marketable securities on our condensed consolidated balance sheet at March 31, 2019 and September 30, 2018.

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 3 and Note 7, respectively.

3. 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 respective 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, Euro, and Singapore dollar.

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 March 31, 2019 and September 30, 2018:

	March 31, 2019				
	Contract Amount			Fair Value	
	Foreign Currency	US\$		US\$	
	(In thousands)				
Sell foreign currency:					
Euro (EUR)	EUR	8,400	\$	9,443	\$ —
Buy foreign currency:					
British pound (GBP)	GBP	8,851	\$	11,600	\$ —
Singapore dollar (SGD)	SGD	5,689	\$	4,200	\$ —
	September 30, 2018				
	Contract Amount			Fair Value	
	Foreign Currency	US\$		US\$	
	(In thousands)				
Sell foreign currency:					
Euro (EUR)	EUR	9,000	\$	10,372	\$ —
Buy foreign currency:					
British pound (GBP)	GBP	8,598	\$	11,200	\$ —
Singapore dollar (SGD)	SGD	9,580	\$	7,000	\$ —

The foreign currency forward contracts were entered into on March 31, 2019 and September 30, 2018, respectively; therefore, their fair value was \$0 on each of these dates.

Gains on derivative financial instruments are recorded in our condensed consolidated statements of income and comprehensive income as a component of other income (expense), net, and consisted of the following:

	Quarter Ended March 31,		Six Months Ended March 31,	
	2019	2018	2019	2018
(In thousands)				
Gains on foreign currency forward contracts	\$ 720	\$ 425	\$ 316	\$ 619

4. Goodwill and Intangible Assets

Amortization expense associated with our intangible assets are reflected as a separate operating expense caption — amortization of intangible assets — and are excluded from cost of revenues and selling, general and administrative expenses within the accompanying condensed consolidated statements of income and comprehensive income. Amortization expense consisted of the following:

	Quarter Ended March 31,		Six Months Ended March 31,	
	2019	2018	2019	2018
(In thousands)				
Completed technology	\$ 494	\$ 615	\$ 988	\$ 1,321
Other intangible assets	1,009	1,069	2,017	2,151
Total	\$ 1,503	\$ 1,684	\$ 3,005	\$ 3,472

Estimated future intangible asset amortization expense associated with intangible assets existing at March 31, 2019 was as follows (in thousands):

Year Ending September 30,	
2019 (excluding the six months ended March 31, 2019)	\$ 2,907
2020	3,619
2021	2,412
2022	2,267
2023	217
	\$ 11,422

The following table summarizes changes to goodwill during the six months ended March 31, 2019, both in total and as allocated to our segments:

	Applications	Scores	Decision Management Software	Total
	(In thousands)			
Balance at September 30, 2018	\$ 585,161	\$ 146,648	\$ 69,081	\$ 800,890
Addition from acquisitions	980	—	—	980
Foreign currency translation adjustment	(1,254)	—	80	(1,174)
Balance at March 31, 2019	\$ 584,887	\$ 146,648	\$ 69,161	\$ 800,696

5. Composition of Certain Financial Statement Captions

The following table summarizes property and equipment, and the related accumulated depreciation and amortization, at March 31, 2019 and September 30, 2018:

	March 31, 2019	September 30, 2018
	(In thousands)	
Property and equipment	\$ 163,687	\$ 156,154
Less: accumulated depreciation and amortization	(118,927)	(107,317)
	\$ 44,760	\$ 48,837

6. Revolving Line of Credit

We have a \$400 million unsecured revolving line of credit with a syndicate of banks that expires on May 8, 2023 with an option to increase it by another \$100 million. 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 maximum consolidated leverage ratio of 3.25, subject to a step up to 3.75 following certain permitted acquisitions; and a minimum fixed charge ratio of 2.50 through the maturity of our 2010 Senior Notes in July 2020, upon which maintaining a minimum interest coverage ratio of 3.00. The credit agreement also contains other covenants typical of unsecured facilities. As of March 31, 2019, we had \$315.0 million in borrowings outstanding at a weighted average interest rate of 3.869%, of which \$125.0 million was classified as a long-term liability and recorded in long-term debt within the accompanying condensed consolidated balance sheets. We were in compliance with all financial covenants under this credit facility as of March 31, 2019.

7. Senior Notes

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”). The 2010 Senior Notes were issued in four series with maturities ranging from 6 to 10 years. The outstanding 2010 Senior Notes’ weighted average interest rate is 5.6% and the weighted average maturity is 9.8 years. The 2010 Senior Notes require interest payments semi-annually and contain certain restrictive covenants, including the maintenance of a maximum consolidated net debt to consolidated EBITDA ratio of 3.00 and a minimum fixed charge coverage ratio of 2.50. We were in compliance with all financial covenants under the 2010 Senior Notes as of March 31, 2019.

On May 8, 2018, we issued \$400 million of senior notes in a private offering to qualified institutional investors (the “2018 Senior Notes”, and with the 2010 Senior Notes, the “Senior Notes”). The 2018 Senior Notes require interest payments semi-annually at a rate of 5.25% per annum and will mature on May 15, 2026. The purchase agreements for the 2010 Senior Notes and the indenture for the 2018 Senior Notes contain certain covenants typical of unsecured obligations.

The following table presents the carrying amounts and fair values for the Senior Notes at March 31, 2019 and September 30, 2018:

	March 31, 2019		September 30, 2018	
	Carrying Amounts (*)	Fair Value	Carrying Amounts (*)	Fair Value
	(In thousands)			
The 2010 Senior Notes	113,000	114,386	113,000	114,413
The 2018 Senior Notes	400,000	412,000	400,000	404,000
Total	\$ 513,000	\$ 526,386	\$ 513,000	\$ 518,413

(*) Amounts exclusive of net debt issuance cost of \$5.6 million and \$6.1 million at March 31, 2019 and September 30, 2018, respectively.

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.

8. Revenue from Contracts with Customers

Contracts with Customers

Our revenue is primarily derived from term-based or perpetual licensing of software and scoring products and solutions, and associated maintenance; SaaS subscription services; scoring and credit monitoring services for consumers; and professional services. For contracts with customers that contain various combinations of products and services, we evaluate whether the products or services are distinct — distinct products or services will be accounted for as separate performance obligations, while non-distinct products or services are combined with others to form a single performance obligation. For contracts with multiple performance obligations, the transaction price is allocated to each performance obligation on a relative standalone selling price (“SSP”) basis. Revenue is recognized when control of the promised goods or services is transferred to our customers.

License revenue is derived from contracts in which we grant our direct customers or distributors the right to deploy or resell our software and scoring products and solutions on-premises. Our software offerings often include a perpetual or term-based license and post-contract support or maintenance, both of which generally represent distinct performance obligations and are accounted for separately. The transaction price is either in the form of a fixed consideration with separate stated prices for license and maintenance, or a sales or usage-based royalty — sometimes subject to a guaranteed minimum — for the license and maintenance bundle. When the amount is in the form of a fixed consideration, including the guaranteed minimum in sales or usage-based royalty, license revenue from distinct on-premises license is recognized at the point in time when the software or scoring solution is made available to the customer or distributor. Any royalties not subject to the guaranteed minimum or earned in excess of the minimum amount are recognized as transactional revenue when the subsequent sales or usage occurs. Revenue allocated to maintenance is generally recognized ratably over the contract period as customers simultaneously consume and receive benefits.

In addition to sales or usage-based royalty on our software and scoring products, transactional revenue is also derived from SaaS contracts in which we provide customers with access to and standard support for our software application either in the FICO[®] Analytic Cloud or Amazon Web Services (“AWS”), our primary cloud infrastructure provider, on a subscription basis. The transaction price typically includes a fixed consideration in the form of a guaranteed minimum that allows up to a certain level of usage and a variable consideration in the form of usage or transaction-based fees in excess of the minimum threshold; or usage or transaction-based variable amount not subject to a minimum threshold. We determined the nature of our SaaS arrangements is to provide continuous access to our hosted application in the cloud, i.e., a stand-ready obligation that comprises a series of distinct service periods (e.g., a series of distinct daily, monthly or annual periods of service). We estimate the total variable consideration at contract inception — subject to any constraints that may apply — and update the estimates as new information becomes available and recognize the amount ratably over the SaaS service period, unless we determine it is appropriate to allocate the variable amount to each distinct service period and recognize revenue as each distinct service period is performed.

We also derive transactional revenue from credit scoring and monitoring services that provide consumers access to their credit reports and enable them to monitor their credit. These are provided as either a one-time or ongoing subscription service renewed monthly or annually, all with a fixed consideration. We determined the nature of the subscription service is a stand-ready obligation to generate credit reports, provide credit monitoring and other services for our customers, which comprises a series of distinct service periods (e.g., a series of distinct daily, monthly or annual periods of service). Revenue from one-time or monthly subscription services is recognized during the period when service is performed. Revenue from annual subscription services is recognized ratably over the subscription period.

Professional services include software or SaaS implementation, consulting, model development, training services and premium cloud support. They are sold either standalone, or together with other products or services and generally represent distinct performance obligations. The transaction price can be a fixed amount or on a time and materials basis. Revenue on fixed-price services is recognized using an input method based on labor hours expended which we believe provides a faithful depiction of the transfer of services. Revenue on services provided on a time and materials basis is recognized applying the “right-to-invoice” practical expedient as the amount to which we have a right to invoice the customer corresponds directly with the value of our performance to the customer. In addition, we sell premium cloud support on a subscription basis for a fixed amount, and revenue is recognized ratably over the contract term.

Disaggregation of Revenue

Information about disaggregated revenue by product deployment methods was as follows:

	Reportable Segments							
	Quarter Ended March 31, 2019				Quarter Ended March 31, 2018 (As Adjusted)			
	Applications	Scores	Decision Management Software	Total	Applications	Scores	Decision Management Software	Total
	(In thousands)							
On-Premises	\$ 81,311	\$ —	\$ 25,725	\$ 107,036	\$ 86,332	\$ —	\$ 19,723	\$ 106,055
SaaS	60,504	—	6,291	66,795	60,164	—	2,938	63,102
Scores	—	104,403	—	104,403	—	87,103	—	87,103
Total	\$ 141,815	\$ 104,403	\$ 32,016	\$ 278,234	\$ 146,496	\$ 87,103	\$ 22,661	\$ 256,260

	Reportable Segments							
	Six Months Ended March 31, 2019				Six Months Ended March 31, 2018 (As Adjusted)			
	Applications	Scores	Decision Management Software	Total	Applications	Scores	Decision Management Software	Total
	(In thousands)							
On-Premises	\$ 170,906	\$ —	\$ 49,334	\$ 220,240	\$ 172,653	\$ —	\$ 41,098	\$ 213,751
SaaS	118,568	—	11,596	130,164	114,017	—	5,319	119,336
Scores	—	190,086	—	190,086	—	155,534	—	155,534
Total	\$ 289,474	\$ 190,086	\$ 60,930	\$ 540,490	\$ 286,670	\$ 155,534	\$ 46,417	\$ 488,621

Information about disaggregated revenue by primary geographical markets was as follows:

	Reportable Segments							
	Quarter Ended March 31, 2019				Quarter Ended March 31, 2018 (As Adjusted)			
	Applications	Scores	Decision Management Software	Total	Applications	Scores	Decision Management Software	Total
	(In thousands)							
North America	\$ 87,226	\$ 100,491	\$ 16,600	\$ 204,317	\$ 86,363	\$ 84,829	\$ 12,777	\$ 183,969
Latin America	6,670	1,368	3,327	11,365	6,534	376	1,127	8,037
Europe, Middle East and Africa	33,238	1,472	7,173	41,883	37,096	897	5,519	43,512
Asia Pacific	14,681	1,072	4,916	20,669	16,503	1,001	3,238	20,742
Total	\$ 141,815	\$ 104,403	\$ 32,016	\$ 278,234	\$ 146,496	\$ 87,103	\$ 22,661	\$ 256,260

Reportable Segments

	Six Months Ended March 31, 2019				Six Months Ended March 31, 2018 (As Adjusted)			
	Applications	Scores	Decision Management Software	Total	Applications	Scores	Decision Management Software	Total
	(In thousands)							
North America	\$ 168,175	\$ 182,564	\$ 30,424	\$ 381,163	\$ 170,102	\$ 151,442	\$ 25,843	\$ 347,387
Latin America	24,923	1,882	8,552	35,357	12,167	1,085	2,471	15,723
Europe, Middle East and Africa	65,800	3,006	13,297	82,103	73,312	1,755	11,241	86,308
Asia Pacific	30,576	2,634	8,657	41,867	31,089	1,252	6,862	39,203
Total	\$ 289,474	\$ 190,086	\$ 60,930	\$ 540,490	\$ 286,670	\$ 155,534	\$ 46,417	\$ 488,621

Contract Balances

We record a receivable when we satisfy a performance obligation prior to invoicing if only the passage of time is required before payment is due or if we have an unconditional right to consideration before we satisfy a performance obligation. We record a contract asset when we satisfy a performance obligation prior to invoicing but our right to consideration is conditional. We record deferred revenue when the payment is made or due before we satisfy a performance obligation.

The following table provides information about receivables and deferred revenue from contracts with customers.

	March 31, 2019	September 30, 2018 (As Adjusted)
	(In thousands)	
Receivables, which are included in "Accounts receivable, net"	\$ 275,222	\$ 270,181
Deferred revenue*	\$ 110,730	\$ 108,118

* Included in both deferred revenue and other liabilities on our condensed balance sheet at March 31, 2019 and September 30, 2018.

Impairment loss recognized on receivables from contracts with customers during the quarters and six months ended March 31, 2019 and 2018 was immaterial.

Contract assets balance at March 31, 2019 and September 30, 2018 was immaterial.

Deferred revenue primarily relates to our maintenance and SaaS contracts billed annually in advance and generally recognized ratably over the term of the service period. Significant changes in the deferred revenues balances during the six months ended March 31, 2019 are as follows:

	Six Months Ended March 31, 2019
	(In thousands)
Deferred revenues, beginning balance	\$ 108,118
Revenue recognized that was included in the deferred revenues balance at the beginning of the period	(74,858)
Increases due to billings, excluding amounts recognized as revenue during the period	77,470
Deferred revenues, ending balance	\$ 110,730

Revenue recognized in the quarter and six months ended March 31, 2019 from performance obligations satisfied in previous periods was immaterial.

Payment terms and conditions vary by contract type, although terms generally include a requirement of payment within 30 to 60 days. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined our contracts generally do not include a significant financing component. The primary purpose of our invoicing terms is to provide customers with simplified and predictable ways of purchasing our products and services, not to provide customers with financing or to receive financing from our customers. Examples include multi-year on-premises licenses that are invoiced annually with revenue recognized upfront, and invoicing at the beginning of a subscription term with revenue recognized ratably over the contract period.

Performance Obligations

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period:

	Remaining of Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022	Thereafter	Total
(In thousands)						
Applications	\$ 28,481	\$ 50,477	\$ 29,961	\$ 11,282	\$ 12,289	\$ 132,490
Decision Management Software	5,618	9,533	6,639	3,921	2,662	28,373
Total	\$ 34,099	\$ 60,010	\$ 36,600	\$ 15,203	\$ 14,951	\$ 160,863

We apply the optional exemption that permits the omission of information about remaining performance obligations that have original expected durations of one year or less. We also applied the transition practical expedient that permits the omission of prior-period information about our performance obligations.

Significant Judgments

Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct and should be accounted for separately may require significant judgment. Specifically, when implementation service is included in the original software or SaaS offerings, judgment is required to determine if the implementation service significantly modifies or customizes the software or SaaS service in such a way that the risks of providing it and the customization service are inseparable. In rare instances, contracts may include significant modification or customization of the software or SaaS service and will result in the combination of software or SaaS service and implementation service as one performance obligation.

We determine the SSPs using data from our historical standalone sales, or, in instances where such information is not available (such as when we do not sell the product or service separately), we consider factors such as the stated contract prices, our overall pricing practices and objectives, go-to-market strategy, size and type of the transactions, and effects of the geographic area on pricing, among others. When the selling price of a product or service is highly variable, we may use the residual approach to determine the SSP of that product or service. Significant judgment may be required to determine the SSP for each distinct performance obligation when it involves the consideration of many market conditions and entity-specific factors discussed above.

Significant judgement may be required to determine the timing of satisfaction of a performance obligation in certain professional services contracts with a fixed consideration, in which we measure progress using an input method based on labor hours expended. In order to estimate the total hours of the project, we make assumptions about labor utilization, efficiency of processes, the customer's specification and IT environment, among others. For certain complex projects, due to the risks and uncertainties inherent with the estimation process and factors relating to the assumptions, actual progress may differ due to the change in estimated total hours. Adjustments to estimates are made in the period in which the facts requiring such revisions become known and, accordingly, recognized revenues are subject to revisions as the contract progresses to completion.

Capitalized Commission Costs

We capitalize incremental commission fees paid as a result of obtaining customer contracts. Capitalized commission costs, which are recorded in other assets within the accompanying condensed consolidated balance sheets, were \$29.7 million and \$27.1 million at March 31, 2019 and September 30, 2018, respectively.

Capitalized commission costs are amortized on a straight-line basis over ten years — determined using a portfolio approach — based on the transfer of goods or services to which the assets relate, taking into consideration both the initial and future contracts as we do not typically pay a commission on a contract renewal. The amortization costs are included in selling, general, and administrative expenses of our condensed consolidated statements of income and comprehensive income. The amount of amortization was \$1.2 million and \$1.1 million during the quarters ended March 31, 2019 and 2018, respectively, and \$2.4 million and \$2.2 million during the six months ended March 31, 2019 and 2018, respectively. There was no impairment loss in relation to the costs capitalized.

We apply a practical expedient to recognize the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that we otherwise would have recognized is one year or less. These costs are recorded within selling, general, and administrative expenses.

9. Income Taxes

Effective Tax Rate

The effective income tax rate was 16.5% and 20.4% during the quarters ended March 31, 2019 and 2018, respectively, and 4.9% and 8.6% during the six months ended March 31, 2019 and 2018, respectively. The provision for income taxes during interim quarterly reporting periods is based on our estimates of the effective tax rates for the full fiscal year. The effective tax rate in any quarter can also be affected positively or negatively by adjustments that are required to be reported in the specific quarter of resolution.

The effective tax rate for the six months ended March 31, 2019 and 2018 were both impacted by recording of excess tax benefits relating to stock awards that vested December of both years. In addition, the six months ended March 31, 2018 was affected by recording the impact of the Tax Cuts and Jobs Act (the “Tax Act”), enacted on December 22, 2017 by the U.S. government. The Tax Act makes broad and complex changes to the U.S. tax code that affect our fiscal year ended September 30, 2018 and fiscal year ended September 30, 2019, including, but not limited to: (1) reducing the U.S. federal corporate tax rate; (2) requiring a one-time transition tax on certain un-repatriated earnings of foreign subsidiaries; (3) repealing the performance-based compensation exception for certain employees; (4) instituting the concept of Global Intangible Low-Taxed Income (“GILTI”); and (5) instituting the concept of Foreign Derived Intangible Income.

The Tax Act subjects U.S. corporations to tax on their GILTI. Due to the complexity of the new GILTI tax rules, we are continuing to evaluate this provision of the Tax Act and the application of GAAP. Under GAAP, we can make an accounting policy election to either treat taxes due on the GILTI inclusion as a current period expense or factor such amounts into our measurement of deferred taxes. We have not yet adopted an accounting policy in regard to GILTI.

The total unrecognized tax benefit for uncertain tax positions is estimated to be \$5.7 million and \$6.1 million at March 31, 2019 and September 30, 2018, respectively. We recognize interest expense related to unrecognized tax benefits and penalties as part of the provision for income taxes in our condensed consolidated statements of income and comprehensive income. We have accrued interest of \$0.4 million and \$0.3 million related to unrecognized tax benefits as of March 31, 2019 and September 30, 2018, respectively.

10. Earnings per Share

The following table presents reconciliations for the numerators and denominators of basic and diluted earnings per share (“EPS”) for the quarters and six-month periods ended March 31, 2019 and 2018:

	Quarter Ended March 31,		Six Months Ended March 31,	
	2019	2018	2019	2018
	As Adjusted		As Adjusted	
	(In thousands, except per share data)			
Numerator for diluted and basic earnings per share:				
Net Income	\$ 33,381	\$ 31,169	\$ 73,388	\$ 64,048
Denominator - share:				
Basic weighted-average shares	29,074	29,985	29,017	30,032
Effect of dilutive securities	1,185	1,315	1,280	1,399
Diluted weighted-average shares	30,259	31,300	30,297	31,431
Earnings per share:				
Basic	\$ 1.15	\$ 1.04	\$ 2.53	\$ 2.13
Diluted	\$ 1.10	\$ 1.00	\$ 2.42	\$ 2.04

We exclude the options to purchase shares of common stock in the computation of the diluted EPS where the exercise price of the options exceeds the average market price of our common stock as their inclusion would be antidilutive. There were approximately 15,000 and 19,000 options excluded for the quarters ended March 31, 2019 and 2018, respectively. There were approximately 7,000 and 11,000 options excluded for the six months ended March 31, 2019 and 2018, respectively.

11. 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 detection, 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, SaaS applications through the FICO® Analytic Cloud.
- *Scores.* This segment includes our business-to-business credit scoring solutions, our myFICO® solutions for consumers (enabling consumer-level access to and understanding of their credit scores) and associated professional services. Our credit scoring solutions give our clients access to analytics that can be easily integrated into their transaction streams and decision-making processes. Our credit 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 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, nor capital expenditures where depreciation amounts are allocated to the segments from their internal cost centers as described above.

The following tables summarize segment information for the quarters and six-month periods ended March 31, 2019 and 2018:

	Quarter Ended March 31, 2019				
	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	Total
	(In thousands)				
Segment revenues:					
Transactional and maintenance	\$ 97,074	\$ 102,363	\$ 12,342	\$ —	\$ 211,779
Professional services	35,981	901	13,673	—	50,555
License	8,760	1,139	6,001	—	15,900
Total segment revenues	141,815	104,403	32,016	—	278,234
Segment operating expense	(111,643)	(16,167)	(40,384)	(39,506)	(207,700)
Segment operating income (loss)	\$ 30,172	\$ 88,236	\$ (8,368)	\$ (39,506)	70,534
Unallocated share-based compensation expense					(20,482)
Unallocated amortization expense					(1,503)
Operating income					48,549
Unallocated interest expense, net					(10,008)
Unallocated other income, net					1,433
Income before income taxes					\$ 39,974
Depreciation expense	\$ 4,662	\$ 132	\$ 972	\$ 229	\$ 5,995
	Quarter Ended March 31, 2018 (As Adjusted)				
	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	Total
	(In thousands)				
Segment revenues:					
Transactional and maintenance	\$ 95,515	\$ 85,451	\$ 11,825	\$ —	\$ 192,791
Professional services	39,131	757	6,843	—	46,731
License	11,850	895	3,993	—	16,738
Total segment revenues	146,496	87,103	22,661	—	256,260
Segment operating expense	(107,292)	(16,413)	(31,700)	(33,493)	(188,898)
Segment operating income (loss)	\$ 39,204	\$ 70,690	\$ (9,039)	\$ (33,493)	67,362
Unallocated share-based compensation expense					(19,239)
Unallocated amortization expense					(1,684)
Operating income					46,439
Unallocated interest expense, net					(7,116)
Unallocated other expense, net					(161)
Income before income taxes					\$ 39,162
Depreciation expense	\$ 3,834	\$ 147	\$ 1,291	\$ 238	\$ 5,510

Six Months Ended March 31, 2019

	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	Total
	(In thousands)				
Segment revenues:					
Transactional and maintenance	\$ 194,239	\$ 187,184	\$ 24,549	\$ —	\$ 405,972
Professional services	67,443	1,602	22,318	—	91,363
License	27,792	1,300	14,063	—	43,155
Total segment revenues	289,474	190,086	60,930	—	540,490
Segment operating expense	(219,241)	(29,649)	(79,946)	(68,760)	(397,596)
Segment operating income (loss)	\$ 70,233	\$ 160,437	\$ (19,016)	\$ (68,760)	142,894
Unallocated share-based compensation expense					(42,336)
Unallocated amortization expense					(3,005)
Operating income					97,553
Unallocated interest expense, net					(19,684)
Unallocated other expense, net					(739)
Income before income taxes					\$ 77,130
Depreciation expense	\$ 9,459	\$ 257	\$ 1,961	\$ 462	\$ 12,139

Six Months Ended March 31, 2018 (As Adjusted)

	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	Total
	(In thousands)				
Segment revenues:					
Transactional and maintenance	\$ 186,641	\$ 153,447	\$ 23,106	\$ —	\$ 363,194
Professional services	74,505	1,054	14,300	—	89,859
License	25,524	1,033	9,011	—	35,568
Total segment revenues	286,670	155,534	46,417	—	488,621
Segment operating expense	(210,018)	(32,301)	(63,563)	(60,254)	(366,136)
Segment operating income (loss)	\$ 76,652	\$ 123,233	\$ (17,146)	\$ (60,254)	122,485
Unallocated share-based compensation expense					(35,749)
Unallocated amortization expense					(3,472)
Operating income					83,264
Unallocated interest expense, net					(13,576)
Unallocated other income, net					352
Income before income taxes					\$ 70,040
Depreciation expense	\$ 7,777	\$ 302	\$ 2,703	\$ 522	\$ 11,304

12. 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.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

FORWARD LOOKING STATEMENTS

Statements contained in this report that are not statements of historical fact should be considered forward-looking 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, expenses, 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," "outlook," 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 Part II, Item 1A, Risk Factors. 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. Forward-looking 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 Form 8-K to be filed by us in fiscal 2019.

OVERVIEW

We use analytics to help businesses automate, improve and connect decisions across their enterprise — an approach we commonly refer to as decision management. 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, categorize, and describe consumer behavior in order to power hundreds of billions of customer decisions each year. We help thousands of companies in over 100 countries use our decision management technology to target and acquire customers more efficiently, increase customer value, detect and 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, 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 of consumer credit risk in the U.S., and empower them to manage their financial health. 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 streamlining transaction and claims processing, optimizing logistics, and identifying and quantifying security risk. 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.

We derive a significant portion of our revenues from clients outside the U.S. International revenues accounted for 31% and 33% of total consolidated revenues for the quarters ended March 31, 2019 and 2018, respectively, and 34% of total consolidated revenues for each of the six months ended March 31, 2019 and 2018. A significant portion of our revenues are derived from the sale of products and services within the banking (including consumer credit) industry, and 86% and 84% of our revenues were derived from within this industry during the quarters ended March 31, 2019 and 2018, respectively, and 87% and 84% of our revenues were derived from within this industry during the six months ended March 31, 2019 and 2018, 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 76% and 75% of our revenues during the quarters ended March 31, 2019 and 2018, respectively. Arrangements with transactional or unit-based pricing accounted for 75% and 74% of our revenues during the six months ended March 31, 2019 and 2018, respectively.

We continue to drive growth in our Scores segment. Scores revenue increased 20% to \$104.4 million during the quarter ended March 31, 2019 from \$87.1 million during the quarter ended March 31, 2018, and 22% to \$190.1 million during the six months ended March 31, 2019 from \$155.5 million during the six months ended March 31, 2018. Scores operating income increased 25% to \$88.2 million during the quarter ended March 31, 2019 from \$70.7 million during the quarter ended March 31, 2018, and 30% to \$160.4 million during the six months ended March 31, 2019 from \$123.2 million during the six months ended March 31, 2018. For our Applications and Decision Management Software segments, cloud business continues to grow as we pursue our cloud-first strategy. Cloud revenues increased 6% to \$66.8 million during the quarter ended March 31, 2019 from \$63.1 million during the quarter ended March 31, 2018, and 9% to \$130.2 million during the six months ended March 31, 2019 from \$119.3 million during the six months ended March 31, 2018.

Operating income increased 5% to \$48.5 million during the quarter ended March 31, 2019 from \$46.4 million during the quarter ended March 31, 2018 and as a result, net earnings increased 7% to \$33.4 million from \$31.2 million. Operating income increased 17% to \$97.6 million during the six months ended March 31, 2019 from \$83.3 million during the six months ended March 31, 2018, and net earnings increased 15% to \$73.4 million from \$64.0 million, primarily due to the increase in operating income, partially offset by higher interest expense.

We continue to enhance stockholder value by returning cash to stockholders through our stock repurchase program. During the quarter and six months ended March 31, 2019, we repurchased approximately 0.2 million shares at a total repurchase price of \$37.0 million and 0.6 million shares at a total repurchase price of \$119.7 million, respectively. As of March 31, 2019, we had \$79.5 million remaining under our current stock repurchase program.

Bookings

Management uses bookings as an indicator of our business performance. Bookings represent contracts signed in the current reporting period that generate current and future revenue streams. We consider contract terms, knowledge of the marketplace and experience with our customers, among other factors, when determining the estimated value of contract bookings. While we disclose estimated revenue expected to be recognized in the future related to unsatisfied performance obligations in Note 8 to the accompanying condensed consolidated financial statements, we believe bookings amount is still a meaningful measure of our business as it includes estimated revenues omitted from Note 8, such as sales- or usage-based royalties derived from our software licenses, among others.

Bookings calculations have varying degrees of certainty depending on the revenue type and individual contract terms. Our revenue types are transactional and maintenance, professional services and license. Our estimate of bookings is as of the end of the period in which a contract is signed, and we do not update initial booking estimates in future periods for changes between estimated and actual results. Actual revenue and the timing thereof could differ materially from our initial estimates. The following paragraphs discuss the key assumptions used to calculate bookings and the susceptibility of these assumptions to variability.

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 us to make estimates about 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 following:

- The health of the economy and 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. These differences typically result from customer decisions to alter the mix of FICO and customer services resources used to complete a project.

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 (In millions)	Bookings Yield (1)	Number of Bookings over \$1 Million	Weighted- Average Term (2) (Months)
Quarter Ended March 31, 2019	\$ 105.7	14%	19	32
Quarter Ended March 31, 2018	\$ 101.7	12%	19	30
Six Months Ended March 31, 2019	\$ 212.3	21%	41	NM ^(a)
Six Months Ended March 31, 2018	\$ 183.9	21%	32	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 35% and 46% of total bookings for the quarters ended March 31, 2019 and 2018, respectively. Professional services bookings were 51% and 41% of total bookings for the quarters ended March 31, 2019 and 2018, respectively. License bookings were 14% and 13% of total bookings for the quarters ended March 31, 2019 and 2018, respectively.

Transactional and maintenance bookings were 45% and 40% of total bookings for the six months ended March 31, 2019 and 2018, respectively. Professional services bookings were 42% and 47% of total bookings for the six months ended March 31, 2019 and 2018, respectively. License bookings were 13% of total bookings for each of the six months ended March 31, 2019 and 2018.

RESULTS OF OPERATIONS

Revenues

The following tables set forth certain summary information on a segment basis related to our revenues for the quarters and six-month periods ended March 31, 2019 and 2018:

Segment	Quarter Ended March 31,		Percentage of Revenues		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018	2019	2018		
	As Adjusted		As Adjusted			
	(In thousands)				(In thousands)	
Applications	\$ 141,815	\$ 146,496	51%	57%	\$ (4,681)	(3)%
Scores	104,403	87,103	38%	34%	17,300	20 %
Decision Management Software	32,016	22,661	11%	9%	9,355	41 %
Total	\$ 278,234	\$ 256,260	100%	100%	21,974	9 %

Segment	Six Months Ended March 31,		Percentage of Revenues		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018	2019	2018		
	As Adjusted		As Adjusted			
	(In thousands)				(In thousands)	
Applications	\$ 289,474	\$ 286,670	54%	59%	\$ 2,804	1 %
Scores	190,086	155,534	35%	32%	34,552	22 %
Decision Management Software	60,930	46,417	11%	9%	14,513	31 %
Total	\$ 540,490	\$ 488,621	100%	100%	51,869	11 %

Quarter Ended March 31, 2019 Compared to Quarter Ended March 31, 2018

Applications

	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted			
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 97,074	\$ 95,515	\$ 1,559	2 %
Professional services	35,981	39,131	(3,150)	(8)%
License	8,760	11,850	(3,090)	(26)%
Total	\$ 141,815	\$ 146,496	(4,681)	(3)%

Applications segment revenues decreased \$4.7 million primarily due to a decrease in services revenues from implementation projects and a decrease in license sales, partially offset by an increase in transactional revenues.

Scores

	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted			
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 102,363	\$ 85,451	\$ 16,912	20%
Professional services	901	757	144	19%
License	1,139	895	244	27%
Total	\$ 104,403	\$ 87,103	17,300	20%

Scores segment revenues increased \$17.3 million due to an increase of \$15.8 million in our business-to-business scores revenue and \$1.5 million in our business-to-consumer services revenue. The increase in business-to-business scores was primarily attributable to a higher unit price in auto activities. 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.

During the quarters ended March 31, 2019 and 2018, revenues generated from our agreements with Experian accounted for 13% and 11%, respectively, of our total revenues, and revenues generated from our agreements with Equifax and TransUnion together accounted for 16% and 14%, respectively, of our total revenues. Revenues from these customers included amounts recorded in our other segments.

Decision Management Software

	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted			
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 12,342	\$ 11,825	\$ 517	4%
Professional services	13,673	6,843	6,830	100%
License	6,001	3,993	2,008	50%
Total	\$ 32,016	\$ 22,661	9,355	41%

Decision Management Software segment revenues increased \$9.4 million primarily attributable to an increase in services revenues related to our *Optimization* solutions, and an increase in license sales.

Six Months Ended March 31, 2019 Compared to Six Months Ended March 31, 2018

Applications

	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted			
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 194,239	\$ 186,641	\$ 7,598	4 %
Professional services	67,443	74,505	(7,062)	(9)%
License	27,792	25,524	2,268	9 %
Total	\$ 289,474	\$ 286,670	2,804	1 %

Applications segment revenues increased \$2.8 million primarily due to a \$9.9 million increase in our *fraud* solutions and a \$2.8 million increase in our *compliance* solutions, partially offset by a \$9.5 million decrease in our *originations* solutions. The increase in our *fraud* solutions was primarily attributable to a large multi-year software license renewal. The increase in our *compliance* solutions was primarily attributable to an increase in license and transactional revenues. The decrease in our *originations* solutions was primarily attributable to a decrease in services and transactional revenues.

Scores

	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted			
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 187,184	\$ 153,447	\$ 33,737	22%
Professional services	1,602	1,054	548	52%
License	1,300	1,033	267	26%
Total	\$ 190,086	\$ 155,534	34,552	22%

Scores segment revenues increased \$34.6 million due to an increase of \$30.8 million in our business-to-business scores revenue and \$3.8 million in our business-to-consumer services revenue. The increase in business-to-business scores was primarily attributable to a higher unit price in mortgage and auto activities. 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.

During the six months ended March 31, 2019 and 2018, revenues generated from our agreements with Experian accounted for 12% and 10%, respectively, of our total revenues, and revenues generated from our agreements with Equifax and TransUnion together accounted for 15% and 13%, respectively, of our total revenues. Revenues from these customers included amounts recorded in our other segments.

Decision Management Software

	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted			
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 24,549	\$ 23,106	\$ 1,443	6%
Professional services	22,318	14,300	8,018	56%
License	14,063	9,011	5,052	56%
Total	\$ 60,930	\$ 46,417	14,513	31%

Decision Management Software segment revenues increased \$14.5 million primarily attributable to an increase in services revenues related to our *Optimization* solutions and *Decision Management Platform* product, and an increase in license sales.

Operating Expenses and Other Income / Expenses

The following tables set forth certain summary information related to our condensed consolidated statements of income and comprehensive income for the quarters and six-month periods ended March 31, 2019 and 2018:

	Quarter Ended March 31,		Percentage of Revenues		Period-to-Period Change	Period-to- Period Percentage Change
	2019	2018	2019	2018		
	As Adjusted		As Adjusted			
	(In thousands, except employees)				(In thousands, except employees)	
Revenues	\$ 278,234	\$ 256,260	100 %	100 %	\$ 21,974	9 %
Operating expenses:						
Cost of revenues	85,568	79,493	31 %	31 %	6,075	8 %
Research and development	37,684	32,519	13 %	13 %	5,165	16 %
Selling, general and administrative	104,930	96,125	38 %	37 %	8,805	9 %
Amortization of intangible assets	1,503	1,684	1 %	1 %	(181)	(11)%
Total operating expenses	229,685	209,821	83 %	82 %	19,864	9 %
Operating income	48,549	46,439	17 %	18 %	2,110	5 %
Interest expense, net	(10,008)	(7,116)	(4)%	(3)%	(2,892)	41 %
Other income (expense), net	1,433	(161)	1 %	— %	1,594	(990)%
Income before income taxes	39,974	39,162	14 %	15 %	812	2 %
Provision for income taxes	6,593	7,993	2 %	3 %	(1,400)	(18)%
Net income	\$ 33,381	\$ 31,169	12 %	12 %	2,212	7 %
Number of employees at quarter end	3,896	3,470			426	12 %

	Six Months Ended March 31,		Percentage of Revenues		Period-to-Period Change	Period-to- Period Percentage Change
	2019	2018	2019	2018		
	As Adjusted		As Adjusted			
	(In thousands)				(In thousands)	
Revenues	\$ 540,490	\$ 488,621	100 %	100 %	\$ 51,869	11 %
Operating expenses:						
Cost of revenues	161,634	153,925	30 %	31 %	7,709	5 %
Research and development	73,110	61,493	13 %	13 %	11,617	19 %
Selling, general and administrative	205,188	186,467	38 %	38 %	18,721	10 %
Amortization of intangible assets	3,005	3,472	1 %	1 %	(467)	(13)%
Total operating expenses	442,937	405,357	82 %	83 %	37,580	9 %
Operating income	97,553	83,264	18 %	17 %	14,289	17 %
Interest expense, net	(19,684)	(13,576)	(3)%	(3)%	(6,108)	45 %
Other income (expense), net	(739)	352	— %	— %	(1,091)	(310)%
Income before income taxes	77,130	70,040	15 %	14 %	7,090	10 %
Provision for income taxes	3,742	5,992	1 %	1 %	(2,250)	(38)%
Net income	\$ 73,388	\$ 64,048	14 %	13 %	9,340	15 %

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.

The quarter over quarter increase in cost of revenue expenses of \$6.1 million was primarily attributable to increase in personnel and labor costs as a result of increased headcount. Cost of revenues as a percentage of revenues was 31% during the quarter ended March 31, 2019, consistent with that incurred during the quarter ended March 31, 2018.

The year-to-date period over period increase in cost of revenue expenses of \$7.7 million was primarily attributable to increase in personnel and labor costs as a result of increased headcount. Cost of revenues as a percentage of revenues was 30% during the six months ended March 31, 2019, materially consistent with that incurred during the six months ended March 31, 2018.

Over the next several quarters, we expect cost of revenues as a percentage of revenues will be consistent with that incurred during the quarter ended March 31, 2019.

Research and Development

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

The quarter over quarter increase in research and development expenses of \$5.2 million was primarily attributable to an increase in labor and personnel costs. Research and development expenses as a percentage of revenues was 13% during the quarter ended March 31, 2019, consistent with that incurred during the quarter ended March 31, 2018.

The year-to-date period over period increase in research and development expenses of \$11.6 million was primarily attributable to an increase in labor and personnel costs. Research and development expenses as a percentage of revenues was 13% during the six months ended March 31, 2019, consistent with that incurred during the six months ended March 31, 2018.

Over the next several quarters, we expect research and development expenditures as a percentage of revenues will be consistent with that incurred during the quarter ended March 31, 2019.

Selling, General and Administrative

Selling, general and administrative expenses consist principally of employee salaries, commissions 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 quarter over quarter increase in selling, general and administrative expenses of \$8.8 million was primarily attributable to an increase in personnel and labor costs as a result of increased headcount and higher non-capitalizable commission cost. Selling, general and administrative expenses as a percentage of revenues was 38% during the quarter ended March 31, 2019, materially consistent with that incurred during the quarter ended March 31, 2018.

The year-to-date period over period increase in selling, general and administrative expenses of \$18.7 million was primarily attributable to an increase in personnel and labor costs as a result of increased headcount, higher share-based compensation and higher non-capitalizable commission cost. Selling, general and administrative expenses as a percentage of revenues was 38% during the six months ended March 31, 2019, consistent with that incurred during the six months ended March 31, 2018.

Over the next several quarters, we expect selling, general and administrative expenses as a percentage of revenues will be consistent with that incurred during the quarter ended March 31, 2019.

Amortization of Intangible Assets

Amortization of intangible assets consists of amortization expense related to intangible assets recorded in connection with acquisitions accounted for by the acquisition method of accounting. Our finite-lived intangible assets, consisting primarily of completed technology and customer contracts and relationships, are being amortized using the straight-line method over periods ranging from four to fifteen years.

Amortization expense was \$1.5 million during the quarter ended March 31, 2019 versus \$1.7 million during the quarter ended March 31, 2018.

Amortization expense was \$3.0 million during the six months ended March 31, 2019 versus \$3.5 million during the six months ended March 31, 2018.

Over the next several quarters, we expect that amortization expense will be consistent with the amortization expense we recorded during the quarter ended March 31, 2019.

Interest Expense, Net

Interest expense includes primarily interest on the senior notes issued in May 2008, July 2010 and May 2018, as well as interest and credit facility fees on the revolving line of credit. Our consolidated statements of income and comprehensive income include interest expense netted with interest income, which is derived primarily from the investment of funds in excess of our immediate operating requirements.

The quarter over quarter increase in interest expense of \$2.9 million was primarily attributable to a higher average outstanding debt balance during the quarter ended March 31, 2019, as well as a higher average interest rate on our 2018 Senior Notes compared to that on our revolving line of credit.

The year-to-date period over period increase in interest expense of \$6.1 million was primarily attributable to a higher average outstanding debt balance during the six months ended March 31, 2019, as well as a higher average interest rate on our 2018 Senior Notes compared to that on our revolving line of credit.

Over the next several quarters, we expect net interest expense will be consistent with the net interest expense incurred during the quarter ended March 31, 2019.

Other Income (Expense), Net

Other income (expense), net consists primarily of realized investment gains/losses, exchange rate gains/losses resulting from remeasurement of foreign-currency-denominated receivable and cash balances 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.

Provision for Income Taxes

The effective income tax rate was 16.5% and 20.4% during the quarters ended March 31, 2019 and 2018, respectively, and 4.9% and 8.6% during the six months ended March 31, 2019 and 2018, respectively. The provision for income taxes during interim quarterly reporting periods is based on our estimates of the effective tax rates for the full fiscal year. The effective tax rate in any quarter can also be affected positively or negatively by adjustments that are required to be reported in the specific quarter of resolution. The effective tax rate for the six months ended March 31, 2019 and 2018 were both impacted by recording of excess tax benefits relating to stock awards that vested December of both years. In addition, the six months ended March 31, 2018 was affected by recording the impact of the Tax Act. The Tax Act makes broad and complex changes to the U.S. tax code that affect our fiscal year ended September 30, 2018 and fiscal year ended September 30, 2019, including, but not limited to: (1) reducing the U.S. federal corporate tax rate; (2) requiring a one-time transition tax on certain un-repatriated earnings of foreign subsidiaries; (3) repealing the performance-based compensation exception for certain employees; (4) instituting the concept of GILTI; and (5) instituting the concept of Foreign Derived Intangible Income.

Operating Income

The following tables set forth certain summary information on a segment basis related to our operating income for the quarters and six-month periods ended March 31, 2019 and 2018:

Segment	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted		(In thousands)	
Applications	\$ 30,172	\$ 39,204	\$ (9,032)	(23)%
Scores	88,236	70,690	17,546	25 %
Decision Management Software	(8,368)	(9,039)	671	(7)%
Corporate expenses	(39,506)	(33,493)	(6,013)	18 %
Total segment operating income	70,534	67,362	3,172	5 %
Unallocated share-based compensation	(20,482)	(19,239)	(1,243)	6 %
Unallocated amortization expense	(1,503)	(1,684)	181	(11)%
Operating income	\$ 48,549	\$ 46,439	2,110	5 %

Segment	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2019	2018		
	As Adjusted		(In thousands)	
Applications	\$ 70,233	\$ 76,652	\$ (6,419)	(8)%
Scores	160,437	123,233	37,204	30 %
Decision Management Software	(19,016)	(17,146)	(1,870)	11 %
Corporate expenses	(68,760)	(60,254)	(8,506)	14 %
Total segment operating income	142,894	122,485	20,409	17 %
Unallocated share-based compensation	(42,336)	(35,749)	(6,587)	18 %
Unallocated amortization expense	(3,005)	(3,472)	467	(13)%
Operating income	\$ 97,553	\$ 83,264	14,289	17 %

Applications

	Quarter Ended March 31,		Percentage of Revenues		Six Months Ended March 31,		Percentage of Revenues	
	2019	2018	2019	2018	2019	2018	2019	2018
	As Adjusted		As Adjusted		As Adjusted		As Adjusted	
	(In thousands)				(In thousands)			
Segment revenues	\$ 141,815	\$ 146,496	100 %	100 %	\$ 289,474	\$ 286,670	100 %	100 %
Segment operating expense	(111,643)	(107,292)	(79)%	(73)%	(219,241)	(210,018)	(76)%	(73)%
Segment operating income	\$ 30,172	\$ 39,204	21 %	27 %	\$ 70,233	\$ 76,652	24 %	27 %

Scores

	Quarter Ended March 31,		Percentage of Revenues		Six Months Ended March 31,		Percentage of Revenues	
	2019	2018	2019	2018	2019	2018	2019	2018
	As Adjusted		As Adjusted		As Adjusted		As Adjusted	
	(In thousands)				(In thousands)			
Segment revenues	\$ 104,403	\$ 87,103	100 %	100 %	\$ 190,086	\$ 155,534	100 %	100 %
Segment operating expense	(16,167)	(16,413)	(15)%	(19)%	(29,649)	(32,301)	(16)%	(21)%
Segment operating income	\$ 88,236	\$ 70,690	85 %	81 %	\$ 160,437	\$ 123,233	84 %	79 %

Decision Management Software

	Quarter Ended March 31,		Percentage of Revenues		Six Months Ended March 31,		Percentage of Revenues	
	2019	2018	2019	2018	2019	2018	2019	2018
	As Adjusted		As Adjusted		As Adjusted		As Adjusted	
	(In thousands)				(In thousands)			
Segment revenues	\$ 32,016	\$ 22,661	100 %	100 %	\$ 60,930	\$ 46,417	100 %	100 %
Segment operating expense	(40,384)	(31,700)	(126)%	(140)%	(79,946)	(63,563)	(131)%	(137)%
Segment operating loss	\$ (8,368)	\$ (9,039)	(26)%	(40)%	\$ (19,016)	\$ (17,146)	(31)%	(37)%

The quarter over quarter \$2.1 million increase in operating income was attributable to a \$22.0 million increase in segment revenues and a \$0.2 million decrease in amortization cost, partially offset by a \$12.8 million increase in segment operating expenses, a \$6.0 million increase in corporate expenses and a \$1.3 million increase in share-based compensation cost.

At the segment level, the quarter over quarter \$3.2 million increase in segment operating income was the result of a \$17.5 million increase in our Scores segment operating income and a \$0.7 million decrease in our Decision Management Software segment operating loss, partially offset by a \$9.0 million decrease in our Applications segment operating income and a \$6.0 million increase in corporate expense.

The quarter over quarter \$9.0 million decrease in Applications segment operating income was due to a \$4.7 million decrease in segment revenue and a \$4.3 million increase in segment operating expenses. Segment operating income as a percentage of segment revenue for Applications decreased to 21% from 27% mainly due to a decrease in sales of our higher-margin software products and an increase in labor and personnel costs.

The quarter over quarter \$17.5 million increase in Scores segment operating income was due to a \$17.3 million increase in segment revenue and a \$0.2 million decrease in segment operating expenses. Segment operating income as a percentage of segment revenue for Scores increased to 85% from 81% mainly due to an increase in sales of our higher-margin score products.

The quarter over quarter \$0.7 million decrease in Decision Management Software segment operating loss was due to a \$9.4 million increase in segment revenue, partially offset by an \$8.7 million increase in segment operating expenses. Segment operating margin for Decision Management Software improved to a negative 26% from a negative 40% primarily due to an increase in sales of our higher-margin software products, partially offset by our continued investment in cloud infrastructure operations and new products.

The year-to-date period over period increase of \$14.3 million in operating income was attributable to a \$51.8 million increase in segment revenues and a \$0.5 million decrease in amortization cost, partially offset by a \$22.9 million increase in segment operating expenses, an \$8.5 million increase in corporate expenses and a \$6.6 million increase in share-based compensation cost.

At the segment level, the year-to-date period over period increase of \$20.4 million in segment operating income was the result of a \$37.2 million increase in our Scores segment operating income, partially offset by an \$8.5 million increase in corporate expenses, a \$6.4 million decrease in our Applications segment operating income and a \$1.9 million increase in our Decision Management Software segment operating loss.

The year-to-date period over period \$6.4 million decrease in Applications segment operating income was due to a \$9.2 million increase in segment operating expenses, partially offset by a \$2.8 million increase in segment revenue. Segment operating income as a percentage of segment revenue for Applications decreased to 24% from 27% mainly due to an increase in labor and personnel costs.

The year-to-date period over period \$37.2 million increase in Scores segment operating income was attributable to a \$34.5 million increase in segment revenue and a \$2.7 million decrease in segment operating expenses. Segment operating income as a percentage of segment revenue for Scores increased to 84% from 79%, mainly due to an increase in sales of our higher-margin score products.

The year-to-date period over period \$1.9 million increase in Decision Management Software segment operating loss was attributable to a \$16.4 million increase in segment operating expenses, partially offset by a \$14.5 million increase in segment revenue. Segment operating loss as a percentage of segment revenue for Decision Management Software improved to a negative 31% from a negative 37% primarily due to an increase in sales of our higher-margin software products, partially offset by our continued investment in cloud infrastructure operations and new products.

CAPITAL RESOURCES AND LIQUIDITY

Outlook

As of March 31, 2019, we had \$76.9 million in cash and cash equivalents, which included \$60.7 million held off-shore by our foreign subsidiaries. We believe these balances, as well as available borrowings from our \$400 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 \$28.0 million principal payment due in July 2019 on our senior notes issued in July 2010. Under our current financing arrangements, we have no other significant debt obligations maturing over the next twelve months. Additionally, 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 U.S. 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

	Six Months Ended March 31,		Period-to-Period Change
	2019	2018	
	As Adjusted		
	(In thousands)		
Cash provided by (used in):			
Operating activities	\$ 96,646	\$ 78,010	\$ 18,636
Investing activities	(12,773)	(13,256)	483
Financing activities	(97,343)	(64,697)	(32,646)
Effect of exchange rate changes on cash	332	2,193	(1,861)
Increase (decrease) in cash and cash equivalents	\$ (13,138)	\$ 2,250	(15,388)

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 increased to \$96.6 million during the six months ended March 31, 2019 from \$78.0 million during the six months ended March 31, 2018. The \$18.6 million increase was mainly attributable to a \$9.3 million increase in net income, a \$6.6 million increase in non-cash share-based compensation expense and a \$3.2 million increase in deferred income taxes.

Cash Flows from Investing Activities

Net cash used in investing activities decreased to \$12.8 million for the six months ended March 31, 2019 from \$13.3 million for the six months ended March 31, 2018. The \$0.5 million decrease was attributable to a decrease in purchases of property and equipment.

Cash Flows from Financing Activities

Net cash used in financing activities increased to \$97.3 million for the six months ended March 31, 2019 from \$64.7 million for the six months ended March 31, 2018. The \$32.6 million increase was primarily attributable to a \$41.0 million decrease in proceeds, net of payments, from our revolving line of credit and an \$8.0 million increase in taxes paid related to net share settlement of equity awards, partially offset by an \$11.1 million increase in proceeds from issuance of treasury stock under employee stock plans and a \$5.0 million decrease in repurchases of common stock.

Repurchases of Common Stock

In July 2018, our Board of Directors approved a stock repurchase program following the completion of our previous program. This program was opened 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.

Pursuant to the July 2018 program, we repurchased 150,000 shares of our common stock at a total repurchase price of \$37.0 million and 575,000 shares of our common stock at a total repurchase price of \$119.7 million during the quarter and six months ended March 31, 2019, respectively.

Revolving Line of Credit

We have a \$400 million unsecured revolving line of credit with a syndicate of banks that expires on May 8, 2023. 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 maximum consolidated leverage ratio of 3.25, subject to a step up to 3.75 following certain permitted acquisitions; and a minimum fixed charge ratio of 2.5 through the maturity of our 2010 Senior Notes in July 2020, upon which maintaining a minimum interest coverage ratio of 3.00. The credit agreement also contains other covenants typical of unsecured facilities. As of March 31, 2019, we had \$315.0 million in borrowings outstanding at a weighted average interest rate of 3.869% and were in compliance with all financial covenants under this credit facility.

Senior Notes

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"). The 2010 Senior Notes were issued in four series with maturities ranging from 6 to 10 years. The outstanding 2010 Senior Notes' weighted average interest rate is 5.6% and the weighted average maturity is 9.8 years. The 2010 Senior Notes require interest payments semi-annually and contain certain restrictive covenants, including the maintenance of a maximum consolidated net debt to consolidated EBITDA ratio of 3.00 and a minimum fixed charge coverage ratio of 2.50. On May 8, 2018, we issued \$400 million of senior notes in a private offering to qualified institutional investors (the "2018 Senior Notes", and with the 2010 Senior Notes, the "Senior Notes"). The 2018 Senior Notes require interest payments semi-annually at a rate of 5.25% per annum and will mature on 2026-05-15. The purchase agreements for the 2010 Senior Notes and the indenture for the 2018 Senior Notes contain certain covenants typical of unsecured obligations. As of March 31, 2019, the carrying value of the Senior Notes was \$513.0 million and we were in compliance with all financial covenants under these obligations.

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

Revenue is recognized when control of the promised goods or services is transferred to our customers in an amount that reflects the consideration to which we expect to be entitled to in exchange for those goods or services.

See Note 8 to the accompanying condensed consolidated financial statements for further discussion on revenues.

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 2018, 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 than their carrying amounts. Consequently, we did not perform a step one quantitative analysis and determined goodwill was not impaired for any of our reporting units for fiscal 2018.

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.

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 the 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.

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.

The Tax Act significantly revises U.S. tax law. It was effective starting in our first quarter of fiscal 2018. The SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) in December 2017, which provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under FASB Accounting Standards Codification (“ASC”) 740, “*Accounting for Income Taxes*” (“ASC 740”). Information regarding our adoption and prospective impacts of the Tax Act is included in our Annual Report on Form 10-K for our fiscal year ended September 30, 2018. We have completed our analysis consistent with the guidance provided in SAB 118 related to the tax effects of the transition tax and repealing the performance-based compensation exception for certain employees, which resulted in no additional charges recorded during the quarter ended December 31, 2018.

The Tax Act subjects U.S. corporations to tax on their GILTI. Due to the complexity of the new GILTI tax rules, we are continuing to evaluate this provision of the Tax Act and the application of GAAP. Under GAAP, we can make an accounting policy election to either treat taxes due on the GILTI inclusion as a current period expense or factor such amounts into our measurement of deferred taxes. We have not yet adopted an accounting policy in regard to GILTI.

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.

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, stockholder 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

In May 2014, the FASB issued ASU 2014-09. The standard's core principle is that a reporting entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from the contracts with customers. The guidance permits two methods of adoption: retrospectively to each prior reporting period presented ("full retrospective method"), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application ("modified retrospective method").

We adopted ASU 2014-09 in the first quarter of our fiscal 2019 using the full retrospective method which required us to adjust each prior reporting period presented. This adoption primarily affected 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 recognize revenue when control of the license is transferred to the customer, rather than at the date payments become due and payable when there are extended payment terms, or ratably over the term of the contract as required under the previous standard. In addition, revenue attributable to a software license renewal is recognized at the beginning of the applicable renewal period rather than at the signing of the renewal agreement as required under the previous standard. Additionally, under the new standard, when we enter into noncancellable contracts that provide unconditional rights to payment from our customers for services we have not yet completed or services we will provide in the near future, we present receivables — our unconditional rights to payments — and deferred revenues on a gross basis, rather than on a net basis. Finally, under the new standard we capitalize and amortize contract acquisition costs such as commissions paid for SaaS cloud services contracts in excess of one year. Following the adoption of ASU 2014-09, the revenue recognition for our other sales arrangements remained materially consistent with our historical practice.

Upon adoption of ASU 2014-09, we applied the standard's practical expedients that permit the omission of prior-period information about our performance obligations.

See Note 1 to the accompanying condensed consolidated financial statements for further discussion on the impact of the standard adoption on our previously reported results.

Recent Accounting Pronouncements Not Yet Adopted

In February 2018, the FASB issued ASU No. 2018-02, "*Income Statement — Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*" ("ASU 2018-02"). ASU 2018-02 allows reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act and requires certain disclosures about stranded tax effects. The guidance is effective for fiscal years and interim periods beginning after December 15, 2018, which means it will be effective for our fiscal year beginning October 1, 2019. ASU 2018-02 should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Act is recognized. We do not believe that adoption of ASU 2018-02 will have a significant impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842)” and subsequent amendments to the initial guidance: ASU 2017-13, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01 (collectively, Topic 842). Topic 842 requires companies to generally recognize on the balance sheet operating and financing lease liabilities and corresponding right-of-use assets. Topic 842 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 impact of our pending adoption of Topic 842 on our consolidated financial statements. We expect that most of our operating leases will be recognized as right-of-use assets and corresponding lease liabilities on our consolidated balance sheets, which will increase our total assets and total liabilities upon adoption.

Item 3. 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 March 31, 2019 and September 30, 2018:

	March 31, 2019			September 30, 2018		
	Cost Basis	Carrying Amount	Average Yield	Cost Basis	Carrying Amount	Average Yield
(Dollars in thousands)						
Cash and cash equivalents	\$ 76,885	\$ 76,885	0.93%	\$ 90,023	\$ 90,023	0.66%

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”). On May 8, 2018, we issued \$400 million of senior notes in a private placement to a group of institutional investors (the “2018 Senior Notes”, and with the 2010 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 March 31, 2019 and September 30, 2018:

	March 31, 2019		September 30, 2018	
	Carrying Amounts	Fair Value	Carrying Amounts	Fair Value
(In thousands)				
The 2010 Senior Notes	113,000	114,386	113,000	114,413
The 2018 Senior Notes	400,000	412,000	400,000	404,000
Total	\$ 513,000	\$ 526,386	\$ 513,000	\$ 518,413

We have a \$400 million unsecured revolving line of credit with a syndicate of banks that expires on May 8, 2023. 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. 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 \$315.0 million in borrowings outstanding at a weighted average interest rate of 3.869% under the credit facility as of March 31, 2019.

Foreign Currency Forward Contracts

We maintain a program to manage our foreign exchange rate risk on existing foreign-currency-denominated receivable and cash balances by entering into forward contracts to sell or buy foreign currencies. At period end, foreign-currency-denominated receivable and cash balances held by our various reporting entities are remeasured into their respective functional currencies at current market rates. The change in value from this remeasurement is then reported as a foreign exchange gain or loss for that period in our accompanying condensed consolidated statements of income and comprehensive income and the resulting gain or loss on the forward contract mitigates the foreign exchange rate risk of the associated assets. All of our foreign currency forward contracts have maturity periods of less than three months. Such derivative financial instruments are subject to market risk.

The following tables summarize our outstanding foreign currency forward contracts, by currency, at March 31, 2019 and September 30, 2018:

		March 31, 2019			
		Contract Amount		Fair Value	
		Foreign Currency	US\$	US\$	US\$
		(In thousands)			
Sell foreign currency:					
Euro (EUR)	EUR	8,400	\$ 9,443	\$	—
Buy foreign currency:					
British pound (GBP)	GBP	8,851	\$ 11,600	\$	—
Singapore dollar (SGD)	SGD	5,689	\$ 4,200	\$	—
		September 30, 2018			
		Contract Amount		Fair Value	
		Foreign Currency	US\$	US\$	US\$
		(In thousands)			
Sell foreign currency:					
Euro (EUR)	EUR	9,000	\$ 10,372	\$	—
Buy foreign currency:					
British pound (GBP)	GBP	8,598	\$ 11,200	\$	—
Singapore dollar (SGD)	SGD	9,580	\$ 7,000	\$	—

The foreign currency forward contracts were entered into on March 31, 2019 and September 30, 2018, respectively; therefore, their fair value was \$0 on each of these dates.

Item 4. 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 and Chief Financial Officer, of the effectiveness of the design and operation of FICO's disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this quarterly report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer 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 (i) recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and (ii) accumulated and communicated to the Chief Executive Officer and Chief Financial Officer to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

Beginning on October 1, 2018, we implemented ASU 2014-09 and, as a result, we also implemented changes to our controls related to revenue. These included the development of new policies, enhanced contract review processes, and other ongoing monitoring activities. These controls were designed to provide assurance at a reasonable level of the fair presentation of our condensed consolidated financial statements and related disclosures. There was no other change in FICO's internal control over financial reporting was identified in connection with the evaluation required by Rules 13a-15 or 15d-15 of the Exchange Act that occurred during the period covered by this quarterly report and that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. *Legal Proceedings*

Not Applicable.

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, payment 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 payment 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 or otherwise perform their expected services or functions, 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 2).

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.

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.

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 partners 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 partners, 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.

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 payment card processors and payment 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 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;
- fraud and security management providers;
- 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 payment card fraud, such as payment 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 General Data Protection Regulation (the “GDPR”) adopted by the EU Parliament, the EU Council and the EU Commission, and country-specific data protection laws enacted to supplement the GDPR; 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 applicable to, or standards and criteria adopted by, secondary market participants (e.g., Fannie Mae and Freddie Mac) that could have an impact on our scoring products, including any regulations, standards or criteria established as the result of Section 310 of the Economic Growth, Regulatory Relief, and Consumer Protection Act (Public Law 115-174);
- 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, the GDPR became effective on May 25, 2018 and imposes more stringent operational requirements for entities processing personal information and greater penalties for noncompliance. The California Consumer Privacy Act of 2018, which was enacted on June 28, 2018 and will become effective on January 1, 2020, gives California residents certain privacy rights in the collection and disclosure of their personal information and requires businesses to make certain disclosures and take certain other acts in furtherance of those rights. 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 2018, 87% 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 additional 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 2018, 34% 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 2. Unregistered Sales of Equity Securities and Use of Proceeds**Issuer Purchases of Equity Securities**

<u>Period</u>	<u>Total Number of Shares Purchased (1)</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)</u>	<u>Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)</u>
January 1, 2019 through January 31, 2019	7,060	\$ 211.02	—	\$ 116,552,763
February 1, 2019 through February 28, 2019	86,031	\$ 241.30	85,000	\$ 96,040,141
March 1, 2019 through March 31, 2019	79,761	\$ 251.11	65,000	\$ 79,529,999
	<u>172,852</u>	<u>\$ 244.59</u>	<u>150,000</u>	<u>\$ 79,529,999</u>

(1) Includes 22,852 shares delivered in satisfaction of the tax withholding obligations resulting from the vesting of restricted stock units held by employees during the quarter ended March 31, 2019.

(2) In July 2018, 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.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

<u>Exhibit Number</u>	<u>Description</u>
3.1	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)).
3.2	By-laws 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)).
10.1	Transition and Retirement Agreement with Michael J. Pung (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed January 31, 2019 (file no. 001-11689)).
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.

* Filed herewith.

CERTIFICATIONS

I, William J. Lansing, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Fair Isaac Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 30, 2019

/s/ WILLIAM J. LANSING

William J. Lansing

Chief Executive Officer

CERTIFICATIONS

I, Michael J. Pung, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Fair Isaac Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 30, 2019

/s/ MICHAEL J. PUNG

Michael J. Pung

Chief Financial Officer

**CERTIFICATION UNDER SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of Fair Isaac Corporation.

Date: April 30, 2019

/s/ WILLIAM J. LANSING

William J. Lansing

Chief Executive Officer

**CERTIFICATION UNDER SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of Fair Isaac Corporation.

Date: April 30, 2019

/s/ MICHAEL J. PUNG

Michael J. Pung

Chief Financial Officer