
**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, 2020

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

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.01 par value per share	FICO	New York Stock Exchange

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 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer	<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.

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 17, 2020 was 29,003,489 (excluding 59,853,294 shares held by us as treasury stock).

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

FAIR ISAAC CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

	March 31, 2020	September 30, 2019
(In thousands, except par value data)		
Assets		
Current assets:		
Cash and cash equivalents	\$ 108,966	\$ 106,426
Accounts receivable, net	307,307	297,427
Prepaid expenses and other current assets	67,398	51,853
Total current assets	483,671	455,706
Marketable securities	19,544	20,222
Other investments	1,594	1,643
Property and equipment, net	59,491	53,027
Operating lease right-of-use assets	87,142	—
Goodwill	804,650	803,542
Intangible assets, net	11,177	14,139
Deferred income taxes	7,097	6,006
Other assets	77,766	79,163
Total assets	\$ 1,552,132	\$ 1,433,448
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 25,306	\$ 23,118
Accrued compensation and employee benefits	68,507	106,240
Other accrued liabilities	62,605	32,454
Deferred revenue	114,406	111,016
Current maturities on debt	209,000	218,000
Total current liabilities	479,824	490,828
Long-term debt	738,632	606,790
Operating lease liabilities	77,485	—
Other liabilities	42,040	46,063
Total liabilities	1,337,981	1,143,681
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 29,082 and 28,944 shares outstanding at March 31, 2020 and September 30, 2019, respectively)	291	289
Additional paid-in-capital	1,169,217	1,225,365
Treasury stock, at cost (59,775 and 59,913 shares at March 31, 2020 and September 30, 2019, respectively)	(2,930,165)	(2,802,450)
Retained earnings	2,069,857	1,956,648
Accumulated other comprehensive loss	(95,049)	(90,085)
Total stockholders' equity	214,151	289,767
Total liabilities and stockholders' equity	\$ 1,552,132	\$ 1,433,448

See accompanying notes.

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

	Quarter Ended March 31,		Six Months Ended March 31,	
	2020	2019	2020	2019
	(In thousands, except per share data)			
Revenues:				
Transactional and maintenance	\$ 240,702	\$ 211,779	\$ 461,076	\$ 405,972
Professional services	47,905	50,555	91,930	91,363
License	19,364	15,900	53,469	43,155
Total revenues	307,971	278,234	606,475	540,490
Operating expenses:				
Cost of revenues	88,139	85,568	178,897	161,634
Research and development	39,439	37,684	78,382	73,110
Selling, general and administrative	103,465	104,930	215,486	205,188
Amortization of intangible assets	1,202	1,503	2,998	3,005
Restructuring and acquisition-related	—	—	3,104	—
Total operating expenses	232,245	229,685	478,867	442,937
Operating income	75,726	48,549	127,608	97,553
Interest expense, net	(11,254)	(10,008)	(21,022)	(19,684)
Other income (expense), net	(2,008)	1,433	(2,227)	(739)
Income before income taxes	62,464	39,974	104,359	77,130
Income tax provision (benefit)	4,176	6,593	(8,850)	3,742
Net income	58,288	33,381	113,209	73,388
Other comprehensive gain (loss):				
Foreign currency translation adjustments	(19,056)	2,925	(4,964)	(340)
Comprehensive income	\$ 39,232	\$ 36,306	\$ 108,245	\$ 73,048
Earnings per share:				
Basic	\$ 2.00	\$ 1.15	\$ 3.89	\$ 2.53
Diluted	\$ 1.94	\$ 1.10	\$ 3.76	\$ 2.42
Shares used in computing earnings per share:				
Basic	29,194	29,074	29,109	29,017
Diluted	29,985	30,259	30,076	30,297

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, 2019	29,186	\$ 292	\$ 1,148,190	\$ (2,843,097)	\$ 2,011,569	\$ (75,993)	\$ 240,961
Share-based compensation	—	—	22,788	—	—	—	22,788
Issuance of treasury stock under employee stock plans	186	2	(1,761)	8,930	—	—	7,171
Repurchases of common stock	(290)	(3)	—	(95,998)	—	—	(96,001)
Net income	—	—	—	—	58,288	—	58,288
Foreign currency translation adjustments	—	—	—	—	—	(19,056)	(19,056)
Balance at March 31, 2020	29,082	\$ 291	\$ 1,169,217	\$ (2,930,165)	\$ 2,069,857	\$ (95,049)	\$ 214,151

(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 September 30, 2019	28,944	\$ 289	\$ 1,225,365	\$ (2,802,450)	\$ 1,956,648	\$ (90,085)	\$ 289,767
Share-based compensation	—	—	45,933	—	—	—	45,933
Issuance of treasury stock under employee stock plans	596	6	(102,081)	28,291	—	—	(73,784)
Repurchases of common stock	(458)	(4)	—	(156,006)	—	—	(156,010)
Net income	—	—	—	—	113,209	—	113,209
Foreign currency translation adjustments	—	—	—	—	—	(4,964)	(4,964)
Balance at March 31, 2020	29,082	\$ 291	\$ 1,169,217	\$ (2,930,165)	\$ 2,069,857	\$ (95,049)	\$ 214,151

(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

See accompanying notes.

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

	Six Months Ended March 31,	
	2020	2019
(In thousands)		
Cash flows from operating activities:		
Net income	\$ 113,209	\$ 73,388
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	15,535	15,786
Share-based compensation	45,933	42,336
Deferred income taxes	(1,213)	74
Net loss on marketable securities	2,526	1,300
Non-cash operating lease costs	10,000	—
Provision for doubtful accounts, net	2,459	391
Net (gain) loss on sales of property and equipment	59	(5)
Changes in operating assets and liabilities:		
Accounts receivable	(13,823)	(5,015)
Prepaid expenses and other assets	(19,656)	(12,219)
Accounts payable	1,833	(2,210)
Accrued compensation and employee benefits	(37,339)	(16,970)
Other liabilities	(4,659)	(2,672)
Deferred revenue	6,995	2,462
Net cash provided by operating activities	121,859	96,646
Cash flows from investing activities:		
Purchases of property and equipment	(13,166)	(10,644)
Proceeds from sales of marketable securities	3,385	2,267
Purchases of marketable securities	(5,232)	(4,396)
Distribution from other investments	55	—
Net cash used in investing activities	(14,958)	(12,773)
Cash flows from financing activities:		
Proceeds from revolving line of credit	156,000	138,000
Payments on revolving line of credit	(377,000)	(80,000)
Proceeds from issuance of senior notes	350,000	—
Payments on debt issuance costs	(6,840)	—
Payments on finance leases	(712)	—
Proceeds from issuance of treasury stock under employee stock plans	23,216	12,850
Taxes paid related to net share settlement of equity awards	(97,000)	(48,470)
Repurchases of common stock	(148,008)	(119,723)
Net cash used in financing activities	(100,344)	(97,343)
Effect of exchange rate changes on cash	(4,017)	332
Increase (decrease) in cash and cash equivalents	2,540	(13,138)
Cash and cash equivalents, beginning of period	106,426	90,023
Cash and cash equivalents, end of period	\$ 108,966	\$ 76,885
Supplemental disclosures of cash flow information:		
Cash paid for income taxes, net of refunds	\$ 4,475	\$ 7,962
Cash paid for interest	\$ 16,181	\$ 19,686
Supplemental disclosures of non-cash investing and financing activities:		
Purchase of property and equipment included in accounts payable	\$ 1,920	\$ 77
Unsettled repurchases of common stock	\$ 8,002	\$ —
Finance lease obligations incurred	\$ 5,148	\$ —

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, 2019. 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.

As discussed in New Accounting Pronouncements below and Note 13, effective October 1, 2019, we adopted Accounting Standards Update (“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”) using the modified retrospective approach, under which financial results reported in prior periods were not restated. As a result, the condensed consolidated balance sheet as of March 31, 2020 is not comparable with that as of September 30, 2019. See our Annual Report on Form 10-K filed with the SEC on November 8, 2019 for lease policies that were in effect in prior periods before adoption of Topic 842.

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.

New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Topic 842, which requires the recognition of operating lease assets and lease liabilities on the balance sheet. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. Under the new standard, disclosures are required to enable users of financial statements to assess the amount, timing and uncertainty of cash flows arising from leases.

In the first quarter of fiscal 2020, we adopted Topic 842 using the “Comparatives Under 840 Option” approach to transition. In accordance with the standard, the comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. Topic 842 provided a package of practical expedients that allow an entity to not reassess (1) whether any expired or existing contracts contain a lease, (2) the lease classification of any expired or existing lease, and (3) initial direct costs for any existing leases. We elected to apply the package of practical expedients, and did not elect the hindsight practical expedient in determining the lease term for existing leases as of October 1, 2019.

Adoption of Topic 842 did not result in the recognition of a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The most significant impact of adoption was the recognition of operating lease assets and operating lease liabilities of \$89.8 million and \$98.9 million, respectively, while our accounting for existing capital leases (now referred to as finance leases) remained substantially unchanged. We expect the impact of adoption to be immaterial to our consolidated statements of income and comprehensive income and consolidated statements of cash flows on an ongoing basis. As part of our adoption, we also modified our control procedures and processes, none of which materially affected our internal control over financial reporting. See Note 13 for additional information regarding our accounting policy for leases and additional disclosures.

Recent Accounting Pronouncements Not Yet Adopted

In August 2018, the FASB issued ASU No. 2018-15, “*Intangibles—Goodwill and Other (Topic 350): Internal-Use Software*” (“ASU 2018-15”). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The standard is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2019, which means that it will be effective for our fiscal year beginning October 1, 2020. Early adoption is permitted. We do not believe that adoption of ASU 2018-15 will have a significant impact on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, “*Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*” and subsequent amendments to the initial guidance: ASU 2018-19, ASU 2019-04, ASU 2019-05 and ASU 2019-11 (collectively, “Topic 326”). Topic 326 requires measurement and recognition of expected credit losses for financial assets held. Topic 326 is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2019, which means it will be effective for our fiscal year beginning October 1, 2020. Early adoption is permitted. We do not believe that adoption of Topic 326 will have a significant impact on our consolidated financial statements.

We do not expect that any other recently issued accounting pronouncements will have a significant effect on our financial statements.

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 marketable securities. We do not have any liabilities that are valued using inputs identified under a Level 1 hierarchy as of March 31, 2020 and September 30, 2019.
- 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, 2020 and September 30, 2019. We measure the fair value of the Senior Notes (as defined in Note 7) 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, 2020 and September 30, 2019.

The following tables represent financial assets that we measured at fair value on a recurring basis at March 31, 2020 and September 30, 2019:

March 31, 2020	Active Markets for Identical Instruments (Level 1)	Fair Value as of March 31, 2020
(In thousands)		
Assets:		
Cash equivalents (1)	\$ 25,166	\$ 25,166
Marketable securities (2)	19,544	19,544
Total	<u>\$ 44,710</u>	<u>\$ 44,710</u>
September 30, 2019	Active Markets for Identical Instruments (Level 1)	Fair Value as of September 30, 2019
(In thousands)		
Assets:		
Cash equivalents (1)	\$ 28,901	\$ 28,901
Marketable securities (2)	20,222	20,222
Total	<u>\$ 49,123</u>	<u>\$ 49,123</u>

(1) Included in cash and cash equivalents on our condensed consolidated balance sheets at March 31, 2020 and September 30, 2019. Not included in these tables are cash deposits of \$83.8 million and \$77.5 million at March 31, 2020 and September 30, 2019, 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 sheets at March 31, 2020 and September 30, 2019.

For the fair value of our derivative instruments and senior notes, see Note 3 and Note 7, respectively.

There were no transfers between Level 1, Level 2, and Level 3 of the fair value hierarchy during the quarters and six-month periods ended March 31, 2020 and 2019.

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, 2020 and September 30, 2019:

March 31, 2020					
Contract Amount				Fair Value	
Foreign Currency		USD		USD	
(In thousands)					
Sell foreign currency:					
Euro (EUR)	EUR	10,000	\$	11,004	\$ —
Buy foreign currency:					
British pound (GBP)	GBP	21,781	\$	27,000	\$ —
Singapore dollar (SGD)	SGD	10,274	\$	7,200	\$ —

September 30, 2019					
Contract Amount				Fair Value	
Foreign Currency		USD		USD	
(In thousands)					
Sell foreign currency:					
Euro (EUR)	EUR	10,800	\$	11,723	\$ —
Buy foreign currency:					
British pound (GBP)	GBP	5,200	\$	6,400	\$ —
Singapore dollar (SGD)	SGD	5,798	\$	4,200	\$ —

The foreign currency forward contracts were entered into on March 31, 2020 and September 30, 2019, respectively; therefore, their fair value was \$0 on each of these dates.

Gain (losses) 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,	
	2020	2019	2020	2019
(In thousands)				
Gains (losses) on foreign currency forward contracts	\$ (2,194)	\$ 720	\$ (1,049)	\$ 316

4. Goodwill and Intangible Assets

Amortization expense associated with our intangible assets is reflected as a separate operating expense caption — amortization of intangible assets — and is 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,	
	2020	2019	2020	2019
(In thousands)				
Completed technology	\$ 463	\$ 494	\$ 1,038	\$ 988
Customer contracts and relationships	658	1,009	1,798	2,017
Trade names	38	—	75	—
Non-compete agreements	43	—	87	—
Total	\$ 1,202	\$ 1,503	\$ 2,998	\$ 3,005

Estimated future intangible asset amortization expense associated with intangible assets existing at March 31, 2020 was as follows:

Year Ending September 30,	(In thousands)	
2020 (excluding the six months ended March 31, 2020)	\$	1,987
2021		3,622
2022		3,334
2023		1,317
2024		917
	\$	<u>11,177</u>

The following table summarizes changes to goodwill during the six months ended March 31, 2020, both in total and as allocated to our segments:

	Applications	Scores	Decision Management Software	Total
	(In thousands)			
Balance at September 30, 2019	\$ 588,614	\$ 146,648	\$ 68,280	\$ 803,542
Foreign currency translation adjustment	1,006	—	102	1,108
Balance at March 31, 2020	<u>\$ 589,620</u>	<u>\$ 146,648</u>	<u>\$ 68,382</u>	<u>\$ 804,650</u>

5. Composition of Certain Financial Statement Captions

The following table summarizes property and equipment, and the related accumulated depreciation and amortization, at March 31, 2020 and September 30, 2019:

	March 31, 2020	September 30, 2019
	(In thousands)	
Property and equipment	\$ 184,539	\$ 172,075
Less: accumulated depreciation and amortization	(125,048)	(119,048)
	<u>\$ 59,491</u>	<u>\$ 53,027</u>

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 on an average trailing four-quarter basis, 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 (as defined in Note 7) 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, 2020, we had \$124.0 million in borrowings outstanding at a weighted average interest rate of 2.277% and were in compliance with all financial covenants under this credit facility.

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 10.0 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, 2020.

On May 8, 2018, we issued \$400 million of senior notes in a private offering to qualified institutional investors (the “2018 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.

On December 6, 2019, we issued \$350 million of senior notes in a private offering to qualified institutional investors (the “2019 Senior Notes,” along with the 2010 Senior Notes and 2018 Senior Notes, the “Senior Notes”). We have used the net proceeds to repay a large portion of the outstanding balance on our revolving credit facility. The 2019 Senior Notes require interest payments semi-annually at a rate of 4.00% per annum and will mature on June 15, 2028.

The purchase agreements for the 2010 Senior Notes, as well as the indentures for the 2018 Senior Notes and 2019 Senior Notes contain certain covenants typical of unsecured obligations.

The following table presents the face values and fair values for the Senior Notes at March 31, 2020 and September 30, 2019:

	March 31, 2020		September 30, 2019	
	Face Value (*)	Fair Value	Face Value (*)	Fair Value
(In thousands)				
The 2010 Senior Notes	85,000	85,255	85,000	86,121
The 2018 Senior Notes	400,000	402,000	400,000	428,000
The 2019 Senior Notes	350,000	331,625	—	—
Total	\$ 835,000	\$ 818,880	\$ 485,000	\$ 514,121

(*) The carrying value of the Senior Notes was reduced by the net debt issuance costs of \$11.4 million and \$5.2 million at March 31, 2020 and September 30, 2019, 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. Restructuring Expenses

There were no restructuring expenses incurred during the quarter ended March 31, 2020. During the six-month period ended March 31, 2020, we incurred \$3.1 million in employee separation costs due to the elimination of 69 positions throughout the Company. We expect that cash payment for all the employee separation costs will be paid by the end of our fiscal 2020.

There were no restructuring expenses incurred during the quarter and six-month period ended March 31, 2019.

The following table summarizes our restructuring accruals related to facility closures and employee separation. The balances at March 31, 2020 and September 30, 2019 were classified as current liabilities and recorded in other accrued liabilities within the accompanying condensed consolidated balance sheets.

	Accrual at September 30, 2019	Expense Additions	Cash Payments	Adjustment (*)	Accrual at March 31, 2020
(In thousands)					
Facilities charges	\$ 1,378	\$ —	\$ —	\$ (1,378)	\$ —
Employee separation	—	3,104	(2,956)	—	148
	1,378	3,104	(2,956)	(1,378)	148

(*) Upon adoption of Topic 842, accrued lease exit obligations of \$1.4 million were reclassified to operating lease liabilities.

9. Income Taxes

Effective Tax Rate

The effective income tax rate was 6.7% and 16.5% during the quarters ended March 31, 2020 and 2019, respectively, and (8.5)% and 4.9% during the six months ended March 31, 2020 and 2019, 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 rates for the six months ended March 31, 2020 and 2019 were both impacted by the recording of excess tax benefits relating to stock awards that vested in December of both years. In addition, stock exercises during the quarter ended March 31, 2020 resulted in an additional increase in excess tax benefits.

The total unrecognized tax benefit for uncertain tax positions is estimated to be \$7.1 million and \$5.8 million at March 31, 2020 and September 30, 2019, 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 \$0.5 million and \$0.3 million related to unrecognized tax benefits as of March 31, 2020 and September 30, 2019, 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, 2020 and 2019:

	Quarter Ended March 31,		Six Months Ended March 31,	
	2020	2019	2020	2019
	(In thousands, except per share data)			
Numerator for diluted and basic earnings per share:				
Net Income	\$ 58,288	\$ 33,381	\$ 113,209	\$ 73,388
Denominator - share:				
Basic weighted-average shares	29,194	29,074	29,109	29,017
Effect of dilutive securities	791	1,185	967	1,280
Diluted weighted-average shares	29,985	30,259	30,076	30,297
Earnings per share:				
Basic	\$ 2.00	\$ 1.15	\$ 3.89	\$ 2.53
Diluted	\$ 1.94	\$ 1.10	\$ 3.76	\$ 2.42

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 13,000 and 15,000 options excluded for the quarter ended March 31, 2020 and 2019, respectively. There were approximately 14,000 and 7,000 options excluded for the six months ended March 31, 2020 and 2019, 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, collections and insurance claims management — as well as associated professional services. These applications are available to our customers as on-premises software, and many are available as hosted, software-as-a-service (“SaaS”) applications through the FICO® Analytic Cloud or third-party public clouds, such as those provided by Amazon Web Services (“AWS”).

- *Scores.* This segment includes our business-to-business scoring solutions, our myFICO® solutions for consumers and associated professional services. Our scoring solutions give our clients access to analytics that can be easily integrated into their transaction streams and decision-making processes. Our scoring solutions are distributed through major credit reporting agencies, as well as services through which we provide our scores to clients directly.
- *Decision Management Software.* This segment is composed of analytic and decision management software tools that clients can use to create their own custom decision management applications, our 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 or third-party public clouds, such as those provided by AWS.

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, 2020 and 2019:

	Quarter Ended March 31, 2020				Total
	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	
	(In thousands)				
Segment revenues:					
Transactional and maintenance	\$ 97,789	\$ 127,610	\$ 15,303	\$ —	\$ 240,702
Professional services	35,134	819	11,952	—	47,905
License	7,356	719	11,289	—	19,364
Total segment revenues	140,279	129,148	38,544	—	307,971
Segment operating expense	(111,456)	(15,660)	(47,354)	(33,785)	(208,255)
Segment operating income (loss)	\$ 28,823	\$ 113,488	\$ (8,810)	\$ (33,785)	99,716
Unallocated share-based compensation expense					(22,788)
Unallocated amortization expense					(1,202)
Operating income					75,726
Unallocated interest expense, net					(11,254)
Unallocated other expense, net					(2,008)
Income before income taxes					\$ 62,464
Depreciation expense	\$ 4,553	\$ 141	\$ 1,158	\$ 108	\$ 5,960

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 expense, net						1,433
Income before income taxes						\$ 39,974
Depreciation expense	\$ 4,662	\$ 132	\$ 972	\$ 229	\$ 5,995	

Six Months Ended March 31, 2020						
	Applications	Scores	Decision Management Software	Unallocated Corporate Expenses	Total	
(In thousands)						
Segment revenues:						
Transactional and maintenance	\$ 196,626	\$ 235,056	\$ 29,394	\$ —	\$ 461,076	
Professional services	69,157	1,083	21,690	—	91,930	
License	26,674	8,147	18,648	—	53,469	
Total segment revenues	292,457	244,286	69,732	—	606,475	
Segment operating expense	(227,466)	(33,372)	(97,999)	(67,995)	(426,832)	
Segment operating income (loss)	\$ 64,991	\$ 210,914	\$ (28,267)	\$ (67,995)	179,643	
Unallocated share-based compensation expense						(45,933)
Unallocated amortization expense						(2,998)
Unallocated restructuring and acquisition-related						(3,104)
Operating income						127,608
Unallocated interest expense, net						(21,022)
Unallocated other income, net						(2,227)
Income before income taxes						\$ 104,359
Depreciation expense	\$ 8,902	\$ 257	\$ 2,144	\$ 333	\$ 11,636	

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 income, net						(739)
Income before income taxes						\$ 77,130
Depreciation expense	\$ 9,459	\$ 257	\$ 1,961	\$ 462	\$ 12,139	

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

Quarter Ended March 31, 2020						
Reportable Segments	On-Premises	SaaS	Scores	Total	Percentage	
(Dollars in thousands)						
Applications	\$ 76,341	\$ 63,938	\$ —	\$ 140,279	46%	
Scores	—	—	129,148	129,148	42%	
Decision Management Software	28,847	9,697	—	38,544	12%	
Total	\$ 105,188	\$ 73,635	\$ 129,148	\$ 307,971	100%	

Quarter Ended March 31, 2019						
Reportable Segments	On-Premises	SaaS	Scores	Total	Percentage	
(Dollars in thousands)						
Applications	\$ 81,311	\$ 60,504	\$ —	\$ 141,815	51%	
Scores	—	—	104,403	104,403	38%	
Decision Management Software	25,725	6,291	—	32,016	11%	
Total	\$ 107,036	\$ 66,795	\$ 104,403	\$ 278,234	100%	

Six Months Ended March 31, 2020					
Reportable Segments	On-Premises	SaaS	Scores	Total	Percentage
(Dollars in thousands)					
Applications	\$ 162,319	\$ 130,138	\$ —	\$ 292,457	48%
Scores	—	—	244,286	244,286	40%
Decision Management Software	52,526	17,206	—	69,732	12%
Total	\$ 214,845	\$ 147,344	\$ 244,286	\$ 606,475	100%

Six Months Ended March 31, 2019					
Reportable Segments	On-Premises	SaaS	Scores	Total	Percentage
(Dollars in thousands)					
Applications	\$ 170,906	\$ 118,568	\$ —	\$ 289,474	54%
Scores	—	—	190,086	190,086	35%
Decision Management Software	49,334	11,596	—	60,930	11%
Total	\$ 220,240	\$ 130,164	\$ 190,086	\$ 540,490	100%

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

Quarter Ended March 31, 2020					
Reportable Segments	North America	Latin America	Europe, Middle East and Africa	Asia Pacific	Total
(In thousands)					
Applications	\$ 78,900	\$ 9,672	\$ 34,271	\$ 17,436	\$ 140,279
Scores	123,249	2,619	1,720	1,560	129,148
Decision Management Software	21,007	5,917	6,920	4,700	38,544
Total	\$ 223,156	\$ 18,208	\$ 42,911	\$ 23,696	\$ 307,971

Quarter Ended March 31, 2019					
Reportable Segments	North America	Latin America	Europe, Middle East and Africa	Asia Pacific	Total
(In thousands)					
Applications	\$ 87,226	\$ 6,670	\$ 33,238	\$ 14,681	\$ 141,815
Scores	100,491	1,368	1,472	1,072	104,403
Decision Management Software	16,600	3,327	7,173	4,916	32,016
Total	\$ 204,317	\$ 11,365	\$ 41,883	\$ 20,669	\$ 278,234

Six Months Ended March 31, 2020					
Reportable Segments	North America	Latin America	Europe, Middle East and Africa	Asia Pacific	Total
(In thousands)					
Applications	\$ 164,366	\$ 19,189	\$ 74,055	\$ 34,847	\$ 292,457
Scores	233,446	2,903	3,258	4,679	244,286
Decision Management Software	36,594	10,250	14,185	8,703	69,732
Total	\$ 434,406	\$ 32,342	\$ 91,498	\$ 48,229	\$ 606,475

Reportable Segments	Six Months Ended March 31, 2019				
	North America	Latin America	Europe, Middle East and Africa	Asia Pacific	Total
	(In thousands)				
Applications	\$ 168,175	\$ 24,923	\$ 65,800	\$ 30,576	\$ 289,474
Scores	182,564	1,882	3,006	2,634	190,086
Decision Management Software	30,424	8,552	13,297	8,657	60,930
Total	\$ 381,163	\$ 35,357	\$ 82,103	\$ 41,867	\$ 540,490

12. Contract Balances and Performance Obligations

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.

Receivables at March 31, 2020 and September 30, 2019 consisted of the following:

	March 31, 2020	September 30, 2019
	(In thousands)	
Billed	\$ 199,102	\$ 206,714
Unbilled	146,226	127,651
	345,328	334,365
Less: allowance for doubtful accounts	(5,248)	(2,568)
Net receivables	340,080	331,797
Less: long-term receivables *	(32,773)	(34,370)
Short-term receivables *	\$ 307,307	\$ 297,427

(*) Short-term receivables and long-term receivables were recorded in accounts receivable, net and other assets, respectively, within the accompanying condensed consolidated balance sheets.

Contract assets balance at March 31, 2020 and September 30, 2019 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, 2020 and 2019 were as follows:

	Six Months Ended March 31, 2020
	(In thousands)
Deferred revenues at September 30, 2019	\$ 116,320
Revenue recognized that was included in the deferred revenues balance at the beginning of the period	(75,148)
Increases due to billings, excluding amounts recognized as revenue during the period	80,382
Deferred revenues at March 31, 2020	\$ 121,554

(*) Deferred revenues at September 30, 2019 included current portion of \$111.0 million and long-term portion of \$5.3 million that were recorded in deferred revenue and other liabilities, respectively, within the condensed consolidated balance sheets. Deferred revenues at March 31, 2020 included current portion of \$114.4 million and long-term portion of \$7.2 million that were recorded in deferred revenue and other liabilities, respectively, within the condensed consolidated balance sheets.

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 SaaS subscription term with revenue recognized ratably over the contract period.

Performance Obligations

Revenue allocated to remaining performance obligations represents contracted revenue that will be recognized in future periods, which is comprised of deferred revenue and amounts that will be invoiced and recognized as revenue in future periods. This does not include:

- Revenue that will be recognized in future periods from usage-based royalty from license sales;
- SaaS transactional revenue from variable considerations that will be recognized in the distinct service period during which it is earned; and
- Revenue from variable considerations that will be recognized in accordance with the “right-to-invoice” practical expedient, such as fees from our professional services billed based on a time and materials basis.

Revenue allocated to remaining performance obligations was \$253.4 million as of March 31, 2020, of which we expect to recognize approximately 51% over the next 18 months and the remainder thereafter.

13. Leases

We lease office space and data centers under operating lease arrangements, which constitute the majority of our lease obligations. We also enter into finance lease agreements from time to time for certain computer equipment. For any lease with a lease term in excess of 12 months, the related lease assets and liabilities are recognized on our condensed consolidated balance sheets as either operating or finance leases at the commencement of an agreement where it is determined that a lease exists. We have lease agreements that contain both lease and non-lease components, and we have elected to combine these components together and account for them as a single lease component for all classes of assets. Leases with a lease term of 12 months or less are not recorded on our condensed consolidated balance sheets. Furthermore, we recognize lease expense for these leases on a straight-line basis over the lease term.

Operating lease assets represent the right to use an underlying asset for the lease term and operating lease liabilities represent the obligation to make lease payments arising from the lease. These assets and liabilities are recognized based on the present value of future payments over the lease term at the commencement date. We use a collateralized incremental borrowing rate based on the information available at the commencement date, including the lease term, in determining the present value of future payments. In calculating the incremental borrowing rates, we consider recent ratings from credit agencies and current lease demographic information. Our operating leases also typically require payment of real estate taxes, common area maintenance, insurance and other operating costs as well as payments that are adjusted based on a consumer price index. These components comprise the majority of our variable lease cost and are excluded from the present value of our lease obligations. In instances where they are fixed, they are included due to our election to combine lease and non-lease components. Operating lease assets also include prepaid lease payments and initial direct costs, and are reduced by lease incentives. Our lease terms generally do not include options to extend or terminate the lease unless it is reasonably certain that the option will be exercised. Fixed payments may contain predetermined fixed rent escalations. We recognize the related rent expense on a straight-line basis from the commencement date to the end of the lease term.

The following table presents the lease balances within the condensed consolidated balance sheets:

	Balance Sheet Location	March 31, 2020
(In thousands)		
Assets		
Operating leases	Operating lease right-of-use assets	\$ 87,142
Finance leases (*)	Property and equipment, net	9,517
Total lease assets		<u>\$ 96,659</u>
Liabilities		
Current:		
Operating leases	Other accrued liabilities	\$ 18,799
Finance leases	Other accrued liabilities	3,911
Non-current:		
Operating leases	Operating lease liabilities	77,485
Finance leases	Other liabilities	5,952
Total lease liabilities		<u>\$ 106,147</u>

(*) Finance leases are recorded net of accumulated depreciation of \$2.0 million.

The components of our operating and finance lease expenses were as follows:

	Quarter Ended March 31, 2020	Six Months Ended March 31, 2020
(In thousands)		
Operating lease cost	\$ 6,518	\$ 11,926
Finance lease cost:		
Depreciation of lease assets	811	1,268
Interest on lease liabilities	89	148
Short-term lease cost	(256)	807
Variable lease cost	846	1,820
Total lease cost	<u>\$ 8,008</u>	<u>\$ 15,969</u>

The following table presents weighted average lease term and weighted average discount rates related to our operating and finance leases:

	March 31, 2020	
	Operating Leases	Finance Leases
Weighted average remaining lease term (in months)	68	32
Weighted average discount rate	3.85%	3.87%

Supplemental cash flow information related to our operating and finance leases was as follows:

	Six Months Ended March 31, 2020
	(In thousands)
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash outflow for operating leases	\$ 10,000
Operating cash outflow for finance leases	148
Financing cash outflow for finance leases	712
Lease assets obtained in exchange for new lease liabilities:	
Operating leases	8,723
Finance leases	5,148

Future lease payments under our non-cancellable leases as of March 31, 2020 were as follows:

(In thousands)	Operating Leases	Finance Leases
Remainder of fiscal 2020	\$ 10,292	\$ 2,347
Fiscal 2021	22,929	3,727
Fiscal 2022	18,216	3,726
Fiscal 2023	17,301	560
Fiscal 2024	14,736	—
Fiscal 2025	8,354	—
Thereafter	15,226	—
Total future undiscounted lease payments	107,054	10,360
Less imputed interest	(10,770)	(497)
Total reported lease liability	\$ 96,284	\$ 9,863

In accordance with the prior guidance—ASC 840, Leases—our leases were previously designated as either capital or operating. Previously designated capital leases are now considered finance leases under the new guidance, Topic 842. The designation of operating leases remains substantially unchanged under the new guidance. The future minimum lease payments by fiscal year as determined prior to the adoption of Topic 842 under our previously designated capital and operating leases as disclosed in our Annual Report on Form 10-K for the fiscal year ended September 30, 2019, were as follows:

(In thousands)	Operating Leases	Capital Leases
Fiscal 2020	\$ 19,842	\$ 1,935
Fiscal 2021	19,969	1,934
Fiscal 2022	17,677	1,934
Fiscal 2023	16,940	—
Fiscal 2024	14,887	—
Thereafter	24,431	—
Total minimum lease payments	\$ 113,746	5,803
Less amount representing interest		(379)
Present value of minimum lease payments		\$ 5,424

14. 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 (the "PSLRA"). 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 PSLRA. 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" of this Quarterly Report on Form 10-Q, including the impact of COVID-19 on macroeconomic conditions and the Company's business, operations and personnel. 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 Current Reports on Form 8-K to be filed by us in fiscal 2020.

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 32% and 31% of total consolidated revenues for the quarters ended March 31, 2020 and 2019, respectively, and 32% and 34% of total consolidated revenues for the six months ended March 31, 2020 and 2019, respectively. A significant portion of our revenues are derived from the sale of products and services within the banking (including consumer credit) industry, and 86% of our revenues were derived from within this industry during each of the quarters ended March 31, 2020 and 2019, and 85% and 87% of our revenues were derived from within this industry during the six months ended March 31, 2020 and 2019, 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 78% and 76% of our revenues during the quarters ended March 31, 2020 and 2019, respectively. Arrangements with transactional or unit-based pricing accounted for 76% and 75% of our revenues during the six months ended March 31, 2020 and 2019, respectively.

Revenue increased 11% to \$308.0 million during the quarter ended March 31, 2020 from \$278.2 million during the quarter ended March 31, 2019 and 12% to \$606.5 million during the six months ended March 31, 2020 from \$540.5 million during the six months ended March 31, 2019. We continue to drive growth in our Scores segment. Scores revenue increased 24% to \$129.1 million during the quarter ended March 31, 2020 from \$104.4 million during the quarter ended March 31, 2019, and 29% to \$244.3 million during the six months ended March 31, 2020 from \$190.1 million during the six months ended March 31, 2019. Scores operating income increased 29% to \$113.5 million during the quarter ended March 31, 2020 from \$88.2 million during the quarter ended March 31, 2019, and 31% to \$210.9 million during the six months ended March 31, 2020 from \$160.4 million during the six months ended March 31, 2019. For our Applications and Decision Management Software segments, cloud business continues to grow as we pursue our cloud-first strategy. Cloud revenues increased 10% to \$73.6 million during the quarter ended March 31, 2020 from \$66.8 million during the quarter ended March 31, 2019, and 13% to \$147.3 million during the six months ended March 31, 2020 from \$130.2 million during the six months ended March 31, 2019.

Operating income increased 56% to \$75.7 million during the quarter ended March 31, 2020 from \$48.5 million during the quarter ended March 31, 2019, and as a result, net earnings increased 75% to \$58.3 million from \$33.4 million. Operating income increased 31% to \$127.6 million during the six months ended March 31, 2020 from \$97.6 million during the six months ended March 31, 2019, and net earnings increased 54% to \$113.2 million from \$73.4 million, driven by higher operating income as well as higher excess tax benefits related to stock-based compensation during the six months ended March 31, 2020.

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, 2020, we repurchased approximately 0.3 million shares at a total repurchase price of \$96.0 million and 0.5 million shares at a total repurchase price of \$156.0 million, respectively. As of March 31, 2020, we had \$64.3 million remaining under our current stock repurchase program.

COVID-19 Update

In March 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic, which continues to spread throughout the U.S. and the world. The COVID-19 pandemic has resulted in authorities implementing numerous measures to contain the virus, including quarantines, shelter-in-place orders, travel bans and restrictions, and business limitations and shutdowns.

We are generally following the requirements and protocols published by the U.S. Centers for Disease Control and the World Health Organization, and state and local governments. Since March 2020, our employees have been instructed to work from home in each country where we operate to support their health and well-being as well as for our customers, partners and communities. We have also substantially reduced employee travel to only essential business needs. We cannot predict when or how we will begin to lift the actions put in place, but as of the date of this filing, we do not believe our work-from-home protocol has had a material adverse impact on our internal controls, financial reporting systems or our operations. However, our business may be adversely impacted as a result of the pandemic's global economic impact. For example, we have begun to see evidence that COVID-19 has adversely affected certain purchasing decisions by our customers in our Applications and Decision Management Software segments, and businesses and consumers purchase fewer FICO credit scores due to a decline in overall credit origination volumes. In addition, a decrease in sales-related travel activity could negatively affect our ability to consummate sales, thereby negatively impacting our bookings and future revenues, particularly if experienced on a sustained basis.

As a response to the ongoing COVID-19 pandemic, we are managing our costs by limiting the addition of new employees and third-party contracted services, substantially reduced employee travel, and acted to limit discretionary spending. To the extent the business disruption continues for an extended period, additional cost management actions will be considered and may become necessary. Any future asset impairment charges, increase in allowance for doubtful accounts, or restructuring charges will be dependent on the severity and duration of this crisis.

While we have not incurred significant disruptions thus far from the COVID-19 outbreak, due to numerous uncertainties, including the severity and duration of the pandemic, actions that may be taken by governmental authorities, the impact on the business of our clients, and other factors, we are unable to accurately predict the impact COVID-19 will have on our results of operations, financial condition, liquidity and cash flows. For more information, see Part II, Item 1A "Risk Factors" in this Form 10-Q.

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 12 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 12, such as 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 as defined in Revenue Recognition in the Critical Accounting Policy and Estimates. 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

On-premises licenses are sold on a perpetual or term basis. When the fee is in the form of a fixed consideration, including the guaranteed minimum in usage-based royalty, the fixed amount is recorded as a license booking. The variable amount, including usage-based royalty not subject to the guaranteed minimum or earned in excess of the minimum amount is recorded as a transactional and maintenance booking. Please refer to Transactional and Maintenance Bookings above on how we develop estimates for such bookings.

Bookings Trend Analysis

	Bookings (In millions)	Bookings Yield (1)	Number of Bookings over \$1 Million	Weighted- Average Term (2) (Months)
Quarter Ended March 31, 2020	\$ 84.1	14%	15	35
Quarter Ended March 31, 2019	\$ 105.7	14%	19	32
Six Months Ended March 31, 2020	\$ 196.2	23%	40	NM ^(a)
Six Months Ended March 31, 2019	\$ 212.3	21%	41	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 44% and 35% of total bookings for the quarters ended March 31, 2020 and 2019, respectively. Professional services bookings were 40% and 51% of total bookings for the quarters ended March 31, 2020 and 2019, respectively. License bookings were 16% and 14% of total bookings for the quarters ended March 31, 2020 and 2019, respectively.

Transactional and maintenance bookings were 40% and 45% of total bookings for the six months ended March 31, 2020 and 2019, respectively. Professional services bookings were 38% and 42% of total bookings for the six months ended March 31, 2020 and 2019, respectively. License bookings were 22% and 13% of total bookings for the six months ended March 31, 2020 and 2019, respectively.

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, 2020 and 2019:

Segment	Quarter Ended March 31,		Percentage of Revenues		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019	2020	2019		
	(In thousands)				(In thousands)	
Applications	\$ 140,279	\$ 141,815	46%	51%	\$ (1,536)	(1)%
Scores	129,148	104,403	42%	38%	24,745	24 %
Decision Management Software	38,544	32,016	12%	11%	6,528	20 %
Total	\$ 307,971	\$ 278,234	100%	100%	29,737	11 %

Segment	Six Months Ended March 31,		Percentage of Revenues		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019	2020	2019		
	(In thousands)				(In thousands)	
Applications	\$ 292,457	\$ 289,474	48%	54%	\$ 2,983	1 %
Scores	244,286	190,086	40%	35%	54,200	29 %
Decision Management Software	69,732	60,930	12%	11%	8,802	14 %
Total	\$ 606,475	\$ 540,490	100%	100%	65,985	12 %

Quarter Ended March 31, 2020 Compared to Quarter Ended March 31, 2019
Applications

	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019		
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 97,789	\$ 97,074	\$ 715	1 %
Professional services	35,134	35,981	(847)	(2)%
License	7,356	8,760	(1,404)	(16)%
Total	<u>\$ 140,279</u>	<u>\$ 141,815</u>	(1,536)	(1)%

Applications segment revenues decreased \$1.5 million primarily due to a \$4.7 million decrease in our collections and recovery solutions partially offset by a \$3.2 million increase in our originations solutions. The decrease in collections and recovery solutions was primarily attributable to a decrease in services and license revenues. The increase in originations was primarily attributable to an increase in license revenue and SaaS subscription revenue classified as transactional and maintenance revenue.

Scores

	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019		
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 127,610	\$ 102,363	\$ 25,247	25 %
Professional services	819	901	(82)	(9)%
License	719	1,139	(420)	(37)%
Total	<u>\$ 129,148</u>	<u>\$ 104,403</u>	24,745	24 %

Scores segment revenues increased \$24.7 million due to an increase of \$20.3 million in our business-to-business scores revenue and \$4.4 million in our business-to-consumer services revenue. The increase in business-to-business scores was primarily attributable to a higher unit price in unsecured originations as well as an increase in mortgage volumes during the quarter ended March 31, 2020. 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, 2020 and 2019, revenues generated from our agreements with Experian accounted for 16% and 13%, respectively, of our total revenues, and revenues generated from our agreements with Equifax and TransUnion together accounted for 18% and 16%, 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
	2020	2019		
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 15,303	\$ 12,342	\$ 2,961	24 %
Professional services	11,952	13,673	(1,721)	(13)%
License	11,289	6,001	5,288	88 %
Total	<u>\$ 38,544</u>	<u>\$ 32,016</u>	6,528	20 %

Decision Management Software segment revenues increased \$6.5 million primarily attributable to an increase in license revenue, and an increase in our SaaS subscription revenue classified as transactional and maintenance revenue, partially offset by a decrease in services revenue.

Six Months Ended March 31, 2020 Compared to Six Months Ended March 31, 2019
Applications

	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019		
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 196,626	\$ 194,239	\$ 2,387	1 %
Professional services	69,157	67,443	1,714	3 %
License	26,674	27,792	(1,118)	(4)%
Total	\$ 292,457	\$ 289,474	2,983	1 %

Applications segment revenues increased \$3.0 million primarily attributable to a \$7.6 million increase in our originations solutions and a \$2.5 million increase in our compliance solutions, partially offset by a \$6.0 million decrease in our collections and recovery solutions. The increase in originations solutions was primarily due to an increase in SaaS subscription revenue classified as transactional and maintenance revenue and an increase in services revenue. The increase in compliance solutions was primarily due to an increase in services revenue. The decrease in collections and recovery revenue was primarily attributable to a decrease in services and license revenues.

Scores

	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019		
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 235,056	\$ 187,184	\$ 47,872	26 %
Professional services	1,083	1,602	(519)	(32)%
License	8,147	1,300	6,847	527 %
Total	\$ 244,286	\$ 190,086	54,200	29 %

Scores segment revenues increased \$54.2 million due to an increase of \$46.7 million in our business-to-business scores revenue and \$7.5 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 and unsecured originations, an increase in mortgage volumes, as well as a large annual license deal recognized during the six months ended March 31, 2020. 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, 2020 and 2019, revenues generated from our agreements with Experian accounted for 14% and 12%, respectively, of our total revenues, and revenues generated from our agreements with Equifax and TransUnion together accounted for 17% and 15%, 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
	2020	2019		
	(In thousands)		(In thousands)	
Transactional and maintenance	\$ 29,394	\$ 24,549	\$ 4,845	20 %
Professional services	21,690	22,318	(628)	(3)%
License	18,648	14,063	4,585	33 %
Total	\$ 69,732	\$ 60,930	8,802	14 %

Decision Management Software segment revenues increased \$8.8 million primarily attributable to an increase in our SaaS subscription revenue classified as transactional and maintenance revenue and an increase in license revenue related to our Decision Modeler product.

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, 2020 and 2019:

	Quarter Ended March 31,		Percentage of Revenues		Period-to-Period Change (In thousands, except employees)	Period-to- Period Percentage Change
	2020	2019	2020	2019		
	(In thousands, except employees)					
Revenues	\$ 307,971	\$ 278,234	100 %	100 %	\$ 29,737	11 %
Operating expenses:						
Cost of revenues	88,139	85,568	29 %	31 %	2,571	3 %
Research and development	39,439	37,684	13 %	13 %	1,755	5 %
Selling, general and administrative	103,465	104,930	33 %	38 %	(1,465)	(1)%
Amortization of intangible assets	1,202	1,503	— %	1 %	(301)	(20)%
Total operating expenses	232,245	229,685	75 %	83 %	2,560	1 %
Operating income	75,726	48,549	25 %	17 %	27,177	56 %
Interest expense, net	(11,254)	(10,008)	(4)%	(4)%	(1,246)	12 %
Other income (expense), net	(2,008)	1,433	(1)%	1 %	(3,441)	(240)%
Income before income taxes	62,464	39,974	20 %	14 %	22,490	56 %
Provision for income taxes	4,176	6,593	1 %	2 %	(2,417)	(37)%
Net income	\$ 58,288	\$ 33,381	19 %	12 %	24,907	75 %
Number of employees at quarter end	4,029	3,896			133	3 %
	Six Months Ended March 31,		Percentage of Revenues		Period-to-Period Change (In thousands)	Period-to- Period Percentage Change
	2020	2019	2020	2019		
	(In thousands)					
Revenues	\$ 606,475	\$ 540,490	100 %	100 %	\$ 65,985	12 %
Operating expenses:						
Cost of revenues	178,897	161,634	29 %	30 %	17,263	11 %
Research and development	78,382	73,110	13 %	13 %	5,272	7 %
Selling, general and administrative	215,486	205,188	36 %	38 %	10,298	5 %
Amortization of intangible assets	2,998	3,005	— %	1 %	(7)	— %
Restructuring and acquisition-related	3,104	—	1 %	— %	3,104	— %
Total operating expenses	478,867	442,937	79 %	82 %	35,930	8 %
Operating income	127,608	97,553	21 %	18 %	30,055	31 %
Interest expense, net	(21,022)	(19,684)	(3)%	(3)%	(1,338)	7 %
Other expense, net	(2,227)	(739)	— %	— %	(1,488)	201 %
Income before income taxes	104,359	77,130	18 %	15 %	27,229	35 %
Income tax provision (benefit)	(8,850)	3,742	(1)%	1 %	(12,592)	(337)%
Net income	\$ 113,209	\$ 73,388	19 %	14 %	39,821	54 %

Cost of Revenues

Cost of revenues consists primarily of employee salaries and benefits for personnel directly involved in delivering software products, operating SaaS infrastructure, and providing support, implementation and consulting services; allocated overhead facilities and data center costs; software royalty fees; credit bureau data and processing services; third-party hosting fees related to our SaaS services; travel costs and outside services.

The quarter-over-prior year quarter increase in cost of revenues of \$2.6 million was primarily attributable to an increase in allocated facilities and infrastructure costs, driven by increased resource requirement due to expansion in our cloud infrastructure operations. Cost of revenues as a percentage of revenues decreased to 29% during the quarter ended March 31, 2020 from 31% during the quarter ended March 31, 2019 primarily due to increased sales of our higher-margin Scores products.

The year-to-date period over period increase in cost of revenues of \$17.3 million was primarily attributable to a \$10.9 million increase in allocated facilities and infrastructure costs and a \$5.2 million increase in direct materials cost. The increase in facilities and infrastructure costs was primarily attributable to increased resource requirement due to expansion in our cloud infrastructure operations. The increase in direct materials cost was primarily attributable to an increase in telecommunication cost as well as an increase in license and Scores revenues that incur third-party royalties and data costs. Cost of revenues as a percentage of revenues decreased to 29% during the six months ended March 31, 2020 from 30% during the six months ended March 31, 2019 primarily due to increased sales of our higher-margin Scores products.

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-prior year quarter increase in research and development expenses of \$1.8 million was primarily attributable to an increase in labor and personnel costs as a result of increased headcount. Research and development expenses as a percentage of revenues was 13% during the quarter ended March 31, 2020, consistent with that incurred during the quarter ended March 31, 2019.

The year-to-date period over period increase in research and development expenses of \$5.3 million was primarily attributable to an increase in labor and personnel costs and an increase in allocated facilities and infrastructure costs, both driven by increased headcount and our continued investments in new product development. Research and development expenses as a percentage of revenues was 13% during the six months ended March 31, 2020, consistent with that incurred during the six months 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-prior year quarter decrease in selling, general and administrative expenses of \$1.5 million was primarily attributable to a \$2.7 million decrease in incentive cost and a \$1.7 million decrease in travel activity due to our company-wide initiative to control travel spending as well as the COVID-19 outbreak, partially offset by a \$2.1 million increase in bad debt expense attributed to estimated losses for customers and industries most impacted by COVID-19. Selling, general and administrative expenses as a percentage of revenues decreased to 33% during the quarter ended March 31, 2020 from 38% from the quarter ended March 31, 2019 primarily due to increased revenues.

The year-to-date period over period increase in selling, general and administrative expenses of \$10.3 million was primarily attributable to a \$5.7 million increase in personnel and labor costs, a \$2.1 million increase in bad debt expense and a \$1.8 million increase in marketing and travel costs. The increase in personnel and labor costs was primarily attributable to an increase in headcount. The increase in bad debt expense was attributed to estimated losses reserved for customers and industries that are most impacted by COVID-19. The increase in marketing and travel costs was primarily attributable to a company-wide marketing event — FICO WORLD¹⁹ — held during the first quarter of our fiscal 2020, partially offset by a decrease in travel activity due to our company-wide initiative to control travel spending as well as the COVID-19 outbreak. Selling, general and administrative expenses as a percentage of revenues decreased to 36% during the six months ended March 31, 2020 from 38% during the six months ended March 31, 2019 primarily due to increased revenues.

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 \$1.2 million during the quarter ended March 31, 2020 versus \$1.5 million during the quarter ended March 31, 2019.

Amortization expense was \$3.0 million during each of the six-month periods ended March 31, 2020 and 2019.

Restructuring and Acquisition-Related

There was no restructuring activity during the quarter ended March 31, 2020. During the six months ended March 31, 2020, we incurred employee separation costs of \$3.1 million due to the elimination of 69 positions throughout the Company. We expect that cash payment for all the employee separation costs will be paid by the end of our fiscal 2020.

There was no acquisition-related expense during the quarter and six months ended March 31, 2020.

There were no restructuring or acquisition-related expenses during the quarter and six months ended March 31, 2019.

Interest Expense, Net

Interest expense includes primarily interest on the senior notes issued in July 2010, May 2018, and December 2019, 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-prior year quarter increase in interest expense of \$1.2 million was primarily attributable to a higher average outstanding debt balance during the quarter ended March 31, 2019.

The year-to-date period over period increase in interest expense of \$1.3 million was primarily attributable to a higher average outstanding debt balance during the six months ended March 31, 2020.

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.

The quarter-over-prior year quarter decrease in other income (expense), net of \$3.4 million was primarily attributable to an increase in net unrealized losses on our supplemental retirement and savings plan, partially offset by an increase in foreign currency exchange gains.

The year-to-date period over period increase of \$1.5 million in other expense, net was primarily due to an increase in net unrealized losses on our supplemental retirement and savings plan.

Income Tax Provision (Benefit)

The effective income tax rate was 6.7% and 16.5% during the quarters ended March 31, 2020 and 2019, 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, 2020 and 2019 were both impacted by the recording of excess tax benefits relating to stock awards that vested December of both years. In addition, stock exercises during the quarter ended March 31, 2020 resulted in an additional increase in excess tax benefits.

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, 2020 and 2019:

Segment	Quarter Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019		
	(In thousands)			
Applications	\$ 28,823	\$ 30,172	\$ (1,349)	(4)%
Scores	113,488	88,236	25,252	29 %
Decision Management Software	(8,810)	(8,368)	(442)	5 %
Corporate expenses	(33,785)	(39,506)	5,721	(14)%
Total segment operating income	99,716	70,534	29,182	41 %
Unallocated share-based compensation	(22,788)	(20,482)	(2,306)	11 %
Unallocated amortization expense	(1,202)	(1,503)	301	(20)%
Operating income	\$ 75,726	\$ 48,549	27,177	56 %

Segment	Six Months Ended March 31,		Period-to-Period Change	Period-to-Period Percentage Change
	2020	2019		
	(In thousands)			
Applications	\$ 64,991	\$ 70,233	\$ (5,242)	(7)%
Scores	210,914	160,437	50,477	31 %
Decision Management Software	(28,267)	(19,016)	(9,251)	49 %
Corporate expenses	(67,995)	(68,760)	765	(1)%
Total segment operating income	179,643	142,894	36,749	26 %
Unallocated share-based compensation	(45,933)	(42,336)	(3,597)	8 %
Unallocated amortization expense	(2,998)	(3,005)	7	— %
Unallocated restructuring and acquisition-related	(3,104)	—	(3,104)	— %
Operating income	\$ 127,608	\$ 97,553	30,055	31 %

Applications

	Quarter Ended March 31,		Percentage of Revenues		Six Months Ended March 31,		Percentage of Revenues	
	2020	2019	2020	2019	2020	2019	2020	2019
	(In thousands)				(In thousands)			
Segment revenues	\$ 140,279	\$ 141,815	100 %	100 %	\$ 292,457	\$ 289,474	100 %	100 %
Segment operating expense	(111,456)	(111,643)	(79)%	(79)%	(227,466)	(219,241)	(78)%	(76)%
Segment operating income	\$ 28,823	\$ 30,172	21 %	21 %	\$ 64,991	\$ 70,233	22 %	24 %

Scores

	Quarter Ended March 31,		Percentage of Revenues		Six Months Ended March 31,		Percentage of Revenues	
	2020	2019	2020	2019	2020	2019	2020	2019
	(In thousands)				(In thousands)			
Segment revenues	\$ 129,148	\$ 104,403	100 %	100 %	\$ 244,286	\$ 190,086	100 %	100 %
Segment operating expense	(15,660)	(16,167)	(12)%	(15)%	(33,372)	(29,649)	(14)%	(16)%
Segment operating income	\$ 113,488	\$ 88,236	88 %	85 %	\$ 210,914	\$ 160,437	86 %	84 %

Decision Management Software

	Quarter Ended March 31,		Percentage of Revenues		Six Months Ended March 31,		Percentage of Revenues	
	2020	2019	2020	2019	2020	2019	2020	2019
	(In thousands)				(In thousands)			
Segment revenues	\$ 38,544	\$ 32,016	100 %	100 %	\$ 69,732	\$ 60,930	100 %	100 %
Segment operating expense	(47,354)	(40,384)	(123)%	(126)%	(97,999)	(79,946)	(141)%	(131)%
Segment operating loss	\$ (8,810)	\$ (8,368)	(23)%	(26)%	\$ (28,267)	\$ (19,016)	(41)%	(31)%

The quarter-over-prior year quarter \$27.2 million increase in operating income was primarily attributable to a \$29.7 million increase in segment revenues and a \$5.7 million decrease in corporate expenses, partially offset by a \$6.2 million increase in segment operating expenses and a \$2.3 million increase in share-based compensation cost.

At the segment level, the quarter-over-prior year quarter \$29.2 million increase in segment operating income was the result of a \$25.2 million increase in our Scores segment operating income and a \$5.7 million decrease in corporate expenses, partially offset by a \$1.3 million decrease in our Applications segment operating income and a \$0.4 million increase in our Decision Management Software segment operating loss.

The quarter-over-prior year quarter \$1.3 million decrease in Applications segment operating income was due to a \$1.5 million decrease in segment revenue, partially offset by a \$0.2 million decrease in segment operating expenses. Segment operating income as a percentage of segment revenue for Applications during the quarter ended March 31, 2020 was 21%, consistent with the quarter ended March 31, 2019.

The quarter-over-prior year quarter \$25.2 million increase in Scores segment operating income was due to a \$24.7 million increase in segment revenue and a \$0.5 million decrease in segment operating expenses. Segment operating margin for Scores increased to 88% from 85% primarily due to an increase in sales of our higher-margin Score products.

The quarter-over-prior year quarter \$0.4 million increase in Decision Management Software segment operating loss was due to a \$6.9 million increase in segment operating expenses, partially offset by a \$6.5 million increase in segment revenue. Segment operating margin for Decision Management Software improved to negative 23% from negative 26% 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 \$30.1 million in operating income was primarily attributable to a \$66.0 million increase in segment revenues and a \$0.8 million decrease in corporate expenses, partially offset by a \$30.1 million increase in segment operating expenses, a \$3.6 million increase in share-based compensation cost, and a \$3.1 million increase in restructuring and acquisition-related cost.

At the segment level, the year-to-date period over period increase of \$36.7 million in segment operating income was the result of a \$50.4 million increase in our Scores segment operating income and a \$0.8 million decrease in corporate expenses, partially offset by a \$9.3 million increase in our Decision Management Software segment operating loss and a \$5.2 million decrease in our Applications segment operating income.

The year-to-date period over period \$5.2 million decrease in Applications segment operating income was due to an \$8.2 million increase in segment operating expenses, partially offset by a \$3.0 million increase in segment revenue. Segment operating income as a percentage of segment revenue for Applications decreased to 22% from 24% mainly due to an increase in labor and personnel costs.

The year-to-date period over period \$50.4 million increase in Scores segment operating income was attributable to a \$54.2 million increase in segment revenue, partially offset by a \$3.8 million increase in segment operating expenses. Segment operating income as a percentage of segment revenue for Scores increased to 86% from 84%, mainly due to an increase in sales of our higher-margin software and Score products.

The year-to-date period over period \$9.3 million increase in Decision Management Software segment operating loss was attributable to an \$18.1 million increase in segment operating expenses, partially offset by an \$8.8 million increase in segment revenue. Segment operating margin for Decision Management Software decreased to negative 41% from negative 31% primarily due to our continued investment in cloud infrastructure operations and new products partially offset by an increase in sales of our higher-margin software products.

CAPITAL RESOURCES AND LIQUIDITY

Outlook

As of March 31, 2020, we had \$109.0 million in cash and cash equivalents, which included \$83.8 million held off-shore by our foreign subsidiaries. Our cash position could be affected by various risks and uncertainties, including, but not limited to, the effects of the COVID-19 pandemic and other risks detailed in Part II, Item 1A titled "Risk Factors" of this Quarterly Report on Form 10-Q. However, based on our current business plan and revenue prospects, we believe our cash and cash equivalents 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 \$85.0 million principal payment due in July 2020 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. Our undistributed earnings outside the U.S. are deemed to be permanently reinvested in foreign jurisdictions. We currently do not foresee a need to repatriate cash and cash equivalents held by our foreign subsidiaries. If these funds are needed for our operations in the U.S., we may be required to accrue for state income or foreign withholding taxes on the distributed foreign earnings, which we expect to be immaterial.

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
	2020	2019	
	(In thousands)		
Cash provided by (used in):			
Operating activities	\$ 121,859	\$ 96,646	\$ 25,213
Investing activities	(14,958)	(12,773)	(2,185)
Financing activities	(100,344)	(97,343)	(3,001)
Effect of exchange rate changes on cash	(4,017)	332	(4,349)
Increase (decrease) in cash and cash equivalents	\$ 2,540	\$ (13,138)	15,678

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 \$121.9 million during the six months ended March 31, 2020 from \$96.6 million during the six months ended March 31, 2019. The \$25.3 million increase was attributable to a \$39.8 million increase in net income and a \$15.5 million increase in non-cash items, including a \$10.0 million increase in operating lease costs and a \$3.6 million increase in share-based compensation expense, partially offset by a \$30.0 million decrease that resulted from timing of receipts and payments in our ordinary course of business.

Cash Flows from Investing Activities

Net cash used in investing activities increased to \$15.0 million for the six months ended March 31, 2020 from \$12.8 million for the six months ended March 31, 2019. The \$2.2 million increase was primarily attributable to a \$2.5 million increase in purchases of property and equipment.

Cash Flows from Financing Activities

Net cash used in financing activities increased to \$100.3 million for the six months ended March 31, 2020 from \$97.3 million for the six months ended March 31, 2019. The \$3.0 million increase was primarily attributable to a \$279.0 million increase in payments, net of proceeds, on our revolving line of credit, a \$48.5 million increase in taxes paid related to net share settlement of equity awards, a \$28.3 million increase in repurchases of common stock, and a \$6.8 million increase in debt issuance cost, partially offset by a \$350.0 million increase in proceeds from issuance of senior notes and a \$10.4 million increase in proceeds from issuance of treasury stock under employee stock plans.

Repurchases of Common Stock

In July 2019, 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.

Pursuant to the July 2019 program, we repurchased 289,596 shares of our common stock at a total repurchase price of \$96.0 million and 457,979 shares of our common stock at a total repurchase price of \$156.0 million during the quarter and six months ended March 31, 2020, 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 on an average trailing four-quarter basis, 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, 2020, we had \$124.0 million in borrowings outstanding at a weighted average interest rate of 2.277% 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 10.0 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”). The 2018 Senior Notes require interest payments semi-annually at a rate of 5.25% per annum and will mature on May 15, 2026. On December 6, 2019, we issued \$350 million of senior notes in a private offering to qualified institutional investors (the “2019 Senior Notes,” and along with the 2010 Senior Notes and 2018 Senior Notes, the “Senior Notes”). The 2019 Senior Notes require interest payments semi-annually at a rate of 4.00% per annum and will mature on June 15, 2028. The purchase agreements for the 2010 Senior Notes, as well as the indenture for the 2018 Senior Notes and 2019 Senior Notes contain certain covenants typical of unsecured obligations. As of March 31, 2020, the carrying value of the Senior Notes was \$823.6 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

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 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 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 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 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 in the period during which it is earned.

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.

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 2017, we elected to proceed directly to the step one quantitative analysis for all of our reporting units, as three years had elapsed since the date of our previous quantitative valuation. There was a substantial excess of fair value over carrying value for each of our reporting units and we determined goodwill was not impaired for any of our reporting units for fiscal 2017. For fiscal 2018 and 2019, we performed a step zero qualitative analysis for our annual assessment of goodwill impairment. After evaluating and weighing all relevant events and circumstances, we concluded that it is not more likely than not that the fair value of any of our reporting units was less their carrying amounts. Consequently, we did not perform a step one quantitative analysis and determined goodwill was not impaired for any of our reporting units for fiscal 2018 and 2019.

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 balance sheet using the currently enacted tax rates and laws that will apply to taxable income for the years in which those tax assets are expected to be realized or settled. We then assess the likelihood our deferred tax assets will be realized and to the extent we believe realization is not more likely than not, we establish a valuation allowance. When we establish a valuation allowance or increase this allowance in an accounting period, we record a corresponding income tax expense in our consolidated statements of income and comprehensive income. In assessing the need for the valuation allowance, we consider future taxable income in the jurisdictions we operate; our ability to carry back tax attributes to prior years; an analysis of our deferred tax assets and the periods over which they will be realizable; and ongoing prudent and feasible tax planning strategies. An increase in the valuation allowance would have an adverse impact, which could be material, on our income tax provision and net income in the period in which we record the increase.

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

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

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 February 2016, the FASB issued Topic 842, which requires the recognition of operating lease assets and lease liabilities on the balance sheet. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. Under the new standard, disclosures are required to enable users of financial statements to assess the amount, timing and uncertainty of cash flows arising from leases.

In the first quarter of fiscal 2020, we adopted Topic 842 using the “Comparatives Under 840 Option” approach to transition. In accordance with the standard, the comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. Topic 842 provides a package of practical expedients that allow us to not reassess (1) whether any expired or existing contracts contain a lease, (2) the lease classification of any expired or existing lease, and (3) initial direct costs for any existing leases. We elected to apply the package of practical expedients, and did not elect the hindsight practical expedient in determining the lease term for existing leases as of October 1, 2019.

Adoption of Topic 842 did not result in the recognition of a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The most significant impact of adoption was the recognition of operating lease assets and operating lease liabilities of \$89.8 million and \$98.9 million, respectively, while our accounting for existing capital leases (now referred to as finance leases) remained substantially unchanged. We expect the impact of adoption to be immaterial to our consolidated statements of income and comprehensive income and consolidated statements of cash flows on an ongoing basis. As part of our adoption, we also modified our control procedures and processes, none of which materially affected our internal control over financial reporting. See Note 13 to the accompanying condensed consolidated financial statements for additional information regarding our accounting policy for leases and additional disclosures.

Recent Accounting Pronouncements Not Yet Adopted

In August 2018, the FASB issued ASU No. 2018-15, “*Intangibles—Goodwill and Other (Topic 350): Internal-Use Software*” (“ASU 2018-15”). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The standard is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2019, which means that it will be effective for our fiscal year beginning October 1, 2020. Early adoption is permitted. We do not believe that adoption of ASU 2018-15 will have a significant impact on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, “*Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*” and subsequent amendments to the initial guidance: ASU 2018-19, ASU 2019-04, ASU 2019-05 and ASU 2019-11 (collectively, “Topic 326”). Topic 326 requires measurement and recognition of expected credit losses for financial assets held. Topic 326 is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2019, which means it will be effective for our fiscal year beginning October 1, 2020. Early adoption is permitted. We do not believe that adoption of Topic 326 will have a significant impact on our consolidated financial statements.

We do not expect that any other recently issued accounting pronouncements will have a significant effect on our financial statements.

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, 2020 and September 30, 2019:

	March 31, 2020			September 30, 2019		
	Cost Basis	Carrying Amount	Average Yield	Cost Basis	Carrying Amount	Average Yield
(Dollars in thousands)						
Cash and cash equivalents	\$ 108,966	\$ 108,966	0.26%	\$ 106,426	\$ 106,426	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”). On December 6, 2019, we issued \$350 million of senior notes in a private offering to qualified institutional investors (the “2019 Senior Notes,” and along with the 2010 Senior Notes and 2018 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 face values and fair values for the Senior Notes at March 31, 2020 and September 30, 2019:

	March 31, 2020		September 30, 2019	
	Face Value (*)	Fair Value	Face Value (*)	Fair Value
(In thousands)				
The 2010 Senior Notes	85,000	85,255	85,000	86,121
The 2018 Senior Notes	400,000	402,000	400,000	428,000
The 2019 Senior Notes	350,000	331,625	—	—
Total	\$ 835,000	\$ 818,880	\$ 485,000	\$ 514,121

(*) The carrying value of the Senior Notes was reduced by the net debt issuance costs of \$11.4 million and \$5.2 million at March 31, 2020 and September 30, 2019, respectively.

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 \$124.0 million in borrowings outstanding at a weighted average interest rate of 2.277% under the credit facility as of March 31, 2020.

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, 2020 and September 30, 2019:

		March 31, 2020			
		Contract Amount		Fair Value	
		Foreign Currency	USD	USD	USD
		(In thousands)			
Sell foreign currency:					
Euro (EUR)	EUR	10,000	\$	11,004	\$ —
Buy foreign currency:					
British pound (GBP)	GBP	21,781	\$	27,000	\$ —
Singapore dollar (SGD)	SGD	10,274	\$	7,200	\$ —

		September 30, 2019			
		Contract Amount		Fair Value	
		Foreign Currency	USD	USD	USD
		(In thousands)			
Sell foreign currency:					
Euro (EUR)	EUR	10,800	\$	11,723	\$ —
Buy foreign currency:					
British pound (GBP)	GBP	5,200	\$	6,400	\$ —
Singapore dollar (SGD)	SGD	5,798	\$	4,200	\$ —

The foreign currency forward contracts were entered into on March 31, 2020 and September 30, 2019, 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

No 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*

On March 13, 2020, we received a letter from the Antitrust Division of the U.S. Department of Justice (“DOJ”) informing us that the DOJ had opened a civil investigation into potential exclusionary conduct by the Company. We are cooperating with the DOJ in its investigation.

Item 1A. *Risk Factors*

Risks Related to Our Business

We have updated the risk factors previously disclosed in Part I, Item 1A. of our Annual Report on Form 10-K for the fiscal year ended September 30, 2019, which was filed with the SEC on November 8, 2019 (“2019 Annual Report”), as set forth below. Other than the risk factor titled “***The effects of the COVID-19 pandemic have negatively affected how we and our customers are operating our businesses. The duration of these effects, and the extent to which they will impact our future revenues, results of operations and overall financial performance, remain uncertain.***,” we do not believe any of the changes constitute material changes from the risk factors previously disclosed in our 2019 Annual Report.

The effects of the COVID-19 pandemic have negatively affected how we and our customers are operating our businesses. The duration of these effects, and the extent to which they will impact our future revenues, results of operations and overall financial performance, remain uncertain.

In March 2020, the World Health Organization declared the outbreak of COVID-19, which continues to spread throughout the U.S. and the world, to be a pandemic. As is possible with any significant outbreak of epidemic, pandemic, or contagious diseases, the COVID-19 outbreak has resulted in a widespread health crisis that has adversely affected broader economies and financial markets. COVID-19 has caused shutdowns to businesses and cities worldwide and has disrupted supply chains, business operations, travel, and consumer confidence.

As a result of the COVID-19 pandemic, we have temporarily closed our offices (including our corporate headquarters in the United States) and implemented travel restrictions, both of which have begun to disrupt how we operate our business. Our operations may be further negatively affected by a range of external factors related to the COVID-19 pandemic that are not within our control. For example, many cities, counties, states, and countries have imposed or may impose a wide range of restrictions on our employees’, partners’ and customers’ physical movement to limit the spread of COVID-19. We may also need to or deem it advisable to postpone, cancel or shift certain of our customer, employee or industry events to virtual-only experiences in the future. If the COVID-19 pandemic has a substantial impact on our employees’, partners’ or customers’ productivity or ability to collaborate, our results of operations and overall financial performance will be harmed.

Our customers, and therefore our business and revenues, are sensitive to negative changes in general economic conditions and lending activities. The COVID-19 pandemic may affect the rate of spending on our solutions and could adversely affect our customers’ ability or willingness to purchase our products and services, cause prospective customers to delay or cancel their purchasing decisions, extend sales cycles, and potentially increase payment defaults, all of which could adversely affect our future revenues, results of operations and overall financial performance. We have begun to see some early signs that COVID-19 has adversely affected certain purchasing decisions by our customers in our Applications and Decision Management Software segments, and reports regarding general economic conditions and lending activity suggest that our Scores segment will be adversely affected.

While we have not experienced significant disruptions thus far from the COVID-19 outbreak beyond those described above, the situation is constantly evolving and both the short-term and long-term effects remain unknown. We are unable to accurately predict the complete impact that COVID-19 will have due to numerous uncertainties, including the severity and transmission rate of the virus, the duration of the outbreak, the extent and effectiveness of containment actions, and the impact of these and other factors on our employees, customers, partners and vendors, and on worldwide and U.S. economic conditions. If we are not able to respond to and manage the impact of such events effectively, our business may be harmed to a material extent.

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, whether arising in connection with the current COVID-19 pandemic or otherwise, 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 7).

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

As part of our management approach, we pursue ongoing reengineering efforts designed to grow revenues through strategic resource allocation and improve profitability through cost reductions. Our reengineering efforts 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 efforts are 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, such as those which have occurred as a result of the COVID-19 pandemic;
- 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 our products typically ranges from 60 days to 18 months, which may be further extended as a result of COVID-19. Customers are often cautious in making decisions to acquire our products because purchasing our products typically involves a significant commitment of capital and may involve shifts by the customer to a new software and/or hardware platform or changes in the customer's operational procedures. This may cause customers, particularly those experiencing financial stress, to make purchasing decisions more cautiously. Delays in completing sales can arise while customers complete their internal procedures to approve large capital expenditures and test and accept our applications. Consequently, we face difficulty predicting the quarter in which sales to expected customers will occur and experience fluctuations in our revenues and operating results. If we are unable to accurately forecast our revenues, our stock price could be adversely affected.

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

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

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

Our DM strategy and our future success will depend in large part on our ability to attract and retain experienced sales, consulting, research and development, marketing, technical support and management personnel. The complexity of our products requires highly trained personnel for research and development and to assist customers with product installation, deployment, maintenance and support. 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.

If our cybersecurity 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. Cybersecurity 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 cybersecurity 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. Cybersecurity 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 cybersecurity 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. In addition, the COVID-19 pandemic may cause increased cybersecurity risk, as cybercriminals attempt to capitalize from the disruption.

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, pandemics (including the COVID-19 pandemic), 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.

Our product and pricing strategies may not be successful. 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.

Demand for our products and services may be sensitive to product and pricing changes we implement, and our product and pricing strategies may not be accepted by the market. If our customers fail to accept our product and pricing strategies, our revenues, results of operations and business may suffer. In addition, 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 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 transfer 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") 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; the Clarifying Lawful Overseas Use of Data Act; 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;
- Laws and regulations applicable to secondary market participants (e.g., Fannie Mae and Freddie Mac) that could have an impact on our scoring products and revenues, including 12 CFR Part 1254 (Validation and Approval of Credit Score Models) issued by the Federal Housing Finance Agency in accordance with Section 310 of the Economic Growth, Regulatory Relief, and Consumer Protection Act (Public Law 115-174), and any regulations, standards or criteria established pursuant to such laws or regulations;
- 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 Truth In Lending Act and Regulation Z, 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 and the UK Bribery Act 2010);
- 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 Consumer Financial Protection Bureau; and
- Laws and regulations regarding export controls as they apply to FICO products delivered in non-U.S. countries (e.g., Office of Foreign Asset Control sanctions, and Export Administration Regulations).

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. Brazil, India, South Africa, Japan, China, Israel, Canada, and several other countries have introduced and, in some cases, enacted, similar privacy laws. The California Consumer Privacy Act of 2018, which was enacted on June 28, 2018 and became 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 2019, 88% 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. As a result of the referendum and the ongoing uncertainty regarding the timing of Brexit, 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.

In March 2020, the World Health Organization declared the outbreak of COVID-19, which continues to spread throughout the U.S. and the world, to be a pandemic. As is possible with any significant outbreak of epidemic, pandemic, or contagious diseases, the COVID-19 outbreak has resulted in a widespread health crisis that has adversely affected broader economies and financial markets. COVID-19 has caused shutdowns to businesses and cities worldwide and has disrupted supply chains, business operations, travel, and consumer confidence.

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 2019, 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;
- terrorism, war, natural disasters and pandemics, including the COVID-19 pandemic; 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

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)
January 1, 2020 through January 31, 2020	62,171	\$ 400.43	37,728	\$ 145,323,067
February 1, 2020 through February 29, 2020	70,606	\$ 407.89	70,000	\$ 116,769,923
March 1, 2020 through March 31, 2020	184,837	\$ 288.46	181,868	\$ 64,323,008
	<u>317,614</u>	\$ 336.93	<u>289,596</u>	\$ 64,323,008

(1) Includes 28,018 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, 2020.

(2) In July 2019, 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	Fair Isaac Corporation 2012 Long-Term Incentive Plan, as amended as of March 4, 2020 (incorporated by reference to Exhibit 4.3 to the Company's Form S-8, filed with the SEC on March 6, 2020) .
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.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).

* 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 29, 2020

/s/ WILLIAM J. LANSING

William J. Lansing

Chief Executive Officer

CERTIFICATIONS

I, Michael I. McLaughlin, 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 29, 2020

/s/ MICHAEL I. MCLAUGHLIN

Michael I. McLaughlin

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 29, 2020

/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 29, 2020

/s/ MICHAEL I. MCLAUGHLIN

Michael I. McLaughlin

Chief Financial Officer